BIDHANNAGARCOLLEGE

GOVERNMENT OF WEST BENGAL,
SALT LAKE, KOLKATA
Teaching Plan for Odd Semester,
UG course (CBCS)
Department of History
Session (2021-22)

Class: B.A. in History under CBCS.
Semester: I, III & V.
Name of the Teacher: Dr. Ratan Kumar Biswas.
Subject: History
Paper: CC-1, CC-2, GE-1, CC-5, CC-6, CC-7, GE-3, CC-11, CC-12, DSE-1, DSE-2.

S. No	Practical Syllabus to be covered	Syllabus
Week 1 to week 4	NA	1. HISACOR01T: Reconstructing Ancient Indian History & Sources. 2. HISACOR02T: Bronze Age Civilization, Introduction. 3. HISHGEC01T: Ancient Indian Sources and Interpretations. 4.HISACOR05T: Agrarian Structure and Social Change. 5. HISACOR06T: The African slaves and Commercial Revolution; Influx of American silver. 6. HISACOR07T: Sultanate Society and Economy-2 , Changes in rural society; revenue systems, Monetization; market regulations. 7.HISHGEC03T : Economy under the Mughals. 8. HISACOR11T: Age of Nationalism Unification of Italy. 9. HISACOR12T: Government of India Act 1935. 10. HISADSE01T: Growth of early European interests in Southeast Asia: 16th to 18th centuries. 11. HISADSE02T: Nationalism and religion in Burma.
Week 5 to week 8	NA	1. HISACOR01T: Early Indian Notions of History. 2. HISACOR02T: Mesopotamian Society. 3. HISHGEC01T: Sixteen Mahajanapadas. 4.HISACOR05T: Agricultural expansion & crops. 5. HISACOR06T: The Price Revolution. 6. HISACOR07T: Growth of urban centers; trade and commerce; Indian Ocean trade. 7.HISHGEC03T : Society under the Mughals. 8. HISACOR11T: Unification of Germany. 9. HISACOR12T: The rise of the leftist movements. 10. HISADSE01T: Colonial penetration and indigenous response. 11. HISADSE02T: The Pongyis and the Sayasan Rebellion.
Week 9 to Week 12	NA	1. HISACOR01T: Historical Interpretations of Gender, Environment. 2. HISACOR02T: Mesopotamian Economy. 3. HISHGEC01T: Territorial States and The Rise of the Magadha. 4.HISACOR05T: Landlords and peasants. 5. HISACOR06T: Emergence of European state system: Spain. 6. HISACOR07T: Religion and Culture, Sufi silsilas: Chishtis and Suhrawardis; doctrines and practices; social roles.

		7.HISHGEC03T :Culture under the Mughals. 8. HISACOR11T: Political and administrative re organization. 9. HISACOR12T: The Peasant and Working class movements . 10. HISADSE01T: Stamford Raffles in Java. 11. HISADSE02T: The Thakin movement.
Week 13	NA	1. HISACOR01T: Technology and regions 2. HISACOR02T: Mesopotamian Polity. 3. HISHGEC01T: Causes of Maghadha's Success. 4.HISACOR05T: Proliferation of castes; status of untouchables. 5. HISACOR06T: Emergence of European state system: France. 6. HISACOR07T: Bhakti movements and monotheistic traditions in South and North India. 7.HISHGEC03T:Emergence of Maratha Power under Shivaji. 8. HISACOR11T: Italy and Germany. 9. HISACOR12T: Subhas Bose and INA. 10. HISADSE01T: British forward movement in Malaya. 11. HISADSE02T: Second World War.
Week13 to week 14		**Internal Exam**
Week 15 to 17	NA	1. HISACOR01T: Sixteen Mahajanapadas and Magadhan Imperialism. 2. HISACOR02T: Mesopotamian Religion. 3. HISHGEC02T: Magadhan Imperialism from Bimbisara to Mahapadmananda. 4. HISACOR05T: Tribes as peasants and their place in the Varna order. 5. HISACOR06T: Emergence of European state system: England and Russia. 6. HISACOR07T: Women Bhaktas; Nathpanthis; Kabir, Nanak and the Sant tradition. 7.HISHGEC03T: Mughal Maratha Conflict and its Impact. 8. HISACOR11T: The second Empire in France and Louis Napoleon . 9. HISACOR12T: Wavell Plan, Cabinet Mission; Tebhaga and Telengana movements. 10. HISADSE01T: Foundation of Singapore. 11. HISADSE02T: The struggle for independence and the transfer of power.
Week 18	Revision, Practise	Revision

BIDHANNAGARCOLLEGE

GOVERNMENT OF WEST BENGAL,
SALT LAKE, KOLKATA
Teaching Plan for Odd Semester,
UG course (CBCS & Old B.A. 1+1+1)
Department of History
Session (2021-22)

Class: B.A. in History under CBCS.
Semester: I, III & V.
Name of the Teacher: Smt. Sumati Majumdar.
Subject: History
Paper: CC-1, CC-2, GE-1, CC-5, CC-6, CC-7, GE-3, CC-11, CC-12, DSE-1, DSE-2.

S. No	Practical Syllabus to be covered	Syllabus
Week 1 to week 4	NA	1. HISACOR01T: The Advent of Food Production. 2. HISACOR02T: Polis in ancient Greece. 3. HISHGEC01T: The Vedic Period: Polity and Society. 4.HISACOR05T: Arab conquest of Sindh: nature and impact of the new set-up and Ismaili Dawah. 5. HISACOR06T: Origins of the European Reformation in the 16th century. 6. HISACOR07T: Sources for studying/Interpreting the Delhi Sultanate Survey of sources. 7.HISHGEC03T: Miltary reforms under the Khiljis & the Tughlaqs. 8. HISACOR11T: Industrialization. 9. HISACOR12T: Demand for Pakistan. 10. HISADSE01T: Nationalism in Indonesia: Sarekat Islam. 11. HISADSE02T: Growth of nationalism in British Malaya.
Week 5 to week 8	NA	1. HISACOR01T: Neolithic cultures. 2. HISACOR02T: Athens. 3. HISHGEC01T: The Vedic Period: Economy and Religion. 4.HISACOR05T: Causes of early Turkish invasions. 5. HISACOR06T: Course of the European Reformation in the 16th century. 6. HISACOR07T: Persian tarikh tradition. 7.HISHGEC03T: Administrative reforms under the Khiljis & the Tughlaqs. 8. HISACOR11T: Industrial Revolution; Definition and characteristics. 9. HISACOR12T: Lahore session of the Muslim League. 10. HISADSE01T: PKI. 11. HISADSE02T: Growth of nationalism in British Malaya.
Week 9 to Week 12	NA	1. HISACOR01T: The Chalcolithic Cultures. 2. HISACOR02T: Sparta. 3. HISHGEC01T: Iron Age and PGW. 4.HISACOR05T: Consequences of early Turkish invasions. 5. HISACOR06T: Lutheranism, Calvinism. 6. HISACOR07T: Vernacular histories; epigraphy. 7.HISHGEC03T : Economic reforms under the Khiljis & the Tughlaqs. 8. HISACOR11T: Bismarck's diplomacy. 9. HISACOR12T: Rise of Hindu Mahasabha. 10. HISADSE01T:PNI 11. HISADSE02T: National liberation movement.
Week 13	NA	1. HISACOR01T: Subsistence Economy. 2. HISACOR02T: Nomadic Groups in Central and West Asia. 3. HISHGEC01T: Megaliths. 4.HISACOR05T: Mahmud of Ghazna. 5. HISACOR06T: Zwingli & Protestant. 6. HISACOR07T: Sultanate Society and Economy-, Iqta. 7.HISHGEC03T: Bhakti Movement. 8. HISACOR11T: Kaiser William II and Welt Politik.

		9. HISACOR12T: Akali Dal.
		10. HISADSE01T: Other political parties
		11. HISADSE02T: National liberation movement.
Week13 to week 14		**Internal Exam**
Week 15 to 17	NA	1. HISACOR01T: Pattern's of Exchange.
		2. HISACOR02T: Debate on the Advent of Iron and Its Implications.
		3. HISHGEC02T: Iranian and Macedonian Invasions.
		4.HISACOR05T: Shahab-ud-Din of Ghur.
		5. HISACOR06T: Results of the European Reformation in the 16th century.
		6. HISACOR07T: Sultanate Society and Economy- the revenue-free grants Agricultural production.
		7.HISHGEC03T : Sufi Movement.
		8. HISACOR11T:Balkan wars.
		9. HISACOR12T: Partition and its consequences.
		10. HISADSE01T: Impact.
		11. HISADSE02T: Malaya Union Plan.
Week 18	Revision, Practise	Revision

BIDHANNAGARCOLLEGE

GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester,
UG course (CBCS & Old B.A. 1+1+1)
Department of History
Session (2021-22)

Class: B.A. in History under CBCS.
Semester: I, III & V.
Name of the Teacher: Dr. Eeshita Chatterjee.
Subject: History
Paper: CC-1, CC-2, GE-1, CC-5, CC-6, CC-7, GE-3, CC-11, CC-12, DSE-1, DSE-2.

S. No	Practical Syllabus to be covered	Syllabus
Week 1 to week 4	NA	1. HISACOR01T: Harappan Civilization: Origin.
		2. HISACOR02T: Food Production (Neolithic).
		3. HISHGEC01T: Harappan Civilization: Origin and Extent.
		4.HISACOR05T: Evolution of political structures: Rashtrakutas.
		5. HISACOR06T: Early colonial expansion: motives, voyages and explorations.
		6. HISACOR07T: Regional Political structures, Emergence of provincial dynasties: Bahamanis.
		7.HISHGEC03T: Foundation, Expansion &consolidation of the Delhi Sultanate.
		8. HISACOR11T: Vienna Congress; Concert of Europe.
		9. HISACOR12T: Historiography of Indian Nationalism.
		10. HISADSE01T: Economic impact of colonialism.

		11. HISADSE02T: Decolonisation and cold war politics.
Week 5 to week 8	NA	1. HISACOR01T: Harappan Civilization: Settlement Patterns and Town Planning. 2. HISACOR02T: Beginning of Agriculture. 3. HISHGEC01T: Features of Harappan Civilization. 4.HISACOR05T: Evolution of political structures: Palas. 5. HISACOR06T: The conquests of the Americas: beginning of the era of colonization. 6. HISACOR07T: Vijayanagar and Bengal Consolidation of regional identities. 7.HISHGEC03T : Nobility & Iqta system. 8. HISACOR11T: Metternich system. 9. HISACOR12T: Birth of Indian National Congress, The Moderates and the Extremists. 10. HISADSE01T: Dutch domination in Indonesia 11. HISADSE02T: Decolonisation and cold war politics.
Week 9 to Week 12	NA	1. HISACOR01T: Harappan Agrarian Base, Craft and Trade. 2. HISACOR02T: Animal Husbandry. 3. HISHGEC01T: Decline of the Harappan Civilization. 4.HISACOR05T: Evolution of political structures: Pratiharas. 5. HISACOR06T: Renaissance: its social roots, city-states of Italy. 6. HISACOR07T: Regional art. 7.HISHGEC03T : Provincial kingdoms: Mewar, Bengal. 8. HISACOR11T: Greek War of Independence. 9. HISACOR12T: Partition of Bengal, the Swadeshi movement. 10. HISADSE01T: Culture system to the Liberal system. 11. HISADSE02T: Regional cooperation initiatives.
Week 13	NA	1. HISACOR01T: Social and Political Organisation of the Harappan Civilization. 2. HISACOR02T: Greek Culture: Philosophy and Philosophers. 3. HISHGEC01T: Jainism: Doctrines, Decline and contribution. 4.HISACOR05T: Evolution of political structures:, Rajputs. 5. HISACOR06T: Mining and plantation. 6. HISACOR07T: Architecture. 7.HISHGEC03T: Provincial kingdoms: Vijaynagar. 8. HISACOR11T: Revolution of 1830 &1848, & their Impact . 9. HISACOR12T: Muslim League, Morle-Minto Reforns. 10. HISADSE01T: Colonial policy and land question in Indochina 11. HISADSE02T: SEATO, ASA.
Week13 to week 14		**Internal Exam**
Week 15 to 17	NA	1. HISACOR01T: Harappan Religion, Art and Urban Decline. 2. HISACOR02T: Greek Drama and Religion. 3. HISHGEC02T: Buddhism: Doctrines, Decline and contribution. 4.HISACOR05T: Evolution of political structures: Cholas. 5. HISACOR06T: Spread of humanism in Europe; Art. 6. HISACOR07T: Literature. 7.HISHGEC03T : Provincial kingdoms: Bahamani. 8. HISACOR11T: Russian revolution, the peace settlements of 1919, the League of nations. 9. HISACOR12T: Revolutionaries in India and abroad, the Lucknow pact , 10. HISADSE01T: Development of plantation economy in Malay and Singapore. 11. HISADSE02T: ASEAN and NAM.

Week 18	Revision, Practise	Revision

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Department of History
Session (2021-22)

Class: B.A. in History under CBCS.
Semester: I, III & V.
Name of the Teacher: Smt. Swati Sen.
Subject: History
Paper: CC-1, CC-2, GE-1, CC-5, CC-6, CC-7, GE-3, CC-11, CC-12, DSE-1, DSE-2.

S. No	Practical Syllabus to be covered	Syllabus
Week 1 to week 4	NA	1. HISACOR01T: Palaeolithic Cultures. 2. HISACOR02T: Evolution of Human Kind of the Ancient World. 3. HISHGEC01T: Palaeolithic Cultures. 4. HISACOR05T: Legitimization of kingship; brahmanas and temples and royal genealogies and rituals. 5. HISACOR06T: Transition from feudalism to capitalism: Debates. 6. HISACOR07T: Sultanate Political Structures: Foundation, expansion. 7.HISHGEC03T : Second Afghan State: Formation, Mughal- Afgan Conflict. 8. HISACOR11T: The French Revolution and its European repercussions Crisis of Ancien regime. 9. HISACOR12T: Gandhi's rise to power, Rowlatt Satyagraha. 10. HISADSE01T: British annexation of Burma. 11. HISADSE02T: Early nationalist protest movement against French rule in Indochina.
Week 5 to week 8	NA	1. HISACOR01T: Stone Industries and other Technological Developments. 2. HISACOR02T: Palaeolithic Cultures, Features, Technology Rock Art. 3. HISHGEC01T: Mesolithic Cultures. 4.HISACOR05T: Trade and Commerce: (a) Inter-regional trade (b) Maritime trade. 5. HISACOR06T: Feudal order. 6. HISACOR07T: Consolidation of the Sultanate of Delhi. 7.HISHGEC03T : Second Afghan State: Under Sher Shah. 8. HISACOR11T: Political, social, economic and intellectualbackground (role of Philosophers) of the French Revolution The revolution in the making – the Aristocratic Revolt and the consolidation of the Third Estate. 9. HISACOR12T: Montagu Chelmsford reforms; Khilafat and Non-co-operation movement . 10. HISADSE01T: British movement in Borneo. 11. HISADSE02T: Rise of Ho Chih Minh.

Week 9 to Week 12	NA	1. HISACOR01T: Mesolithic Cultures: Regional and Chronological Distributions, New Developments in Technology, Economy. 2. HISACOR02T: Neolithic Cultures. 3. HISHGEC01T: Decline of the Harappan Civilization. 4.HISACOR05T: Forms of exchange. 5. HISACOR06T: Feudalism: problems and theories. 6. HISACOR07T: The Khaljis and the Tughluqs. 7.HISHGEC03T : Emergence and consolidation of Mughal State-Akbar. 8. HISACOR11T: The Constituent Assembly; Radicalization of the Revolution; the reign of Terror. 9. HISACOR12T: The Swarajya party, Poona Pact. 10. HISADSE01T: The Brookes in Sarawak. 11. HISADSE02T: The birth of Communist party.
Week 13	NA	1. HISACOR01T: Rock Art. 2. HISACOR02T: Dating Methods. 3. HISHGEC01T: Sangam Literatures. 4.HISACOR05T: Process of urbanization. 5. HISACOR06T: Economic developments of the sixteenth century. 6. HISACOR07T: Mongol threat and Timur's invasion. 7.HISHGEC03T : Jahangirand Shah Jahan. 8. HISACOR11T: The Crimean War. 9. HISACOR12T: Civil Disobedience Movement. 10. HISADSE01T: Japanese impact during the World War II. 11. HISADSE02T: Vietminh.
Week13 to week 14		**Internal Exam**
Week 15 to 17	NA	1. HISACOR01T: Sangam Age 2. HISACOR02T: Palaeolithic and Mesolithic Religion 3. HISHGEC02T: Sangam Society and the Tamil Language. 4.HISACOR05T: Merchant guilds of South India, Islamic intellectual traditions. 5. HISACOR06T: Shift of economic balance from the Mediterranean to the Atlantic. 6. HISACOR07T: The Lodis: Conquest of Bahlul and Sikandar. 7.HISHGEC03T: Mughal Empire under Aurangzeb. 8. HISACOR11T: Treaty of Paris, Balkan Nationalism. 9. HISACOR12T: Quit India Movement. 10. HISADSE01T: Birth of Indonesian Republic and the constitution of 1945 – Indonesian National Revolution, 1945-50. 11. HISADSE02T: The August Revolution (1945).
Week 18	Revision, Practise	Revision

GOVERNMENT OF WEST BENGAL,
SALT LAKE, KOLKATA
Teaching Plan for Odd Semester,
UG course (CBCS)
Department of History
Session (2021-22)

Class: B.A. in History under CBCS.
Semester: I, III & V.
Name of the Teacher: Dr. Bhaskar Roy.
Subject: History
Paper: CC-1, CC-2, GE-1, CC-5, CC-6, CC-7, GE-3, CC-11, CC-12, DSE-1, DSE-2.

S. No	Practical Syllabus to be covered	Syllabus
Week 1 to week 4	NA	1. HISACOR01T: Cultures in transition Settlement patterns, technological and economic developments (From Earliest Times to c.300 BCE). 2. HISACOR02T: Slave society in ancient Greece. 3. HISHGEC01T: Political History of Satavahanas. 4. HISACOR05T: Concepts Early Medieval India. 5. HISACOR06T: Origin of the European Reformation in the 16th century. 6. HISACOR07T: Sources for studying/Interpreting the Delhi Sultanate Survey of sources. 7. HISHGEC03T: Akbar to Aurangzeb: administrative structure. 8. HISACOR11T: Napoleon Bonaparte and the French Revolution Rise of Napoleon. 9. HISACOR12T: Historical writings on Southeast Asia in the early 20th century 10. HISADSE01T: Queen's Proclamation; The Indigo Rebellion. 11. HISADSE02T: Growth of anti-Spanish sentiments in the Philippines.
Week 5 to week 8	NA	1. HISACOR01T: The Aryan Problem. 2. HISACOR02T: Agrarian economy of ancient Greece. 3. HISHGEC01T: State formation of Satavahanas. 4. HISACOR05T: Studying Early Medieval India: Historical geography Sources. 5. HISACOR06T: Course of the European Reformation in the 16th century. 6. HISACOR07T: Delhi Sultanate: Persian tarikh tradition; vernacular histories & epigraphy. 7. HISHGEC03T: Akbar to Aurangzeb: Mansab and Jagirs. 8. HISACOR11T: Napoleonic reforms, Napoleonic Empire and Europe Fall of Napoleon: The Continental System. 9. HISACOR12T: The Deccan Riots, The growth of the new middle class. 10. HISADSE01T: South-East: Debates on the question of 'Indianisation'. 11. HISADSE02T: The First Indochina war.

Week 9 to Week 12	NA	1. HISACOR01T: North India (circa 1500 BCE-300 BCE). 2. HISACOR02T: Urbanization of ancient Greece. 3. HISHGEC01T: Material Culture of Satavahanas. 4. HISACOR05T: Rise of the Rajputs. 5. HISACOR06T: Results of the European Reformation in the 16th century. 6. HISACOR07T: Foundation, expansion and consolidation of the Sultanate of Delhi. 7. HISHGEC03T: Akbar to Aurangzeb: State Politics. 8. HISACOR11T: The Spanish Ulcer; The Moscow campaign. Assessment of Napoleon. 9. HISACOR12T: South-East Asia: The age of associations. 10. HISADSE01T: Post-War historiography of South-East Asia. 11. HISADSE02T: Geneva Agreements	
Week 13	NA	1. HISACOR01T: Central India and the Deccan (circa1000 BCE-circa 300 BCE). 2. HISACOR02T: Trade of ancient Greece 3. HISHGEC01T: Administration of Satavahanas. 4. HISACOR05T: Early Medieval India: The nature of the state. 5. HISACOR06T: Results of the European Reformation in the 16th century. 6. HISACOR07T: The Khaljis and the Tughluqs. 7. HISHGEC03T: Akbar to Aurangzeb: Religion. 8. HISACOR11T: Character of the French Revolution. 9. HISACOR12T: The Aligarh movement. 10. HISADSE01T: The 'autonomy' of Southeast Asia. 11. HISADSE02T: American participation.	
		Week13 to week 14	**Internal Exam**
Week 15 to 17	NA	1. HISACOR01T: Aryan Problem. 2. HISACOR02T: Trade of ancient Greece. 3. HISHGEC01T: Religion of Satavahanas. 4. HISACOR05T: Early Medieval India: The nature of the state. 5. HISACOR06T: Trade of ancient Greece 6. HISACOR07T: Mongol threat and Timur's invasion & the Lodis: Conquest of Bahlul and Sikandar. 7. HISHGEC03T: Akbar to Aurangzeb: Socio-Religious Movements. 8. HISACOR11T: Impact of French Revolution on Europe and abroad. 9. HISACOR12T: The Arya and the Prarthana Samaj. 10. HISADSE01T: The 'autonomy' of Southeast Asia. 11. HISADSE02T: The nature of American participation.	
Week 18		Revision, Practise	Revision

BIDHANNAGARCOLLEGE

GOVERNMENT OF WEST BENGAL,
SALT LAKE, KOLKATA
Teaching Plan for Even Semester,

UG course (CBCS)

Department of History

Session (2021-22)

Class: B.A. in History under CBCS.
Semester: II, IV & VI.
Name of the Teacher: Dr. Ratan Kumar Biswas.
Subject: History
Paper: CC-3, CC-4, GE-2, CC-9, CC-10, GE-4, CC-13, CC-14, DSE-4, DSE-5.

S. No.	Practical Syllabus to be covered	Syllabus
Week 1 to week 4	NA	1. HISACOR03T: Economy and Society (circa 300 BCE to circa CE 300): (a) Expansion of agrarian economy: production relations. 2. HISACOR04T: Roman Republic, Principate and Empire. 3. HISHGEC02T: The Rise & Growth of the Guptas. 4. HISACOR09T: State and religion under Aurangzeb. 5. HISACOR010T: Foundations of Company's Rule. 6. HISHGEC04T: Interpreting the 18th Century. 7. HISACOR013T: Indian Democracy at Work c1950- 1970s. 8. HISACOR014T: Cold War and the emergence of bipolar politics. 9. HISADSE04T: Pre-colonial China- Nature and structure of the traditional Chinese society. 10. HISADSE05T: Nationalism in China.
Week 5 to week 8	NA	1. HISACOR03T: Urban growth: north India, central India and the Deccan. 2. HISACOR04T: Slave society in ancient Rome. 3. HISHGEC02T: Gupta Administration. 4.HISACOR09T : Aurangzeb: Issues in the war of success ion; policies regarding Religious groups and Institutions. 5. HISACOR010T: Early contestations between the Dutch, French and the British East India, The emergence of the English East India Company as a political power. 6.HISHGEC04T: Interpreting the 18th Century: Debates. 7. HISACOR013T: Language, Region, Caste and Religion. 8. HISACOR014T: Rise of Communist China. 9. HISADSE04T: The peasantry and gentry. 10. HISADSE05T: Emergence of the Republic and Yuan Shih Kai.
Week 9 to Week 12	NA	1. HISACOR03T: Craft Production: trade and trade routes; coinage. 2. HISACOR04T: Agrarian economy of Rome. 3. HISHGEC02T: Territorial States and The Rise of the Magadha. 4.HISACOR09T : Aurangzeb: Conquests and limits of expansion. 5. HISACOR010T: Regulating Act; Pitt's India Act; Charter Acts. 6.HISHGEC04T: Emergence of Independent States. 7. HISACOR013T: Electoral Politics and the Changing Party System.

		8. HISACOR014T: Cold War in Asia: Korea, Cuba, Vietnam, Middle East. 9. HISADSE04T: Government bureaucracy and central control. 10. HISADSE05T: Warlordism.
Week 13	NA	1. HISACOR03T: Social stratification: class, varna, jati, untouchability. 2. HISACOR04T: Urbanization in Rome. 3. HISHGEC02T: Society, Economy in the Gupta Age. 4.HISACOR09T : Aurangzeb: Beginning of the crisis. 5. HISACOR010T: Rural Economy and Society, Permanent settlement, Rayotwari and Mahalwari Commercialization of agriculture. 6.HISHGEC04T: The Rise of the British Power in Bengal. 7. HISACOR013T: Regional Experiences India and the World. 8. HISACOR014T: Third World and Non Aligned Movement. 9. HISADSE04T: The Confucian value system. 10. HISADSE05T: May 4th Movement: origin.
Week13 to week 14		**Internal Exam**
Week 15 to 17	NA	1. HISACOR03T: Gender; marriage and property Relations. 2. HISACOR04T: Roman Trade. 3. HISHGEC02T: Religion and Art, Literatures, Science &Technology in the Age of the Guptas. 4. HISACOR09T: Aurangzeb: Contemporary perceptions; agrarian and Jagir crises, Inland and ocean trade network. 5. HISACOR010T: Trade and Industry De industrialization, Trade and fiscal policy, Drain of Wealth, Growth of modern industry. 6.HISHGEC04T: Establishment of Colonial power: Battle of Plassey and Buxar. 7. HISACOR013T: Non Aligned Movement. 8. HISACOR014T: Détente and disintegration of the Soviet Bloc. 9. HISADSE04T: China's pre-modern economy. 10. HISADSE05T: May 4th Movement: nature and significance.
Week 18	Revision, Practise	Revision

BIDHANNAGARCOLLEGE

GOVERNMENT OF WEST BENGAL,
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Teaching Plan for Even Semester,
UG course (CBCS)
Department of History
Session (2021-22)

Class: B.A. in History under CBCS.
Semester: II, IV & VI.
Name of the Teacher: Smt. Sumati Majumdar.
Subject: History
Paper: CC-3, CC-4, GE-2, CC-9, GE-4, CC-13, CC-14, DSE-4, DSE-5.

S. No	Practical Syllabus to be covered	Syllabus

Week 1 to week 4	NA	1. HISACOR03T: Towards early medieval India (circa CE fourth century to CE 750): Agrarian expansion. 2. HISACOR04T: Societies in Central Islamic Lands. 3. HISHGEC02T: Arabs in Sindh. 4. HISACOR09T: Sources, establishment of Mughal Rule. 5. HISHGECO4T: Expansion of Colonial Power up to 1857. 6. HISACOR013T: The Nehru era: Internal policy between 1947 to 1964. 7. HISACOR014T: Iranian Revolution. 8. HISADSE04T: Meiji Restoration. 9. HISADSE05T: Japan and World War II.
Week 5 to week 8	NA	1. HISACOR03T: Land grants, changing production relations; graded Land rights and peasantry. 2. HISACOR04T: The tribal background, ummah, Caliphal state. 3. HISHGEC02T: Polity of Arabs. 4. HISACOR09T: Akbar. 5. HISHGECO4T: Consolidation of Colonial Power up to 1857. 6. HISACOR013T: Movements for social justice. 7. HISACOR014T: Afghanistan in turmoil. 8. HISADSE04T: Meiji Restoration (a) Causes and nature of Restoration. 9. HISADSE05T: Japan and World War II.
Week 9 to Week 12	NA	1. HISACOR03T: The problem of urban decline. 2. HISACOR04T: Rise of Sultanates. 3. HISHGEC02T: Religion and Society of Arabs. 4. HISACOR09T: Aurangzeb. 5. HISHGECO4T: Communalism: Genesis, Growth. 6. HISACOR013T:The new constitution, integration of the princely states. 7. HISACOR014T: Globalization and its impact. 8. HISADSE04T: Transformation of Japan. 9. HISADSE05T: Japan's bid for supremacy and defeat.
Week 13	NA	1. HISACOR03T: Patterns of trade. 2. HISACOR04T: Religious developments: the origins of shariah, Mihna, Sufism. 3. HISHGEC02T: Struggle for power in Northern India. 4. HISACOR09T: Mughal Art, Architecture & Painting . 5. HISHGECO4T: Partition of India. 6. HISACOR013T: Growth of parliamentary democracy. 7. HISACOR014T: Rise of Terrorism – 9/11. 8. HISADSE04T: Process of modernization. 9. HISADSE05T: Japan's bid for supremacy and defeat.
Week13 to week 14		**Internal Exam**

Week 15 to 17	NA	1. HISACOR03T: Currency, and urban Settlements.
		2. HISACOR04T: Urbanization and trade.
		3. HISHGEC02T: Establishment of Sultanate.
		4.HISACOR09T: Patterns of Regional Politics.
		5. HISHGECO4T: Advent of Freedom: Constituent Assembly, establishment of Republic.
		6. HISACOR013T: Five years' plan.
		7. HISACOR014T: Rise of Terrorism – 9/11 and Its impact.
		8. HISADSE04T: Meiji Constitution.
		9. HISADSE05T: Post war Japan under General Douglas MacArthur
Week 18	Revision, Practise	Revision

BIDHANNAGARCOLLEGE

GOVERNMENT OF WEST BENGAL,
SALT LAKE, KOLKATA
Teaching Plan for Even Semester,
UG course (CBCS)
Department of History
Session (2021-22)

Class: B.A. in History under CBCS.
Semester: II, IV & VI.
Name of the Teacher: Dr. Eeshita Chatterjee.
Subject: History
Paper: CC-3, CC-4, GE-2, CC-8, CC-10, GE-4, CC-13, CC-14, DSE-4, DSE-5.

S. No	Practical Syllabus to be covered	Syllabus
Week 1 to week 4	NA	1. HISACOR03T: Changing political formations (circa 300 BCE to circa CE 300).
		2. HISACOR04T: Religion medieval Europe.
		3. HISHGEC02T: Evolution of Political structures of Rashtakutas.
		4. HISACOR08T: Rise of modern science.
		5. HISACOR010T: Bengal Renaissance.
		6. HISHGECO4T: Uprising of 1857.
		7. HISACOR013T: Partition.
		8. HISACOR014T: The Road to 2nd World War.
		9. HISADSE04T: Anglo Chinese relations till the Opium War.
		10. HISADSE05T: The Communist Victory in China.
Week 5 to week 8	NA	1. HISACOR03T: The Mauryan Empire.
		2. HISACOR04T:Culture in medieval Europe
		3. HISHGEC02T: Evolution of Political structures of Palas.
		4. HISACOR08T: Mercantilism.
		5. HISACOR010T: Rammohan Roy (Brahma Samaj), Young Bengal.
		6. HISHGECO4T: Uprising of 1857: Causes.
		7. HISACOR013T: Riots and Rehabilitation.
		8. HISACOR014T: Germany's aggressive foreign policy.
		9. HISADSE04T: The Tribute system; the Canton trade and its collapse.

		10. HISADSE05T: Background of the foundation of the Communist Party.
Week 9 to Week 12	NA	1. HISACOR03T: Post-Mauryan Polities with special reference to the Kushanas. 2. HISACOR04T: Role of Byzantine Emperors in Promoting Cultures in Medieval Europe. 3. HISHGEC02T: Evolution of Political structures of Pratiharas. 4. HISACOR08T: European economics; 17th and 18th centuries. 5. HISACOR010T: Vidyasagar. 6. HISHGECO4T: Uprising of 1857: Nature. 7. HISACOR013T: Making of the Republic The Constituent Assembly. 8. HISACOR014T: The role of the war economy, Spanish civil war. 9. HISADSE04T: First & Second Opium Wars—the unequal treaties. 10. HISADSE05T: CCP under Mao Tse-tung: the making of the Red Army; the Second United Front; Long March.
Week 13	NA	1. HISACOR03T: Post-Mauryan Polities with special reference to the Satavahanas. 2. HISACOR04T: Monasteries in Medieval Europe. 3. HISHGEC02T: Administration. 4. HISACOR08T: European politics in the 18th century. 5. HISACOR010T: Educational Reforms initiated by the Company. 6. HISHGECO4T: Uprising of 1857: Aftermath. 7. HISACOR013T: Drafting of the Constitution. 8. HISACOR014T: Mussolini's foreign policy and Abyssinian crisis. 9. HISADSE04T: Financial Imperialism: Open Door policy. 10. HISADSE05T: The Yenan experiment.
Week13 to week 14		**Internal Exam**
Week 15 to 17	NA	1. HISACOR03T: Post-Mauryan Polities with special reference to Gana Sanghas. 2. HISACOR04T: Growth of Papacy in Medieval Europe. 3. HISHGEC02T: Decline of the Rashtakutas, Pala & Pratiharas. 4. HISACOR08T: Absolutism in Europe. 5. HISACOR010T: Popular Resistance. 6. HISHGECO4T: Socio-Religious Movements in the 19th century. 7. HISACOR013T: Integration of Princely States. 8. HISACOR014T: Formation of the Rome Berlin Tokyo Axis – Grand Alliance and the Second World War - Impact of the War. 9. HISADSE04T: The Taiping Rebellion: causes, nature and failure. 10. HISADSE05T: The Chinese Revolution (1949): Ideology, causes and significance; the establishment of the Peoples 'Republic of China.
Week 18	Revision, Practise	Revision

BIDHANNAGARCOLLEGE

GOVERNMENT OF WEST BENGAL,
SALT LAKE, KOLKATA
Teaching Plan for Even Semester,
UG course (CBCS)
Department of History
Session (2021-22)

Class: B.A. in History under CBCS.
Semester: II, IV & VI.
Name of the Teacher: Smt. Swati Sen.

Subject: History
Paper: CC-3, CC-4, GE-2, CC-8, CC-9, GE-4, CC-13, CC-14, DSE-4, DSE-5.

S. No	Practical Syllabus to be covered	Syllabus
Week 1 to week 4	NA	1. HISACOR03T: The nature of polities: the Gupta empire-Chandra Gupta I to Chandra Gupta II. 2. HISACOR04T: Economic developments in Europe from the 7th to the 14th centuries: Organization of production. 3. HISHGEC02T: Harsha & His Times: Harsha's Kingdom. 4. HISACOR08T: 17th century European crisis. 5. HISHGECO4T: Emergence of Nationalism. 6. HISACOR013T: Towards Independence. 7. HISACOR014T: Challenges to the new European order. 8. HISADSE04T: Boxer Uprising: causes, nature and failure. 9. HISADSE05T: The Kuomintang and the Nationalist government.
Week 5 to week 8	NA	1. HISACOR03T: Kumara Gupta, Skanda Gupta and latter rulers. 2. HISACOR04T: Economic developments in Europe from the 7th to the 14th centuries: towns and trade. 3. HISHGEC02T: Harsha's Administration. . 4. HISACOR08T: The English Revolution. 5. HISHGECO4T: Growth of Nationalism. 6. HISACOR013T: Emergence of the New State. 7. HISACOR014T: Consolidation and Development of power of the Soviet State. 8. HISADSE04T: The Revolution of 1911: background and causes, nature and significance. 9. HISADSE05T: The rise of the Kuomintang Party.
Week 9 to Week 12	NA	1. HISACOR03T: Gupta Administration, Society, Culture and Religion. 2. HISACOR04T: Economic developments in Europe from the 7th to the 14th centuries: technological developments. 3. HISHGEC02T: Buddhism & Nalanda. 4. HISACOR08T: Political issues in the American Revolution. 5. HISHGECO4T: Gandhian nationalism. 6. HISACOR013T: Government of India Act 1935Working of the GOI Act. 7. HISACOR014T: French search for security, Rise of Fascism in Italy. 8. HISADSE04T: Role of Dr Sun Yat- Sen. 9. HISADSE05T: Political crisis in the 1920s.
Week 13	NA	1. HISACOR03T: Decline of the Gupta Empire and Pallavas, Chalukyas, and Vardhanas. 2. HISACOR04T: Fall of feudalism. 3. HISHGEC02T: South India: Polity. 4. HISACOR08T: Economic issues in the American Revolution. 5. HISHGECO4T: Civil Disobedience Movement. 6. HISACOR013T: Negotiations for Independence. 7. HISACOR014T: Nazism in Germany. 8. HISADSE04T: Principles and polities, formation of the Republic. 9. HISADSE05T: The First United Front [b] Chiang Kai-shek.

Week13 to week 14		Internal Exam
Week 15 to 17	NA	1. HISACOR03T: A brief survey of Sanskrit, Pali, Prakrit and Tamil literature. Scientific and technical treatises. Art and architecture & forms and patronage; Mauryan, post-Mauryan, Gupta, post-Gupta. 2. HISACOR04T: Crisis of Feudalism. 3. HISHGEC02T: South India: Society, and Economy and Culture. 4. HISACOR08T: Prelude to the Industrial Revolution. 5. HISHGECO4T: Quit India Movement. 6. HISACOR013T: Popular Movements. 7. HISACOR014T: World Economic depression of 1929, the Crisis of the Inter War European Order. 8. HISADSE04T: Yuan Shih-kai and warlordism; the rise of the Kuomintang. 9. HISADSE05T: The KMT-CCP conflict- Ten Years of Nanking Government.
Week 18	Revision, Practise	Revision

BIDHANNAGARCOLLEGE

GOVERNMENT OF WEST BENGAL,
SALT LAKE, KOLKATA
Teaching Plan for Even Semester,
UG course (CBCS)
Department of History
Session (2021-22)

Class: B.A. in History under CBCS.
Semester: II, IV & VI.
Name of the Teacher: Dr. Bhaskar Roy
Subject: History
Paper: CC-03, CC-4, GE-2, CC-9, GE-4, SEC, CC-13, CC-14, DSE-4, DSE-5.

S. No	Practical Syllabus to be covered	Syllabus
Week 1 to week 4	NA	1. HISACOR03T: Religion, philosophy and society (circa 300 BCE-CE 750). 2. HISACOR04T: Crises of the Roman Empire. 3. HISHGEC02T: Emergence of Rajput States in Northern India. 4. HISACOR09T: Akbar and Consolidation of Mughal Empire. 5. HISACOR13T: The Land Question Planned Economy (1950-1970s). 6. HISACOR14T: United Nations Organization: its origin. 7. HISADSE04T: Pre-Meji Japan (a) Tokugawa Shogunate. 8. HISADSE05T: Rise of modern Japan: Process of modernization. 9. HISSSEC02M: Indian art and architecture (c. 1200 CE –1800 CE): Sultanate architecture.
Week 5 to	NA	1. HISACOR03T: Consolidation of the Brahmanical tradition: Dharma, Varnashram, Purusharthas, Samskaras. 2. HISACOR04T: Economic developments in Europe from the 7th to the 14th centuries: Organization of production. 3. HISHGEC02T: Rajput Polity. 4. HISACOR09T: Mughal Empire Under Aurangazeb.

week 8		5. HISACOR13T: Industry and Labour Science and Education (1950-1970s). 6. HISACOR14T: United Nations Organization: its functions. 7. HISADSE04T: The feudal society and the government; Shintoism. 8. HISADSE05T: Rise of modern Japan [a] Process of modernization. 9. HISSSEC02M: Indian art and architecture (c. 1200 CE–1800 CE): Mughal architecture.	
Week 9 to Week 12	NA	1. HISACOR03T: Theistic cults (from circa second century BC): Mahayana. 2. HISACOR04T: Economic developments in Europe from the 7th to the 14th centuries: towns and trade. 3. HISHGEC02T: Rajput Economy. 4. HISACOR09T: Rise of the Marathas. 5. HISACOR13T: The Women's Question: Movements and Legislation. (1950-1970s). 6. HISADSE01T: Pre-Meji Japan: Tokugawa Shogunate. 7. HISADSE04T: Economic condition. 8. HISADSE05T: Modern Japan: Rise of Political Parties.	
Week 13	NA	1. HISACOR03T: The Puranic tradition. 2. HISACOR04T: Economic developments in Europe from the 7th to the 14th centuries: towns and trade. 3. HISHGEC02T: Rajput Economy. 4. HISACOR09T: Rise of the Marathas. 5. HISACOR13T: The Women's Question: Movements and Legislation. (1950-1970s). 6. HISACOR14T: United Nations Organization: Functions. 7. HISADSE04T: Encounter with the West: the Perry Mission. 8. HISADSE05T: Abolition of feudalism and economic growth.	
		Week13 to week 14 **Internal Exam**	
Week 15 to 17	NA	1. HISACOR03T: Art and architecture & forms and patronage; post-Mauryan, Gupta, post-Gupta. 2. HISACOR04T: Europe from the 7th to the 14th centuries: Crisis of feudalism. 3. HISHGEC02T: Rajput Society. . 4. HISACOR09T: Bengal Nawabs and the rise of the English East India Company in Bengal. Debate of the 18th Century on the decline of the Mughal Empire. 5. HISACOR13T: Cultural Trends: Institutions and Ideas, Literature, Media, Arts (1950-1970s). 6. HISACOR14T: United Nations Organization: Features. 7. HISADSE04T: The opening of the Japan to the west, The crisis and fall of the Shogunate. 8. HISADSE05T: The Zaibatsu of Japan.	
Week 18		Revision, Practise	Revision

Teaching Plan for Odd Semester, UG course

Department of Political Science

Session (2021-22)

Class:B.A
Semester 1, 3 &5Name of the Teacher: Dr.Shahid Jamal Siddiqi (SJS)
Subject: Political Science
Paper:CC1, CC 2, CC6, CC7, CC12,SEC1,GE 1 (CBCS)   (Theory)

S. No	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**Paper-CC1**(PLSACOR01T): **Understanding Political Theory** **Module 2**. Approaches to the study **Paper-CC6(PLSACOR06T): Perspectives on Public Administration** **Module-1.** Public Administration as a Discipline **Paper-CC12(PLSACOR12T): Indian Political Thought - I** **Module 1.** Traditions of Pre-colonial Indian Political Thought
Week 5 to week 8	**Paper-CC 2 (PLSACOR02T): Constitutional Government and Democracy in India** **Module 3.** Constitution of India: Structure, Process, Behaviour **Paper-GE1(PLSHGEC01T)Introduction to Political Theory** (Module 2) **Paper-CC12(PLSACOR12T): Indian Political Thought - I** **Module 2** Outline of ancient Indian Political Thought
Week 9 to Week12	**Paper- CC5(PLSACOR05T): Introduction to Comparative Government and Politics** **Module – 3.**Themes for comparative analysis **Paper-SEC1(PLSSSEC01M): Democratic Awareness with Legal Literacy** **(Unit -2)** **Paper-CC12(PLSACOR12T): Indian Political Thought - I** **Module 2** Outline of Islamic and Syncretic Thought
Week 13 to Week 14	**Internal Examination**
Week 15 to Week 17	**Paper-CC12(PLSACOR12T): Indian Political Thought – I** **Module 2** Outline of Islamic and Syncretic Thought…..Contd.
Week 18	**Revision**

BIDHANNAGARCOLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Plan for Odd Semester, UGcourse

Department of Political Science

Session (2021-22)

Class:B.A
Semester 1, 3 &5   Name of the Teacher: Saibal Gupta (SG)
Subject: Political Science
Paper:CC1, CC 2, CC5, CC7,CC11,GE 1, GE3,SEC1 (CBCS) (Theory)

S. No	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**Paper-CC 2 (PLSACOR02T): Constitutional Government and Democracy in India** **Module 1.** Constitution of India(Article-wise) **Paper-CC5(PLSACOR05T): Introduction to Comparative Government and Politics** **Module – 1**. Understanding Comparative Politics **Paper-GE3 (PLSHGEC03T): Comparative Government and Politics** **Module 2.** Historical Context of Modern Government **Paper-CC11(PLSACOR11T): Classical Political Philosophy** **Module 1.** Antiquity
Week 5 to week 8	**Paper-CC1(PLSACOR01T): Understanding Political Theory** **Module 3.** Models of Studying Political Theory **Paper-CC11(PLSACOR11T): Classical Political Philosophy** **Module 2.** Interlude
Week 9 to Week12	**Paper-CC7(PLSACOR07T): Perspectives on International Relations and World History** **Module - 3**. An Overview of Twentieth-Century IR History **Paper-GE1(PLSHGEC01T)Introduction to Political Theory** **Module 3.** Debates in Political Theory **Paper-CC11(PLSACOR11T): Classical Political Philosophy** **Module 3.** Hobbes , Locke and Rousseau
Week 13 to Week 14	**Internal Examination**
Week 15 to 17	**Paper-SEC1(PLSSSEC01M): Democratic Awareness with Legal Literacy (Unit -3)**
Week 18	**Revision**

BIDHANNAGARCOLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Plan for Odd Semester, UGcourse

Department of Political Science

Session (2021-22)

Class:B.A
Semester 1, 3 &5   **Name of the Teacher: Tathagata Chakrabarti(TC)**
Subject: Political Science
Paper:CC 2, CC5, CC6, CC7, DSE1, GE3 (CBCS) (Theory)

S. No	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**Paper-CC 2 (PLSACOR02T): Constitutional Government and Democracy in India** **Module** 2. Federalism **Paper-CC5(PLSACOR05T): Introduction to Comparative Government and Politics** **Module – 2.** Historical context of modern government **Paper-DSE1(PLSADSE01T): Reading Gandhi (**Module 1**)**
Week 5 to week 8	**Paper-CC6 (PLSACOR06T): Perspectives on Public Administration** **Module-2.** Theoretical Perspectives **Paper-DSE1(PLSADSE01T): Reading Gandhi** **Module 2.** Gandhian Thought: Theory and Action
Week 9 to Week12	**Paper-CC7(PLSACOR07T): Perspectives on International Relations and World History** **Module-2.** Theoretical Perspectives **Paper-DSE1(PLSADSE01T): Reading Gandhi** (Module 3)
Week 13 to Week 14	**Internal Examination**
Week 15 to Week 17	**Paper-GE3 (PLSHGEC03T): Comparative Government and Politics** **Module 3**. Themes for comparative analysis
Week 18	**Revision**

BIDHANNAGARCOLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Plan for Odd Semester, UGcourse

Department of Political Science

Session (2021-22)

Class:B.A
Semester 1, 3&5   **Name of the Teacher: Deeplekha Sengupta Dasgupta**
Subject: Political Science
Paper:CC1, GE 1, CC6, CC7, SEC1 ,GE3, DSE3(CBCS)   (Theory)

S. No	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**Paper-CC1(PLSACOR01T): Understanding Political Theory** **Module - 1** **Paper-GE1(PLSHGEC01T)Introduction to Political Theory** **Module I.** Introducing the subject **Paper-CC7 (PLSACOR07T): Perspectives on International Relations and World History** **Module-1.** Studying International Relations **Paper-DSE3(PLSADSE03T): Understanding Global Politics** **Module I.** Globalization: Conceptions andPerspectives
Week 5 to week 8	**Paper-CC6 (PLSACOR06T): Perspectives on Public Administration** **Module-3.** Major Approaches In Public Administration **Paper-GE3 (PLSHGEC03T): Comparative Government and Politics** **Module I**. Understanding Comparative Politics **Paper-DSE3(PLSADSE03T): Understanding Global Politics** **Module 2.** Identity and Culture: Crisis of Coexistance
Week 9 to Week 12	**Paper-SEC1(PLSSSEC01M): Democratic Awareness with Legal Literacy (Unit -1)** **Paper-DSE3(PLSADSE03T): Understanding Global Politics** **Module 3.** Global Environment
Week 13 to Week 14	**Internal Examination**
Week 15 to 17	**Paper-DSE3(PLSADSE03T): Understanding Global Politics** **Module 3.** Global Environment……Contd.
Week 18	**Revision**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, UG course

Department of Political Science

Session (2021-22)

Class:B.A
Semester 2,4 &6Name of the Teacher: Dr.Shahid Jamal Siddiqi (SJS) Subject: Political Science
Paper: CC3, CC9, DSE6,GE2, GE4 (CBCS)   (Theory)

S. No	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**Paper-CC3 (PLSACOR03T): Political Theory-Concepts and Debates** **Module – 1.** Core political concepts **Paper- CC9(PLSACOR09T): Public Policy and Administration in India** **Module I.** Public Policy **Paper -DSE6(PLSADSE06T): Governance: Issues and Challenges** **Module 1.** Government And Governance: Concepts
Week 5 to week 8	**Paper-GE2-(PLSHGEC02T): Indian Government and Politics** **Module-2.** Constitution of India (Article Wise) **Paper- CC9(PLSACOR09T): Public Policy and Administration in India** **Module-2.** **Paper -DSE6(PLSADSE06T): Governance: Issues and Challenges** **Module 2.** Environmental Governance
Week 9 to Week 12	**Paper-GE4(PLSHGEC04T): Introduction to International Relations** **Module-1.** Studying International Relations **Paper- CC9(PLSACOR09T): Public Policy and Administration in India** **Module -3.** Budget **Paper -DSE6(PLSADSE06T): Governance: Issues and Challenges** **Module -3.** Good Governance Initiatives in India: Best Practices
Week 13 to Week 14	**Internal Examination**
Week 15 to Week 17	**Paper -DSE6(PLSADSE06T): Governance: Issues and Challenges** **Module -3.** Good Governance Initiatives in India: Best Practices…..Contd.
Week 18	**Revision**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, UG course

Department of Political Science

Session (2021-22)

Class:B.A
Semester 2,4 &6   Name of the Teacher: Saibal Gupta (SG)
Subject: Political Science
Paper: CC3, CC 4, CC10, CC13, GE 2, GE 4(CBCS) (Theory)

S. No	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**Paper-CC3 (PLSACOR03T): Political Theory-Concepts and Debates** **Module – 2.** Core Concepts and Debates **Paper-GE2-(PLSHGEC02T): Indian Government and Politics** **Module-1**. Evaluation **Paper-CC10(PLSACOR10T): Global Politics** **Module-1**. Globalization: Conceptions and Perspectives **Paper –CC13(PLSACOR13T): Modern Political Philosophy** **Module 1.** Modernity and its discourse(Two essential readings)
Week 5 to week 8	**Paper-CC4 (PLSACOR04T): Political Process in India** **Module 3**.The concerns **Paper-GE4(PLSHGEC04T): Introduction to International Relations** **Module-2.** Theoretical Perspectives **Paper-CC10(PLSACOR10T): Global Politics** **Module-2.** Contemporary Global Issues **Paper – CC13(PLSACOR13T): Modern Political Philosophy** **Module 2.** Faminist Discourse
Week 9 to Week 12	**Paper-CC10(PLSACOR10T): Global Politics** **Module-3.** Global Shifts: Power and Governance **Paper – CC13(PLSACOR13T): Modern Political Philosophy** **Module 3.** Liberal socialist and Radicals
Week 13 to Week 14	**Internal Examination**
Week 15 to 17	**Paper – CC13(PLSACOR13T): Modern Political Philosophy** **Module 3.** Liberal socialist and Radicals …Contd.
Week 18	**Revision**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, UG course

Department of Political Science

Session (2021-22)

Class:B.A
Semester 2,4 &6 Name of the Teacher: Tathagata Chakrabarti (TC)
Subject: Political Science
Paper: CC3, CC 4, CC8, CC14, GE 2(CBCS)   (Theory)

S. No	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**Paper-CC4 (PLSACOR04T): Political Process in India** **Module – 1.** Structure and process of the election system **Paper -CC8(PLSACOR08T): Political Processes and Institutions in Comparative Perspective** **Module 1.** Approaches to Studying Comparative Politics **Paper-CC14(PLSACORT4T):Indian Political Thought - II** **Module 1.** Introduction to Modern Indian Political Thought
Week 5 to week 8	**Paper-GE2-(PLSHGEC02T): Indian Government and Politics** **Module-III.** Constitution of India **Paper -CC8(PLSACOR08T): Political Processes and Institutions in Comparative Perspective (Module 2)** **Paper-CC14(PLSACORT4T): Indian Political Thought - II** (Module – 2)
Week 9 to Week 12	**Paper -CC8(PLSACOR08T): Political Processes and Institutions in Comparative Perspective (Module -3)** **Paper-CC14(PLSACORT4T): Indian Political Thought – II** (Module – 3)
Week 13 to Week 14	**Internal Examination**
Week 15 to Week 17	**Paper-CC3 (PLSACOR03T): Political Theory-Concepts and Debates** **Module – 3.** Theories of State
Week 18	**Revision**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, UG course

Department of Political Science

Session (2021-22)

Class: B.A
Semester 2,4 & 6   **Name of the Teacher: Deeplekha Sengupta Dasgupta**
Subject: Political Science
Paper: CC4, SEC2 , GE4, DSE5(CBCS)   **(Theory)**

S. No	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**Paper CC4 (PLSACOR04T)- Political Process in India** **Module 2.**Issues in contemporary politics **Paper-GE4(PLSHGEC04T): Introduction to International Relations** **Module 3.** An Overview of Twentieth Century IR History (DS) **Paper – DSE5(PLSADSE05T): Human Rights in a Comparative Perspective** **Module-1.** Human Rights: Theory and Institutionalization
Week 5 to week 8	**Paper CC4 (PLSACOR04T)- Political Process in India** **Module 2.**Issues in contemporary politics …..Contd. **Paper-SEC2(PLSSSEC02M): Public Opinion and Survey Research** **Module-1.** Introduction to the course **Paper – DSE5(PLSADSE05T): Human Rights in a Comparative Perspective** **Module 2.** Issues
Week 9 to Week 12	**Paper-SEC2(PLSSSEC02M): Public Opinion and Survey Research** **Module-2.** Measuring Public Opinion with Surveys: Representation and Sampling **Paper – DSE5(PLSADSE05T): Human Rights in a Comparative Perspective** **Module 3.** Structural Violence
Week 13 to Week 14	**Internal Examination**
Week 15 to Week 17	**Paper-SEC2(PLSSSEC02M): Public Opinion and Survey Research** **Module-3.** Quantitative Data Analysis
Week 18	**Revision**

Class: B.A.
Semester I, III & V (Under CBCS)   Name of the Teacher: Shoumyasree Sen
Subject: Education
Paper: CC-1, GE-1, DSE-1, DSE-2   **(Theory and Practical)**

SL. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Paper A: Paper B: NONE Paper C:	**SEM I: Educational Philosophy/ EDCACOR01T** *Unit 2: Philosophical bases of educational aims, knowledge, curriculum, methods of teaching, teacher and discipline* **SEM I: Philosophical Foundation of Education/GE-1** *Unit 4: R. N. Tagore* **SEM V: Women Education/ EDCADSE01T** *Unit 1: Women Education—meaning, nature and scope, Necessities of women Education.* *Unit 2: Development of Women Education in ancient, mediaeval and British period (from 1600 to 1947)* **SEM V: Teacher Education/ EDCADSE02T** *Unit 2: Functions of teacher, characteristics of an ideal teacher*
Week 4 to week 8	Paper A: Paper B: NONE Paper C:	**SEM I: Educational Philosophy/ EDCACOR01T** *Unit 2: Indian philosophical thoughts and their influence on education – Sankhya, Yoga* **SEM I: Philosophical Foundation of Education/GE-1** *Unit 4: R. N. Tagore* **SEM V: Women Education/ EDCADSE01T** *Unit 2: Development of Women Education in post –independence period: Recommendations of various Commission and Committee for the development of Women Education.* **SEM V: Teacher Education/ EDCADSE02T** *Unit 2: Role of teacher at present context, Definition and characteristics of teaching*
Week 8 to Week 12	Paper A: Paper B: NONE Paper C:	**SEM I: Educational Philosophy/ EDCACOR01T** *Unit 2: Jainism, Buddhism* **SEM I: Philosophical Foundation of Education/GE-1** *Unit 4: R. N. Tagore, F.W.A. Froebel,* **SEM V: Women Education/ EDCADSE01T** *Unit 3: Probable Remedial measures to solve the problems of Women Education with reference to NPE 1986, 1992 and 2019. b. Role of Teacher in popularizing Women Education* **SEM V: Teacher Education/ EDCADSE02T** *Unit 2: Definition and characteristics of teaching, teaching as a profession*
Week 13	Paper A: Paper B: NONE Paper C:	**SEM I: Educational Philosophy/ EDCACOR01T** *Unit 2: Islamic.* **SEM I: Philosophical Foundation of Education/GE-1** *Unit 4: F.W.A. Froebel* **SEM V: Women Education/ EDCADSE01T** *Unit 4: Constitutional Rights – Article 15, 16, 23, 39, 42, 51, 243* **SEM V: Teacher Education/ EDCADSE02T** *Unit 2: Ethics of a teacher.*

Week 13 to week 14		Internal Exam
Week 15 to Week 17	Paper A: Paper B: NONE Paper C:	**SEM I: Educational Philosophy/ EDCACOR01T** *Unit 2: Islamic* **SEM I: Philosophical Foundation of Education/GE-1** *Unit 4: F.W.A. Froebel,* **SEM V: Women Education/ EDCADSE01T** *Unit 4: Legal Rights – Domestic Violence Act (2005), National Commission for Women Act (1990), Sexual Harassment of Women at Workplace Act (2013).* **SEM V: Teacher Education/ EDCADSE02T** *Unit 2: Ethics of a teacher.*
Week 18	Revision, Practise	**Revision**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, UG course

Department of Education

Session (2021-2022)

Class: B.A.
Semester II, IV & VI (Under CBCS)   Name of the Teacher: Shoumyasree Sen
Subject: Education
Paper: CC-4, CC- 8, CC-13   (Theory and Practical)

SL. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Paper A: Paper B: NONE Paper C:	**SEM II: Pedagogy/ EDCACOR04T** *Unit 1: Pedagogy – concept, scope; relationship between learning and teaching, Bases of pedagogy – philosophical & sociological* **SEM IV: Educational Management/ EDCACOR08T** *Unit 2: Leadership in management – concept, scope* **SEM VI: Curriculum Studies/ EDCACOR13T** *Unit 2: Need to form aims and objectives of curriculum b. Areas of educational objectives: Bloom's taxonomy (Cognitive only)*
Week 4 to week 8	Paper A: Paper B: NONE Paper C:	**SEM II: Pedagogy/ EDCACOR04T** *Unit 1: Bases of pedagogy –psychological, Pedagogy vs Andragogy* *Unit 3: Teaching – learning of 3 R's* **SEM IV: Educational Management/ EDCACOR08T** *Unit 2: Leadership in management –significance* **SEM VI: Curriculum Studies/ EDCACOR13T** *Unit 3: UGC model of curriculum development: CBCS, Factors of curriculum development*
Week 8 to Week 12	Paper A: Paper B: NONE Paper C:	**SEM II: Pedagogy/ EDCACOR04T** *Unit 3: Teaching – learning of 3 R's, Teaching – learning of verbal conditioning* **SEM IV: Educational Management/ EDCACOR08T** *Unit 2: Characteristics of an effective leader in education* **SEM VI: Curriculum Studies/ EDCACOR13T** *Unit 4: Meaning and purpose of curriculum evaluation, Approaches of curriculum evaluation: formative and summative*
Week 13	Paper A: Paper B: NONE Paper C:	**SEM II: Pedagogy/ EDCACOR04T** *Unit 3: Teaching – learning of psychomotor skill* **SEM IV: Educational Management/ EDCACOR08T** *Unit 2: Total Quality in educational management*

		SEM VI: Curriculum Studies/ EDCACOR13T
		Unit 4: Scientific model of curriculum evaluation – Stenhouse's model
Week 13 to week 14		**Internal Exam**
Week 15 to Week 17	Paper A: Paper B: NONE Paper C:	**SEM II: Pedagogy/ EDCACOR04T** *Unit 3: Teaching – learning of psychomotor skill* **SEM IV: Educational Management/ EDCACOR08T** *Unit 2: Total Quality in educational management* **SEM VI: Curriculum Studies/ EDCACOR13T** *Unit 4: Scientific model of curriculum evaluation – Stenhouse's model*
Week 18	Revision, Practise	**Revision**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, PG course

Department of Education

Session (2021-2022)

Class: M.A.
Semester I & III (Under CBCS)   Name of the Teacher: Shoumyasree Sen
Subject: Education
Paper: Departmental: 1, AECC & 12   (Theory and Practical)

SL. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Paper A: Paper B: NONE Paper C:	**SEM-I: Philosophical Foundations of Education/ EDCPCOR01T** *Unit- 2: Indian Philosophy – Concept, nature and types, Sankhya, Yoga, Vedanta Philosophy – with special reference to Aims of Education, Methods of Teaching and acquiring valid knowledge* **SEM-I: Communication Skill/ EDCPAEC01M** *Unit-1: Non-verbal and oral communication* *Importance and purpose of communication, process of Communication, types & technique of communication, barriers of communication, Non-verbal communication, Body language, tips for improving non-verbal communication* **SEM-III: Educational Management/ EDCPCOR12T** *Unit-1: Concept, principles, functions & importance of Educational Management and Educational Administration, Management as a System, POSDCORB, PERT, SWOT analysis, Administration as a Bureaucracy, Human relations Approach to Administration.*
Week 4 to week 8	Paper A: Paper B: NONE Paper C:	**SEM-I: Philosophical Foundations of Education/ EDCPCOR01T** *Unit-2: Jainism, Buddhism & Islamic traditions – with special reference to Aims of Education, Methods of teaching and acquiring knowledge, Comparison between Indian & Western Philosophy* **SEM-I: Communication Skill/ EDCPAEC01M** *Unit-1: Academic listening: listening to lecturer and presentation, tips for taking down points, Reading Skills: purpose, process, methodologies, academic reading tips, Speaking Skills: pronunciation, communication provokes, expressing opinions and command over language, self confidence*

		SEM-III: Educational Management/ EDCPCOR12T
		Unit-2: Leadership in Educational Administration – Concept, Nature & types, Approaches to Leadership - Traits, Transformational, Transactional, value based, Cultural, Psychodynamic - Concept and their Characteristics, Models of Leadership - Blake & Mouton's Managerial grid, Fiedler's Contingency Model, Ideal Leadership in Educational Institution, development of Leadership in Education
Week 8 to Week 12	Paper A: Paper B: NONE Paper C:	**SEM-I: Philosophical Foundations of Education/ EDCPCOR01T** *Unit- 3: Meaning, Importance of Metaphysics, Epistemology & Axiology, Idealism, Naturalism & Realism – Introduction, Knowledge & Wisdom* **SEM-I: Communication Skill/ EDCPAEC01M** *Unit-2: Element of effective writing: The sentence phrases and clauses, types of sentences, Main forms of written communication: summarising and elaboration as per requirement, Remedial English grammar and usage: Articles tenses, preposition, correction of errors in given sentences, error in the use of words, errors in punctuation* **SEM-III: Educational Management/ EDCPCOR12T** *Unit-3: Concept of quality and Quality in Education - Indian and International Perspectives, Evolution of Quality - Inspection, Quality Control, Quality Assurance, Total Quality Management (TQM) – Concept & Nature, Quality Gurus- Walter Shewhart, Edward Deming, C.K Prahlad, Peter Drucker*
Week 13	Paper A: Paper B: NONE Paper C:	**SEM-I:** *Unit- 3: Pragmatism - Introduction, Knowledge & wisdom* **SEM-I: Communication Skill/ EDCPAEC01M** Unit-2: *Preparing a CV* **SEM-III: Educational Management/ EDCPCOR12T** *Unit-4: Concept, needs for planned change, 'Three steps Model' of Changes – Unfreezing, Moving & Refreezing, Cost of Quality- Appraisal costs, Failure Costs, Preventable Costs*
Week13 to week 14		**Internal Exam**
Week 15 to Week 17	Paper A: Paper B: NONE Paper C:	**SEM-I: Philosophical Foundations of Education/ EDCPCOR01T** Unit– 3: *Marxism & Existentialism - Introduction, Knowledge & wisdom, Modern Concept of Philosophy – Logical Analysis, Positivism and Positive Relativism* **SEM-I: Communication Skill/ EDCPAEC01M** Unit-2: *Presentation Skill: Preparing a power point presentation, presenting a paper, group discussion, preparing for facing a job interview* **SEM-III: Educational Management/ EDCPCOR12T** *Unit-4: Cost benefit & Cost-Effective Analysis (Concept only), Indian & International Quality Assurance Agencies - NAAC, Quality Council of India (QCI), International Network for quality Assurance Agency in Higher Education (INQAAHE)*
Week 18	Revision, Practise	**Revision**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, PG course

Department of Education

Session (2021-2022)

Class: M.A.
Semester II & IV (Under CBCS)   **Name of the Teacher: Shoumyasree Sen**
Subject: Education
Paper: Departmental: 7 & 16   **(Theory and Practical)**

SL. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Paper: A Paper: B NONE Paper: C	**SEM-II: Pedagogical Studies / EDCPCOR07T** *Unit-1: Pedagogy – Meaning, Nature, & Importance, Pedagogical Analysis - Concept & Stages, Critical Pedagogy – Meaning, Needs and its Implication in Teacher Education, Organising Teaching – Memory, Understanding, and Reflective Level* **SEM-IV: Curriculum Studies/ EDCPCOR15T** *Unit 1: Curriculum – Concept, Types & Principles, Curriculum Development – Strategies & Stages, Foundations / Bases of Curriculum – Philosophical Bases (National, Democratic), Sociological Bases (Learners' Needs & Interests), Role of National level Statutory Bodies in Curriculum Development – UGC, NCTE, NCERT & other Agencies*
Week 4 to week 8	Paper: A Paper: B NONE Paper: C	**SEM-II: Pedagogical Studies / EDCPCOR07T** *Unit-2: Meaning & Nature of Andragogy and Importance of Andragogy in Education, Meaning, Principles, Competencies of Self- directed learning, Theory of Andragogy (Malcom Knowles), The Dynamic Model of Learner Autonomy* *Unit-3: Feedback Devices – Meaning, types, criteria* **SEM-IV: Curriculum Studies/ EDCPCOR15T** *Unit 2: Curriculum Design – Concept, Nature & Importance. Traditional Models of Curriculum Design – Academic / Discipline Based Model, Competency Based Model, Contemporary Models of Curriculum Design – Social Activity Model (Social Reconstruction), Individual Needs & Interests Models, Outcome based Integrative Model, Recent Model of Curriculum Design –Intervention Model, CIPP Model (Context, Input, Process, Product Model)*
Week 8 to Week 12	Paper: A Paper: B NONE Paper: C	**SEM-II: Pedagogical Studies / EDCPCOR07T** *Unit-3: Meaning, nature & perspectives of assessment (Assessment for Learning and assessment of Learning), Guidance as a Feedback Devices – Assessment of Portfolios, Reflective Journal, Field engagement using Rubrics, Assessment of teacher prepared ICT Resources* **SEM-IV: Curriculum Studies/ EDCPCOR15T** *Unit 3: Curriculum Evaluation - Concept, Nature & Importance, Curriculum Transaction – Role of Instructional System, Instructional Media, Instructional Techniques, Instructional Materials, Approaches to Curriculum Evaluation – Academic and Competency based Approaches, Models of Curriculum Evaluation – Tyler's Model, Stake's Model, Scriven's Model, Kilpatrick's Model*
Week 13	Paper: A Paper: B NONE Paper: C	**SEM-II: Pedagogical Studies / EDCPCOR07T** *Unit-4: Interaction analysis – Flanders Interaction Analysis* **Paper: Curriculum Studies/ EDCPCOR15T** *Unit 4: Curriculum Change – Concept & Needs*
Week 13 to week 14		Internal Exam
Week 15 to	Paper: A Paper: B NONE	**SEM-II: Pedagogical Studies / EDCPCOR07T**

Week 17	Paper: C	*Unit-4: Galloway's System of Interaction Analysis, Criteria for Teacher Evaluation – Product, Process and Presage criteria, Rubrics for Self and Peer Evaluation – Concept and Steps of construction.* **SEM-IV: Curriculum Studies/ EDCPCOR15T** Unit 4: *Curriculum Change – Factors & Approaches, Role of Students, Teachers and Educational Administrators in Curriculum Change and Improvement, Curriculum Research – Recent Trends.*
Week 18	Revision, Practise	**Revision**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, UG course

Department of Education

Session (2021-2022)

Class: B.A.
Semester I, III & V (Under CBCS)   **Name of the Teacher: Purnendu Acharya**
Subject: Education
Paper: CC-1, GE-1, CC-5   **(Theory and Practical)**

SL. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Paper A: Paper B: NIL Paper C:	**SEM I: Educational Philosophy/ EDCACOR01T** Unit 1: Concept and scope of education, concept of modern education w.r.t. Delor's Commission, child centricism **SEM I: Philosophical Foundation of Education/GE-1** Unit 1: Concept nature and scope of Education, Factors of Education Unit 2: Forms of Education – Informal, Formal **SEM III: Education in Pre-independence India/ EDCACOR05T** Unit 1: Salient features of Brahmanic, Buddhistic and Islamic education w.r.t: Aims of education & Curriculum and method of teaching
Week 4 to week 8	Paper A: Paper B: NIL Paper C:	**SEM I: Educational Philosophy/ EDCACOR01T** Unit 1: Concept of different forms of education – informal, formal, non-formal and open education, Functions of education – individual and social development **SEM I: Philosophical Foundation of Education/GE-1** Unit 2: Non-formal and Open Education, Aims of Education – Individualistic, Socialistic & Democratic view of Education **SEM III: Education in Pre-independence India/ EDCACOR05T** Unit 1: Centres of learning: Nabadwip, Nalanda, Agra Unit 2: Charter Act of 1813 b. Macaulay Minute
Week 8 to Week 12	Paper A: Paper B: NIL Paper C:	**SEM I: Educational Philosophy/ EDCACOR01T** Unit 1: Human Resource Development. Unit 4: Rabindranath Tagore, Swami Vivekananda **SEM I: Philosophical Foundation of Education/GE-1** Unit 3: Value-Definition, characteristics, types, Relation between values and education **SEM III: Education in Pre-independence India/ EDCACOR05T** Unit 2: Bengal renaissance – nature, characteristics d. Contributions of Rammohan, Derozio, Vidyasagar Unit 3: Wood's Despatch (1854)

Week 13	Paper A: Paper B: NIL Paper C:	**SEM I: Educational Philosophy/ EDCACOR01T** Unit 4: John Dewey **SEM I: Philosophical Foundation of Education/GE-1** Unit 3: Importance of values in education **SEM III: Education in Pre-independence India/ EDCACOR05T** Unit 3: Hunter Commission (1882-83)
Week 13 to week 14		**Internal Exam**
Week 15 to Week 17	Paper A: Paper B: NIL Paper C:	**SEM I: Educational Philosophy/ EDCACOR01T** Unit 4: John Dewey & Bertrand Russell **SEM I: Philosophical Foundation of Education/GE-1** Unit 3: Importance of values in education **SEM III: Education in Pre-independence India/ EDCACOR05T** Unit 3: Curzon's Policy (1902) Unit 4: Calcutta University Commission (1917-1919), Basic Education Policy
Week 18	Revision, Practise	**Revision**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, UG course

Department of Education

Session (2021-2022)

Class: B.A.
Semester II, IV & VI (Under CBCS)   **Name of the Teacher: Purnendu Acharya**
Subject: Education
Paper: CC-3, CC-8, CC-13, DSE-4   **(Theory and Practical)**

SL. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Paper A: Paper B: NIL Paper C:	**SEM II: Educational Sociology/ EDCACOR03T** Unit 1: Educational sociology – concept, scope, Relationship between education and sociology **SEM IV: Educational management / EDCACOR08T** Unit 1: Educational management – concept, nature, need scope, and types **SEM VI: Curriculum Studies / EDCACOR13T** Unit 1: Meaning, nature, scope of curriculum **SEM VI: Value Education / EDCADSE04T** Unit 1: Value – Meaning and nature
Week 4 to week 8	Paper A: Paper B: NIL Paper C:	**SEM II: Educational Sociology/ EDCACOR03T** Unit 1: Education as a social process – social system, socialization, social groups (primary, secondary, tertiary), social mobility **SEM IV: Educational management / EDCACOR08T** Unit 1: Supervision and inspection – concept, scope, difference between supervision and inspection Unit 3: Ministry of Human Resource Development **SEM VI: Curriculum Studies / EDCACOR13T** Unit 1: Relationship among curriculum, syllabus, content **SEM VI: Value Education / EDCADSE04T** Unit 1: Value - importance
Week 8 to Week 12	Paper A: Paper B: NIL Paper C:	**SEM II: Educational Sociology/ EDCACOR03T** Unit 4: Education for poverty eradication, Inclusive education **SEM IV: Educational management / EDCACOR08T**

SL. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
		Unit 3: Agencies of education (Centre and State) – UGC, NCERT **SEM VI: Curriculum Studies / EDCACOR13T** Unit 1: Types of curricula – brief introduction (definition and example only) **SEM VI: Value Education / EDCADSE04T** Unit 1: Classification of value -Indian context
Week 13	Paper A: Paper B: NIL Paper C:	**SEM II: Educational Sociology/ EDCACOR03T** Unit 4: Child rights and abuses **SEM IV: Educational management / EDCACOR08T** Unit 3: SCERT **SEM VI: Curriculum Studies / EDCACOR13T** Unit 1: Basic sources of curriculum – philosophical **SEM VI: Value Education / EDCADSE04T** Unit 1: Classification of value - Western context
Week 13 to week 14		**Internal Exam**
Week 15 to Week 17	Paper A: Paper B: NIL Paper C:	**SEM II: Educational Sociology/ EDCACOR03T** Unit 4: Child rights and abuses **SEM IV: Educational management / EDCACOR08T** Unit 3: SCERT, WBSCHE **SEM VI: Curriculum Studies / EDCACOR13T** Unit 1: Basic sources of curriculum – socio-cultural, psychological **SEM VI: Value Education / EDCADSE04T** Unit 1: Classification of value - Western context
Week 18	Revision, Practise	**Revision**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, PG course

Department of Education

Session (2021-2022)

Class: M.A.
Semester I & III (Under CBCS)   **Name of the Teacher: Purnendu Acharya**
Subject: Education
Paper: Departmental: 1, 2, 13   **(Theory and Practical)**

SL. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Paper A: Paper B: Nil Paper C:	**SEM-I: Philosophical Foundations of Education/ EDCPCOR01T** Unit- 1: Concept, nature & scope of Education and Philosophy **SEM-I: Psychological Foundations of Education/ EDCPCOR02T** Unit- 1: Behaviourism – Characteristics & significance in Education **SEM-III: Value and Peace Education/ EDCPCOR13T** Unit- 1: Historical Perspectives of value & Peace Education
Week 4 to week 8	Paper A: Paper B: Nil Paper C:	**SEM-I: Philosophical Foundations of Education/ EDCPCOR01T** Unit- 1: Concept, nature and scope of Educational Philosophy. **SEM-I: Psychological Foundations of Education/ EDCPCOR02T** Unit- 1: Cognitivism – Characteristics & significance in Education **SEM-III: Value and Peace Education/ EDCPCOR13T** Unit- 1: Values in Indian Culture

Week 8 to Week 12	Paper A: Paper B: Nil Paper C:	**SEM-I: Philosophical Foundations of Education/ EDCPCOR01T** Unit- 1: Relationship between Education and Philosophy **SEM-I: Psychological Foundations of Education/ EDCPCOR02T** Unit- 1: Humanism – Characteristics & significance in Education **SEM-III: Value and Peace Education/ EDCPCOR13T** Unit- 1: Need & importance of Education for Peace
Week 13	Paper A: Paper B: Nil Paper C:	**SEM-I: Philosophical Foundations of Education/ EDCPCOR01T** Unit- 1: Concept of Educational Philosophy and Philosophy of Education. **SEM-I: Psychological Foundations of Education/ EDCPCOR02T** Unit- 1: Constructivism – Characteristics & significance in Education **SEM-III: Value and Peace Education/ EDCPCOR13T** Unit- 1: Values & Peace in the Socio- cultural context in India
Week13 to week 14		**Internal Exam**
Week 15 to Week 17	Paper A: Paper B: Nil Paper C:	**SEM-I: Philosophical Foundations of Education/ EDCPCOR01T** Unit- 1: Concept of Educational Philosophy and Philosophy of Education. **SEM-I: Psychological Foundations of Education/ EDCPCOR02T** Unit- 1: Constructivism – Characteristics & significance in Education. **SEM-III: Value and Peace Education/ EDCPCOR13T** Unit- 1: Values & Peace in the Socio- cultural context in India
Week 18	Revision, Practise	**Revision**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, PG course

Department of Education

Session (2021-2022)

Class: M.A.
Semester II & IV (Under CBCS)   **Name of the Teacher: Purnendu Acharya**
Subject: Education
Paper: Departmental: 8 & 17   **(Theory and Practical)**

SL. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Paper: A Paper: B Nil Paper: C	**SEM-II: Contemporary Issues and trends in Education /EDCPCOR08T** Unit-3: Globalization and Education, Privatization in Education **SEM-IV: Education of Children with Diverse Needs/ EDCPCOR16T** Unit-1: Education of Children with Diverse Needs – Concept & Principles, Evolution – Special, Integrated, Inclusive Education, Education of Children with Diverse Needs
Week 4 to week 8	Paper: A Paper: B Nil Paper: C	**SEM-II: Contemporary Issues and trends in Education /EDCPCOR08T** Unit-3: ICT in Education, Education & Employment **SEM-IV: Education of Children with Diverse Needs/ EDCPCOR16T** Unit-1: Policies & Legislations – PWD Act (1995), National Policy of Disabilities (2006), PWD Act (2015), Functions of RCI, Inclusive Education under SSA, Functions of UNCRPD
Week 8 to Week 12	Paper: A Paper: B Nil Paper: C	**SEM-II: Contemporary Issues and trends in Education /EDCPCOR08T** Unit-4: NCTE and Teachers Education, AICTE and Technical Education **SEM-IV: Education of Children with Diverse Needs/ EDCPCOR16T** Unit-4: Challenges & barriers to Inclusive Education – Attitude, Social and Educational, Relevant Concept – Individualized Education Plan

Week 13	Paper: A	**SEM-II: Contemporary Issues and trends in Education /EDCPCOR08T**
	Paper: B Nil	Unit-4: MCI and Medical Education
	Paper: C	**SEM-IV: Education of Children with Diverse Needs/ EDCPCOR16T**
		Unit-4: UDL/ Universal Design of Learning
Week13 to week 14		**Internal Exam**
Week 15 to Week 17	Paper: A	**SEM-II: Contemporary Issues and trends in Education /EDCPCOR08T**
	Paper: B Nil	Unit-4: RCI and Special Education.
	Paper: C	**SEM-IV: Education of Children with Diverse Needs/ EDCPCOR16T**
		Unit-4: Research Trends of Inclusive Education in India.
Week 18	Revision, Practise	**Revision**

(IEP), Cascade system, Normalization, Deinstitutionalization, Mainstreaming. appears at the top of the first cell of the table continued from the previous page.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL SALT LAKE CITY, KOLKATA

Teaching Plan for Odd Semester, UG Course Department of Education

Session (July 2021-December 2021)

Class: B.A. (CBCS)

Semester: 1,3, 5

Name of the Teacher: Dr. Jhuma Bandyopadhyay

Subject: Education

Paper: EDCACOR02T, EDCACOR07T, EDCACOR12T, EDCACOR12P (Theory & Practical)

Sl. No.	Practical Syllabus to be Covered (Paper Code to be mentioned)	Theory Syllabus to be Covered (Paper Code to be mentioned)
Week 1 to Week 4		SEM-1 EDCACOR02T: - Introduction to Psychology SEM-3 EDCACOR07T: Traditional Issues SEM-5 EDCACOR12T: Communication
Week 5 to Week 8		SEM-1 EDCACOR02T: Psychology of Human Education SEM-3 EDCACOR07T: Social Issues SEM-5 EDCACOR12T: Instructional Technology
Week 9 to Week 12	SEM-5 EDCACOR12P: Word, DTP, Excel operation	SEM-1 EDCACOR02T: Cognitive Development, Moral Development SEM-3 EDCACOR07T: Educational Issues
Week 13	SEM-5 EDCACOR12P: Word, DTP, Excel operation	SEM-1 EDCACOR02T: Psycho Social Development SEM-3 EDCACOR07T: Educational Issues

		Week 14 Internal Exam
Week 15 to Week 17		SEM-1 EDCACOR02T: Personality SEM-3 EDCACOR07T: Educational Issues SEM-5 EDCACOR12T: Methodology of Teaching
Week 18	Revision, Practice	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL SALT LAKE CITY, KOLKATA

Teaching Plan for Even Semester, UG Course Department of Education

Session (January 2022-June 2022)

Class: B.A. (CBCS)

Semester: 2, 4, 6

Name of the Teacher: Dr. Jhuma Bandyopadhyay

Subject: Education

Paper: EDCACOR04T, EDCGCOR08T, EDCADSE04T (Theory & Practical)

Sl. No.	Practical Syllabus to be Covered (Paper Code to be mentioned)	Theory Syllabus to be Covered (Paper Code to be mentioned)
Week 1 to Week 4		SEM-2 EDCACOR04T: Pedagogy as Science of Teaching SEM-4 EDCACOR08T: Planning & Management SEM-6 EDCADSE04T: Values from Different Perspectives
Week 5 to Week 8		SEM-2 EDCACOR04T: Pedagogy as Science of Teaching SEM-4 EDCACOR08T: Planning & Management SEM-6 EDCADSE04T: Value Crisis
Week 9 to Week 12		SEM-2 EDCACOR04T: Application of Pedagogy in Classroom SEM-4 EDCACOR08T: Planning & Management SEM-6 EDCADSE04T: Value Crisis
Week 13		SEM-2 EDCACOR04T: Application of Pedagogy in Classroom SEM-4 EDCACOR08T: Planning & Management SEM-6 EDCADSE04T: Value Education
	Week 14 Internal Exam	

Week 15 to Week 17		SEM-2 EDCACOR04T: Application of Pedagogy in Classroom SEM-4 EDCACOR08T: Planning & Management SEM-6 EDCADSE04T: Value Education
Week 18	Revision, Practice	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE ,KOLKATA

Teaching Plan for Even Semester, PG course Department of Education

Session(July 2021-December 2021)

Class: M.A. (CBCS)
Semester: 1, 3
Name of the Teacher: Dr. Jhuma Bandyopadhyay
Subject: Education
Paper: EDCPCOR01T, EDCPCOR04T, EDCPCOR14T(Theory & Practical)

Sl. No.	Practical works to be covered (PaperCodetobementioned)	Theorytopicstobecovered(PaperCodetobe mentioned)
Week 1 to Week 4	SEM-3 EDCPCOR14P: Total Selection and Conduct of Content Analysis of the selected topic. Writing objectives	SEM-1 EDCPCOR01T: Western School of Philosophy
Week 5 to Week 8	SEM-3 EDCPCOR14P: Preparing table of specification Developing test item and scoring key	SEM-1 EDCPCOR04T: Statistics in Educational Research Qualitative Data
Week 9 to Week 12	SEM-3 EDCPCOR14P: Conduct pilot testing and item analysis, Preparing second draft	SEM-1 EDCPCOR04T: Inferential Statistics Parametric & Non-Parametric Techniques
Week 13	SEM-3 EDCPCOR14P: Preparing the final version of the test	SEM-1 EDCPCOR04T: Inferential Statistics Parametric & Non-Parametric Techniques
Week 14 INTERNAL EXAM		
Week 15 to Week 17	SEM-3 EDCPCOR14P: Conduct of Standardization Process	SEM-1EDCPCOR04T: Qualitative Data Analysis

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Plan for Even Semester, PG course Department of Education

Session (January 2022-June 2022)

Class: M.A. (CBCS)
Semester: 2, 4
Name of the Teacher: Dr. Jhuma Bandyopadhyay
Subject: Education
Paper: EDCPCOR08T, EDCPCOR09P, EDCPCOR16T, EDCPCOR18P(Theory & Practical)

Sl. No.	Practical works to be covered (PaperCodetobementioned)	Theorytopicstobecovered(PaperCodetobe mentioned)
Week 1 to Week 4	SEM-4 EDCPCOR18P: Topic selection, Research Proposal and Writing	SEM-2 EDCPCOR08T: Educational and Reservation SEM-4 EDCPCOR16T: Types of Diverse Learners
Week 5 to Week 8	SEM-4 EDCPCOR18P: Data Collection, Data Analysis	SEM-2 EDCPCOR08T: Issues in Education
Week 9 to Week 12	SEM-2 EDCPCOR09P: MS-Word and its related Parts SEM-4 EDCPCOR18P: Data Collection, Data Analysis	
Week 13	SEM-2 EDCPCOR09P: Operation of Excel and its related parts and PPT SEM-4 EDCPCOR18P: Project Report Writing	
Week 14 INTERNAL EXAM		
Week 15 to Week 17	SEM-2 EDCPCOR09P: Operation of Excel and its related parts and PPT SEM-4 EDCPCOR18P: Project Report Writing	

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, UG course

Department of Education

Session (2021-2022)

Class: B.A.
Semester I, III & V (Under CBCS)   **Name of the Teacher: Priyanka Datta**

Subject: Education
Paper: CC-1, CC-2, CC-6, SEC-I, CC-12 (T & P), DSE-2   **(Theory and Practical)**

SL. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**SEM V: Basic ICT / EDCACOR12P** Unit 1: Opening and shutting down of computer: Outlook of Desktop & Laptop - Different parts of computer - Different Cables to join the ports - Power switch of UPS, CPU, & Monitor – Steps to opening & shutting down the Computer	**SEM I: Educational Philosophy/ EDCACOR01T** Unit 2: Idealism **SEM I: Educational Psychology/ EDCACOR02T** Unit 3: Intelligence – concept and scope **SEM III: Education in Post-independence India/ EDCACOR06T** Unit 1: University Education Commission (1948-49), Secondary Education Commission (1952-53) **SEM III: Skill Development for Social awareness/ SEC I** Unit 1: Meaning and nature of Social Awareness, Social Backwardness and Social Advancement **SEM V: Educational Technology/ EDCACOR12T** Unit 2: Communication- concept, components, classification and barriers **SEM V: Teacher Education/ EDCADSE02T** Unit 4: Teaching models: Advance Organizer Model
Week 4 to week 8	**SEM V: Basic ICT / EDCACOR12P** Unit 1: Identification of different components of a computer: Basic introduction of computer – Classification – Different components – Input devices – Output devices – Storage devices – Bit & Byte Concept – Data Transfer devices (Bluetooth & Wi-Fi)	**SEM I: Educational Philosophy/ EDCACOR01T** Unit 2: Naturalism **SEM I: Educational Psychology/ EDCACOR02T** Unit 3: Theories of intelligence – Guilford, Gardener **SEM III: Education in Post-independence India/ EDCACOR06T** Unit 1: Secondary Education Commission (1952-53) Unit 3: National Policy on Education **SEM III: Skill Development for Social awareness/ SEC I** Unit 1: Need for development of Social Awareness, types of social awareness programme **SEM V: Educational Technology/ EDCACOR12T** Unit 2: Communication- One basic classroom-oriented model i.e., linear and its significance in education Unit 3: Mass instructional techniques – seminar, symposium, workshop **SEM V: Teacher Education/ EDCADSE02T** Unit 4: Teaching models: Advance Organizer Model
Week 8 to Week 12	**SEM V: Basic ICT / EDCACOR12P** Unit 4: Play Slide Show (at least 5 Slide for maximum 5 minutes presentation) from any Survey/Case study/Experiment or any relevant topic from syllabus. Interaction (at least 2 minutes) on the above topic	**SEM I: Educational Philosophy/ EDCACOR01T** Unit 2: Pragmatism **SEM I: Educational Psychology/ EDCACOR02T** Unit 3: Theories of intelligence –Sternberg, Creativity – concept, scope **SEM III: Education in Post-independence India/ EDCACOR06T** Unit 3: Programme of Action, 1992 Unit 4: Sarva Shiksha Mission **SEM III: Skill Development for Social awareness/ SEC I** Unit 2: Planning and execution of a Social Awareness Programme, Relationship among I.Q., E.Q. and social awareness **SEM V: Educational Technology/ EDCACOR12T** Unit 3: Mass instructional techniques –panel discussion, Personalized instructional techniques – programme learning (linear), microteaching **SEM V: Teacher Education/ EDCADSE02T** Unit 4: Teaching models: Concept Attainment Model
Week 13	**SEM V: Basic ICT / EDCACOR12P** Unit 4: Report writing on the PPT presentation (within 500 words)	**SEM I: Educational Philosophy/ EDCACOR01T** Unit 2: Existentialism **SEM I: Educational Psychology/ EDCACOR02T** Unit 3: Characteristics of creative person

		SEM III: Education in Post-independence India/ EDCACOR06T Unit 4: Sarva Shiksha Mission **SEM III: Skill Development for Social awareness/ SEC I** Unit 3: Organization and Participation in a Social Awareness Programme conducted by NSS (HIV/AIDS Awareness Programme **SEM V: Educational Technology/ EDCACOR12T** Unit 3: Microteaching **SEM V: Teacher Education/ EDCADSE02T** Unit 4: Teaching models: Microteaching Model
Week 13 to week 14		**Internal Exam**
Week 15 to Week 17	**Paper: Basic ICT / EDCACOR12P** Unit 4: Report writing on the PPT presentation (within 500 words)	**SEM I: Educational Philosophy/ EDCACOR01T** Unit 2: Existentialism **SEM I: Educational Psychology/ EDCACOR02T** Unit 3: Relationship between intelligence, creativity and education **SEM III: Education in Post-independence India/ EDCACOR06T** Unit 4: Sarva Shiksha Mission, Right to Education Act, 2009 **SEM III: Skill Development for Social awareness/ SEC I** Unit 3: Organization and Participation in a Social Awareness Programme conducted by NSS (HIV/AIDS Awareness Programme **SEM V: Educational Technology/ EDCACOR12T** Unit 3: Mastery learning, computer assisted instruction (CAI) **SEM V: Teacher Education/ EDCADSE02T** Unit 4: Teaching models: Micro teaching, Simulated teaching
Week 18	Revision, Practise	**Revision**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, UG course

Department of Education

Session (2021-2022)

Class: B.A.
Semester II, IV & VI (Under CBCS)   **Name of the Teacher: Priyanka Datta**
Subject: Education
Paper: CC-3, GE-2, CC- 10 (T & P), CC-14   **(Theory and Practical)**

SL. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**SEM IV: Statistics in Education/ EDCACOR10P** Unit 1: Introduction to Data: Definition, types, uses, Collection of Data: To collect relevant data of two set of Achievement Test from respective 14 colleges or neighbourhood institutions (sample size 50).	**SEM II: Educational Sociology/ EDCACOR03T** Unit 2: Culture – concept, interrelationship between education and culture, importance of folk culture in education **SEM II: Psychological Foundation of Education/ GE 2** Unit 3: Concept, nature and determinants of attention **SEM IV: Statistics in Education/ EDCACOR10T** Unit 1: Statistics – concept, scope, uses of statistics in psychology and education, Organization and tabulation of data **SEM IV: Development of Observational Skill /SEC II** Unit 1: Observation – Meaning, nature and characteristics of Observation, Classification of Observation **SEM VI: Special Education/ EDCACOR14T** Unit 1: Special education – concept, nature, objectives and characteristics, Inclusive education – concept, types. Is inclusion a viable alternative?

Week 4 to week 8	**SEM IV: Statistics in Education/ EDCACOR10P** Unit 2: Data Analyses by manual exercise a. Determination of Central Tendency & Variability (Range, SD, QD) b. Graphical Representation of Data: Frequency Polygon, Ogive	**SEM II: Educational Sociology/ EDCACOR03T** Unit 2: The concept of 'Unity in Diversity', cultural lag, cultural conflict **SEM II: Psychological Foundation of Education/ GE 2** Unit 3: Concept and process of memorization, causes of forgetting **SEM IV: Statistics in Education/ EDCACOR10T** Unit 1: Graphical representation of data – bar graph, frequency polygon, histogram, pie chart, ogive – drawing, uses Unit 2: Measures of central tendency – concept, properties, uses, calculation **SEM IV: Development of Observational Skill /SEC II** Unit 1: Advantages and Disadvantages of Observation **SEM VI: Special Education/ EDCACOR14T** Unit 2: Development of special education in India, Organization and administration of special education in India
Week 8 to Week 12	**SEM IV: Statistics in Education/ EDCACOR10P** Unit 2: Data Analyses by excel/ software a. Determination of Central Tendency & Variability (Range, SD, QD) b. Graphical Representation of Data: Frequency Polygon, Ogive. c. Comparison between two sets of data: Correlation (only software calculation) – Rank difference and product moment	**SEM II: Educational Sociology/ EDCACOR03T** Unit 2: Acculturation, National Integration **SEM II: Psychological Foundation of Education/ GE 2** Unit 4: Personality-concept, characteristics & types **SEM IV: Statistics in Education/ EDCACOR10T** Unit 2: Measures of variability – concept, types (concept), uses, calculation of SD, QD, variance, Normal Probability Curve – concept, characteristics, uses; skewness and kurtosis **SEM IV: Development of Observational Skill /SEC II** Unit 2: Planning and execution of observation, Recording and interpretation of observed data **SEM VI: Special Education/ EDCACOR14T** Unit 3: Gifted children – definition, classification, identification, needs, problems, educational support for them, Slow learners – definition, classification, identification, needs, problems, educational support for them
Week 13	**SEM IV: Statistics in Education/ EDCACOR10P** Unit 2: Report writing of statistical practical	**SEM II: Educational Sociology/ EDCACOR03T** Unit 2: International Understanding **SEM II: Psychological Foundation of Education/ GE 2** Unit 4: Psychoanalytic theory by Freud **SEM IV: Statistics in Education/ EDCACOR10T** Unit 3: PP, PR – concept, calculation, uses **SEM IV: Development of Observational Skill /SEC II** Unit 3: Direct visit to a socio-cultural event (Book Fair) **SEM VI: Special Education/ EDCACOR14T** Unit 4: Visual impairment -definition, characteristics, classification, causes, prevention and remedial measures
Week 13 to week 14		**Internal Exam**
Week 15 to Week 17	**SEM IV: Statistics in Education/ EDCACOR10P** Unit 2: Report writing of statistical practical	**SEM II: Educational Sociology/ EDCACOR03T** Unit 2: International Understanding **SEM II: Psychological Foundation of Education/ GE 2** Unit 4: Psychoanalytic theory by Freud **SEM IV: Statistics in Education/ EDCACOR10T** Unit 3: Correlation – concept, types, significance – rank difference, product moment **SEM IV: Development of Observational Skill /SEC II** Unit 3: Writing a Report on the Visit to a socio-cultural event (Book Fair) **SEM VI: Special Education/ EDCACOR14T**

		Unit 4: Auditory impairment & Mental retardation- definition, characteristics, classification, causes, prevention and remedial measures
Week 18	Revision, Practise	**Revision**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Plan for Even Semester, PG course

Department of Education

Session (July 2021-December 2021)

Class: M.A. (CBCS)
Semester: 1, 3
Name of the Teacher: Dr. Priyanka Dutta
Subject: Education
Paper:EDCPCOR01T,EDCPCOR02T, EDCPCOR11T, EDCPCOR13T , EDCPCOR05P (Theory & Practical)

Sl. No.	Practical works to be covered (PaperCodetobementioned)	Theorytopicstobecovered(PaperCodetobe mentioned)
Week 1 to Week 4	EDCPCOR05P : Evaluation of listing and Speaking Skill	EDCPCOR01T : Great Educators EDCPCOR11T : General Idea of Educational Technology
Week 5 to Week 8	EDCPCOR05P : Evaluation of listing and Speaking Skill	EDCPCOR02T : Growth and Development EDCPCOR11T : System Approach
Week 9 to Week 12	EDCPCOR05P : Evaluation of listing and Speaking Skill	EDCPCOR02T : Intelligence and Creativity EDCPCOR11T : Emerging Trends in E – Learning
Week 13	EDCPCOR05P : Evaluation of listing and Speaking Skill	EDCPCOR02T : Personality EDCPCOR11T : Use of ICT
Week 14 INTERNAL EXAM		
Week 15 to Week 18	EDCPCOR05P : Evaluation of listing and Speaking Skill	EDCPCOR02T : Personality EDCPCOR13T : Nature and Concept of Value

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Plan for Even Semester, PG course

Department of Education

Session (January 2022-June 2022)

Class: M.A. (CBCS)

Semester: 2, 4

Name of the Teacher: Dr. Priyanka Dutta

Subject: Education

Paper: EDCPCOR10T, EDCPCOR17P, EDCPCOR16T, EDCPSEC01P (Theory & Practical)

Sl. No.	Practical works to be covered (PaperCodetobementioned)	Theorytopicstobecovered(PaperCodetobe mentioned)
Week 1 to Week 4	EDCPSEC01P : Enhancement of Reading Skill EDCPCOR17P : Introduction - Review of Related Studies	EDCPCOR10T : Theories of Learning EDCPCOR16T : Planning and Management of Diverse Learners
Week 5 to Week 8	EDCPSEC01P :Enhancement of Reading Skill EDCPCOR17P :Objectives, Research Question	EDCPCOR10T : Learning and Motivation EDCPCOR16T :Planning and Management of Diverse Learners
Week 9 to Week 12	EDCPSEC01P : Enhancement of Writing Skill EDCPCOR17P : Find out knowledge gap	EDCPCOR10T : Transfer of Learning
Week 13	EDCPSEC01P :Enhancement of Reading Skill EDCPCOR17P : Report Writing	EDCPCOR10T : Social Learning
Week 14 INTERNAL EXAM		
Week 15 to Week 18	EDCPSEC01 : Note Book Ready EDCPCOR17 : Report Writing	EDCPCOR10T : Social Learning

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL ,SALTLAKE ,KOLKATA

Teaching Plan for Odd Semester, UG course

Department of Education

Session (July 2021-December 2021)

Name of the Teacher: Shikha Roy

Class: B.A

Semester 1,3, 5   **Subject: Education**

Paper:CC1, CC2,CC7 T,P, EDCPCORO1, EDCPCORO2T, EDCPCORO3T, EDCPCORO4T (TheoryandPractical)

S.No	Practical works to be covered (Papercodetobementioned)	Theorytopicstobecovered(Papercodetobe mentioned)

Week1 toweek4	**Paper: EDCACOR07P/Core07P: Field Tour and Report Writing**	**Paper: EDCACOR01T / Core 01T: Educational Philosophy** Unit3: National values and role of education **Paper: EDCACOR02T /Core 02T: Educational Psychology** Unit 2: Psychology of human development and education **EDCACOR07T/Core 07T: Contemporary issues** Unit 1 Traditional issues Departmental: 1 / EDCPCORO1T Philosophical Foundations of Education Unit- 3: Western Schools of Philosophy Departmental: 2 / EDCPCORO2T Psychological Foundations of Education Unit-2: Growth & Development Departmental: 3 / EDCPCORO3T Methodology of Educational Research Unit-1: Basic Concept on Educational Research Departmental: 4 / EDCPCORO4T Statistics in Education Unit-1: Statistics in Educational Research
Week4 to week8	**Paper: SEC I/ EDCSSEC01M: Skill development for social awareness**	**Paper: EDCACOR01T / Core 01T: Educational Philosophy** Unit3: National values and role of education **Paper: EDCACOR02T /Core 02T: Educational Psychology** Unit 2: Personality **EDCACOR07T/Core 07T: Contemporary issues** Unit 2 Social issues Departmental: 1 / EDCPCORO1T Philosophical Foundations of Education Unit- 3: Western Schools of Philosophy Departmental: 2 / EDCPCORO2T Psychological Foundations of Education Unit-2: Growth & Development Departmental: 3 / EDCPCORO3T Methodology of Educational Research Unit-1: Research and Educational Research, Scientific Method Departmental: 4 / EDCPCORO4T Statistics in Education Unit-1: Hypothesis
Week8 to Week12	**Paper: EDCACOR07P/Core07P: Field Tour and Report Writing**	**Paper: EDCACOR01T / Core 01T: Educational Philosophy** Unit3: Values as enshrined in the Indian constitution **Paper: EDCACOR02T /Core 02T: Educational Psychology** Unit 2: Cognitive development **EDCACOR07T/Core 07T: Contemporary issues** Departmental: 1 / EDCPCORO1T Philosophical Foundations of Education Unit- 3: Naturalism & Realism, Pragmatism,. Unit- 4: Contributions of Educational Thinkers Departmental: 2 / EDCPCORO2T Psychological Foundations of Education Unit-2: Vygotsky & Erickson Departmental: 3 / EDCPCORO3T Methodology of Educational Research Unit-1: Qualitative, Quantitative ResearchDepartmental: 4 / EDCPCORO4T Statistics in Education Unit-1: Confidence Level & Significance Testing,
Week13	**Paper: SEC I/ EDCSSEC01M: Skill development for social awareness**	**Paper: EDCACOR01T / Core 01T: Educational Philosophy** Unit 3**:** Educational provisions in the Indian constitution **Paper: EDCACOR02T /Core 02T: Educational Psychology** Unit 2: Moral development EDCACOR07T/Core 07T: Contemporary issues Unit 3 Educational issues Departmental: 1 / EDCPCORO1T Philosophical Foundations of Education Unit- 3: Logical analysis, Positivism and Positive Relativism. Unit- 4: R.N. Tagore & M. K. GandhiDepartmental: 2 / EDCPCORO2T

		Psychological Foundations of Education Unit-2: Holistic Theory of development [Steiner]Departmental: 3 / EDCPCORO3T Methodology of Educational Research Unit-1: Fundamental, Applied & Action Research, Historical, Descriptive, Experimental, Departmental: 4 / EDCPCORO4T Statistics in Education Unit-1: Type-I and Type-II Errors, One tailed & Two Tailed Tests.
Week13toweek14		**InternalExam**
Week15 to 17	**Paper: EDCACOR07P/Core07P:** **Field Tour and Report Writing** **Paper: SEC I/ EDCSSEC01M:** **Skill development for social** **awareness**	**Paper: EDCACOR01T / Core 01T: Educational Philosophy** Unit4: Contributions of great educators on philosophy of education **Paper: EDCACOR02T /Core 02T: Educational Psychology** Unit 2: Psycho-social development **EDCACOR07T/Core 07T: Contemporary issues** Unit 3 Educational issues **Departmental: 1 / EDCPCORO1T Philosophical Foundations of Education** Unit- 3: Positive Relativism. Unit- 4: M. K. Gandhi**Departmental: 2 / EDCPCORO2T Psychological Foundations of Education** Unit-2: Holistic Theory of development [Steiner]**Departmental: 3 / EDCPCORO3T Methodology of Educational Research** Unit-1: Descriptive, Experimental **Departmental: 4 / EDCPCORO4T Statistics in Education** Unit-1: One tailed & Two Tailed Tests.
Week18	Revision,Practise	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, PG course

Department of Education

Session (July 2021-December 2021)

Name of the Teacher: Shikha Roy

Class: M.A
Semester:1,3   **Subject: Education**
Paper: EDCPCORO1T, EDCPCORO2T, EDCPCORO3T, EDCPCORO4T, EDCPCOR11T, EDCPCOR12T, EDCPCOR13T, DSE01T   **(Theory and Practical)**

S.No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week1 toweek4		Departmental: 1 / EDCPCORO1T Philosophical Foundations of Education Unit- 3: Western Schools of Philosophy Departmental: 2 / EDCPCORO2T Psychological Foundations of Education Unit-2: Growth & Development Departmental: 3 / EDCPCORO3T Methodology of Educational Research Unit-1: Basic Concept on Educational Research Departmental: 4 / EDCPCORO4T Statistics in Education Unit-1: Statistics in Educational Research

		Departmental-11 Educational Technology
		Unit-1: General Ideas on Educational Technology
		Departmental-12 Educational Management
		Unit-2: Leadership in Education
		Departmental-13 Value & Peace Education
		Unit - 1: General ideas on Value & Peace Education
		Departmental-14/DSE01T-Guidance & Counselling
		Unit-1: Guidance
Week4 to week8		Departmental: 1 / EDCPCORO1T Philosophical Foundations of Education Unit- 3: Western Schools of Philosophy
		Departmental: 2 / EDCPCORO2T Psychological Foundations of Education Unit-2: Growth & Development
		Departmental: 3 / EDCPCORO3T Methodology of Educational Research Unit-1: Research and Educational Research, Scientific Method Departmental: 4 / EDCPCORO4T Statistics in Education Unit-1: Hypothesis
		Unit-1: General Ideas on Educational Technology
		Departmental-12 Educational Management
		Unit-2: Leadership in Education
		Departmental-13 Value & Peace Education
		Unit - 1: General ideas on Value & Peace Education
		Departmental-14/DSE01T-Guidance & Counselling
		Unit-1: Guidance
Week8 to Week12		Departmental: 1 / EDCPCORO1T Philosophical Foundations of Education Unit- 3: Naturalism & Realism, Pragmatism,. Unit- 4: Contributions of Educational Thinkers Departmental: 2 / EDCPCORO2T Psychological Foundations of Education Unit-2: Vygotsky & Erickson
		Departmental: 3 / EDCPCORO3T Methodology of Educational Research Unit-1: Qualitative, Quantitative Research Departmental: 4 / EDCPCORO4T Statistics in Education Unit-1: Confidence Level & Significance Testing,
		Unit-1: General Ideas on Educational Technology
		Departmental-12 Educational Management
		Unit-2: Leadership in Education
		Departmental-13 Value & Peace Education
		Unit - 1: General ideas on Value & Peace Education
		Departmental-14/DSE01T-Guidance & Counselling
		Unit-1: Guidance

Week13		Departmental: 1 / EDCPCORO1T Philosophical Foundations of Education Unit- 3: Logical analysis, Positivism and Positive Relativism. Unit- 4: R.N. Tagore & M. K. Gandhi Departmental: 2 / EDCPCORO2T Psychological Foundations of Education Unit-2: Holistic Theory of development [Steiner]Departmental: 3 / EDCPCORO3T Methodology of Educational Research Unit-1: Fundamental, Applied & Action Research, Historical, Descriptive, Experimental, Departmental: 4 / EDCPCORO4T Statistics in Education Unit-1: Type-I and Type-II Errors, One tailed & Two Tailed Tests. Unit-1: General Ideas on Educational Technology Departmental-12 Educational Management Unit-2: Leadership in Education Departmental-13 Value & Peace Education Unit - 1: General ideas on Value & Peace Education Departmental-14/DSE01T-Guidance & Counselling Unit-1: Guidance
Week13toweek14		**InternalExam**
Week15 to 17		Departmental: 1 / EDCPCORO1T Philosophical Foundations of Education Unit- 3: Positive Relativism. Unit- 4: M. K. GandhiDepartmental: 2 / EDCPCORO2T Psychological Foundations of Education Unit-2: Holistic Theory of development [Steiner]Departmental: 3 / EDCPCORO3T Methodology of Educational Research Unit-1: Descriptive, Experimental Departmental: 4 / EDCPCORO4T Statistics in Education Unit-1: One tailed & Two Tailed Tests. Unit-1: General Ideas on Educational Technology Departmental-12 Educational Management Unit-2: Leadership in Education Departmental-13 Value & Peace Education Unit - 1: General ideas on Value & Peace Education Departmental-14/DSE01T-Guidance & Counselling Unit-1: Guidance
Week18	Revision,Practise	Revision

Teaching Plan for even Semester ,UG course

Department of Education

Session (January 2022-June 2022)

NameoftheTeacher: Shikha Roy

Class: B.A

Semester 2,4,6   Subject: Education

Paper: CC3, CC4, GE2, CC9, SECII   (TheoryandPractical)

S.No	Practical works to be covered (Papercodetobementioned)	Theorytopicstobecovered(Papercodetobe mentioned)
Week1 toweek4	**Paper: SEC II (EDCSSEC02M) Development of observational skills**	**Paper: EDCACOR03T / Core 03T: Educational Sociology**Unit 4: Social issues and education **Paper: EDCACOR04T / Core 04** Unit 3: Pedagogy of teaching – learning **Paper: DSC 1B (EDCGCOR01T) / GE 2(EDCHGE02T) Psychological Foundation of Education** Unit 2: Psychology of Human Development and Education **EDCACOR09T/Core 09T: Basics of Educational Research and Evaluation** Unit1: Preliminary concepts on research methodology
Week4 to week8	**Paper: SEC II (EDCSSEC02M) Development of observational skills**	**Paper: EDCACOR03T / Core 03T: Educational Sociology** Unit 4: Education for poverty eradication **Paper: EDCACOR04T / Core 04:** Unit 3: Teaching – learning of 3 R's **Paper :DSC 1B (EDCGCOR01T) / GE 2(EDCHGE02T) Psychological Foundation of Education** Unit 2:. Concept of Physical, development and its significance in Education **EDCACOR09T/Core 09T: Basics of Educational Research and Evaluation** unit 1: Research related terminologies
Week8 to Week12	**Paper: SEC II (EDCSSEC02M) Development of observational skills**	**Pape: EDCACOR03T / Core 03T: Educational Sociology** Unit 4: Child rights and abuses

		Paper: EDCACOR04T / Core 04 Unit 3: Teaching – learning of verbal conditioning **Paper: DSC 1B (EDCGCOR01T) / GE 2(EDCHGE02T) Psychological Foundation of Education** Unit 2: Moral development and its significance in Education **EDCACOR09T/Core 09T: Basics of Educational Research and Evaluation** Unit 2: Sampling and hypothesis
Week13	**Paper: SEC II (EDCSSEC02M) Development of observational skills**	**Paper: EDCACOR03T / Core 03T: Educational Sociology** Unit 4:. Child rights and abuses **Paper: EDCACOR04T / Core 04:** Unit 3:. Teaching – learning of psychomotor skill **paper:DSC 1B (EDCGCOR01T) / GE 2(EDCHGE02T) Psychological Foundation of Education** Unit 2: Moral development and its significance in Education **EDCACOR09T/Core 09T: Basics of Educational Research and Evaluation** **Unit 3: Evaluation and Measurement**
Week13 to week14		**Internal Exam**
Week15 to 17	**Paper: SEC II (EDCSSEC02M) Development of observational skills**	**Paper: EDCACOR03T / Core 03T: Educational Sociology** Unit 4: Child rights and abuses **Paper: EDCACOR04T / Core 04** Unit 3: Teaching – learning of psychomotor skill**paper: DSC 1B (EDCGCOR01T) / GE 2(EDCHGE02T) Psychological Foundation of Education** Unit 2: Cognitive, Moral development and its significance in Education **EDCACOR09T/Core 09T: Basics of Educational Research and Evaluation** **Unit 4: Standardization of a test**
Week18	Revision,Practise	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for even Semester, PG course

Department of Education

Session (January 2022-June 2022)

Name of the Teacher: Shikha Roy

Class: M.A
Semester: 2,4   **Subject: Education**
Paper: EDCPCORO6T, EDCPCORO7T, EDCPCORO8T, EDCPCORO10T, EDCPCOR15T, EDCPCOR16T, EDCPDSE02T

(Theory and Practical)

S. No	**Practical syllabus to be covered (Paper code to be mentioned)**	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Departmental-19 Practical (Review of Related Literature on a given topic) EDCPCOR17P	Departmental-6 Sociological Foundations of Education Unit – 4: Education and Social Problems Discriminatory issues Departmental-7 Pedagogical Studies Unit- 1:

	Departmental-20 & 21 Dissertation/Project EDCPCOR18P	Pedagogical Analysis Pedagogy – Meaning, Nature, & Importance. Departmental-8 Contemporary Issues and Trends in Education Unit-1: Education and Reservation Reservation - Concept, nature and needs. Departmental-10 Psychology of Learner & Learning Process Unit-3: Transfer of Learning Transfer of Learning - Concept, Nature & Educational Importance Departmental-16 Curriculum Studies Unit - 1: Concept of Curriculum Departmental-17 Education of Children with Diverse Needs Unit - 2: Types of Diverse Learners Departmental-18 DSE-Teacher Education Unit - 2: In-service Teacher Education
Week 4 to week 8	Departmental-19 Practical (Review of Related Literature on a given topic) EDCPCOR17P Departmental-20 & 21 Dissertation/Project EDCPCOR18P	Departmental-6 Sociological Foundations of Education Unit – 4: Education and Social Problems Drug Abuse & Drug Addiction Departmental-7 Pedagogical Studies Unit- 1: Pedagogical Analysis Pedagogy – Meaning, Nature, & Importance. Departmental-8 Contemporary Issues and Trends in Education Departmental-8 Contemporary Issues and Trends in Education Unit-1: Education and Reservation (ii) Reservation for SC/ST/OBC. Departmental-10 Psychology of Learner & Learning Process Unit-3: Transfer of Learning. Types of Transfer – Concept, types & Importance Departmental-16 Curriculum Studies Unit - 1: Concept of Curriculum Departmental-17 Education of Children with Diverse Needs Unit - 2: Types of Diverse Learners Departmental-18 DSE-Teacher Education

		Unit - 2: In-service Teacher Education
Week 8 to Week 12	Departmental-19 Practical (Review of Related Literature on a given topic) EDCPCOR17P Departmental-20 & 21 Dissertation/Pr oject EDCPCOR18P	Departmental-6 Sociological Foundations of Education Unit – 4: Education and Social Problems Terrsm. Departmental-7 Pedagogical Studies Unit- 1: Pedagogical Analysis Pedagogical Analysis - Concept & Stages. Departmental-8 Contemporary Issues and Trends in Education Unit-1: Education and Reservation Reservation for Women. Departmental-10 Psychology of Learner & Learning Process Unit-3: Transfer of Learning Theories of Transfer of Learning Departmental-16 Curriculum Studies Unit - 1: Concept of Curriculum Departmental-17 Education of Children with Diverse Needs Unit - 2: Types of Diverse Learners Departmental-18 DSE-Teacher Education Unit - 2: In-service Teacher Education
Week 13	Departmental-19 Practical (Review of Related Literature on a given topic) EDCPCOR17P Departmental-20 & 21 Dissertation/Pr oject EDCPCOR18P	Departmental-6 Sociological Foundations of Education Unit – 4: Education and Social Problems Terrsm. Departmental-7 Pedagogical Studies Unit- 1: Pedagogical Analysis Critical Pedagogy – Meaning, Needs and its Departmental-8 Contemporary Issues and Trends in Education
Week 8 to		

		Unit-1: Education and Reservation
		Reservation for Differently Abled /Impaired. Departmental-10 Psychology of Learner & Learning Process
		Unit-3: Transfer of Learning
		(iii)Theories of Transfer of Learning
		Departmental-16 Curriculum Studies
		Unit - 1: Concept of Curriculum
		Departmental-17 Education of Children with Diverse Needs
		Unit - 2: Types of Diverse Learners
		Departmental-18
		DSE-Teacher Education
		Unit - 2: In-service Teacher Education
Week13 to week 14		Internal Exam
Week 15 to 17	Departmental-19 Practical (Review of Related Literature on a given topic) EDCPCOR17P Departmental-20 & 21 Dissertation/Pr oject EDCPCOR18P	Departmental-6 Sociological Foundations of Education Unit – 4: Education and Social Problems Terrsm. Departmental-7 Pedagogical Studies Unit- 1: Pedagogical Analysis Departmental-16 Curriculum Studies Unit - 1: Concept of Curriculum Departmental-17 Education of Children with Diverse Needs Unit - 2: Types of Diverse Learners Departmental-18 DSE-Teacher Education Unit - 2: In-service Teacher Education Critical Pedagogy – Meaning, Needs and its Departmental-8 Contemporary Issues and Trends in Education Unit-1: Education and Reservation Reservation for Differently Abled /Impaired. Departmental-10 Psychology of Learner & Learning Process Unit-3: Transfer of Learning Methods for enhancing Transfer of Learning
Week 18	Revision, Practise	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2021-2022)

Class: B.Sc.
Semester 1, 3, 5   **Name of the Teacher: Prof. Narayan Chandra Basak**
Subject: Mathematics Core
Paper: MTMACOR01T**,** MTMACOR05T**,** MTMADSE03T **(Theory)**

S. No.		Theory syllabus to be covered
Week 1 to Week 4	Sem 1	MTMACOR01T: Reflection properties of conics, translation and rotation of axes and second degree equations,
	Sem 3	MTMACOR05T: Limits of functions (ε - δ approach),
	Sem 5	MTMADSE03T: Sample space, probability axioms, real random variables (discrete and continuous), cumulative distribution function, probability mass/density functions, mathematical expectation, moments, moment generating function, characteristic function, discrete distributions: uniform, binomial, Poisson, geometric, negative binomial, continuous distributions: uniform, normal, exponential
Week 5 to Week 8	Sem 1	MTMACOR01T: Classification of conics using the discriminant, polar equations of conics
	Sem 3	MTMACOR05T: sequential criterion for limits, divergence criteria
	Sem 5	MTMADSE03T: Joint cumulative distribution function and its properties, joint probability density functions, marginal and conditional distributions, expectation of function of two random variables, conditional expectations, independent random variables, bivariate normal distribution, correlation coefficient, joint moment generating function (jmgf) and calculation of covariance (from jmgf), linear regression for two variables.
Week 9 to Week 12	Sem 1	MTMACOR01T: Spheres. Cylindrical surfaces. Central conicoids, paraboloids, plane sections of conicoids
	Sem 3	MTMACOR05T: Limit theorems, one sided limits
	Sem 5	MTMADSE03T: Chebyshev's inequality, statement and interpretation of (weak) law of large numbers and strong law of large numbers. Central Limit theorem for independent and identically distributed random variables with finite variance, Markov Chains, Chapman-Kolmogorov equations, classification of states
Week 13 to 14		Internal examination
Week 15 to Week 17	Sem 1	MTMACOR01T: Revision of Generating lines, classification of quadrics, Illustrations of graphing standard quadric surfaces like cone, ellipsoid
	Sem 3	MTMACOR05T: : Infinite limits and limits at infinity
	Sem 5	MTMADSE03T: Random Samples, Sampling Distributions, Estimation of parameters, Testing of hypothesis
Week 18	Sem 1	MTMACOR01T: Revision and practice.
	Sem 3	MTMACOR05T: Revision and Practice.
	Sem 5	MTMADSE03T: Revision and Practice.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2021-2022)

Class: B.Sc.
Semester 2, 4, 6   **Name of the Teacher: Prof. Narayan Chandra Basak**
Subject: Mathematics Core
Paper: MTMACOR04T**,** MTMACOR08T, MTMADSE04T **(Theory)**

S. No.		Theory syllabus to be covered
Week 1 to Week 4	Sem 2	MTMACOR04T: Triple product, introduction to vector functions.
	Sem 4	MTMACOR08T: Fourier series: Definition of Fourier coefficients and series.
	Sem 6	MTMADSE04T: General properties of polynomials, Graphical representation of a polynomial, maximum and minimum values of a polynomials, General properties of equations, Descarte's rule of signs positive and negative rule, Relation between the roots and the coefficients of equations
Week 5 to Week 8	Sem 2	MTMACOR04T: Operations with vector-valued functions.
	Sem 4	MTMACOR08T: Reimann Lebesgue lemma, Bessel's inequality, Parseval's identity, Dirichlet's condition, Examples of Fourier expansions and summation results for series
	Sem 6	MTMADSE04T: Symmetric functions. Applications of symmetric function of the roots. Transformation of equations. Solutions of reciprocal and binomial equations. Algebraic solutions of the cubic (Cardan's method) and biquadratic (Ferrari's method). Properties of the derived functions
Week 9 to Week 12	Sem 2	MTMACOR04T: Limits and continuity of vector functions.
	Sem 4	MTMACOR08T: Power series, radius of convergence, Cauchy Hadamard Theorem.
	Sem 6	MTMADSE04T: Symmetric functions of the roots, Newton's theorem on the sums of powers of roots, homogeneous products, limits of the roots of equations
Week 13 to 14		Internal examination
Week 15 to Week 17	Sem 2	MTMACOR04T: Differentiation and integration of vector functions.
	Sem 4	MTMACOR08T: Differentiation and integration of power series; Abel's Theorem; Weierstrass Approximation Theorem
	Sem 6	MTMADSE04T: Separation of the roots of equations, Strums theorem. Applications of Strum's theorem, Conditions for reality of the roots of an equation. Solution of numerical equations
Week 18	Sem 2	MTMACOR04T: Revision and practice.
	Sem 4	MTMACOR08T: Revision and Practice.
	Sem 6	MTMADSE04T: Revision and Practice.

Class: B.Sc.
Semester 1, 3, 5   **Name of the Teacher: Dr. Syamali Bhadra**
Subject: Mathematics Core
Paper: MTMACOR01T**,** MTMACOR07T**,** MTMADSE01T, MTMSSEC01M **(Theory)**

S. No.		Theory syllabus to be covered
Week 1 to Week 4	Sem 1	MTMACOR01T: Reduction formulae, derivations and illustrations of reduction formulae for the integration of $\sin^n x$, $\cos^n x$, $\tan^n x$, $\sec^n x$, $(\log x)^n$, $\sin^n x \sin^m x$, parametric equations.
	Sem 3	MTMACOR07T: Algorithms, Convergence, Errors: Relative, Absolute. Round off, Truncation. Transcendental and Polynomial equations: Bisection method, Newton's method, Secant method, Regula-falsi method, fixed point iteration, Newton-Raphson method. Rate of convergence of these methods.
		MTMSSEC01M: Definition, Requirement of programming language, Machine language, high-level programming languages, machine code of a program: compilation process, Problem solving approaches: algorithm and flowchart.
	Sem 5	MTMACOR11T: Partial Differential Equations – Basic concepts and Definitions. Mathematical Problems. First- Order Equations: Classification, Construction and Geometrical Interpretation. Method of Characteristics for obtaining General Solution of Quasi Linear Equations. Canonical Forms of First-order Linear Equations. Method of Separation of Variables for solving first order partial differential equations
Week 5 to Week 8	Sem 1	MTMACOR01T: Parametrizing a curve, arc length, arc length of parametric curves, area of surface of revolution. Techniques of sketching conics.
	Sem 3	MTMACOR07T: System of linear algebraic equations: Gaussian Elimination and Gauss Jordan methods. Gauss Jacobi method, Gauss Seidel method and their convergence analysis, LU Decomposition. Interpolation: Lagrange and Newton's methods, Error bounds, Finite difference operators. Gregory forward and backward difference interpolations. Numerical differentiation: Methods based on interpolations, methods based on finite differences.
		MTMSSEC01M: Built in Data Types: int, float, double, char; Constants and Variables; first program: printf(), scanf(), compilation etc., keywords, Arithmetic operators: precedence and associativity, Assignment Statements: post & pre increment/decrement, logical operators: and, or, not. Relational operators, if-else statement, Iterative Statements: for loop, while loop and do-while loop; controlling loop execution: break and continue, nested loop
	Sem 5	MTMACOR11T: Central force. Constrained motion, varying mass, tangent and normal components of acceleration, modelling ballistics and planetary motion, Kepler's second law
Week 9 to Week 12	Sem 1	MTMACOR01T: Differential equations and mathematical models. General, particular, explicit, implicit and singular solutions of a differential equation.
	Sem 3	MTMACOR07T: Interpolation: Lagrange and Newton's methods, Error bounds, Finite difference operators. Gregory forward and backward difference interpolations.
		MTMSSEC01M: Definition & requirement, declaration & initialization, indexing, one dimensional array: finding maximum, minimum, simple sorting and searching. Matrix Manipulations (Addition, Multiplication, Transpose)

		Arrays and Pointers, Memory allocation and deallocation: malloc() and free() functions.
	Sem 5	MTMADSE01T: Duality, formulation of the dual problem, primal-dual relationships, economic interpretation of the dual. Transportation problem and its mathematical formulation, northwest-corner method, least cost method and Vogel approximation method for determination of starting basic solution, algorithm for solving transportation problem, assignment problem and its mathematical formulation, Hungarian method for solving assignment problem.
Week 13 to 14		Internal examination
Week 15 to Week 17	Sem 1	MTMACOR01T: Exact differential equations and integrating factors, separable equations and equations reducible to this form, linear equation and Bernoulli equations, special integrating factors and transformations.
	Sem 3	MTMACOR07T: Numerical differentiation: Methods based on interpolations, methods based on finite differences. The algebraic eigenvalue problem: Power method. Ordinary Differential Equations: The method of successive approximations, Euler's method, the modified Euler method, Runge-Kutta methods of orders two and four.
		MTMSSEC01M: Why?, How to declare, define and invoke a function, Variables' scope, local& global variables and function parameters, Pointers, arrays as function parameters, return statement, Header files and their role. Illustrate different examples like swapping values, compute n!, nCr, find max/min from a list of elements, sort a set of numbers, matrix addition/multiplication etc.
	Sem 5	MTMADSE01T: Game theory: Formulation of two person zero sum games, solving two person zero sum games, games with mixed strategies, graphical solution procedure, linear programming solution of games.
Week 18	Sem 1	MTMACOR01T: Revision and practice.
	Sem 3	MTMACOR07T: Revision and Practice.
		MTMSSEC01M: Revision and Practice.
	Sem 5	MTMADSE01T & MTMACOR11T: Revision and Practice.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2021-2022)

Class: B.Sc.
Semester 2, 4, 6   **Name of the Teacher: Dr. Syamali Bhadra**

Subject: Mathematics Core
Paper: MTMACOR04T**,** MTMACOR08T, MTMSSEC02M**,** MTMACOR09T ,
MTMADSE06T **(Theory)**

S. No.		Theory syllabus to be covered
Week 1 to Week 4	Sem 2	MTMACOR04T: Lipschitz condition and Picard's Theorem (Statement only). General solution of homogeneous equation of second order, principle of super position for homogeneous equation,
	Sem 4	MTMACOR08T: Improper integrals, Convergence of Beta and Gamma functions.
	Sem 6	MTMADSE06T: Co-planar forces. Astatic equilibrium. Friction. Equilibrium of a particle on a rough curve. Virtual work. Forces in three dimensions. General conditions of equilibrium. Centre of gravity for different bodies. Stable and unstable equilibrium
Week 5 to Week 8	Sem 2	MTMACOR04T: Wronskian: its properties and applications, Linear homogeneous and non-homogeneous equations of higher order with constant coefficients, Euler's equation, method of undetermined coefficients, method of variation of parameters
	Sem 4	MTMACOR09T: Definition of vector field, divergence and curl. Line integrals, Applications of line integrals: Mass and Work. Fundamental theorem for line integrals, conservative vector fields, independence of path,
	Sem 6	MTMADSE06T: Equations of motion referred to a set of rotating axes. Motion of a projectile in a resisting medium. Stability of nearly circular orbits. Motion under the inverse square law. Slightly disturbed orbits. Motion of artificial satellites. Motion of a particle in three dimensions. Motion on a smooth sphere, cone, and on any surface of revolution.
Week 9 to Week 12	Sem 2	MTMACOR04T: System of linear differential equations, types of linear systems, differential operators, an operator method for linear systems with constant coefficients.
	Sem 4	MTMACOR09T: Green's theorem, surface integrals, integrals over parametrically defined surfaces. Stoke's theorem, The Divergence theorem.
	Sem 6	MTMADSE06T: Degrees of freedom. Moments and products of inertia. Momental Ellipsoid. Principal axes. D'Alembert's Principle. Motion about a fixed axis. Compound pendulum.
Week 13 to 14		Internal examination
Week 15 to Week 17	Sem 2	MTMACOR04T: Basic Theory of linear systems in normal form, homogeneous linear systems with constant coefficients: Two Equations in two unknown functions.
	Sem 4	MTMSSEC02M**:** Introduction, propositions, truth table, negation, conjunction and disjunction. Implications, biconditional propositions, converse, contra positive and inverse propositions and precedence of logical operators. Propositional equivalence: Logical equivalences. Predicates and quantifiers:

		Introduction, Quantifiers, Binding variables and Negations. Sets, subsets, Set operations and the laws of set theory and Venn diagrams. Examples of finite and infinite sets. Finite sets and counting principle. Empty set, properties of empty set. Standard set operations. Classes of sets. Power set of a set. Difference and Symmetric difference of two sets. Set identities, Generalized union and intersections. Relation: Product set. Composition of relations, Types of relations, Partitions, Equivalence Relations with example of congruence modulo relation. Partial ordering relations, n- ary relations
	Sem 6	MTMADSE06T: Motion of a rigid body in two dimensions under finite and impulsive forces. Conservation of momentum and energy.
Week 18	Sem 2	MTMACOR04T: Revision and practice.
	Sem 4	MTMACOR08T, MTMACOR09T& **MTMSSEC02M** : Revision and Practice.
	Sem 6	MTMADSE06T: Revision and Practice.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2021-2022)

Class: B.Sc.
Semester 1, 3, 5   **Name of the Teacher: Utpal Mondal**
Subject: Mathematics Core and Mathematics General
Paper: MTMACOR02T, MTMGCOR01T, MTMACOR05T, MTMACOR06T,
MTMACOR12T **(Theory)**

S. No.		Theory syllabus to be covered
Week 1 to Week 4	Sem 1	MTMACOR02T: Polar representation of complex numbers, n-th roots of unity, De Moivre's theorem for rational indices and its applications. Theory of equations: Relation between roots and coefficients.
		MTMGCOR01T: Limit and Continuity (ε and δ definition), Types of discontinuities, Differentiability of functions.
	Sem 3	MTMACOR05T: Continuous functions, sequential criterion for continuity and discontinuity. Algebra of continuous functions. Continuous functions on an interval, intermediate value theorem, location of roots theorem, preservation of intervals theorem. Uniform continuity, non-uniform continuity criteria, uniform continuity theorem.
		MTMACOR06T: Properties of cyclic groups, classification of subgroups of cyclic groups.
	Sem 5	MTMACOR12T: Automorphism, inner automorphism, automorphism groups, automorphism groups of finite and infinite cyclic groups, applications of factor groups to automorphism groups, Characteristic subgroups, Commutator subgroup and its properties.
Week 5 to Week 8	Sem 1	MTMACOR02T: Theory of equations: Transformation of equation, Descartes rule of signs, Cubic (Cardan's method) and biquadratic equations (Ferrari's method). Inequality: The inequality involving AM$\geq$GM$\geq$HM, Cauchy-Schwartz inequality.
		MTMGCOR01T: Successive differentiation, Leibnitz's theorem, Partial differentiation, Euler's theorem on homogeneous functions.
	Sem 3	MTMACOR05T: Differentiability of a function at a point and in an interval, Caratheodory's theorem, algebra of differentiable functions. Relative extrema, interior extremum, theorem. Rolle's Theorem. Mean value theorem, intermediate value property of derivatives.
		MTMACOR06T: Cycle notation for permutations, properties of permutations, even and odd permutations, alternating group, properties of cosets, Lagrange's theorem and consequences including Fermat's Little theorem.
	Sem 5	MTMACOR12T: Properties of external direct products, the group of units modulo n as an external direct product, internal direct products, Fundamental Theorem of finite abelian groups.
Week 9 to Week 12	Sem 1	MTMACOR02T: Equivalence relations and partitions, Functions, Composition of functions, Invertible functions.
		MTMGCOR01T: Rolle's theorem, Mean Value theorems, Taylor's theorem with Lagrange's and Cauchy's forms of remainder.

	Sem 3	MTMACOR05T: Darboux's theorem. Applications of mean value theorem to inequalities and approximation of polynomials, Cauchy's mean value theorem. Taylor's theorem with Lagrange's form of remainder, Taylor's theorem with Cauchy's form of remainder, application of Taylor's theorem to convex functions, relative extrema.
		MTMACOR06T: External direct product of a finite number of groups, normal subgroups, factor groups, Cauchy's theorem for finite abelian groups.
	Sem 5	MTMACOR12T: Group actions, stabilizers and kernels, permutation representation associated with a given group action. Applications of group actions. Generalized Cayley's theorem. Index theorem..
Week 13 to 14		Internal examination
Week 15 to Week 17	Sem 1	MTMACOR02T: One to one correspondence and cardinality of a set.
		MTMGCOR01T: Taylor's series, Maclaurin's series of $sin\, x$, cos x, e^x, $log(l+x), (1+x)^n$.
	Sem 3	MTMACOR05T: Taylor's series and Maclaurin's series expansions of exponential and trigonometric functions, ln(1 + x), 1/ax+b and $(1+x)^n$. Application of Taylor's theorem to inequalities.
		MTMACOR06T: Group homomorphisms, properties of homomorphisms, Cayley's theorem, properties of isomorphisms, First, Second and Third isomorphism theorems.
	Sem 5	MTMACOR12T: Groups acting on themselves by conjugation, class equation and consequences, conjugacy in S_n, p-groups, Sylow's theorems and consequences, Cauchy's theorem, Simplicity of A_n, for n $\geq$ 5, non-simplicity tests.
Week 18	Sem 1	MTMACOR02T: Revision and practice.
		MTMGCOR01T: Revision and practice.
	Sem 3	MTMACOR05T: Revision and Practice.
		MTMACOR06T: Revision and Practice.
	Sem 5	MTMACOR12T: Revision and Practice.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2021-2022)
Class: B.Sc.
Semester 2, 4, 6　　　　　　　　**Name of the Teacher: Utpal Mondal**
Subject: Mathematics Core and Mathematics General
Paper: MTMACOR03T**,** MTMACOR08T, MTMACOR10T. MTMACOR13T,
MTMACOR14T**(Theory)**

S. No.		Theory syllabus to be covered
Week 1 to Week 4	Sem 2	MTMACOR03T: Review of Algebraic and Order Properties of $\mathbb{R}$, ε-neighbourhood of a point in $\mathbb{R}$. Idea of countable sets, uncountable sets and uncountability of $\mathbb{R}$. Bounded above sets, Bounded below sets, Bounded Sets, Unbounded sets. Suprema and Infima. Completeness Property of $\mathbb{R}$ and its equivalent properties.
		MTMGCOR02TLinear homogenous equations with constant coefficients, Linear non-homogenous equations.
	Sem 4	MTMACOR08T:Riemann integration: inequalities of upper and lower sums, Darbaux integration, Darbaux theorem, Riemann conditions of integrability, Riemann sum and definition of Riemann integral through Riemann sums, equivalence of two Definitions.
		MTMACOR10T: Definition and examples of rings, properties of rings, subrings, integral domains and fields, characteristic of a ring. Ideal, ideal generated by a subset of a ring, factor rings, operations on ideals, prime and maximal ideals
	Sem 6	MTMACOR13T: Continuous mappings, sequential criterion and other characterizations of continuity, Uniform continuity.
		MTMACOR14T:Polynomial rings over commutative rings, division algorithm and consequences, principal ideal domains, factorization of polynomials, reducibility tests, irreducibility tests, Eisenstein criterion, and unique factorization in Z [x]. Divisibility in integral domains, irreducible, primes, unique factorization domains, Euclidean domains.
Week 5 to Week 8	Sem 2	MTMACOR03T: The Archimedean Property, Density of Rational (and Irrational) numbers in $\mathbb{R}$, Intervals. Limit points of a set, Isolated points, Open set, closed set, derived set, Illustrations of Bolzano-Weierstrass theorem for sets, compact sets in $\mathbb{R}$, Heine-Borel Theorem.
		MTMGCOR02T: The method of variation of parameters, The Cauchy-Euler equation, Simultaneous differential equations, Total differential equations
	Sem 4	MTMACOR08T:Riemann integrability of monotone and continuous functions, Properties of the Riemann integral; definition and integrability of piecewise continuous and monotone functions.
		MTMACOR10T: Ring homomorphisms, properties of ring homomorphisms. Isomorphism theorems I, II and III, field of quotients
	Sem 6	MTMACOR13T:Connectedness,connected subsets of R. Compactness: Sequential compactness, Heine-Borel property.
		MTMACOR14T:Dual spaces, dual basis, double dual, transpose of a linear transformation and its matrix in the dual basis, annihilators. Eigen spaces of a linear operator, diagonalizability, invariant subspaces and Cayley-Hamilton theorem, the minimal polynomial for a linear operator, canonical forms.
	Sem 2	MTMACOR03T: Sequences, Bounded sequence, Convergent sequence, Limit of a sequence, liminf, lim sup. Limit Theorems. Monotone Sequences,

Week 9 to Week 12		Monotone Convergence Theorem. Subsequences, Divergence Criteria. Monotone Subsequence Theorem (statement only).
		MTMGCOR02T: Order and degree of partial differential equations, Concept of linear and non-linear partial differential equations, Formation of first order partial differential equations.
	Sem 4	MTMACOR08T: Intermediate Value theorem for Integrals, Fundamental theorem of Integral Calculus.
		TMACOR10T: Vector spaces, subspaces, algebra of subspaces, quotient spaces, linear combination of vectors, linear span, linear independence, basis and dimension, dimension of subspaces.
	Sem 6	MTMACOR13T: Totally bounded spaces, finite intersection property, and continuous functions on compact sets.
		MTMACOR14T:Inner product spaces and norms, Gram-Schmidt orthogonalisation process, orthogonal complements, Bessel's inequality, the adjoint of a linear operator, Least Squares Approximation, minimal solutions to systems of linear equations
Week 13 to 14		Internal examination
Week 15 to Week 17	Sem 2	MTMACOR03T: Bolzano Weierstrass Theorem for Sequences. Cauchy sequence, Cauchy's Convergence Criterion.
		MTMGCOR02T: Lagrange's method, Charpit's method. Classification of second order partial differential equations into elliptic, parabolic and hyperbolic through illustrations only
	Sem 4	MTMACOR10T: Introduction to linear transformations, Subspaces, dimension of subspaces, null space, range, rank and nullity of a linear transformation, matrix representation of a linear transformation, algebra of linear transformations. Isomorphisms. Isomorphism theorems, invertibility and isomorphisms, change of coordinate matrix.
	Sem 6	MTMACOR13T: Homeomorphism, Contraction mappings, Banach Fixed point Theorem and its application to ordinary differential equation.
		MTMACOR14T: Normal and self-adjoint operators, Orthogonal projections and Spectral theorem
Week 18	Sem 2	MTMACOR03T: Revision and practice.
		MTMGCOR02T: Revision and practice.
	Sem 4	MTMACOR08T& MTMACOR10T: Revision and Practice.
	Sem 6	MTMACOR13T& MTMACOR14T: Revision and Practice.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2021-2022)

Class: B.Sc.
Semester 1, 3, 5   **Name of the Teacher: Dr. Shib Sankar Giri**
Subject: Mathematics Core and Mathematics General
Paper: MTMACOR01T**,** MTMACOR02T, MTMGCOR01T, MTMACOR06T**,**
MTMACOR11T, MTMADSE01T **(Theory)**

S. No.		Theory syllabus to be covered
Week 1 to Week 4	Sem 1	MTMACOR01T: Hyperbolic functions, higher order derivatives, Leibnitz rule and its applications to problems of type $e^{ax+b}\sin x$, $e^{ax+b}\cos x$ $(ax+b)^n \sin x$, $(ax+b)^n \cos x$, concavity and inflection points, envelopes, asymptotes, curve tracing in Cartesian coordinates, tracing in polar coordinates of standard curves, L'Hospital's rule, applications in business, economics and life sciences
		MTMGCOR01T: Tangents and Normals, Curvature,
	Sem 3	MTMACOR06T: Group
	Sem 5	MTMACOR11T: Derivation of Heat equation, Wave equation and Laplace equation. Classification of second order linear equations as hyperbolic, parabolic or elliptic.
		MTMADSE01T: Introduction to linear programming problem
Week 5 to Week 8	Sem 1	MTMACOR02T: Well-ordering property of positive integers, Division algorithm, Divisibility and Euclidean algorithm. Congruence relation between integers. Principles of Mathematical Induction, statement of Fundamental Theorem of Arithmetic
		MTMGCOR01T: Asymptotes, Singular points, Tracing of curves
	Sem 3	MTMACOR06T: Elementary properties of groups
	Sem 5	MTMACOR11T: Reduction of second order Linear Equations to canonical forms. The Cauchy problem, Cauchy-Kowalewskaya theorem, Cauchy problem of an infinite string, Initial Boundary Value Problems
		MTMADSE01T: Theory of simplex method, graphical solution, convex sets,
Week 9 to Week 12	Sem 1	MTMACOR02T: Eigen values, Eigen Vectors and Characteristic Equation of a matrix.
		MTMGCOR01T: Parametric representation of curves and tracing of parametric curves, Polar coordinates and tracing of curves in polar coordinates
	Sem 3	MTMACOR06T: Subgroups and examples of subgroups, centralizer,
	Sem 5	MTMACOR11T: Semi-Infinite String with a fixed end, Semi-Infinite String with a Free end. Equations with non-homogeneous boundary conditions.
		MTMADSE01T: optimality and unboundedness, the simplex algorithm, simplex method in tableau format, introduction to artificial variables.
Week 13 to 14		Internal examination
Week 15 to Week 17	Sem 1	MTMACOR02T: Cayley-Hamilton theorem and its use in finding the inverse of a matrix
		MTMGCOR01T: Maxima and Minima, Indeterminate forms
	Sem 3	MTMACOR06T: Normalizer, center of a group, product of two subgroups
	Sem 5	MTMACOR11T: Non-Homogeneous Wave Equation. Method of separation of variables, Solving the Vibrating String Problem. Solving the Heat Conduction problem.
		MTMADSE01T: Two-phase method Big-M method and their comparison

Week 18	Sem 1	MTMACOR01T and MTMACOR02T: Revision and practice.
		MTMGCOR01T: Revision and practice.
	Sem 3	MTMACOR06T: Revision and Practice.
	Sem 5	MTMACOR11T: Revision and Practice.
		MTMADSE01T: Revision and Practice.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2021-2022)

Class: B.Sc.
Semester 3   **Name of the Teacher: Dr. Shib Sankar Giri**
Subject: Mathematics Core
Paper: MTMACOR07P (Practical)

S. No.		Practical syllabus to be covered
Week 1 to 4	Sem 3	MTMACOR07P: Calculate the sum 1/1 + 1/2 + 1/3 + 1/4 + …. + 1/ N. Enter 100 integers into an array and sort them in an ascending order. Solution of transcendental and algebraic equations by a. Bisection method b. Newton Raphson method. c. Secant method. d. Regula Falsi method.
Week 5 to 8	Sem 3	MTMACOR07P: Solution of system of linear equations a. LU decomposition method b. Gaussian elimination method c. Gauss-Jacobi method d. Gauss-Seidel method. Interpolation a. Lagrange Interpolation b. Newton Interpolation
Week 9 to 12	Sem 3	MTMACOR07P: Numerical Integration a. Trapezoidal Rule b. Simpson's one third rule c. Weddle's Rule d. Gauss Quadrature, Method of finding Eigenvalue by Power method, Fitting a Polynomial Function
Week 13 to 14		Internal examination
Week 15 to Week 17	Sem 3	MTMACOR07P: Solution of ordinary differential equations a. Euler method b. Modified Euler method c. Runge Kutta method
Week 18	Sem 3	MTMACOR07P: Revision and Practice.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2021-2022)

Class: B.Sc.
Semester 2, 4, 6   **Name of the Teacher: Dr. Shib Sankar Giri**
Subject: Mathematics Core and Mathematics General
Paper: MTMACOR04T**,** MTMACOR08T, MTMADSE04T **(Theory)**

S. No.		Theory syllabus to be covered
Week 1 to Week 4	Sem 2	MTMACOR04T: Equilibrium points, Interpretation of the phase plane,
		MTMGCOR02T: First order exact differential equations. Integrating factors, rules to find an integrating factor.
	Sem 4	MTMACOR08T: Pointwise and uniform convergence of sequence of functions. Theorems on continuity, derivability and integrability of the limit function of a sequence of functions. Series of functions, Theorems on the continuity and derivability of the sum function of a series of functions; Cauchy criterion for uniform convergence and Weierstrass M-Test.
	Sem 6	MTMACOR13T: Metric spaces: Definition and examples. Open and closed balls, neighbourhood, open set, interior of a set. Limit point of a set, closed set, diameter of a set, subspaces, dense sets, separable spaces. Sequences in Metric Spaces, Cauchy sequences. Complete Metric Spaces, Cantor's theorem.
Week 5 to Week 8	Sem 2	MTMACOR04T: Power series solution of a differential equation about an ordinary point, solution about a regular singular point
		MTMGCOR02T: First order higher degree equations solvable for x, y, p.
	Sem 4	MTMACOR09T: : Functions of several variables, limit and continuity of functions of two or more variables Partial differentiation, total differentiability and differentiability, sufficient condition for differentiability. Chain rule for one and two independent parameters, directional derivatives, the gradient, maximal and normal property of gradient, tangent planes, Extrema of functions of two variables, method of Lagrange multipliers, constrained optimization problems.
	Sem 6	MTMACOR13T: Limits, Limits involving the point at infinity, continuity. Properties of complex numbers, regions in the complex plane, functions of complex variable, mappings. Derivatives, differentiation formulas, Cauchy-Riemann equations, sufficient conditions for differentiability.
Week 9 to Week 12	Sem 2	MTMACOR03T: Infinite series, convergence and divergence of infinite series, Cauchy Criterion, Tests for convergence: Comparison test, Limit Comparison test, Ratio Test, Cauchy's nth root test,
		MTMGCOR02T: Methods for solving higher-order differential equations.
	Sem 4	MTMACOR09T: Double integration over rectangular region, double integration over non-rectangular region, Double integrals in polar co-ordinates, Triple integrals, Triple integral over a parallelepiped and solid regions. Volume by triple integrals, cylindrical and spherical coordinates.
	Sem 6	MTMACOR13T: Analytic functions, examples of analytic functions, exponential function, Logarithmic function, trigonometric function, derivatives of functions, and definite integrals of functions. Contours, Contour integrals and its examples, upper bounds for moduli of contour integrals. Cauchy- Goursat theorem, Cauchy integral formula
Week 13 to 14		Internal examination
	Sem 2	MTMACOR03T: Integral test. Alternating series, Leibniz test. Absolute and Conditional convergence.

Week 15 to Week 17		MTMGCOR02T: Basic theory of linear differential equations, Wronskian, and its properties. Solving a differential equation by reducing its order.
	Sem 4	MTMACOR09T: Change of variables in double integrals and triple integrals.
	Sem 6	MTMACOR13T: Liouville's theorem and the fundamental theorem of algebra. Convergence of sequences and series, Taylor series and its examples, Laurent series and its examples, absolute and uniform convergence of power series.
Week 18	Sem 2	MTMACOR04T: Revision and practice.
		MTMGCOR02T: Revision and practice.
	Sem 4	MTMACOR08T: Revision and Practice.
		MTMACOR09T: Revision and Practice.
	Sem 6	MTMACOR13T: Revision and Practice.

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALTLAKE, KOLKATA

Teaching Plan for Odd Semester, UG course, Department of BOTANY, Session (2021 - 2022)

Class: B.Sc (Honours) & B.Sc (General)　　　　　**Semester I, III & V**
Name of the Teacher: BENUDHAR MANDAL　　　　**Subject: Botany**

Paper: Core Course I. Phycology and Microbiology , Course Code: BOTACOR01T & BOTACOR01P, . Economic Botany(BOTACOR06T,) , Industrial and Environmental Microbiology, Course Code: (BOTADSE03T, BOTADSE03P)
Generic Electives Course (GE): Biodiversity(Microbes Algae, Fungi and Archegoniate) (BOTHGEC01T) and (BOTHGEC01P)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course I. Phycology and Microbiology , Course Code: BOTACOR01P. Microbiology Topic 1, Continuous assessment of Topic 1 Core Course-, Industrial and Environmental Microbiology, Course Code: , BOTADSE03P Topic 1, Continuous assessment Generic Electives Course (GE): Biodiversity(Microbes Algae, Fungi and Archegoniate) (BOTHGEC01P) Topic 1,6,7, Topic, Continuous assessment	Core Course I. Microbiology , Course Code: BOTACOR01T Unit 1, Class Test Core Course Economic Botany(BOTACOR06T,) Unit 1 Core Course- Ethnobotany(BOTSSECO2M) Unit 1, Class Test Unit 1. Core Course-, Industrial and Environmental Microbiology, Course Code: BOTADSE03T, Topic 1, Continuous assessment Generic Electives Course (GE): Biodiversity(Microbes Algae, Fungi and Archegoniate) (BOTHGEC01T) Unit 1,Unit 2,
Week 5 to Week 8	Core Course I. Phycology and Microbiology , Course Code: BOTACOR01P. Microbiology Topic 2,3, Continuous assessment of topic 2,3 Core Course-, Industrial and Environmental Microbiology, Course Code: , BOTADSE03P Topic 1, Continuous assessment Core Course XII: Plant Physiology (BOTACOR12P) Topic 1, Continuous assessment Generic Electives Course (GE): Biodiversity(Microbes Algae, Fungi and Archegoniate) (BOTHGEC01P) Topic 8,9, Continuous assessment of topic 8,	Core Course I. Microbiology , Course Code: BOTACOR01T Unit 2, Class Test Core Course Economic Botany(BOTACOR06T,) Unit 1 Class test Core Course- Ethnobotany(BOTSSECO2M) Unit 2Class test Unit 2 Core Course-, Industrial and Environmental Microbiology, Course Code: BOTADSE03T, Topic 2,3, Class test Generic Electives Course (GE): Biodiversity(Microbes Algae, Fungi and Archegoniate) (BOTHGEC01T) Unit 1, Unit 2, Class test Unit 1 and Unit 2
Week 9 to Week 12	Core Course I. Phycology and Microbiology , Course Code: BOTACOR01P. Microbiology Topic 3,4 Continuous assessment Core Course-, Industrial and Environmental Microbiology, Course Code: , BOTADSE03P Topic 2, Continuous assessment Core Course XII: Plant Physiology (BOTACOR12P) Topic 1 (Demonstration), Continuous assessment Generic Electives Course (GE Biodiversity(Microbes Algae Fungi and Archegoniate) (BOTHGEC01P) Topic 14,Continuous assessment Topic 9	Core Course I. Microbiology , Course Code: BOTACOR01T Unit 3, Class Test Core Course Economic Botany(BOTACOR06T,) Unit 1 Class test Core Course- Ethnobotany(BOTSSECO2M) Unit 3 Class testUnit 3 Core Course-, Industrial and Environmental Microbiology, Course Code: BOTADSE03T, Topic 2,3, Class test Generic Electives Course (GE): Biodiversity(Microbes Algae, Fungi and Archegoniate) (BOTHGEC01T) Unit 4, Unit 5, Class test Unit 4 andUnit 5,

Week 13	Core Course I. Phycology and Microbiology , Course Code: BOTACOR01P. Microbiology Topic 2,3, Continuous assessment of topic 2,3 Core Course-, Industrial and Environmental Microbiology, Course Code: , BOTADSE03P Topic 1, Continuous assessment Core Course XII: Plant Physiology (BOTACOR12P) Topic 1, Continuous assessment Generic Electives Course (GE): Biodiversity(Microbes Algae, Fungi and Archegoniate) (BOTHGEC01P) Topic 8,9, Continuous assessment of topic 8,9	Core Course I. Microbiology , Course Code: BOTACOR01T Unit 2, Class Test Core Course Economic Botany(BOTACOR06T,) Unit 1 Class test Core Course- Ethnobotany(BOTSSECO2M) Unit 4Class test Unit 4 Core Course-, Industrial and Environmental Microbiology, Course Code: BOTADSE03T, Topic 2,3, Class test Generic Electives Course (GE): Biodiversity(Microbes Algae, Fungi and Archegoniate) (BOTHGEC01T) Unit 4, Unit 5, Class test Unit 4 and Unit 5,
Week 14	**Internal Examination**	
Week 15 to week 17	Core Course I. Phycology and Microbiology , Course Code: BOTACOR01P. Microbiology Topic 3,4 Continuous assessment Core Course-, Industrial and Environmental Microbiology, Course Code: , BOTADSE03P Topic 2, Continuous assessment Core Course XII: Plant Physiology (BOTACOR12P) Topic 1 (Demonstration), Continuous assessment Generic Electives Course (GE Biodiversity(Microbes Algae, Fungi and Archegoniate) (BOTHGEC01P) Topic 14,Continuous assessment Topic 14	Core Course I. Microbiology , Course Code: BOTACOR01T Unit 3, Class Test Core Course Economic Botany(BOTACOR06T,) Unit 1 Class test Core Course- Ethnobotany(BOTSSECO2M) Revised Unit 3 Class test Unit 3 Core Course-, Industrial and Environmental Microbiology, Course Code: BOTADSE03T, Topic 2,3, Class test Generic Electives Course (GE): Biodiversity(Microbes Algae, Fungi and Archegoniate) (BOTHGEC01T) Unit 7 , Class test Unit 7,
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALTLAKE, KOLKATA

Teaching Plan for EVEN Semester, UG course, Department of BOTANY, Session (2021 - 2022)

Class: B.Sc (Honours) & B.Sc (General)   **Semester II, IV & VI**
Name of the Teacher: BENUDHAR MANDAL   **Subject: Botany**

Paper: Core Course I. Mycology and Plant Pathology , Course Code: BOTACOR03T & BOTACOR03P.
Ethnobotany(BOTSSECO2M)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course I. Mycology and Plant Pathology , Course Code: BOTACOR03P.Topic 1, Continuous assessment of Topic 6	Core Course I Mycology and Plant Pathology , Course Code: BOTACOR03T. Unit 5,Class Test Ethnobotany(BOTSSECO2M)Unit 1 Class test of Unit 1
Week 5 to Week 8	Core Course I Mycology and Plant Pathology , Course Code: BOTACOR03P.Topic 7, Continuous assessment of topic 2,3	Core Course I. Mycology and Plant Pathology , Course Code: BOTACOR03T.Unit 6, Class Test Ethnobotany(BOTSSECO2M) Unit 2 Class test of Unit 2
Week 9 to Week 12	Core Course I Mycology and Plant Pathology , Course Code: BOTACOR03P.Topic 8 Continuous assessment	Core Course I. Mycology and Plant Pathology , Course Code: BOTACOR03T. Unit 7, Class Test

		Ethnobotany(BOTSSECO2M) Unit 2Class test of Unit 2
Week 13	Core Course I. Mycology and Plant Pathology , Course Code: BOTACOR03P.Topic 09, Continuous assessment of topic 9	Core Course I. Mycology and Plant Pathology , Course Code: BOTACOR03T. Unit 28 Class Test Ethnobotany(BOTSSECO2M) Unit 3 Class test of Unit 3
Week 14		**Internal Examination**
Week 15 to week 17	Core Course I. Mycology and Plant Pathology , Course Code: BOTACOR03P.Topic 10 ,11Continuous assessment	Core Course I Mycology and Plant Pathology , Course Code: BOTACOR03T.Unit 39 Class Test Ethnobotany(BOTSSECO2M) Unit 3 Class test of Unit 3
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

Teaching Plan for Odd Semester, UG course, Department of BOTANY, Session (2021 - 2022)

Class: B. Sc (Honours)   **Semester I & V**

Name of the Teacher: Dr. Bharati Mukhopadhyay   **Subject: Botany**

Paper: Core Course I: Phycology and Microbiology. BOTACOR01T and BOTACOR01P,
Core Course XII: Plant Physiology, Course Code: BOTACOR12T & BOTACOR12P,

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course I: Phycology and Microbiology (BOTACOR01P), Topic 1, Continuous assessment Core Course XII: Plant Physiology (BOTACOR12P) Topic 7, Continuous assessment	Core Course I: Phycology and Microbiology (BOTACOR01T) unit 4 Core Course XII: Plant Physiology (BOTACOR12T) Unit 2, Class Test
Week 5 to Week 8	Core Course I: Phycology and Microbiology (BOTACOR01P), Topic 1, Continuous assessment Core Course XII: Plant Physiology (BOTACOR12P) Topic 8, Continuous assessment	Core Course I: Phycology and Microbiology (BOTACOR01T) unit 5 Core Course XII: Plant Physiology (BOTACOR12T) Unit 3, Class Test
Week 9 to Week 12	Core Course I: Phycology and Microbiology (BOTACOR01P), Topic 2, Continuous assessment Core Course XII: Plant Physiology (BOTACOR12P) Topic 1 Demonstration, Continuous assessment	Core Course I: Phycology and Microbiology (BOTACOR01T) unit 6 Core Course XII: Plant Physiology (BOTACOR12T) Unit 5, Class Test

Week 13	Core Course I: Phycology and Microbiology (BOTACOR01P), Topic 2, Continuous assessment Core Course XII: Plant Physiology (BOTACOR12P) Topic 2, Continuous assessment	Core Course I: Phycology and Microbiology (BOTACOR01T) unit 7 Core Course XII: Plant Physiology (BOTACOR12T) Unit 5, Class Test
Week 14	**Internal Examination**	
Week 15 to week 17	Core Course I: Phycology and Microbiology (BOTACOR01P), Practical Mock Test, Continuous assessment Core Course XII: Plant Physiology (BOTACOR12T) Revision, Practice	Core Course I: Phycology and Microbiology (BOTACOR01T) Revision, Tutorials Core Course XII: Plant Physiology (BOTACOR12T) Revision, Tutorials
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALTLAKE, KOLKATA

Teaching Plan for Even Semester, UG course, Department of BOTANY, Session (2021 - 2022)

Class: B. Sc (Honours)   **Semester VI**

Class: B. Sc (General)   **Semester IV G**

Name of the Teacher: Dr. Bharati Mukhopadhyay   **Subject: Botany**

Paper: Core Course XIII: Plant Metabolism
Course Code: BOTACOR13T and BOTACOR13P,

Discipline Specific Elective Analytical Techniques in Plant Sciences
Course Code: BOTADSE04T and BOTADSE04P

Paper : IVG Plant Physiology and Metabolism
Course Code: BOTHGEC04T and BOTHGEC04P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course XIII: Plant Metabolism Course Code: BOTACOR13P Topic 3, Continuous assessment Analytical Techniques BOTADSE04P Topic 7, Continuous assessment Plant Physiology and Metabolism Course Code: BOTHGEC04P Topic 1, Topic 2, Continuous assessment	Core Course XIII: Plant Metabolism Course Code: BOTACOR13T Unit 2, Class Test Analytical Techniques BOTADSE04T Unit 1, Class Test Plant Physiology and Metabolism Course Code: BOTHGEC04T Unit 1: Plant-water relations, Unit 2: Mineral nutrition, Class Test
Week 5 to Week 8	Core Course XIII: Plant Metabolism Course Code: BOTACOR13P Topic 4, Continuous assessment Analytical Techniques BOTADSE04P Topic 8, Continuous assessment Plant Physiology and Metabolism Course Code: BOTHGEC04P Topic 3, Continuous assessment Topic 1- demonstration	Core Course XIII: Plant Metabolism Course Code: BOTACOR13T Unit 2, Class Test Analytical Techniques BOTADSE04T Unit 1, Class Test Plant Physiology and Metabolism Course Code: BOTHGEC04T Unit 3: Translocation in phloem, Unit 4: Photosynthesis, Class Test

Week 9 to Week 12	Core Course XIII: Plant Metabolism Course Code: BOTACOR13P Topic 5, Continuous assessment Analytical Techniques BOTADSE04P Demonstration, Continuous assessment Plant Physiology and Metabolism Course Code: BOTHGEC04P Topic 2- demonstration Continuous assessment	Core Course XIII: Plant Metabolism Course Code: BOTACOR13T Unit 3, Class Test Analytical Techniques BOTADSE04T Unit 1, Revision, Class Test Plant Physiology and Metabolism Course Code: BOTHGEC04T Unit 5: Respiration, Class Test

Week 13	Core Course XIII: Plant Metabolism Course Code: BOTACOR13P Practical Mock Test, Continuous assessment Analytical Techniques BOTADSE04P Demonstration, Practical Mock Test, Continuous assessment Plant Physiology and Metabolism Course Code: BOTHGEC04P Practical Mock Test, Continuous assessment	Core Course XIII: Plant Metabolism Course Code: BOTACOR13T Unit 7, Class Test Analytical Techniques BOTADSE04T Class Test, Tutorials, Plant Physiology and Metabolism Course Code: BOTHGEC04T Class Tests, Tutorials
Week 14	**Internal Examination**	
Week 15 to week 17	Core Course XIII: Plant Metabolism Course Code: BOTACOR13P Practical Mock Test, Continuous assessment Analytical Techniques BOTADSE04P Demonstration, Practical Mock Test, Continuous assessment Plant Physiology and Metabolism Course Code: BOTHGEC04P Practical Mock Test, Continuous assessment	Core Course XIII: Plant Metabolism Course Code: BOTACOR13T Class Tests, Tutorials Analytical Techniques BOTADSE04T Class Test, Tutorials, Plant Physiology and Metabolism Course Code: BOTHGEC04T Class Tests, Tutorials
Week18	Revision, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, UG course, Department of Botany, Session(2021-2022)

Class: B.Sc. (Honours and General) Semester I, III, V
Name of the Teacher: DR. KAJARI LAHIRI. Subject: Botany

Paper: Core Course II (BOTACOR02T, BOTACOR02P), Core Course XII (BOTACOR12T, BOTACOR12P), Generic Elective-(BOTHGEC03T, BOTHGEC03P) - Plant Anatomy and Embryology

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**Core Course II: BOTACOR02P - Biomolecules and Cell Biology** Topic 2, Continuous assessment **Core Course XII BOTACOR12P(Plant Physiology)** Topic 4, Continuous assessment	**Core Course II: BOTACOR02T(Biomolecules and Cell Biology)** Unit 1 (Biomolecules), Class Test **Generic Elective: BOTHGEC03T (Plant anatomy and Embryology)** Embryology- Unit 5: Structural organization of flower, Class Test **Core Course XII BOTACOR12T(Plant Physiology)** Unit 3 (Nutrient Uptake), Class test
Week 5 to week 8	**Core Course II: BOTACOR02P (Biomolecules and Cell Biology)** Topic 3, Continuous assessment **Core Course XII: BOTACOR12P(Plant Physiology)** Topic 5, Continuous assessment	**Core Course II: BOTACOR02T (Biomolecules and Cell Biology)** Unit 1(Biomolecules), Class Test **Generic Elective: BOTHGEC03T (Plant anatomy and Embryology)** Embryology -Unit 6: Pollination and fertilization, Class Test **Core Course XII: BOTACOR12T(Plant Physiology)** Unit 4 :Translocation in the phloem:, Class test
Week 9 to Week 12	**Core Course II: BOTACOR02P (Biomolecules and Cell Biology)** Topic 4, Continuous assessment **Core Course XII: BOTACOR12P(Plant Physiology)** Topic 6, Continuous assessment	**Core Course II: BOTACOR02T (Biomolecules and Cell Biology)** Unit 1 (Biomolecules), Class Test **Generic Elective: BOTHGEC03T (Plant anatomy and Embryology)** Embryology- Unit 7: Embryo and endosperm, Class Test **Core Course XII : BOTACOR12T(Plant Physiology)** Unit 6 :Physiology of flowering, Class test

Week 13	**Core Course II : BOTACOR02P(Biomolecules and Cell Biology)** Practical Mock Test **Core Course XII: BOTACOR12P(Plant Physiology)** Topic4, 5 & Topic 6, Practical Mock Test	**Core Course II : BOTACOR02T (Biomolecules and Cell Biology)** Unit 1(Biomolecules), Class Test **Generic Elective: BOTHGEC03T (Plant anatomy and Embryology)** Embryology- Unit 8: Apomixis and polyembryony **Core Course XII: BOTACOR12T(Plant Physiology)** Unit 7 :Phytochrome , crytochromes and phototropins) Class test
Week14	**Internal Examination**	
Week 15 to 17	**Core Course II : BOTACOR02P (Biomolecules and Cell Biology)** Mock Test on Topics 2,3,4 **Core Course XII : BOTACOR12P(Plant Physiology)** Mock Test on Topics on Topics 5&6	**Core Course II : BOTACOR02T(Biomolecules and Cell Biology)** Mock Test on Unit 1(Biomolecules) **Generic Elective: BOTHGEC03T (Plant anatomy and Embryology)** Mock Test on Embryology units **Core Course XII: BOTACOR12T(Plant Physiology)** Mock Test on unit 3,4,6,7
Week 18	**Revision, Practice for End Term Examination**	**Revision and solving of question paper for End term Examination of topic of each semester.**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, UG course Department of Botany Session (2021- 2022)

Class: B.Sc. (Honours and General)   **Semester II, IV, VI**
Name of the Teacher: DR. KAJARI LAHIRI   **Subject: Botany**

Paper: Core Course IV (BOTACOR04T, BOTACOR04P), Core Course XIII (BOTACOR13T, BOTACOR13P), Course code: DSE (BOTADSE04T, BOTADSE04P) Generic Elective (BOTHGEC04T, BOTHGEC04P) Plant Physiology and Metabolism

S. No	**Practical works to be covered (Paper code to be mentioned)**	**Theory topics to be covered (Paper code to be mentioned)**
Week 1 to week 4	**Course Code: BOTACOR04P- (Archegoniate- Bryophytes)(-** Topic 1, Topic 2, Continuous assessment **Generic Elective : BOTHGEC04P (Plant Physiology and Metabolism)** Topic 1, Continuous assessment	**Course Code: BOTACOR04T- (Archegoniate- Bryophytes)-** Unit 1 Class Test **Generic Elective: BOTHGEC04T (Plant Physiology and metabolism)**- Unit 1: Plant-water relations,& Unit 2: Mineral nutrition Class Test.

	Core Course XIII: BOTACOR13P (**Plant Metabolism**) Topic 1, Continuous assessment – **Course code : BOTADSE04P-** (**Analytical Techniques in Plant Sciences**) - Topic 2, Continuous assessment	Core Course XIII: BOTACOR13T(**Plant Metabolism**)- Unit 5: ATP-Synthesis, Class Test **Course code : BOTADSE04T(Analytical Techniques in Plant Sciences)-** Unit 2: Cell fractionation:, Class Test
Week 5 to week 8	**Course Code: BOTACOR04P-Archegoniate-Bryophytes-** Topic 3, Continuous assessment **Generic Elective : BOTHGEC04P (Plant Physiology and metabolism)** Topic 3, Continuous assessment **Core Course XIII: BOTACOR13P (Plant Metabolism)-** Topic 2, Continuous assessment **Course code : BOTADSE04P (Analytical Techniques in Plant Sciences)-** Topic 4, Continuous assessment	**Course Code: BOTACOR04T- Archegoniate- Bryophytes-** Unit 2, Class Test **Generic Elective : BOTHGEC04T (Plant Physiology and metabolism)-** Unit3 : Translocation in phloem, Class Test **Core Course XIII : BOTACOR13T** (**Plant Metabolism**)- Unit 6:Lipid metabolism, Class Test **Course code : BOTADSE04T(Analytical Techniques in Plant Sciences)-** Unit 3: Radioisotopes, Class Test
Week 9 to Week 12	**Course Code: BOTACOR04P-Archegoniate Bryophytes-** Topic 4, Continuous assessment **Generic Elective : BOTHGEC04P (Plant Physiology and metabolism)** Topic 5, Continuous assessment **Core Course XIII:BOTACOR13P (Plant Metabolism)-** Topic 3, Continuous assessment **Course code : BOTADSE04P** (Analytical Techniques in Plant Sciences)- Topic 5, Continuous assessment	**Course Code: BOTACOR04T- Archegoniate-Bryophytes-** Unit 3, Class Test **Generic Elective : BOTHGEC04T (Plant Physiology and metabolism)-** Unit 6: Enzymes, Class Test **Core Course XIII: BOTACOR13**T(Plant Metabolism)- Unit 8: Mechanisms of signal transduction, Class Test **Course code : BOTADSE04T(Analytical Techniques in Plant Sciences)-** Unit 3:Radioisotopes, Class Test
Week 13	**Course Code: BOTACOR04P-Archegoniate- Bryophytes-** Topic 5, Continuous assessment **Generic Elective : BOTHGEC04P (Plant Physiology and metabolism)** Topic 3 (DE), Topic 4 (DE), Continuous assessment **Core Course XIII:BOTACOR13P: (Plant Metabolism)-** Topic 1, 2,3 Practical Mock Test	**Course Code: BOTACOR04T- Archegoniate- Bryophytes-**Unit 4, Class Test **Generic Elective : BOTHGEC04T (Plant Physiology and metabolism)-** Unit 9: Plant response to light and temperature, **Core Course XIII: BOTACOR13T(Plant Metabolism)-** Unit 8: Mechanisms of signal transduction, Class Test

	Course code : BOTADSE04P (Analytical Techniques in Plant Sciences)- Topic 2,4,5 Practical Mock Test	Course code : BOTADSE04T(Analytical Techniques in Plant Sciences)- Unit 4: Spectrophotometry, Class Test
Week 14	**Internal Examination**	
Week 15 to 17	**Course Code: BOTACOR04P- Archegoniate-(Bryophytes)** Mock Test on topics-1,2,3,4,5 **Generic Elective : BOTHGEC04P (Plant Physiology and metabolism)** Mock Test on topics-1,3,5 (DE)3,4 **Core Course XIII: BOTACOR13P (Plant Metabolism)** Mock Test on topics-1,2,3 **Course code : BOTADSE04P (Analytical Techniques in Plant Sciences)** Mock Test on topics-2,4,5	**Course Code: BOTACOR04T- Archegoniate-** Mock Test n on Unit 1,2.3.4 Bryophytes **Generic Elective : BOTHGEC04T (Plant Physiology and metabolism)** Mock Test on Unit 1,2,3,6,9 **Core Course XIII: BOTACOR13T(Plant Metabolism)** Mock Test on Unit 5 , 6, 8 **Course code : BOTADSE04T(Analytical Techniques in Plant Sciences)** Mock Test on Unit 2 , 3, 4
Week 18	**Revision, Practice for End term examination**	**Revision and solving of question paper for End term Examination of topic of each semester.**

Teaching Plan for Odd Semester, UG course, Department of BOTANY, Session (2021 - 2022)

Class: B.Sc (Honours) & B.Sc (General)   **Semester I, III & V**
Name of the Teacher: Dr. Santanu Saha   **Subject: Botany**

Paper: Core Course V: Morphology and Anatomy(BOTACOR05T, BOTACOR05P), Skill Enhancement Course: Plant Diversity and Human Welfare (BOTSSEC01M), Discipline Specific Elective : Natural Resource Management Course Code: (BOTADSE01T, BOTADSE01P)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05P Topic 1, Continuous assessment Discipline Specific Elective : Natural Resource Management Course Code: BOTADSE01P Topic 1,2 Continuous assessment	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05T Unit 4,5 Class Test Skill Enhancement Course: Plant Diversity and Human Welfare (BOTSSEC01M) Unit 1, 2 Class Test Discipline Specific Elective Natural Resource Management Course Code: BOTADSE01T Unit 1,2,3 Class Test
Week 5 to Week 8	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05P Topic 1, Continuous assessment Discipline Specific Elective : Natural Resource Management Course Code: BOTADSE01P Topic 1,2 Continuous assessment	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05T Unit 6,7 Class Test Skill Enhancement Course: Plant Diversity and Human Welfare (BOTSSEC01M) Unit 1, 2 Class Test Discipline Specific Elective Natural Resource Management Course Code: BOTADSE01T Unit 1,2,3 Class Test
Week 9 to Week 12	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05T Topic 2, Continuous assessment Discipline Specific Elective : Natural Resource Management Course Code: BOTADSE01P Topic 3,4 Continuous assessment	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05T Unit 8, Class Test Skill Enhancement Course: Plant Diversity and Human Welfare (BOTSSEC01M) Unit 3, 4, Class Test Discipline Specific Elective Natural Resource Management Course Code: BOTADSE01T Unit 4,5,6 Class Test
Week 13	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05P, Topic 2, Continuous assessment Discipline Specific Elective : Natural Resource	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05T Unit 9, Class Test Skill Enhancement Course: Plant Diversity and Human Welfare (BOTSSEC01M) Unit 3, 4 Class Test

	Management Course Code: BOTADSE01P Topic 3,4 Continuous assessment	Discipline Specific Elective Natural Resource Management Course Code: BOTADSE01T Unit 7 Class Test
Week 14	**Internal Examination**	
Week 15 to week 17	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05P, Practical Mock Test Discipline Specific Elective : Natural Resource Management Course Code: BOTADSE01P, Practical Mock Test	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05T Unit 4,5,6,7,8,9 Class Test Skill Enhancement Course: Plant Diversity and Human Welfare (BOTSSEC01M) Unit 1,2,3, 4 Class Test Discipline Specific Elective Natural Resource Management Course Code: BOTADSE01T Unit 8,9 Class Test
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

BIDHANNAGAR COLLEGE
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Teaching Plan for Even Semester, UG course, Department of BOTANY, Session (2021 - 2022)

Class: B.Sc (Honours) & B.Sc (General)　　　　　　　　**Semester II, IV & VI**
Name of the Teacher: Dr. Santanu Saha　　　　　　　　**Subject: Botany**

Paper: Core Course IV Archegoniate(BOTACOR04T, BOTACOR04P) Core Course IX: Plant Ecology and Phytogeography (BOTACOR09T, BOTACOR09P), Plant Ecology and Taxonomy (BOTHGEC02T, BOTHGEC02P)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course IV: Archegoniate Course Code: BOTACOR04P) Topic: Unit 6,7, Continuous assessment Core Course IX: Plant Ecology and Phytogeography (BOTACOR09P) Topic: Unit 1,2,3 Continuous assessment Generic Electives Course (GE): Plant Ecology and Taxonomy (BOTHGEC02P) Topic 1 Continuous assessment	Core Course IV: Archegoniate Course Code: BOTACOR04T) Topic: Unit 4, Class Test Core Course IX: Plant Ecology and Phytogeography (BOTACOR09T) Topic: Unit 1,2,3 Class Test Generic Electives Course (GE): Plant Ecology and Taxonomy (BOTHGEC02T) Topic: Unit 1 Class test
Week 5 to Week 8	Core Course IV: Archegoniate Course Code: BOTACOR04T) Topic: Unit8,9, Continuous assessment Core Course IX: Plant Ecology and Phytogeography (BOTACOR09P) Topic: Unit 4,5,6 Continuous assessment	Core Course IV: Archegoniate Course Code: BOTACOR04T) Topic: Unit 4, Class Test Core Course IX: Plant Ecology and Phytogeography (BOTACOR09T) Topic: Unit 4,5,6 Class Test

	Generic Electives Course (GE): Plant Ecology and Taxonomy (BOTHGEC02P) Topic 2 Continuous assessment	Generic Electives Course (GE): Plant Ecology and Taxonomy (BOTHGEC02T) Topic: Unit 2 class test
Week 9 to Week 12	Core Course IV: Archegoniate Course Code: BOTACOR04P) Topic: Unit 10, 11 Continuous assessment Core Course IX: Plant Ecology and Phytogeography (BOTACOR09P), Topic : Unit 7,8 Continuous assessment Generic Electives Course (GE): Plant Ecology and Taxonomy (BOTHGEC02P) Topic 3, Continuous assessment	Core Course IV: Archegoniate Course Code: BOTACOR04T) Topic: Unit 5 Class Test Core Course IX: Plant Ecology and Phytogeography (BOTACOR09T)Topic: Unit 7,8 Class Test Generic Electives Course (GE): Plant Ecology and Taxonomy (BOTHGEC02T) Topic: Unit 3 class test
Week 13	Core Course IV: Archegoniate Course Code: BOTACOR04P) Field visit, Mock Practical test Core Course IX: Plant Ecology and Phytogeography (BOTACOR09P) Field visit, Mock Practical test Generic Electives Course (GE): Plant Ecology and Taxonomy (BOTHGEC02P) Field visit Practical mock test	Core Course IV: Archegoniate Course Code: BOTACOR04T) Topic: Unit 5, Class Test Core Course IX: Plant Ecology and Phytogeography (BOTACOR09T) Topic: Unit 9 Class Test Generic Electives Course (GE): Plant Ecology and Taxonomy (BOTHGEC02T) Topic: Unit 4 class test
Week 14	**Internal Examination**	
Week 15 to week 17	Core Course IV: Archegoniate Course Code: BOTACOR04P) Topic: Unit 12, 13 Continuous assessment, Practical Mock Test Core Course IX: Plant Ecology and Phytogeography (BOTACOR09P) Topic: Unit 9,10 Continuous assessment, Practical Mock Test Generic Electives Course (GE): Plant Ecology and Taxonomy (BOTHGEC02P) Topic 4, Topic 5 Continuous assessment	Core Course IV: Archegoniate Course Code: BOTACOR04T) Topic: Unit 6, Class Test Core Course IX: Plant Ecology and Phytogeography (BOTACOR09T) Topic: Unit 10 Class Test Generic Electives Course (GE): Plant Ecology and Taxonomy (BOTHGEC02T) Topic: Unit 5 class test
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALTLAKE, KOLKATA
Teaching Plan for ODD Semester, UG course, Department of BOTANY, Session (2021 - 2022)
Class: B.Sc (Honours) & B.Sc (General)   **Semester I, III and V**
Name of the Teacher: MOUSUMI MUKHOPADHYAY   **Subject: Botany**

Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05T/ Core Course VI: Economic Botany Course Code: BOTACOR06T/ Core Course VI: Practical Course Code: BOTACOR06P/ Core Course XI: Reproductive Biology of Angiosperms Course Code: BOTACOR11T/ Core Course XI Practical Course Code: BOTACOR11P/Biodiversity (Microbes, Algae, Fungi and Archegoniate) Course Code: BOTHGEC01T/Practical Course Code: BOTHGEC01P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course VI: Practical Course Code: BOTACOR06P: Topic 1 & Topic 2, Continuous assessment Core Course XI Practical Course Code: BOTACOR11P: Topic 1 & Topic 2, Continuous assessment. Practical Course Code: BOTHGEC01P: Topic 8, Topic 9, Continuous assessment	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05T: Unit 1, Class Test Core Course VI: Economic Botany Course Code:BOTACOR06T Unit 1& Unit 2, Class Test Core Course XI: Reproductive Biology of Angiosperms Course Code: BOTACOR11T: Unit 1, Unit 2, Class Test Biodiversity (Microbes, Algae, Fungi and Archegoniate) Course Code: BOTHGEC01T: Unit 3: Fungi, Class Test
Week 5 to Week 8	Core Course VI: Practical Course Code: BOTACOR06P Topic 3, Topic 4 & Topic 5, Continuous assessment Core Course XI Practical Course Code: BOTACOR11P: Topic 3 & Topic 4, Continuous assessment. Practical Course Code: BOTHGEC01P: Topic 10, Topic 11, Topic 12, Continuous assessment	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05T: Unit 2, Class Test Core Course VI: Economic Botany Course Code:BOTACOR06T: Unit 3, Unit 4 & Unit 5, Class Test. Core Course XI: Reproductive Biology of Angiosperms Course Code: BOTACOR11T: Unit 3 & Unit 4 Class Test Biodiversity (Microbes, Algae, Fungi and Archegoniate) Course Code: BOTHGEC01T: Unit 6: Pteridophytes, Class Test
Week 9 to Week 12	Core Course VI: Practical Course Code: BOTACOR06P: Topic 6 & Topic 7, Practical Mock Test Core Course XI Practical Course Code: BOTACOR11P: Topic 5 & Topic 6, Practical Mock Test. Practical Course Code: BOTHGEC01P: Topic 13, Topic 14, Practical Mock Test	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05T: Unit 3, Mid Term Examination Core Course VI: Economic Botany Course Code:BOTACOR06T: Unit 6 & Unit 7, Mid Term Examination. Core Course XI: Reproductive Biology of Angiosperms Course Code: BOTACOR11T: Unit 5 &Unit 6, Mid Term Examination Biodiversity (Microbes, Algae, Fungi and Archegoniate) Course Code: BOTHGEC01T: U nit 7: Gymnosperms, Mid-Term Examination

Week 13	Core Course VI: Practical Course Code: BOTACOR06P Remedial classes for unit 6 Core Course XI Practical Course Code: BOTACOR11P: Mock Test unit 4, Practical Course Code: BOTHGEC01P: Mock Test unit10,11	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05T: Tutorial for unit 1 Core Course VI: Economic Botany Course Code: BOTACOR06T: Tutorial classes for unit4 and 5 Core Course XI: Reproductive Biology of Angiosperms Course Code: BOTACOR11T: Unit 7, Revision, Tutorials. Biodiversity (Microbes, Algae, Fungi and Archegoniate) Course Code: BOTHGEC01T: Revision unit 6
Week 14	**Internal Examination**	

Week 15 to week 17	Core Course VI: Practical Course Code: BOTACOR06P Remedial classes for unit7 Core Course XI Practical Course Code: BOTACOR11P: Continuous assessment unit 5and 6 Practical Course Code: BOTHGEC01P : Mock Test unit 13 and 14	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05T: Revision of unit 2 Core Course VI: Economic Botany Course Code: BOTACOR06T: Revision of unit 6 and 7 Core Course XI: Reproductive Biology of Angiosperms Course Code: BOTACOR11T: Revision unit 5 and 6 Tutorials. Biodiversity (Microbes, Algae, Fungi and Archegoniate) Course Code: BOTHGEC01T: Tutorial unit 3
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

Class: B.Sc (Honours) & B.Sc (General) **Semester II, IV and VI**
Name of the Teacher: MOUSUMI MUKHOPADHYAY **Subject: Botany**
Paper: Core Course III: Mycology and Phytopathology
Course Code: BOTACOR03T/ Core Course: IV Practical
Course Code: BOTACOR03P
Core Course X: Plant Systematics Course Code: BOTACOR10T
Core Course X:Practical: Course Code: BOTACOR10P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course I. Mycology and Plant Pathology, Course Code: BOTACOR03P. Topic 1, Topic 2 & Topic 3, Continuous assessment Core Course X:Practical Course Code: BOTACOR10P Topic 1, Topic 2 (Botanical Excursion) & Topic 3 Continuous assessment. Practical Course Code: BOTHGEC02P Topic 6, Topic 7, Continuous assessment	Core Course I Mycology and Plant Pathology, Course Code: BOTACOR03T. Unit 1 & Unit 2, Class Test Core Course X: Plant Systematics Course Code: BOTACOR10T Unit 1 & Unit 2, Class Test Plant Ecology and Taxonomy Course Code: BOTHGEC02T U nit 6: Introduction to plant taxonomy, Unit 7: Identification, Unit 8: Taxonomic evidences from palynology, cytology, Class Test
Week 5 to Week 8	Core Course I Mycology and Plant Pathology , Course Code: BOTACOR03P. Topic 4, Topic 5 & Topic 6, Continuous assessment Core Course X:Practical Course Code: BOTACOR10P Topic 1 Topic 2 (Field Visit) & Topic 3, Continuous assessment Practical Course Code: BOTHGEC02P Topic 6, Topic 7, Continuous assessment	Core Course I. Mycology and Plant Pathology , Course Code: BOTACOR03T. Unit 3, Unit 4 & Unit 5, Class Test Core Course X: Plant Systematics Course Code: BOTACOR10T Unit 3, Unit 4, Class Test Plant Ecology and Taxonomy Course Code: BOTHGEC02T Unit 8: phytochemistry and molecular data, Unit 9: Taxonomic hierarchy, Unit 10: Botanical nomenclature, Class Test
Week 9 to Week 12	Core Course I Mycology and Plant Pathology , Course Code: BOTACOR03P.Topic 1 and 2 Practical Mock Test Core Course X:Practical Course Code: BOTACOR10 Topic 2 (Field Visit) & Topic 3, Practical Mock Test Practical Course Code: BOTHGEC02P Practical Mock Test Unit 6	Core Course I. Mycology and Plant Pathology , Course Code: BOTACOR03T. Unit 6 & Unit 7, Mid Term Examination Core Course X: Plant Systematics Course Code: BOTACOR10T Unit 5, Unit 6, Mid Term Examination Plant Ecology and Taxonomy Course Code: BOTHGEC02T U nit 11: Classification , Unit 12: Numerical taxonomy and cladistics, Mid Term Examination

| Week 13 | Core Course I. Mycology and Plant Pathology , Course Code: BOTACOR03P.Topic 3and 4, Continuous assessment Core Course X:Practical Course Code: BOTACOR10P Practical Mock Test on Topic 3 Practical Course Code: BOTHGEC02P Practical Mock Test Unit 7 | Core Course I. Mycology and Plant Pathology , Course Code: BOTACOR03T. Revision, Tutorials, End Term Examination Core Course X: Plant Systematics Course Code: BOTACOR10T Tutorial classes on Topic- 2 and 3 Plant Ecology and Taxonomy Course Code: BOTHGEC02T Remedial classes for Unit 8, question-answer analysis unit 6&7 |

Week 14	Internal Examination	
Week 15 to week 17	Core Course I. Mycology and Plant Pathology , Course Code: BOTACOR03P.Topic 5 and 6 Continuous assessment Core Course X:Practical Course Code: BOTACOR10P Tutorial classes for Practical viva Practical Course Code: BOTHGEC02P Analysis of question for Viva	Core Course I Mycology and Plant Pathology , Course Code: BOTACOR03T.Unit 2 and 3 Class Test Core Course X: Plant Systematics Course Code: BOTACOR10T Remedial classes for Topic-5 Plant Ecology and Taxonomy Course Code: BOTHGEC02T Question-answer analysis for rest of the units.
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

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Teaching Plan for Odd Semester, UG course, Department of BOTANY, Session (2021 - 2022)

Class: B.Sc (Honours) & B.Sc (General)   **Semester I, III & V**
Name of the Teacher: Dr. Kausik Majumder   **Subject: Botany**

Paper: Core Course II: Bio-molecules and Cell Biology, Course Code: BOTACOR02T & BOTACOR02P, Core Course VII: Genetics, Course Code: BOTACOR07T & BOTACOR07P, Core Course XII: Plant Physiology, Course Code: BOTACOR12T & BOTACOR12P, Industrial and Environmental Microbiology, Course Code: BOTADSE03T, Plant Anatomy and Embryology, Course Code: BOTHGEC03T & BOTHGEC03P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course II: Bio-molecules and Cell Biology (BOTACOR02P) Topic 1, Continuous assessment Core Course VII: Genetics (BOTACOR07P) Topic 2, Continuous assessment Core Course XII: Plant Physiology (BOTACOR12P) Continuous assessment Generic Electives Course (GE): Plant Anatomy and Embryology (BOTHGEC03P) Topic 1, Topic 2, Topic 3, Continuous assessment	Core Course II: Bio-molecules and Cell Biology (BOTACOR02T) Unit 3, Class Test Core Course VII: Genetics (BOTACOR07T) Unit 1, Class Test Core Course XII: Plant Physiology (BOTACOR12T) Unit 1, Class Test Generic Electives Course (GE): Plant Anatomy and Embryology (BOTHGEC03T) Unit 1
Week 5 to Week 8	Core Course II: Bio-molecules and Cell Biology (BOTACOR02P) Topic 7, Continuous assessment Core Course VII: Genetics (BOTACOR07P) Topic 2, Continuous assessment Core Course XII: Plant Physiology (BOTACOR12P) Topic 1, Continuous assessment Generic Electives Course (GE): Plant Anatomy and Embryology (BOTHGEC03P) Topic 4, Topic 5,Topic 7, Continuous assessment	Core Course II: Bio-molecules and Cell Biology (BOTACOR02T) Unit 3, Class Test Core Course VII: Genetics (BOTACOR07T) Unit 1, Class Test Core Course XII: Plant Physiology (BOTACOR12T) Unit 1, Class Test Generic Electives Course (GE): Plant Anatomy and Embryology (BOTHGEC03T) Unit 2
Week 9 to Week 12	Core Course II: Bio-molecules and Cell Biology (BOTACOR02P) Topic 1, Continuous assessment Core Course VII: Genetics (BOTACOR07P) Topic 4, Continuous assessment Core Course XII: Plant Physiology (BOTACOR12P) Topic 1 (Demonstration), Continuous assessment Generic Electives Course (GE): Plant Anatomy and Embryology (BOTHGEC03P) Topic 8, Topic 9, Topic 10, Continuous assessment	Core Course II: Bio-molecules and Cell Biology (BOTACOR02T) Unit 2, Class Test Core Course VII: Genetics (BOTACOR07T) Unit 1, Class Test Core Course XII: Plant Physiology (BOTACOR12T) Unit 4, Class Test Generic Electives Course (GE): Plant Anatomy and Embryology (BOTHGEC03T) Unit 3

Week 13	Core Course II: Bio-molecules and Cell Biology (BOTACOR02P) Topic 7, Continuous assessment	Core Course II: Bio-molecules and Cell Biology (BOTACOR02T) Unit 2, Class Test
	Core Course VII: Genetics (BOTACOR07P) Topic 4, Continuous assessment	Core Course VII: Genetics (BOTACOR07T) Unit 6, Class Test
	Core Course XII: Plant Physiology (BOTACOR12P) Topic 2, Continuous assessment	Core Course XII: Plant Physiology (BOTACOR12T) Unit 4, Class Test
	Generic Electives Course (GE): Plant Anatomy and Embryology (BOTHGEC03P) Topic 11, Topic 12, Continuous assessment	Generic Electives Course (GE): Plant Anatomy and Embryology (BOTHGEC03T) Unit 4
Week 14	Internal Examination	
Week 15 to week 17	Core Course II: Bio-molecules and Cell Biology (BOTACOR02P) Practical Mock Test	Core Course II: Bio-molecules and Cell Biology (BOTACOR02T) Unit 4, Class Test
	Core Course VII: Genetics (BOTACOR07P) Practical Mock Test	Core Course VII: Genetics (BOTACOR07T) Unit 6, Class Test
	Core Course XII: Plant Physiology (BOTACOR12P) Practical Mock Test	Core Course XII: Plant Physiology (BOTACOR12T) Unit 4, Class Test
	Generic Electives Course (GE): Plant Anatomy and Embryology (BOTHGEC03P) Practical Mock Test	Generic Electives Course (GE): Plant Anatomy and Embryology (BOTHGEC03T) Unit 4
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

Teaching Plan for Even Semester, UG course, Department of BOTANY, Session (2021 - 2022)

Class: B.Sc (Honours) & B.Sc (General) **Semester II, IV & VI**
Name of the Teacher: Dr. Kausik Majumder **Subject: Botany**

Paper: Core Course XIII: Plant Metabolism, Course Code: BOTACOR13T & BOTACOR 13P, Core Course XIV: Plant Biotechnology, Course Code: BOTACOR14T & BOTACOR14P, Discipline Specific Elective Analytical Techniques in Plant Sciences, Course Code: BOTADSE04T & BOTADSE04P, Discipline Specific Elective Biostatistics, Course Code: BOTADSE06T & BOTADSE06P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course XIII: Plant Metabolism (BOTACOR 13P) Topic 6, Continuous assessment	Core Course XIII: Plant Metabolism (BOTACOR13T) Unit 1, Class test
	Core Course XIV: Plant Biotechnology (BOTACOR14P) Topic 5, Continuous assessment	Core Course XIV: Plant Biotechnology (BOTACOR14T) Unit 1, Class Test
	Discipline Specific Elective Analytical Techniques in Plant Sciences (BOTADSE04P) Topic 1, Continuous assessment	Discipline Specific Elective Analytical Techniques in Plant Sciences (BOTADSE04T), Unit 1, Class Test
	Discipline Specific Elective Biostatistics (BOTADSE06P) Topic 1, Continuous assessment	Discipline Specific Elective Biostatistics (BOTADSE06T) Unit 1, Class Test
Week 5 to Week 8	Core Course XIII: Plant Metabolism (BOTACOR 13P) Topic 6, Continuous assessment	Core Course XIII: Plant Metabolism (BOTACOR13T) Unit 1, Class test
	Core Course XIV: Plant Biotechnology (BOTACOR14P) Topic 5, Continuous assessment	Core Course XIV: Plant Biotechnology (BOTACOR14T) Unit 1, Class Test
	Discipline Specific Elective Analytical Techniques in Plant Sciences (BOTADSE04P) Topic 2, Continuous	Discipline Specific Elective Analytical Techniques in Plant Sciences (BOTADSE04T), Unit 1, Class Test

	assessment	Discipline Specific Elective Biostatistics (BOTADSE06T) Unit 2, Class Test
	Discipline Specific Elective Biostatistics (BOTADSE06P) Topic 1, Continuous assessment	
Week 9 to Week 12	Core Course XIII: Plant Metabolism (BOTACOR 13P) Topic 7, Continuous assessment	Core Course XIII: Plant Metabolism (BOTACOR13T) Unit 1, Class test
	Core Course XIV: Plant Biotechnology (BOTACOR14P) Topic 6, Continuous assessment	Core Course XIV: Plant Biotechnology (BOTACOR14T) Unit 1, Class Test
	Discipline Specific Elective Analytical Techniques in Plant Sciences (BOTADSE04P) Topic 3, Continuous assessment	Discipline Specific Elective Analytical Techniques in Plant Sciences (BOTADSE04T), Unit 6, Class Test
	Discipline Specific Elective Biostatistics (BOTADSE06P) Topic 2, Continuous assessment	Discipline Specific Elective Biostatistics (BOTADSE06T) Unit 3, Class Test

Week 13	Core Course XIII: Plant Metabolism (BOTACOR 13P) Topic 7, Continuous assessment	Core Course XIII: Plant Metabolism (BOTACOR13T) Unit 4, Class test
	Core Course XIV: Plant Biotechnology (BOTACOR14P) Topic 6, Continuous assessment	Core Course XIV: Plant Biotechnology (BOTACOR14T) Unit 5, Class Test
	Discipline Specific Elective Analytical Techniques in Plant Sciences (BOTADSE04T) Topic 6, Continuous assessment	Discipline Specific Elective Analytical Techniques in Plant Sciences (BOTADSE04T), Unit 7, Class Test
	Discipline Specific Elective Biostatistics (BOTADSE06P) Topic 3, Continuous assessment	Discipline Specific Elective Biostatistics (BOTADSE06T) Unit 4, Class Test
Week 14	**Internal Examination**	
Week 15 to week 17	Core Course XIII: Plant Metabolism (BOTACOR 13P) Practical Mock Test	Core Course XIII: Plant Metabolism (BOTACOR13T) Unit 4, Class test
	Core Course XIV: Plant Biotechnology (BOTACOR14P) Practical Mock Test	Core Course XIV: Plant Biotechnology (BOTACOR14T) Unit 5, Class Test
	Discipline Specific Elective Analytical Techniques in Plant Sciences (BOTADSE04P) Practical Mock Test	Discipline Specific Elective Analytical Techniques in Plant Sciences (BOTADSE04T), Unit 7, Class Test
	Discipline Specific Elective Biostatistics (BOTADSE06P) Practical Mock Test	Discipline Specific Elective Biostatistics (BOTADSE06T) Unit 5, Class Test
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

Teaching Plan for Odd Semester, UG course, Department of BOTANY, Session (2021 - 2022)

Class: B.Sc. (Hons)   **Semester I, III & V**
Name of the Teacher: Dr. Subhadipa Sengupta   **Subject: Botany**

Paper: Core Course II: Bio-molecules and Cell Biology, Course Code: BOTACOR02T & BOTACOR02P, Core Course VII: Genetics, Course Code: BOTACOR07T & BOTACOR07P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course II: Bio-molecules and Cell Biology (BOTACOR02P) Topic 5, Continuous assessment Core Course VII: Genetics (BOTACOR07P) Topic 1a, Continuous assessment	Core Course II: Bio-molecules and Cell Biology (BOTACOR02T) Unit 6, Class Test Core Course VII: Genetics (BOTACOR07T) Unit 1, Class Test Genetics (BOTACOR07T) Unit 2, Class Test
Week 5 to Week 8	Core Course II: Bio-molecules and Cell Biology (BOTACOR02P) Topic 5, Continuous assessment Core Course VII: Genetics (BOTACOR07P) Topic 1b, Continuous assessment	Core Course II: Bio-molecules and Cell Biology (BOTACOR02T) Unit 6, Class Test Core Course VII: Genetics (BOTACOR07T) Unit 3, Class Test Genetics (BOTACOR07T) Unit 4.
Week 9 to Week 12	Core Course II: Bio-molecules and Cell Biology (BOTACOR02P) Topic 6, Continuous assessment Core Course VII: Genetics (BOTACOR07P) Topic 3, Topic 5, Continuous assessment	Core Course II: Bio-molecules and Cell Biology (BOTACOR02T) Unit 7, Class Test Core Course VII: Genetics (BOTACOR07T) Unit 4, Class Test

Week 13	Core Course II: Bio-molecules and Cell Biology (BOTACOR02P) Topic 8, Continuous assessment Core Course VII: Genetics (BOTACOR07P) Topic 6, Topic 7, Continuous assessment	Core Course II: Bio-molecules and Cell Biology (BOTACOR02T) Unit 7, Class Test Core Course VII: Genetics (BOTACOR07T) Unit 5, Class Test
Week 14	**Internal Examination**	
Week 15 to week 17	Core Course II: Bio-molecules and Cell Biology (BOTACOR02P) Practical Mock Test Core Course VII: Genetics (BOTACOR07P) Practical Mock Test	Core Course II: Bio-molecules and Cell Biology (BOTACOR02T) Unit 6 and unit 7 revision, Class Test Core Course VII: Genetics (BOTACOR07T) Unit 6, Class Test
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

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Teaching Plan for Even Semester, UG course, Department of BOTANY, Session (2021 - 2022)

Class: B.Sc. (Hons)   **Semester II, IV & VI**
Name of the Teacher: Dr. Subhadipa Sengupta   **Subject: Botany**

Paper: Core Course VIII: Molecular Biology, Course Code: BOTACOR08T & BOTACOR08P, Core Course XIV: Plant Biotechnology, Course Code: BOTACOR14T & BOTACOR14P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course VIII: Molecular Biology (BOTACOR08P) Topic 1, Continuous assessment Core Course XIV: Plant Biotechnology (BOTACOR14P) Topic 1a, Continuous assessment	Core Course VIII: Molecular Biology (BOTACOR08T) Unit 1, Class Test Core Course XIV: Plant Biotechnology (BOTACOR14T) Unit 2, Class Test Genetics (BOTACOR07T) Unit 2, Class Test
Week 5 to Week 8	Core Course VIII: Molecular Biology (BOTACOR08P) Topic 2 & 3, Continuous assessment Core Course XIV: Plant Biotechnology (BOTACOR14P) Topic 1b, Continuous assessment	Core Course VIII: Molecular Biology (BOTACOR08T) Unit 2 & 3, Class Test Core Course XIV: Plant Biotechnology (BOTACOR14T) Unit 3, Class Test Genetics (BOTACOR07T) Unit 4.
Week 9 to Week 12	Core Course VIII: Molecular Biology (BOTACOR08P) Topic 4 & 5, Continuous assessment Core Course XIV: Plant Biotechnology (BOTACOR14P) Topic 2 & 3, Continuous assessment	Core Course VIII: Molecular Biology (BOTACOR08T) Unit 4 & 5, Class Test Core Course XIV: Plant Biotechnology (BOTACOR14T) Unit 4 , Class Test

S. No	Practical syllabus	Theory syllabus
Week 13	Core Course VIII: Molecular Biology (BOTACOR08P) Topic 6 & 7, Continuous assessment Core Course XIV: Plant Biotechnology (BOTACOR14P) Topic 4 & 5, Continuous assessment	Core Course VIII: Molecular Biology (BOTACOR08T) Unit 6, Class Test Core Course XIV: Plant Biotechnology (BOTACOR14T) Unit 5, Class Test
Week 14	**Internal Examination**	
Week 15 to week 17	Core Course VIII: Molecular Biology (BOTACOR08P) Practical Mock Test Core Course XIV: Plant Biotechnology (BOTACOR14P) Topic 6, Practical Mock Test	Core Course VIII: Molecular Biology (BOTACOR08T) Unit 7, revision, Class Test Core Course XIV: Plant Biotechnology (BOTACOR14T) Unit 5, Class Test

| Week18 | Revision of Experiments, End Term Examination | Revision, Question-Answer Analyses, End Term Examination |

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALTLAKE, KOLKATA

Teaching Plan for Odd Semester, PG course, Department of BOTANY, Session (2021 - 2022)

Class: PG　　　　　　　　　　　**Semester I, III**
Name of the Teacher: BENUDHAR MANDAL　　　　　**Subject: Botany**

Paper: Core Course I. Plant Virus and Bacteria, (Departmental 4) BOTPCORO4T, BOTPCOR04P), Biosafety and laboratory practices (BOT P GEC01)

S. No	Practical syllabus to be covered (Paper code to be mentioned) BOTPCOR04P)	Theory syllabus to be covered (Paper code to be mentioned) BOTPCORO4T Biosafety and laboratory practices (BOT P GEC01)
Week 1 to week 4	Core Course I. Plant Virus and Bacteria (BOTPCOR04P) , Topic,-Bacterial diversity from various habitats, Continuous assessment .	Core Course I. Plant Virus and Bacteria (BOTPCOR04T) Topic 1, Class test. Biosafety and laboratory practices (BOT P GEC01) Topic -5 Class test.
Week 5 to Week 8	Core Course I. Plant Virus and Bacteria (BOTPCOR04P) , Topic,-Bacterial diversity from various habitats, Continuous assessment.	Core Course I. Plant Virus and Bacteria (BOTPCOR04T) Topic 1, Class test. Biosafety and laboratory practices (BOT P GEC01) Topic -5 Class test.
Week 9 to Week 12	Core Course I. Plant Virus and Bacteria (BOTPCOR04P) , Topic,-Identification of plant pathogenic bacteria through microscopic & biochemical study, Continuous assessment.	Core Course I. Plant Virus and Bacteria (BOTPCOR04T) Topic 2,, Class test. Biosafety and laboratory practices (BOT P GEC01) Topic -6 Class test.

Week 13	Core Course I. Plant Virus and Bacteria (BOTPCOR04P) , Topic,-bacterial growth curve determination, Continuous assessment.	Core Course I. Plant Virus and Bacteria (BOTPCOR04T) Topic 3, Class test. Biosafety and laboratory practices (BOT P GEC01) Topic -6 Class test.
Week 14		**Midterm Examination**
Week 15 to week 17	Core Course I. Plant Virus and Bacteria (BOTPCOR04P) Topic-bacterial plasmid isolation, Continuous assessment.	Core Course I. Plant Virus and Bacteria (BOTPCOR04T) Topic 4, Class test. Biosafety and laboratory practices (BOT P GEC01) Topic -7 Class test.
Week18	Revision of Experiments,& End Term Examination.	Revision, Question-Answer Analyses, &End Term Examination

Teaching Plan for EVEN Semester, PG course, Department of BOTANY, Session (2021 - 2022)

Class: PG   **Semester II,**
Name of the Teacher: BENUDHAR MANDAL   **Subject: Botany**

Paper: Core Course I. Plant Pathology and Crop protection (Departmental 8) Course Code: BOTPCOR08T & BOTPCOR08P.

S. No	Practical syllabus to be covered (Paper code to be mentioned) Course Code: BOTPCOR08P	Theory syllabus to be covered (Paper code to be mentioned) Course Code: BOTPCOR08T
Week 1 to week 4	Core Course I. Plant Pathology and crop protection, Course Code: BOTPCOR08P.Topic 1, Continuous assessment of Topic 1	Core Course Core Course I. Plant Pathology and Crop protection, Course Code: BOTPCOR08T, Crop protection Unit 1 Class Test
Week 5 to Week 8	Core Course I. Plant Pathology and Crop protection, Course Code: BOTPCOR08P.Topic 2, Continuous assessment of Topic 2	Core Course Core Course I. Plant Pathology and crop protection, Course Code: BOTPCOR08T, Crop protection Unit 2Class Test
Week 9 to Week 12	Core Course I. Plant Pathology and Crop protection, Course Code: BOTPCOR08P.Topic 3,7 Continuous assessment of Topic 3,7	Core Course Core Course I. Plant Pathology and crop protection, Course Code: BOTPCOR08T, Crop protection Unit 2 Class Test

Week 13	Core Course I. Plant Pathology and Crop protection, Course Code: BOTPCOR08P.Topic 4, Continuous assessment of Topic 4	Core Course Core Course I. Plant Pathology and crop protection, Course Code: BOTPCOR08T, Crop protection Unit 2 Class Test
Week 14		**Midterm Examination**
Week 15 to week 17	Core Course I. Plant Pathology and Crop protection, Course Code: BOTPCOR08P.Topic 5, Continuous assessment of Topic 5	Core Course Core Course I. Plant Pathology and crop protection, Course Code: BOTPCOR08T, Crop protection Unit 2 Class Test
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALTLAKE, KOLKATA

Teaching Plan for Odd Semester, PG course, Department of BOTANY, Session (2021 – 2022)

Class: M. Sc **Semester I & III**

Name of the Teacher: Dr. Bharati Mukhopadhyay **Subject: Botany**

Paper: Core Course : Integrated Life Sciences (Departmental 1)
                        BOTPCOR01T
  Core Course: Diversity of Plant Life-Algae & Bryophytes (Departmental 2)
                        BOTPCOR02T
  Core Course: Laboratory Course (Departmental 5)
                        BOTPCOR05P
  Core Course: Plant Physiology & Biochemistry (Departmental 12)
                        BOTPCOR12T
  Core Course: Laboratory Course- Plant Physiology & Biochemistry (Departmental 15)
                        BOTPCOR15P

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S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**Laboratory Course** **Diversity of Plant Life-Algae & Bryophytes** **BOTPCOR05P** Topic 1, Continuous Assessment **Laboratory Course- Plant Physiology & Biochemistry** **(Departmental 15) BOTPCOR15P** According to theoretical syllabus, Continuous Assessment	**Integrated Life Sciences (Departmental 1)** **BOTPCOR01T** Topic 1, Class Test **Diversity of Plant Life-Algae & Bryophytes (Departmental 2) BOTPCOR02T** Industrial Phycology, Class Test **Plant Physiology & Biochemistry (Departmental 12) BOTPCOR12T** Photosynthesis, Respiration and photorespiration, Class Test
Week 5 to Week 8	**Laboratory Course** **Diversity of Plant Life-Algae & Bryophytes** **BOTPCOR05P** Topic 1, Continuous Assessment **Laboratory Course- Plant Physiology & Biochemistry** **(Departmental 15) BOTPCOR15P** According to theoretical syllabus, Continuous Assessment	**Diversity of Plant Life-Algae & Bryophytes (Departmental 2) BOTPCOR02T** Algal Biotechnology, Class Test **Plant Physiology & Biochemistry (Departmental 12) BOTPCOR12T** Nitrogen metabolism, Class Test

Week 9 to Week 12	Laboratory Course **Diversity of Plant Life-Algae & Bryophytes BOTPCOR05P** Practical Mock Test **Laboratory Course- Plant Physiology & Biochemistry (Departmental 15) BOTPCOR15P** Practical Mock Test	**Diversity of Plant Life-Algae & Bryophytes (Departmental 2) BOTPCOR02T** Mid Term Examination **Plant Physiology & Biochemistry (Departmental 12) BOTPCOR12T** Plant hormones, Mid Term Examination
Week13 to Week 18	**Revision of Experiments,** **End Term Examination**	**Revision, Question-Answer Analyses,** **End Term Examination**

Teaching Plan for Even Semester, PG course, Department of BOTANY, Session (2021 - 2022)

Class: M. Sc   **Semester II & IV**

Name of the Teacher: Dr. Bharati Mukhopadhyay   **Subject: Botany**

Paper: Core Course: Diversity of Plant Life - Pteridophytes, Gymnosperms, Paleobotany & Palynology
            (Departmental 9) **BOTPCOR09T**
    Core Course: DSE 2: Advanced Plant Physiology & Biochemistry (Departmental 16) **BOTPDSE02T**
    Core Course: Laboratory course of DSE 2 & 3 (Departmental 18) **BOTPCOR18P**
            Advanced Plant Physiology & Biochemistry
    Core Course: Laboratory Course- Seminar Presentation (Departmental 19) **BOTPCOR19P**
    Core Course : Dissertation Project Work (Departmental 20) **BOTPCOR20P**

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S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**Laboratory course of DSE 2 & 3 (Departmental 18) BOTPCOR18P** **Advanced Plant Physiology & Biochemistry** According to theoretical syllabus, Continuous Assessment	**DSE 2: Advanced Plant Physiology & Biochemistry (Departmental 16) BOTPDSE02T** Photosynthesis, Class Test
Week 5 to Week 8	**Laboratory course of DSE 2 & 3 (Departmental 18) BOTPCOR18P** **Advanced Plant Physiology & Biochemistry** According to theoretical syllabus, Continuous Assessment **Laboratory Course- Seminar Presentation] (Departmental 19) BOTPCOR19P** Seminar preparation by the students, presenting the work done (either be a review or a practical project.) using ICT tools.	**Diversity of Plant Life - Pteridophytes, Gymnosperms, Paleobotany & Palynology (Departmental 9) BOTPCOR09T** Genetics and reproductive biology of ferns **DSE 2: Advanced Plant Physiology & Biochemistry (Departmental 16) BOTPDSE02T** Respiration and photorespiration, Class Test
Week 9 to Week 12	**Laboratory course of DSE 2 & 3 (Departmental 18) BOTPCOR18P** **Advanced Plant Physiology & Biochemistry** Practical Mock Test **Laboratory Course- Seminar Presentation] (Departmental 19) BOTPCOR19P** Seminar preparation by the students, presenting	**Diversity of Plant Life - Pteridophytes, Gymnosperms, Paleobotany & Palynology (Departmental 9) BOTPCOR09T** Mid Term Examination **DSE 2: Advanced Plant Physiology & Biochemistry (Departmental 16) BOTPDSE02T**

	the work done (either be a review or a practical project.) using ICT tools	Carbohydrate Metabolism, Mid Term Examination **Dissertation Project Work (Departmental 20) BOTPCOR20** ,

Week13 to Week 18	Revision of Experiments, Seminar Presentation End Term Examination	**Dissertation Project Work (Departmental 20) BOTPCOR20P** The project work can either be a review or a practical project which on completion will have to be presented as a dissertation. The topic of the review/project will be finalized after discussion with the concerned teacher. **Revision, Question-Answer Analyses,** **End Term Examination**

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, PG course, Department of Botany, Session(2021-2022)

Class: M.Sc.   Semester I, III
Name of the Teacher: DR. KAJARI LAHIRI.   :   Subject: Botany

Paper: COURSE CODE: BOTPCOR01T (Departmental 1) INTEGRATED LIFE SCIENCES, COURSE CODE: BOTPCOR02T (Departmental 2)- DIVERSITY OF PLANT LIFE-ALGAE & BRYOPHYTES, COURSE CODE: BOTPCOR05P (Departmental 5)- LABORATORY COURSE, COURSE CODE: BOTPCOR12T (Departmental 12) - PLANT PHYSIOLOGY & BIOCHEMISTRY, COURSE CODE: BOTPDSE01T, (Departmental 13) DSE1-PLANT DEVELOPMENTAL BIOLOGY AND ANATOMY, COURSE CODE: BOTPCOR15P (Departmental 15) LABORATORY COURSE-PLANT PHYSIOLOGY & BIOCHEMISTRY

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**BOTPCOR15P (Departmental 15) LABORATORY COURSE-Plant Physiology & Biochemistry**- according to the theoretical syllabus, Continuous assessment	**COURSE CODE: BOTPCOR01T (Departmental 1) INTEGRATED LIFE SCIENCES,** Unit-2: Membrane structure and function, Class Test **COURSE CODE: BOTPCOR12T (Departmental 12) - PLANT PHYSIOLOGY & BIOCHEMISTRY** Unit-1:Membrane Transport, Class Test
Week 5 to week 8	**BOTPCOR15P (Departmental 15) LABORATORY COURSE-Plant Physiology & Biochemistry**- according to the theoretical syllabus, Continuous assessment.	**COURSE CODE: BOTPCOR12T (Departmental 12) - PLANT PHYSIOLOGY & BIOCHEMISTRY** Unit7: Sensory Photobiology, Class Test
Week 9 to Week 12	**COURSE CODE: BOTPCOR14P BOTPCOR15P (Departmental 15) LABORATORY COURSE-Plant Physiology & Biochemistry**- according to the theoretical syllabus, Continuous assessment.	**COURSE CODE: BOTPCOR12T (Departmental 12) - PLANT PHYSIOLOGY & BIOCHEMISTRY** Unit7: Sensory Photobiology, Class Test **COURSE CODE: BOTPDSE01T, (Departmental 13) DSE1 PLANT DEVELOPMENTAL BIOLOGY AND ANATOMY** Unit-1: Seed germination and seedling growth, Class Test
Week 13	**COURSE CODE: BOTPCOR05P (Departmental 5)**- Unit -3 , Bryophytes- Continuous assessment. **BOTPCOR15P (Departmental 15)**	**COURSE CODE: BOTPCOR02T (Departmental 2)- DIVERSITY OF PLANT LIFE-ALGAE & BRYOPHYTES** Bryophytes-Unit 8- Bryophyte chemistry and its taxonomic implications. Biologically active compounds in bryophytes. Class test

| | LABORATORY COURSE-Plant Physiology & Biochemistry- according to the theoretical syllabus, Continuous assessment. | COURSE CODE: BOTPCOR12T (Departmental 12) - PLANT PHYSIOLOGY & BIOCHEMISTRY Unit-9:Stress physiology

COURSE CODE: BOTPDSE01T, (Departmental 13) DSE1 PLANT DEVELOPMENTAL BIOLOGY AND ANATOMY Unit-10: Senescence and programmed cell death (PCD) Class Test |
|---|---|---|
| **Week14** | **Internal Examination** | |
| Week 15 to 17 | **BOTPCOR15P (Departmental 15) LABORATORY COURSE-Plant Physiology & Biochemistry-** Mock Test on Practical (Experiments performed) | **COURSE CODE: BOTPCOR01T (Departmental 1) INTEGRATED LIFE SCIENCES** Mock Test on Unit-2: Membrane structure and function

COURSE CODE: BOTPCOR12T (Departmental 12) - PLANT PHYSIOLOGY & BIOCHEMISTRY Unit-9:Stress physiology, Class Test |
| Week 18 | **Revision, End Term Examination** | **Revision and analysis of questions for End term Examination of topic of each semester.** |

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, PG course Department of Botany Session (2021- 2022)

Class: M.Sc.   **Semester II, IV**
Name of the Teacher: DR. KAJARI LAHIRI   **Subject: Botany**

Paper: COURSE CODE: BOTPCOR08T (Departmental 8) PLANT PATHOLOGY & CROP PROTECTION, COURSE CODE: BOTPDSE02T (Departmental 16)- ADVANCED PLANT PHYSIOLOGY& BIOCHEMISTRY, BOTPDSE03T, Laboratory course of DSE 2 (Departmental 18) BOTPCOR18P Laboratory Course- Seminar Presentation, (Departmental 19) BOTPCOR19P, Dissertation, Project Work, (Departmental 20) BOTPCOR20P

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**Laboratory course of DSE 2 (Departmental 18) BOTPCOR18P,-** According to theoretical syllabus, Continuous Assessment **Dissertation Project Work (Departmental 20)** BOTPCOR20P, The dissertation will be based on the Departmental 16 (DSE2) & Departmental 17 (DSE3) opted by the student. The outcome is to be presented in Departmental	**COURSE CODE: BOTPDSE02T (Departmental 16)- ADVANCED PLANT PHYSIOLOGY& BIOCHEMISTRY** Unit 1: Programmed cell death, Class Test

	19.(P). The project work can either be a review or a practical project which on completion will have to be presented as a dissertation. The topic of the review/project will be finalized after discussion with the concerned teacher.	
Week 5 to week 8	**Laboratory course of DSE 2 (Departmental 18) BOTPCOR18P**, According to theoretical syllabus, Continuous Assessment **Dissertation Project Work (Departmental 20) BOTPCOR20P,** The dissertation will be based on the Departmental 16 (DSE2) & Departmental 17 (DSE3) opted by the student. The outcome is to be presented in Departmental 19.(P). The project work can either be a review or a practical project which on completion will have to be presented as a dissertation. The topic of the review/project will be finalized after discussion with the concerned teacher.	**COURSE CODE: BOTPDSE02T (Departmental 16)- ADVANCED PLANT PHYSIOLOGY& BIOCHEMISTRY** Unit 1-Programmed cell death, Class Test
Week 9 to Week 12	**Laboratory course of DSE 2 (Departmental 18) BOTPCOR18P**, According to theoretical syllabus, Continuous Assessment **Dissertation Project Work (Departmental 20) BOTPCOR20P,** The dissertation will be based on the Departmental 16 (DSE2) & Departmental 17 (DSE3) opted by the student. The outcome is to be presented in Departmental 19.(P). The project work can either be a review or a practical project which on completion will have to be presented as a dissertation.	**COURSE CODE: BOTPDSE02T (Departmental 16)- ADVANCED PLANT PHYSIOLOGY& BIOCHEMISTRY** Unit-2: Stress physiology, Class Test

Week 13	The topic of the review/project will be finalized after discussion with the concerned teacher.	
	Laboratory course of DSE 2 (Departmental 18) BOTPCOR18P, According to theoretical syllabus, Continuous Assessment **Dissertation Project Work (Departmental 20) BOTPCOR20P,** The dissertation will be based on the Departmental 16 (DSE2) & Departmental 17 (DSE3) opted by the student. The outcome is to be presented in Departmental 19. (P). The project work can either be a review or a practical project which on completion will have to be presented as a dissertation. The topic of the review/project will be finalized after discussion with the concerned teacher.	**COURSE CODE: BOTPDSE02T (Departmental 16)- ADVANCED PLANT PHYSIOLOGY& BIOCHEMISTRY** Unit-: 3: Oxidative and nitrosative stress and antioxidative strategies:, Class Test
Week 14	**Internal Examination**	
Week 15 to 17	**Laboratory course of DSE 2 (Departmental 18) BOTPCOR18P-** Practical Mock Test Seminar presentation by the students, It will consist of presentation the work done in Departmental 20 (which can either be a review or a practical project.) in the form of a seminar using ICT tools.	**COURSE CODE: BOTPDSE02T (Departmental 16)- ADVANCED PLANT PHYSIOLOGY& BIOCHEMISTRY** Unit-7: Secondary metabolites and their biotechnological aspects, Class Test
Week 18	**Revision, Practice for End term examination**	**Revision, solving and analysis of questions for End term Examination of topic of each semester.**

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALTLAKE, KOLKATA

Teaching Plan for Odd Semester, PG course, Department of BOTANY, Session (2021 - 2022)

Class: M.Sc.   **Semester I, III**
Name of the Teacher: Dr. Santanu Saha   **Subject: Botany**

Paper: AECC 1: Understanding and Presenting Scientific Literature (BOTPAEC01M)
Discipline Specific Elective (DSE)1: Plant Developmental Biology and Plant Anatomy
(BOTPDSE01T)
Laboratory Course - Plant Physiology & Biochemistry (BOTPCOR15P)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	DSE 1: Plant Developmental Biology and Anatomy Laboratory Course(BOTPCOR15P) Topic 1, continuous assessment	AECC 1: Understanding and Presenting Scientific Literature (BOTPAEC01M) Topic 1, Class Test DSE 1: Plant Developmental Biology and Plant Anatomy (BOTPDSE01T) Topic 3 Class test
Week 5 to Week 8	DSE 1: Plant Developmental Biology and Anatomy Laboratory Course(BOTPCOR15P) Topic 2, continuous assessment	AECC 1: Understanding and Presenting Scientific Literature (BOTPAEC01M) Topic 2, Class Test DSE 1: Plant Developmental Biology and Plant Anatomy (BOTPDSE01T) Topic 4 Class test
Week 9 to Week 12	DSE 1: Plant Developmental Biology and Anatomy Laboratory Course(BOTPCOR15P)Topic 7, continuous assessment	AECC 1: Understanding and Presenting Scientific Literature (BOTPAEC01M) Topic 3, Class Test DSE 1: Plant Developmental Biology and Plant Anatomy (BOTPDSE01T) Topic 5 Class test

S. No	Practical syllabus	Theory syllabus
Week 13	DSE 1: Plant Developmental Biology and Anatomy Laboratory Course(BOTPCOR15P) Topic 8, continuous assessment	AECC 1: Understanding and Presenting Scientific Literature (BOTPAEC01M) Topic 4, Class Test DSE 1: Plant Developmental Biology and Plant Anatomy (BOTPDSE01T) Topic 6 Class test
Week 14	*Internal Examination*	
Week 15 to week 17	DSE 1: Plant Developmental Biology and Anatomy Laboratory Course (BOTPCOR15P)Topic 9, continuous assessment	AECC 1: Understanding and Presenting Scientific Literature (BOTPAEC01M) Topic 5,6 Class Test DSE 1: Plant Developmental Biology and Plant Anatomy (BOTPDSE01T) Topic 7 Class test
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

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BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALTLAKE, KOLKATA

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Teaching Plan for Even Semester, PG course, Department of BOTANY, Session (2021 - 2022)

Class: M.Sc.   **Semester II, IV**
Name of the Teacher: Dr. Santanu Saha   **Subject: Botany**

Paper: Core Course: Plant Ecology and Environmental Biology (BOTPCOR07T)
        Skill Enhancement Course (SEC): Biodiversity & Conservation (BOTPSEC01T)
        Laboratory Course: BOTPCOR10P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course: Plant Ecology and Environmental Biology :Laboratory Course (BOTPCOR10P) Topic 1, continuous assessment Field visit	Core Course: Plant Ecology and Environmental Biology (BOTPCOR07T) Topic 1, 2 Class Test SEC: Biodiversity & Conservation (BOTPSEC01T) Topic 1,2 Class test
Week 5 to Week 8	Core Course: Plant Ecology and Environmental Biology :Laboratory Course (BOTPCOR10P) Topic 2, 3 continuous assessment Field visit	Core Course: Plant Ecology and Environmental Biology (BOTPCOR07T) Topic 3,4, Class Test SEC: Biodiversity & Conservation (BOTPSEC01T) Topic 3,4 Class test
Week 9 to Week 12	Core Course: Plant Ecology and Environmental Biology :Laboratory Course (BOTPCOR10P) Topic 4, 5, 6 continuous assessment	Core Course: Plant Ecology and Environmental Biology (BOTPCOR07T) Topic 5,6, 7 Class Test SEC: Biodiversity & Conservation (BOTPSEC01T) Topic 5,6 Class test

Week 13	Core Course: Plant Ecology and Environmental Biology :Laboratory Course (BOTPCOR10P) Topic 7, continuous assessment	Core Course: Plant Ecology and Environmental Biology (BOTPCOR07T) Topic 8, Class Test SEC: Biodiversity & Conservation (BOTPSEC01T) Topic 7 Class test
Week 14	**Internal Examination**	
Week 15 to week 17	Core Course: Plant Ecology and Environmental Biology :Laboratory Course (BOTPCOR10P) Topic 8, 9 continuous assessment	Core Course: Plant Ecology and Environmental Biology (BOTPCOR07T) Topic 9, 10 Class Test SEC: Biodiversity & Conservation (BOTPSEC01T)Topic 8 Class test
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALTLAKE, KOLKATA

Teaching Plan for Odd Semester, PG course, Department of BOTANY, Session (2021 - 2022)

Class: M. Sc
Name of the Teacher: Dr. Kausik Majumder

Semester I & III
Subject: Botany

Paper: Integrated Life Sciences (Departmental 1) BOTPCOR01T, Plant Viruses & Bacteria (Departmental 4) BOTPCOR04T, Laboratory Course (Departmental 5) BOTPCOR05P, Molecular & Cellular Genetics & Plant Breeding (Departmental 11) BOTPCOR11T, Plant Physiology & Biochemistry (Departmental 12) BOTPCOR12T, Laboratory Course- Molecular & Cellular Genetics & Plant Breeding (Departmental 14) BOTPCOR14P, Laboratory Course- Plant Physiology & Biochemistry (Departmental 15) BOTPCOR15P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Laboratory Course (Departmental 5) BOTPCOR05P Topic 1, Continuous Assessment Laboratory Course- Molecular & Cellular Genetics & Plant Breeding (Departmental 14) BOTPCOR14P, According to theoretical syllabus, Continuous Assessment Laboratory Course- Plant Physiology & Biochemistry (Departmental 15) BOTPCOR15P, According to theoretical syllabus, Continuous Assessment	Integrated Life Sciences (Departmental 1) BOTPCOR01T, Basic statistics, Class Test Plant Viruses & Bacteria (Departmental 4) BOTPCOR04T, Principles of Plant Viral Taxonomy, Class Test Molecular & Cellular Genetics & Plant Breeding (Departmental 11) BOTPCOR11T, Laws of inheritance, Extensions of Mendelian principles, Class Test Plant Physiology & Biochemistry (Departmental 12) BOTPCOR12T Enzymes and bioenergetics, Class Test
Week 5 to Week 8	Laboratory Course (Departmental 5) BOTPCOR05P Topic 1, Continuous Assessment Laboratory Course- Molecular & Cellular Genetics & Plant Breeding (Departmental 14) BOTPCOR14P, According to theoretical syllabus, Continuous Assessment Laboratory Course- Plant Physiology & Biochemistry (Departmental 15) BOTPCOR15P, According to theoretical syllabus, Continuous Assessment	Integrated Life Sciences (Departmental 1) BOTPCOR01T, Basic statistics, Class Test Plant Viruses & Bacteria (Departmental 4) BOTPCOR04T, Principles of plant viral structure and genetics, Class Test Molecular & Cellular Genetics & Plant Breeding (Departmental 11) BOTPCOR11T, Organization and measure of genetic variation, Class Test Plant Physiology & Biochemistry (Departmental 12) BOTPCOR12T Enzymes and bioenergetics, Class Test
Week 9 to Week 12	Laboratory Course (Departmental 5) BOTPCOR05P Topic 2, Continuous Assessment Laboratory Course- Molecular & Cellular Genetics & Plant Breeding (Departmental 14) BOTPCOR14P, According to theoretical syllabus, Continuous Assessment Laboratory Course- Plant Physiology & Biochemistry (Departmental 15) BOTPCOR15P, According to theoretical syllabus, Continuous Assessment	Integrated Life Sciences (Departmental 1) BOTPCOR01T, Methods in Biology, Class Test Plant Viruses & Bacteria (Departmental 4) BOTPCOR04T, Principle techniques of study Assay and purification of virus particle, Class Test Molecular & Cellular Genetics & Plant Breeding (Departmental 11) BOTPCOR11T, Organization and measure of genetic variation, Class Test Plant Physiology & Biochemistry (Departmental 12) BOTPCOR12T Protein structure, Class Test

Week 13	Laboratory Course (Departmental 5) BOTPCOR05P Topic 3, Continuous Assessment	Integrated Life Sciences (Departmental 1) BOTPCOR01T, Methods in Biology, Class Test
	Laboratory Course- Molecular & Cellular Genetics & Plant Breeding (Departmental 14) BOTPCOR14P, According to theoretical syllabus, Continuous Assessment	Plant Viruses & Bacteria (Departmental 4) BOTPCOR04T, of plant viral structure and genetics, Class Test
		Molecular & Cellular Genetics & Plant Breeding (Departmental 11) BOTPCOR11T, Marker assisted breeding, Class Test
	Laboratory Course- Plant Physiology & Biochemistry (Departmental 15) BOTPCOR15P, According to theoretical syllabus, Continuous Assessment	Plant Physiology & Biochemistry (Departmental 12) BOTPCOR12T Protein structure, Class Test
Week 14	**Internal Examination**	
Week 15 to week 17	Laboratory Course (Departmental 5) BOTPCOR05P Practical Mock Test	Integrated Life Sciences (Departmental 1) BOTPCOR01T, Laws of inheritance, Extensions of Mendelian principles, Class Test
	Laboratory Course- Molecular & Cellular Genetics & Plant Breeding (Departmental 14) BOTPCOR14P, Practical Mock Test	Plant Viruses & Bacteria (Departmental 4) BOTPCOR04T, Virus induced gene silencing (VIGS), Class Test
	Laboratory Course- Plant Physiology & Biochemistry (Departmental 15) BOTPCOR15P, Practical Mock Test	Molecular & Cellular Genetics & Plant Breeding (Departmental 11) BOTPCOR11T, Marker assisted breeding, Class Test
		Plant Physiology & Biochemistry (Departmental 12) BOTPCOR12T Protein structure, Class Test
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

Teaching Plan for Even Semester, PG course, Department of BOTANY, Session (2021 - 2022)

Class: M. Sc   **Semester II & IV**
Name of the Teacher: Dr. Kausik Majumder   **Subject: Botany**

Paper: Discipline Specific Electives (DSE) DSE 2: Advanced Plant Physiology & Biochemistry (Departmental 16) BOTPDSE02T, DSE 3: Plant Molecular Biology (Departmental 17) BOTPDSE03T, Laboratory course of DSE 2 & 3 (Departmental 18) BOTPCOR18P Laboratory Course- Seminar Presentation, (Departmental 19) BOTPCOR19P, Dissertation Project Work, (Departmental 20) BOTPCOR20P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Laboratory course of DSE 2 & 3 (Departmental 18) BOTPCOR18P, According to theoretical syllabus, Continuous Assessment	Advanced Plant Physiology & Biochemistry (Departmental 16) BOTPDSE02T, Genomics, Class Test
	Dissertation Project Work (Departmental 20) BOTPCOR20P, The dissertation will be based on the Departmental 16 (DSE2) & Departmental 17 (DSE3) opted by the student. The outcome is to be presented in Departmental 19.(P). The project work can either be a review or a practical project which on completion will have to be presented as a dissertation.	

	The topic of the review/project will be finalized after discussion with the concerned teacher.	
Week 5 to Week 8	Laboratory course of DSE 2 & 3 (Departmental 18) BOTPCOR18P, According to theoretical syllabus, Continuous Assessment Dissertation Project Work (Departmental 20) BOTPCOR20P, The dissertation will be based on the Departmental 16 (DSE2) & Departmental 17 (DSE3) opted by the student. The outcome is to be presented in Departmental 19.(P). The project work can either be a review or a practical project which on completion will have to be presented as a dissertation. The topic of the review/project will be finalized after discussion with the concerned teacher.	Advanced Plant Physiology & Biochemistry (Departmental 16) BOTPDSE02T, Genomics, Class Test
Week 9 to Week 12	Laboratory course of DSE 2 & 3 (Departmental 18) BOTPCOR18P, According to theoretical syllabus, Continuous Assessment Dissertation Project Work (Departmental 20) BOTPCOR20P, The dissertation will be based on the Departmental 16 (DSE2) & Departmental 17 (DSE3) opted by the student. The outcome is to be presented in Departmental 19.(P). The project work can either be a review or a practical project which on completion will have to be presented as a dissertation. The topic of the review/project will be finalized after discussion with the concerned teacher.	Advanced Plant Physiology & Biochemistry (Departmental 16) BOTPDSE02T, Proteomics, Class Test
Week 13	Laboratory course of DSE 2 & 3 (Departmental 18) BOTPCOR18P, According to theoretical syllabus, Continuous Assessment Dissertation Project Work (Departmental 20) BOTPCOR20P, The dissertation will be based on the Departmental 16 (DSE2) & Departmental 17 (DSE3) opted by the student. The outcome is to be presented in Departmental 19.(P). The project work can either be a review or a practical project which on completion will have to be presented as a dissertation. The topic of the review/project will be finalized after discussion with the concerned teacher.	Advanced Plant Physiology & Biochemistry (Departmental 16) BOTPDSE02T, Proteomics, Class Test
Week 14	**Internal Examination**	
Week 15 to week 17	Laboratory course of DSE 2 & 3 (Departmental 18) BOTPCOR18P, Practical Mock Test Seminar presentation by the students, It will consist of presenting the work done in Departmental 20 (which can either be a review or a practical project.) in the form of a seminar using ICT tools.	Advanced Plant Physiology & Biochemistry (Departmental 16) BOTPDSE02T, Proteomics, Class Test
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALTLAKE, KOLKATA
Teaching Plan for ODD Semester, PG course, Department of BOTANY, Session (2021 - 2022)
Class: MSc   **Semester I AND III**
Name of the Teacher: MOUSUMI MUKHOPADHYAY   **Subject: Botany**

Core course: Fungal & Oomycete Biology (Departmental 3) BOTPCOR03T/ Laboratory Course (Departmental 5) BOTPCOR05P/ DSE1: Phytochemistry and Pharmacognosy (Departmental 13) BOTPDSE01T/ Laboratory Course- Plant Physiology & Biochemistry(Departmental 15) BOTPCOR15P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Laboratory Course (Departmental 5) BOTPCOR05P: Fungi & Oomycete: Topic 1, Continuous Assessment Laboratory Course- Plant Physiology & Biochemistry According to theoretical syllabus, Continuous Assessment (Departmental 15) BOTPCOR15P:	Fungal & Oomycete Biology (Departmental 3) BOTPCOR03T: Topic 1, Class Test DSE1: Phytochemistry and Pharmacognosy (Departmental 13) BOTPDSE01T: Phytochemistry and Pharmacognosy: Introduction, history, & scope, Classification and pharmacological action of plant drugs, Class Test
Week 5 to Week 8	Laboratory Course (Departmental 5) BOTPCOR05P: Fungi & Oomycete: Topic 1, Continuous Assessment Laboratory Course- Plant Physiology & Biochemistry (Departmental 15) BOTPCOR15P: According to theoretical syllabus, Continuous Assessment	Fungal & Oomycete Biology (Departmental 3) BOTPCOR03T: Topic 2, Topic 3, Class Test DSE1: Phytochemistry and Pharmacognosy (Departmental 13) BOTPDSE01T :Phytochemistry and Pharmacognosy: Ethanopharmacognosy and Ethanomedicine, Class Test
Week 9 to Week 12	Laboratory Course (Departmental 5) BOTPCOR05P: Fungi & Oomycete: Practical Mock Test Laboratory Course- Plant Physiology & Biochemistry (Departmental 15) BOTPCOR15P: Practical Mock Test	Fungal & Oomycete Biology (Departmental 3) BOTPCOR03T: Topic 8, Mid Term Examination DSE1: Phytochemistry and Pharmacognosy (Departmental 13) BOTPDSE01T: Phytochemistry and Pharmacognosy: Ethanopharmacognosy and Ethanomedicine, Mid Term Examination

Week 13	Laboratory Course (Departmental 5) BOTPCOR05P: Fungi & Oomycete: Revision of Experiments Laboratory Course- Plant Physiology & Biochemistry(Departmental 15) BOTPCOR15P: Revision of Experiments.	Fungal & Oomycete Biology(Departmental 3) BOTPCOR03T: Revision, Problems analyses, End Term Examination DSE1: Phytochemistry and Pharmacognosy (Departmental 13) BOTPDSE01T: Phytochemistry and Pharmacognosy:Revision, Problems analyses.
Week 14	Internal Examination	
Week 15 to 17	Laboratory Course (Departmental 5) BOTPCOR05P: Fungi & Oomycete: Revision of Experiments Laboratory Course, Mock Test	DSE1: Phytochemistry and Pharmacognosy (Departmental 13) BOTPDSE01T: Phytochemistry and Pharmacognosy:Revision, Problems analyses, Tutorial
Week 18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALTLAKE, KOLKATA
Teaching Plan for ODD Semester, PG course, Department of BOTANY, Session (2021 - 2022)
Class: MSc   **Semester II AND IV**
Name of the Teacher: MOUSUMI MUKHOPADHYAY   **Subject: Botany**

Core course: Angiosperm Systematics (Departmental 6) BOTPCOR06T/Laboratory Course (Departmental 10) BOTPCOR10P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Laboratory Course (Departmental 10) BOTPCOR10P : Topic 1, Topic 2, Topic 3, Continuous Assessment	Angiosperm Systematics (Departmental 6) BOTPCOR06T : Botanical Nomenclature, Major systems of angiosperm classification, Taxonomic evidences and concepts of characters, Species/genes/family and other categories
Week 5 to Week 8	Laboratory Course (Departmental 10) BOTPCOR10P : Topic 4, Topic 5, Topic 6, Topic 7, Continuous Assessment	Angiosperm Systematics (Departmental 6) BOTPCOR06T: A general survey of the following orders of angiosperms (Sensu Cronquest, 1988), Biosystematics, Numerical taxonomy
Week 9 to Week 12	Laboratory Course (Departmental 10) BOTPCOR10P : Topic 10, Topic 11, Practical Mock Test	Angiosperm Systematics (Departmental 6) BOTPCOR06T: Phylogenetic taxonomy, Molecular Systematics, Mid Term Examination

Week 13	Laboratory Course (Departmental 10) BOTPCOR10P : Revision of Experiments,	Angiosperm Systematics (Departmental 6) BOTPCOR06T: Revision, Problems analyses,
Week 14	Internal Examination	
Week 15 to 17	Laboratory Course (Departmental 10) BOTPCOR10P : Revision of Experiments, Preparation for viva	Angiosperm Systematics (Departmental 6) BOTPCOR06T: Revision, Problems analyses,Tutorial
Week 18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALTLAKE, KOLKATA

Teaching Plan for Odd Semester, PG course, Department of BOTANY, Session (2021 - 2022)

Class: M.Sc.   **Semester I & III**
Name of the Teacher: Dr. Subhadipa Sengupta   **Subject: Botany**

Paper: Core Course: Integrated Life Sciences (Departmental 1), Course Code: BOTPCOR01T,
         Core course: Molecular & Cellular Genetics & Plant Breeding (Departmental 11)
         Course Code: BOTPCOR011T and BOTPCOR11P
         Biosafety And Laboratory Practices BOTPGEC01T Course Code:GEC1

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Departmental 1: Integrated Life Sciences Laboratory course Genomic DNA isolation, Continuous assessment Departmental 11: Molecular & Cellular Genetics & Plant Breeding (BOTPCOR11P) Study on compound microscope	Departmental 1: Integrated Life Sciences (BOTPCOR01T) Methods in Biology, Class Test Departmental 11: Molecular & Cellular Genetics & Plant Breeding (BOTPCOR11T) Topic 1, 2 & 3 GEC1: Biosafety And Laboratory Practices Topic 1
Week 5 to Week 8	Departmental 1: Integrated Life Sciences Laboratory course Plasmid DNA isolation Continuous assessment Departmental 11: Molecular & Cellular Genetics & Plant Breeding (BOTPCOR11P) Mitosis and Meiosis study	Departmental 1: Integrated Life Sciences (BOTPCOR01T) Methods in Biology, Class Test Departmental 11: Molecular & Cellular Genetics & Plant Breeding (BOTPCOR11T) Topic 4, 5 & 6 GEC1: Biosafety And Laboratory Practices Topic 2
Week 9 to Week 12	Departmental 1: Integrated Life Sciences Laboratory course Molecular techniques Continuous assessment Departmental 11: Molecular & Cellular Genetics & Plant Breeding (BOTPCOR11P) Karyotype analysis	Departmental 1: Integrated Life Sciences (BOTPCOR01T) Methods in Biology, Class Test Departmental 11: Molecular & Cellular Genetics & Plant Breeding (BOTPCOR11T) Topic 7, 8, 9 & 10 GEC1: Biosafety And Laboratory Practices Topic 3

| Week 13 | Departmental 1: Integrated Life Sciences Laboratory course
Molecular techniques
Continuous assessment

Departmental 11: Molecular & Cellular Genetics & Plant Breeding (BOTPCOR11P)
Study on abnormal stages of Mitosis and Meiosis | Departmental 1: Integrated Life Sciences (BOTPCOR01T)
Methods in Biology, different problem analysis on the topics, Class Test

Departmental 11: Molecular & Cellular Genetics & Plant Breeding (BOTPCOR11T)
Topic 11 & 12

GEC1: Biosafety And Laboratory Practices Topic 4 |

Week 14	**Internal Examination**	
Week 15 to week 17	Departmental 1: Integrated Life Sciences Revision, Viva preparation Departmental 18(P): Laboratory Course of DSE 3 Departmental 11: Molecular & Cellular Genetics & Plant Breeding (BOTPCOR11P) Ring chromosome study at translocation in *Rhoeo* plants	Departmental 1: Integrated Life Sciences (BOTPCOR01T) Methods in Biology, different problem analysis on the topics, Class Test Departmental 11: Molecular & Cellular Genetics & Plant Breeding (BOTPCOR11T) Topic 13, 14, 15 & 16 GEC1: Biosafety And Laboratory Practices Revision, Question-Answer Analyses
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

Teaching Plan for Even Semester, PG course, Department of BOTANY, Session (2021 – 2022)

Class: M.Sc.   Semester II & IV
Name of the Teacher: Dr. Subhadipa Sengupta   Subject: Botany

Core course: Plant Molecular Biology (Departmental 17 & Departmental 18 (P)
Course Code: DSE 3 & Laboratory Course of DSE 3
COURSE CODE: BOTPCOR19P [Departmental 19 (P) Laboratory Course -Seminar Presentation]
COURSE CODE: BOTPCOR20P [Departmental 20 (P): Dissertation Project Work]

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Departmental 18(P): Laboratory Course of DSE 3 Restriction mapping problems, Continuous assessment Departmental 20: Dissertation project work supervision	Departmental 17: Plant Molecular Biology Recombinant DNA technology, Basics of Cloning, Methods of DNA, RNA and protein analysis, Transcriptional analysis of gene expression, Class Test
Week 5 to Week 8	Departmental 18(P): Laboratory Course of DSE 3 Genomic DNA Isolation, Continuous assessment Departmental 20: Dissertation project work supervision	Departmental 17: Plant Molecular Biology Over expression of Recombinant proteins, Analysis of protein-DNA and protein-protein interaction, Class Test
Week 9 to Week 12	Departmental 18(P): Laboratory Course of DSE 3 Plasmid DNA Isolation, Restriction Digestion, Continuous assessment Departmental 20: Dissertation project work supervision	Departmental 17: Plant Molecular Biology Plant tissue culture and somatic cell genetics, Plant transformation vectors and methods, Direct gene transfer, Class Test

Week 13	Departmental 18(P): Laboratory Course of DSE 3 MS Media Preparation, Seed Sterilisation, Continuous assessment Departmental 20: Dissertation project work supervision	Departmental 17: Plant Molecular Biology Applications of transgenic technology in plants,
Week 14	**Internal Examination**	
Week 15 to week 17	Departmental 18(P): Laboratory Course of DSE 3 *Agrobacterium* Transformation protocol, Continuous assessment Departmental 20: Dissertation project work supervision Departmental 19: Supervision on seminar presentation	Departmental 17: Plant Molecular Biology Gene regulation, Molecular biology of Recombination, Molecular markers

Week18	Departmental 18(P): Laboratory Course of DSE 3 Transgenic crop study, Continuous assessment Departmental 20: Dissertation project work supervision Departmental 19: Supervision on seminar presentation	Departmental 17: Plant Molecular Biology Revision and class test

Session: **2021-2022**

Class: B.Sc : **ODD SEMESTERS – I, III & V**   Name of the Teacher**: Dr. Arun Kumar Jana**

Subject: Paper : **B.Sc. Hons. & General (Theory and Practical)**

Sl. No.	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	PHSACOR01P: PHSACOR03P: PHSACOR05P: PHSHGEC03P: **Whole syllabus will be covered by different groups**	**PHSACOR02T**: Non-Inertial system & STR **PHSACOR06T: 0th & 1st** law of Thermodynamics: **PHSHGEC03T**: 0th & 1st law of Thermodynamics **PHSACOR11T**:: Basic formalism of QM **PHSADSE03T**: General properties of Nuclei
Week 5to week 8	PHSACOR01P: PHSACOR03P: PHSACOR05P: PHSHGEC03P: **Whole syllabus will be covered by different groups**	**PHSAOR02T**: Special Theory of Relativity-M M Expt., postulates, L transformations, simultaneity. **PHSACOR06T**: 2nd law of Thermodynamics, Carnot's theorem & Heat Engine **PHSHGEC03T**: 2nd law of Thermodynamics & Heat Engine and efficiency **PHSACOR11T**: Schrodinger equation & Bound State Problems **PHSADSE03T**: Nuclear Models
Week 9 to week 12	PHSACOR01P: PHSACOR03P: PHSACOR05P: PHSHGEC03P: **Whole syllabus will be covered by different groups**	**PHSACOR02T**: Special theory of Relativity- Order of events, Lorentz contraction, Time Dilation and numerical. **PHSACOR06T**: Entropy, Thermodynamic potentials and applications PHSHGEC03T: Entropy, Carnot's heat Engine, 3rd law of Thermodynamics. **PHSACOR11T**: Bound States- Linear Harmonic Oscillator -applications **PHSADSE03T:** Nuclear reactions- Types, Conservation laws and kinematics of reactions.
Week 13	PHSACOR01P: PHSACOR03P: PHSACOR05P: PHSHGEC03P: **Whole syllabus will be covered by different groups**	**PHSACOR02T:** Relativistic Transformations of velocity, frequency and wave number. **PHSACOR06T**: T-ds equations in various forms **PHSHGEC03T**: Enthalpy, Gibb's , Helmholtz and Internal Energy functions. **PHSACOR11T**: Schrodinger equation in spherical polar co-ordinates with spherically symmetric potential.

Head, Department of Physics

		PHSADSE03T: Nuclear reactions-Compound and direct reaction.
Week 13 to week 14 Internal Exam		
Week 15 to 17	PHSACOR01P: PHSACOR03P: PHSACOR05P: PHSHGEC03P: **Whole syllabus will be covered by different groups**	**PHSACOR02T**: Relativistic addition of velocities, Relativistic Doppler effect – applications-numericals. **PHSACOR06T**: Maxwell's Thermodynamic relations-derivations and applications. **PHSHGEC03T**: Maxwell's relation and applications. **PHSACOR11T:** Quantum theory of Hydrogen like atoms- **PHSADSE03T**: Nuclear Reactions-Resonance reaction , Coulomb Scattering-applications.
Week 18	**Revision**	**Revision**

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Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal
Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2021-2022

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Class: B.Sc : **EVEN SEMESTERS –II, IV & VI**   Name of the Teacher: **Dr. Arun Kumar Jana**
Subject: Paper : **B.Sc. Hons. & General (Theory and Practical)**

Sl. No.	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	PHSACOR03P: PHSACOR04P: PHSACOR09P: PHSHGEC02P: PHSHGE04P: **Whole syllabus will be covered by different groups**	**PHSACOR4T**: Wave Optics, Intereference-Division of amp. And wavefront, Young's double slit Expt. Etc. **PHSACOR09T:Relativistic Dynamics-** Invariance of Space time Interval under Lorentz Transformation, Idea of 4-Vector-Contravariant and co-variant components., Numericals **PHSHGEC02T**: Electromagnetic Induction_faraday's laws, Lenz's law, Numericals. PHSHGEC04T:Interference- Division of amp. And wavefront, Young's double slit Expt. Etc **PHSACOR14T**:Statistical Mechanics-Chemical equilibrium-Chemical potential and reaction, Chemical potential for ideal gas, photon gas, Ionisation potential, Saha's Ionisation formula. **PHSADSE05T**: The Sun and Solar family-The Sun-Solar Parameters-photosphere, chromospheres, corona, Solar activity, Solar magneto hydrodynamics.
Week 5to week 8	PHSACOR03P: PHSACOR04P: PHSACOR09P: PHSHGEC02P: PHSHGE04P: **Whole syllabus will be covered by different groups**	**PHSAOR04T**: Interference-Thin and wedge shaped films, Fringes of equal inclination, thickness, Newton's rings. **PHSACOR09T**: Relativistic Dynamics-Metric, 4-scalar, space-like, time-like and light-like separation. PHSHGEC02T: Self and Mutual inductance, L of Single coil, M of two coils, Energy stored in magnetic field. **PHSHGEC04T**: Interference- Thin and wedge shaped films, Fringes of equal inclination, thickness, Newton's rings. **PHSACOR14T**: Statistical Mechanics-System of Identical Particles-Occupation Number, MB Distribution, Boltzman factor, Bosons and Fermions, Pauli Exclusion Principle. **PHSADSE05T**: The and Solar family-The Solar family-Solar System-facts and figures, origin of solar system.
Week 9 to week 12	PHSACOR03P: PHSACOR04P: PHSACOR09P: PHSHGEC02P: PHSHGE04P: : **Whole syllabus will be**	**PHSACOR4T**: Diffraction-Types, Single slit, Resolving Power of an optical instrument, Double slit. **PHSACOR09T:Relativistic Dynamics-Causality in relativity,** Proper time, 4-velocity and momentum, Numericals. **PHSHGEC02T**: Linear Network-Impedance,

Head, Department of Physics

	covered by different groups	LC R and their combinations. **PHSHGEC04T:**Diffraction-Fraunhofer diffraction-Single slit, Double slit **PHSACOR14T:**Theory of Black Body Radiation-Properties, Temperature dependence, Kirchoff's, Stefan Boltzman law-Thermodynamic proof. **PHSADSE05T: The Sun and Solar family-**The Nebular Model, Tidal forces and Planetary rings, Extra solar planets.
Week 13	PHSACOR03P: PHSACOR04P: PHSACOR09P: PHSHGEC02P: PHSHGE04P: **Whole syllabus will be covered by different groups**	**PHSACOR4T**: Diffraction-Fresnel diffraction, Fresnel's assumptions. **PHSACOR09T:Relativistic Dynamics-**Conservation law of 4-momentum, Relativistic mass. **PHSHGEC02T**: Maxwell;s equations. PHSHGEC04T:Diffraction-Diffraction grating. **PHSACOR14T**:Statistical Mechanics-Recapitulation of Planck;s law of black body radiation. **PHSADSE05T**: The and Solar family-Stellar spectra and classification structure.
Week 13 to week 14 Internal Exam	
Week 15 to 17	PHSACOR03P: PHSACOR04P: PHSACOR09P: PHSHGEC02P: PHSHGE04P: **Whole syllabus will be covered by different groups**	**PHSACOR4T**: Fresnel's Half Period Zones, Zone Plate-theory and derivation, Numericals. **PHSACOR09T:Relativistic Dynamics-Relativistic energy,** Equivalence of mass and energy, Applications in two body decay of a particle, two body collisions. **PHSHGEC02T**: Network Theorem-applications, Anderson's bridge. PHSHGEC04T:Diffraction-Fresnel diffraction, theory of half perid zones, Zone plates. **PHSACOR14T**:Statistical Mechanics-Deduction of Wien's distribution law, Rayleigh Jeans law, Stefan Boltzman law,Wein's displacement law from Planck's law. **PHSADSE05T**: The Sun and Solar Family-Stellar spectra and their temperature dependence, Black body approx., HR Diagram, Main sequence, red giants and white dwarfs, Chandrasekhar Mass limit., The Milky way.
Week 18	**Revision**	**Revision**

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal
Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2021-2022

Class: B.Sc :**ODD SEMESTERS – I, III & V**   Name of the Teacher: **Nirmal Kumar Maity**
Subject: Paper :**B.ScHons. & General(Theory and Practical)**

Sl. No.	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	PHSHGEC01P: PHSACOR07P: PHSSSEC01M **Whole syllabus will be covered by different groups**	**PHSACOR02T**:Fundamentals of Dynamics **PHSHGEC01T :** Oscillations **PHSACOR07T:** Digital and Arithmetic circuits **PHSSSEC01M** : Digital Multimeter **PHSACOR12T**: Crystal Structure **PHSADSE02T :** Dynamical Systems
Week 5to week 8	PHSHGEC01P: PHSACOR07P: PHSSSEC01M **Whole syllabus will be covered by different groups**	**PHSACOR02T**: Work and Energy **PHSHGEC01T :** Oscillations **PHSACOR07T:** Processing circuits **PHSSSEC01M** : Digital Multimeter **PHSACOR12T**: Crystal Structure **PHSADSE02T :** Dynamical Systems
Week 9 to week 12	PHSHGEC01P: PHSACOR07P: PHSSSEC01M **Whole syllabus will be covered by different groups**	**PHSACOR02T**:Collisions **PHSHGEC01T :** Oscillations **PHSACOR07T:** Sequential Circuits **PHSSSEC01M** : Digital Multimeter **PHSACOR12T**: Elementary Lattice Dynamics **PHSADSE02T :** Dynamical Systems
Week 13	PHSHGEC01P: PHSACOR07P: PHSSSEC01M **Whole syllabus will be covered by different groups**	**PHSACOR02T**: Numerical on Collisions **PHSHGEC01T :** Numerical on Oscillations **PHSACOR07T:** Timers **PHSSSEC01M** : Digital Multimeter **PHSACOR12T**: Numerical –crystal structure **PHSADSE02T : Numerical on** Dynamical Systems
Week 13 to week 14 Internal Exam		
Week 15 to 17	PHSHGEC01P: PHSACOR07P: PHSSSEC01M **Whole syllabus will be covered by different groups**	**PHSACOR02T**:Rotational Dynamics **PHSHGEC01T :** Oscillations **PHSACOR07T:** Registers and Counters **PHSSSEC01M** : Digital Multimeter **PHSACOR12T**: Lattice Dynamics **PHSADSE02T :** Dynamical Systems
Week 18	**Revision**	**Revision**

Head, Department of Physics

Class: B.Sc : EVEN SEMESTERS –II, IV& VI   Name of the Teacher: **Nirmal Kumar Maity**

Subject: Paper :**B.ScHons. & General(Theory and Practical)**

Sl. No.	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**PHSACOR03P:** **PHSACOR10P:** **PHSACOR13P:** **PHSHGEC02P:** **Whole syllabus will be covered by different groups**	**PHSACOR3T**:Magnetic Field **PHSHGEC02T**: Maxwell's equations **PHSACOR10T:** Semiconductor diodes **PHSAOR13T:** Different type of polarisation, Propagation in Anisotropic media, crystals-Uniaxial and biaxial. **PHSADSE05T**: Astronomical Scale
Week 5 to week 8	**PHSACOR03P:** **PHSACOR10P:** **PHSACOR13P:** **PHSHGEC02P:** **Whole syllabus will be covered by different groups**	**PHSACOR3T**:Magnetic Properties of matter **PHSHGEC02T**: Maxwell's equations and numerical **PHSACOR10T:** Two terminal devices and their applications. **PHSAOR13T:** Double refraction,Nicol Prism,O-ray, E-ray, refractive indices**.** **PHSADSE05T:** Astronomical Scale

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Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal
Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2021-2022

B.Sc. Odd Semester (I, III, V)   Name of the Teacher: **Dr. Subhasis Chakrabarti**

Subject: Physics Hons. & General (Theory and Practical)

Sl. No.	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR01T: Calculus (Recapitulation) Approximation: Taylor and binomial series (statements only). PHSSSEC01M: CRO PHSACOR05T: Fourier Series PHSACOR12T: Crystal Structure PHSADSE02T: Lagrangian & Hamiltonian Dynamics
Week 4 to week 8	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR01T: Calculus (1st Order and 2nd order) PHSSSEC01M: Signal Generators and analysis Instruments PHSACOR05T: Some Special Integrals PHSACOR12T: Crystal structure PHSADSE02T: Small Amplitude Oscillations
Week 8 to week 12	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR01T: Calculus (Calculus of functions of more than one variable) PHSSSEC01M: Digital Instruments PHSACOR05T: Variational calculus in Physics PHSACOR12T: Magnetic Properties of Matter , Dielectric Properties of Materials PHSADSE02T: Small Oscillations
Week 13	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR01T: Calculus (Calculus of functions of more than one variable) PHSSSEC01M: Digital Instruments PHSACOR05T: Analytical Dynamics PHSACOR12T: Ferroelectric Properties of Materials PHSADSE02T: Fluid Dynamics
Week 13 to week 14		**Internal Exam**
Week 15 to 17	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR01T: Conclusion PHSSSEC01M: Conclusion PHSACOR05T: Tutorial PHSACOR12T: Conclusion PHSADSE02T: Conclusion
Week 18	Revision & Practice	Revision

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Department of Physics
BIDHANNAGAR COLLEGE
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Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2021-2022

B.Sc. Even Semester (II, IV, VI)   Name of the Teacher: **Dr. Subhasis Chakrabarti**

Subject: Physics Hons. & General (Theory and Practical)

Sl. No.	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be distributed to different student groups	PHSACOR04T: Superposition of Collinear Harmonic oscillations PHSHGEC02T: Vector Analysis PHSACOR8T: Integrals Transforms (Fourier Transforms) PHSACOR13T: Maxwell Equations PHSADSE04T: Group Theory
Week 4 to week 8	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be distributed to different student groups	PHSACOR04T;Wave Motion PHSHGEC02T: Vector Analysis PHSACOR8T: Integrals Transforms (Fourier Transforms) PHSACOR13T: EM Wave Propagation in Unbounded Media PHSADSE04T: Group Theory
Week 8 to week 12	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be distributed to different student groups	PHSACOR04T: Velocity of Waves PHSHGEC02T: Vector Analysis PHSACOR08T: Matrices PHSACOR13T: EM Wave Propagation in bounded Media PHSADSE04T: Group Theory
Week 13	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be distributed to different student groups	PHSACOR04T: Velocity of Waves PHSHGEC02TVector Analysis PHSACOR08T: Eigen-values and Eigenvectors PHSACOR13T: Polarization of Electromagnetic Waves PHSADSE04T: Group Theory
Week 13 to week 14		**Internal Exam**
Week 15 to 17	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be distributed to different student groups	PHSACOR04T: Conclusion PHSHGEC02T: Conclusion PHSACOR08T: Conclusion PHSACOR13T: Conclusion PHSADSE04T: Tutorial
Week 18	Revision & Practice	Revision

Head, Department of Physics

Class: B.Sc. (Odd Semester) (I, III, V)   Name of the Teacher: **Dr. Prabir Banerjee**

Subject: Physics Hons. & General (Theory and Practical)

Sl. No.	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR01T: Introduction to probability (Independent random variables) PHSACOR02T: Non-Inertial Systems PHSSSEC01M: Basic of Measurement PHSACOR07T: Basic introduction, PHSACOR12T: Elementary band theory PHSADSE03T: Rigid Body Mechanics
Week 4 to week 8	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR01T: Introduction to probability (Independent random variables) PHSACOR02T: Non-Inertial Systems PHSSSEC01M: Electronic Voltmeter PHSACOR07T: Digital Circuit PHSACOR12T: Elementary Lattice Dynamics PHSADSE03T: Rigid Body Mechanics
Week 8 to week 12	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR01T: Introduction to probability (Dependent events) PHSACOR02T: Oscillations PHSSSEC01M: Impedance Bridges & QMeters PHSACOR07T: Arithmetic circuits, Data processing circuits PHSACOR12T: Superconductivity PHSADSE03T: Dynamical Systems
Week 13	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR01T: Introduction to probability (Dependent events) PHSACOR02T: Oscillations PHSSSEC01M: Digital Multimeter PHSACOR07T: Registers PHSACOR12T: Drude's theory PHSADSE03T: Oscillations
Week 13 to week 14		**Internal Exam**
Week 15 to 17	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR01T: Conclusion PHSACOR02T: Conclusion PHSSSEC01M: Conclusion PHSACOR07T: Conclusion PHSACOR12T: Conclusion PHSADSE03T: Tutorial
Week 18	Practice	Revision

Head, Department of Physics

B.Sc. Even Semester (II, IV, VI)   Name of the Teacher: **Dr. Prabir Banerjee**

Subject: Physics Hons. & General (Theory and Practical)

Sl. No.	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSACOR10P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be distributed to different student groups	PHSACOR03T: Electrical Circuits PHSHGEC02T: Magnetism PHSACOR10T: Introduction to Electronics PHSACOR13T: Maxwell Equations PHSADSE05T: Astronomical Scales, Astronomical techniques
Week 4 to week 8	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSACOR10P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be distributed to different student groups	PHSACOR03T: Electromagnetic Induction PHSHGEC02T: Electromagnetic Induction PHSACOR10T: Two-terminal Devices and their Applications PHSACOR13T: Optical Fibres PHSADSE05T: Physical principles
Week 8 to week 12	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSACOR10P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be distributed to different student groups	PHSACOR03T: Network theorems PHSHGEC02T: Maxwell`s Equations and Electromagnetic Wave Propagation PHSACOR10T: FET PHSACOR13T: Optical Fibres PHSADSE05T: The milky way
Week 13	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSACOR10P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be distributed to different student groups	PHSACOR03T: Network theorems PHSHGEC02T: Maxwell`s Equations and Electromagnetic Wave Propagation PHSACOR10T: OpAmp & its applications PHSACOR13T: Wave Guides PHSADSE05T: Galaxies, Large scale structure & expanding universe
Week 13 to week 14		**Internal Exam**
Week 15 to 17	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSACOR10P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be covered by different groups	PHSACOR03T: Conclusion PHSHGEC02T: Conclusion PHSACOR10T: Conclusion PHSACOR13T: Conclusion PHSADSE05T: Tutorial
Week 18	Revision & Practice	Revision

Head, Department of Physics

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal
Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2021-2022

Class: B.Sc Odd Semester (1,3,5)   Name of the Teacher: **Dr. Supriya Chatterjee**

Subject: Physics Honours & General (Theory and Practical)

Sl. No.	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	PHSACOR01P, PHSHGEC01P, PHSACOR05P, PHSHGEC03P, PHSACOR11P :Whole syllabus will be covered by different groups	PHSACOR01T: Vector Calculus (Recapitulation of vectors) PHSHGEC01T: Mathematical Methods PHSACOR06T: Kinetic Theory of Gases (Distribution of Velocities) PHSHGEC03T: Laws of Thermodynamics PHSACOR11T: Basic Formalism PHSADSE03T: General Properties of Nuclei & Nuclear Models
Week 5 to week 8	PHSACOR01P, PHSHGEC01P, PHSACOR05P, PHSHGEC03P, PHSACOR11P :Whole syllabus will be covered by different groups	PHSACOR01T: Vector Calculus (Vector Differentiation) PHSACOR06T: Kinetic Theory of Gases (Molecular Collisions) PHSHGEC03T: Laws of Thermodynamics PHSACOR11T: Schrodinger Equation PHSADSE03T: Radioactivity decay
Week 9 to week 12	PHSACOR01P, PHSHGEC01P, PHSACOR05P, PHSHGEC03P, PHSACOR11P :Whole syllabus will be covered by different groups	PHSACOR01T: Calculus (Calculus of functions of more than one variable) Vector Calculus (Vector Integration) PHSACOR06T: Kinetic Theory of Gases (Molecular Collisions) PHSHGEC03T: Laws of Thermodynamics PHSACOR11T: Applications of quantization rules in Atomic Physics PHSADSE03T: Radioactivity decay
Week 13	PHSACOR01P, PHSHGEC01P, PHSACOR05P, PHSHGEC03P, PHSACOR11P :Whole syllabus will be covered by different groups	PHSACOR01T: Vector Calculus (Vector Integration). PHSACOR06T: Kinetic Theory of Gases (Real Gases) PHSHGEC03T: Kinetic Theory of Gases PHSACOR11T: Applications of quantization rules in Atomic Physics PHSADSE03T: Interaction of Nuclear Radiation with matter
Week 13 to week 14 Internal Exam		
Week 15 to 17	PHSACOR01P, PHSHGEC01P, PHSACOR05P, PHSHGEC03P, PHSACOR11P :Whole syllabus will be covered by different groups	PHSACOR01T: Conclusion + Tutorial PHSHGEC01T: Conclusion + Tutorial PHSACOR06T: Conclusion + Tutorial PHSHGEC03T: Conclusion + Tutorial PHSACOR11T: Conclusion + Tutorial PHSADSE03T: Conclusion + Tutorial
Week 18	Revision	Revision

Head, Department of Physics

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal
Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2021-2022

Class: B.Sc Even Semester (2,4,6)   Name of the Teacher: **Dr. Supriya Chatterjee**

Subject: Physics Honours & General (Theory and Practical)

Sl. No.	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	PHSACOR04P, PHSHGEC02P, PHSACOR08P, PHSHGEC04P, PHSACOR14P :Whole syllabus will be covered by different groups	PHSACOR04T: Superposition of Collinear Harmonic oscillations PHSHGEC02T: Vector Analysis PHSACOR09T: Nuclear Physics (Introduction) PHSSSEC02M: Introduction to Computational Physics PHSHGEC04T: Wave Optics (Introduction) PHSACOR14T: Classical Statistical Mechanics
Week 5 to week 8	PHSACOR04P, PHSHGEC02P, PHSACOR08P, PHSHGEC04P, PHSACOR14P :Whole syllabus will be covered by different groups	PHSACOR04T: Superposition of two perpendicular Harmonic Oscillations PHSHGEC02T: Vector Analysis PHSACOR09T: Nuclear Physics (Nuclear models) PHSSSEC02M: Scientific Programming PHSHGEC04T: Wave Optics PHSACOR14T: Classical Statistical Mechanics
Week 9 to week 12	PHSACOR04P, PHSHGEC02P, PHSACOR08P, PHSHGEC04P, PHSACOR14P :Whole syllabus will be covered by different groups	PHSACOR04T: Interferometer PHSACOR09T: Nuclear Physics (Radioactivity) PHSSSEC02M: Control Statements PHSHGEC04T: Interference, Michelson's Interferometer PHSADSE04T: Advanced Probability Theory (Introduction)
Week 13	PHSACOR04P, PHSHGEC02P, PHSACOR08P, PHSHGEC04P, PHSACOR14P :Whole syllabus will be covered by different groups	PHSACOR04T: Holography PHSACOR09T: Nuclear Physics (Fission and fusion) PHSSSEC02M: Control Statements PHSADSE04T: Advanced Probability Theory (Probability distributions)
Week 13 to week 14 Internal Exam		
Week 15 to 17	PHSACOR04P, PHSHGEC02P, PHSACOR08P, PHSHGEC04P, PHSACOR14P :Whole syllabus will be covered by different groups	PHSACOR04T: Conclusion + Tutorial PHSHGEC02T: Conclusion + Tutorial PHSACOR09T: Conclusion + Tutorial PHSHGEC04T: Conclusion + Tutorial PHSACOR14T: Conclusion + Tutorial PHSADSE04T: Conclusion + Tutorial
Week 18	Revision	Revision

Head, Department of Physics

Class: B.Sc. (Odd Semester)(I, III, V)   Name of the Teacher: **Dr. Soumyabrata Mondal**

Subject : Physics Hons. & General (Theory and Practical)

Sl. No.	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR02T: Gravitation and Central Force Motion PHSHGEC01T: Gravitation PHSACOR05T: Partial Differential Equations PHSHGEC03T: Statistical Mechanics PHSACOR11T: Introduction PHSADSE03T: Particle physics
Week 4 to week 8	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR02T: Gravitation and Central Force Motion PHSHGEC01T: Gravitation PHSACOR05T: Frobenius Method and Special Functions (Legendre Polynomials) PHSHGEC03T: Statistical Mechanics PHSACOR11T: Basic Formalism PHSADSE03T: Particle physics
Week 8 to week 12	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR02T: Fluid Motion PHSHGEC01T: Elasticity PHSACOR05T: Frobenius Method and Special Functions (Bessel Polynomials) PHSHGEC03T: Statistical Mechanics PHSACOR11T: Schrodinger Equation PHSADSE03T: Accelerator & Detector
Week 13	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR02T: Fluid Motion PHSHGEC01T: Elasticity PHSACOR05T: Frobenius Method and Special Functions PHSHGEC03T: Statistical Mechanics PHSACOR11T: Application
Week 13 to week 14		**Internal Exam**
Week 15 to 17	PHSACOR02P, PHSHGEC01P, PHSACOR06P, PHSACOR07P, PHSHGEC03P, PHSACOR12P :Whole syllabus will be covered by different groups	PHSACOR02T: Conclusion PHSHGEC01T: Conclusion PHSACOR05T: Conclusion PHSHGEC03T: Conclusion PHSACOR11T: Conclusion PHSADSE03T: Tutorial
Week 18	Practice	Revision

Head, Department of Physics

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal
Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2021-2022

Class: B.Sc. (Even Semester)(II, IV, VI)   Name of the Teacher: **Dr. Soumyabrata Mondal**

Subject : Physics Hons. & General (Theory and Practical)

Sl. No.	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSACOR10P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be distributed to different student groups	PHSACOR03T: Electric Field and Electric Potential PHSHGEC02T: Electrostatics PHSACOR08T: Complex Analysis PHSSSEC02M: Introduction PHSHGEC04T: Fluids PHSADSE05T:PDE
Week 4 to week 8	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSACOR10P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be distributed to different student groups	PHSACOR03T: Electric Field and Electric Potential PHSHGEC02T: Electrostatics PHSACOR08T: Complex Analysis PHSSSEC02M: Control Statement PHSHGEC04T: Fluids PHSACOR14T:Quantum Statistics PHSADSE05T:PDE
Week 8 to week 12	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSACOR10P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be distributed to different student groups	PHSACOR03T: Dielectric Properties of Matter PHSHGEC02T: Linear Network PHSACOR08T: Complex Analysis PHSSSEC02M: Control Statement PHSHGEC04T: Fluids PHSACOR14T: Quantum Statistics PHSADSE05T:Green's function
Week 13	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSACOR10P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be distributed to different student groups	PHSACOR03T: Dielectric Properties of Matter PHSHGEC02T: Linear Network PHSACOR08T: Boundary Value Problems PHSHGEC04T:Tutorial PHSACOR14T: Quantum Statistics PHSADSE05T:Tutorial
Week 13 to week 14		**Internal Exam**
Week 15 to 17	PHSACOR03P, PHSHGEC02P, PHSACOR09P, PHSACOR10P, PHSHGEC04P, PHSACOR13P: Whole syllabus will be covered by different groups	PHSACOR03T: Conclusion PHSHGEC02T: Conclusion PHSACOR08T: Conclusion PHSHGEC04T: Conclusion PHSACOR14T: Conclusion PHSADSE05T: Conclusion
Week 18	Revision & Practice	Revision

Head, Department of Physics

CLASS: B.A/BSC.
SEMESTER: 1,3 AND 5   **NAME OF THE TEACHER: D.C.DAS.**
SUBJECT: GEOGRAPHY

	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week4	**CC02P :** 1. Graphical construction of scales: Plain, comparative. **CC07P :** 2. Based on the above, a frequency table, measures of central tendency and dispersion would be computed and interpreted using histogram and frequency curve. **CC12P :**2. Preparation of FCC.	**CC02T :** 1. Maps: Classification and types. Components of a map. **CC07T :** 1. Importance and significance of statistics in Geography. **CC12T :** 1. Principles of Remote Sensing (RS): Types of RS satellites and sensors. **GEC03T :** Map Projections: Criteria for choice of projections. **SSEC01M:** 1. Principles of Remote Sensing (RS): Classification of RS satellites and sensors.
Week 5 to week 8	**CC02P :** 1. Graphical construction of scales: diagonal and vernier. **CC07P :** 2. Based on the above, a frequency table, measures of central tendency and dispersion would be computed and interpreted using histogram and frequency curve. **CC12P :** 2. Preparation of FCC.	**CC02T :** 4. Coordinate systems: Polar and rectangular **CC07T :** 2. Discrete and continuous data, population and samples, scales of measurement (nominal, ordinal, interval and ratio). **CC12T :** 1. Principles of Remote Sensing (RS): Types of RS satellites and sensors **GEC03T :** Attributes and properties of: Zenithal Gnomonic Polar Case, Zenithal Stereographic Polar Case. **SSEC01M:** 2. Sensor resolutions and their applications with reference to IRS and Landsat missions, image referencing schemes and data acquisition**.**
Week 9 to week 12	**CC02P :** 2. Construction of projections: Simple Conic with two standard parallels. **CC07P :** 2. Based on the above, a frequency table, measures of central tendency and dispersion would be computed and interpreted using histogram and frequency curve. **CC12P :**Identification of features using standard FCC and other band combinations.	**CC02T :** 5. Concept of generating globe and UTM projection. **CC07T :** 3. Sources of geographical data for statistical analysis. 4. Collection of data and formation of statistical tables. **CC12T :** 2. Sensor resolutions and their applications with reference to IRS and Landsat missions. **GEC03T :** Attributes and properties of: Cylindrical Equal Area, Mercator's Projection, Bonne's Projection. **SSEC01M:** 3. Preparation of False Colour Composites from IRS LISS-3 and Landsat TM and OLI data. Principles of image rectification and enhancement.

Week 13	**CC02P :** 2. Construction of projections: Bonne's, Cylindrical Equal Area. **CC07P :** 2. Based on the above, a frequency table, measures of central tendency and dispersion would be computed and interpreted using histogram and frequency curve.	**CC02T :** 6. Grids: angular and linear systems of measurement **CC07T :** 4. Collection of data and formation of statistical tables. **CC12T :** 3. Preparation of False Colour Composites from IRS LISS-3 and Landsat TM and OLI data. **GEC03T :** Attributes and properties of: Cylindrical Equal Area, Mercator's Projection, Bonne's Projection. **SSEC01M:** 3. Preparation of False Colour Composites from IRS LISS-3 and Landsat TM and OLI data. Principles of image rectification and enhancement.
Week 14	Internal Examination	Internal Examination
Week 15 to week 17	**CC02P :** 2. Construction of projections: Mercator's. **CC12P :** Identification of features using standard FCC and other band combinations.	**CC02T :** 7. Map projections: Classification, properties and uses **CC07T :** 5. Sampling: Need, types, and significance and methods of random sampling. **CC12T :** 4. Principles of image correction and interpretation. Preparation of inventories of landuse land cover (LULC) features from satellite images. **GEC03T :** Concept of UTM projection. **SSEC01M:** 4. Principles of image interpretation and feature extraction. Preparation of inventories of land use land cover features from satellite images.
Week 18	**CC02P :** Practice **CC07P :** Practice **CC12P :** Practice	**CC02T :** Revision **CC07T :** Revision **CC12T :** Revision **GEC03T :** Revision

NAME OF THE TEACHER: H.K. DATTA
SUBJECT: GEOGRAPHY

	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week4	**CC02P :** Delineation of drainage basin. **GEC03P:** 1. Graphical construction of scales: Plain.	**CC01T : GEOMORPHOLOGY-**1.Weathering, mass wasting and resultant landforms. **CC06T : GEOGRAPHY OF WEST BENGAL-** 9. Physical perspectives- Physiographic divisions, forest and water resources. **CC10T : Environmental Geography –** 1. Geographers' approach to environmental studies. **DSE01T : SOIL GEOGRAPHY :** 1. FACTROS OF SOIL FORMATION - Man as an active agent of soil transformation. 2. Soil profile. Origin and profile characteristics of Latritic, Podzol and Chernozem soil. **GEC01T:** 1. Physical Geography- Definition and Scope, Components of Earth System. **GEC03T :** 1.Concept of map Scale- Types and Application. Reading distance on a map.
Week 5 to week 8	**CC02P :** Delineation of drainage basin. **GEC03P:** 1. Graphical construction of scales: Plain.	**CC01T : GEOMORPHOLOGY-** 2.Development of river network and landforms on uniclinal and folded structures. **CC06T : GEOGRAPHY WEST BENGAL-** 10.Resources: Agriculture, mining, and industry. **CC10T : Environmental Geography –** 2. Concept of holistic environment and systems approach. **DSE01T : SOIL GEOGRAPHY :** 3. Soil properties: texture, structure and moisture, 4. PH, organic matter and NPK. **GEC01T:** 2. Internal structure of earth based on Seismic Evidence, Plate Tectonics. **GEC03T : :** 1.Concept of map Scale- Types and Application. Reading distance on a map.
Week 9 to week 12	**CC02P :** Stream ordering. **GEC03P:** 1. Graphical construction of scales: comparative.	**CC01T : GEOMORPHOLOGY-** 3.Costal processes and landforms **CC06T : GEOGRAPHY WEST BENGAL-** 4.Development of on granites, basalts and limestone's. **CC10T : Environmental Geography –** 3. Ecosystem : Concept, structure and functions. **DSE01T : SOIL & BIO GEOGRAPHY :** 5. Soil erosion and degradation: Factors, Processes and mitigation measures. **GEC01T:** 3. Influence of rock on topography : Limestone and granite. **GEC03T :** 1.Concept of map Scale- Types and Application. Reading distance on a map

Week 13	**CC02P :** Stream ordering. **GEC03P:** 1. Graphical construction of scales: comparative	**CC01T : GEOMORPHOLOGY-** 5. Glacial and glacio -fluvial processes and landform. **OF CC06T : GEOGRAPHY WEST BENGAL-** 11. Population : Growth, Distribution and human development. **CC10T : Environmental Geography –** 4. Space-time hierarchy of environmental problems: Local. **DSE01T : SOIL GEOGRAPHY :** 5. Soil erosion and degradation: Factors, Processes and mitigation measures. 6. Soil classification : Genetic and USDA, land capability and its classification. **GEC01T:** 4. Evolution of landforms under fluvial process, Normal Cycle of Erosion of Davis. **GEC03T :** 3.Survey of India topographical maps: Reference scheme of old and open series. Information on the margin maps.
Week 14	Internal Examination	Internal Examination
Week 15 to week 17	**CC02P :** Revision **GEC03P:** Revision	**CC01T : GEOMORPHOLOGY-** 5. Glacial and glacio -fluvial processes and landform. **CC06T : GEOGRAPHY WEST BENGAL-** 11. Population : Growth, Distribution and human development. 12. Regional Issues : Darjeeling Hills and Sundarban. **CC10T : Environmental Geography –** 4. Space-time hierarchy of environmental problems: Local, regional and global. **DSE01T : SOIL & BIO GEOGRAPHY :** 7. Concept of biosphere, ecosystem, biome, ecotone, community, niche, succession and ecology. 8. Concept of trophic structure, food chain and food web. Energy flow in ecosystems. **GEC01T:** 4. Evolution of landforms under fluvial process, Normal Cycle of Erosion of Davis. **GEC03T :** Revision
Week 18		**CC01T : GEOMORPHOLOGY-** Revision **CC06T : GEOGRAPHY WEST BENGAL-** Revision **CC10T : Environmental Geography –** Revision **DSE01T : SOIL & BIO GEOGRAPHY :** Revision **GEC01T:** Revision **GEC03T :** Revision

Name of the teacher: Dr. Somdatta Das

	Practical syllabus to be Covered	Theory Syllabus to be covered
Week 1 to Week 4	CC01P:Identification of mineral and rock samples CC07P:Construction of data matrix, Drawing of histogram, frequency, polygon and curve CC11P:Literature survey on a specific topic	CC05T:Nature and composition of atmosphere and layering of atmosphere CC07T:Frequency distribution, Measures of central tendency CC11T:Meaning,types and significance of research, Literature survey DSE03T:Growth and distribution of population, Demographic transition model GEC01T:Insolation and heat budget GEC03T:Choropleth map
Week 5 to Week 8	CC01P:Concepts associated with geological map, Identification of rock structure CC07P:Computation of various measures of central tendency and dispersion CC11P:Literature survey on specific topic	CC05T:Insolation and heat budget Horizontal distribution of temperature CC07T:Measures of central tendency and dispersion CC11T:Research problem, design, objective and hypothesis DSE03T:Theories on population growth, Age sex composition GEC01T:Vertical distribution of temperature, inversion of temperature GEC03T:Isopleth map
Week 9 to Week 12	CC01P:Drawing of profile of uniclinal structure, Determination of dip angle CC07P:Drawing of scatter diagram and linear regression line CC11P: Literature survey of specific topic	CC05T:Vertical distribution of temperature, Temperature inversion CC07T:Linear and non-linear regression, Rank and Product Moment correlation CC11T:Scientific report writing, preparing notes, references, bibliography, abstract, keywords DSE03T:Rural and urban composition, Literacy and education, Occupational structure GEC01T:Distribution of pressure belts GEC03T:Flow diagram, use of dot and symbol in map
Week 13	CC01P:Determination of thickness of rock beds CC07P:Residual map CC11P: Literature survey on specific topic	CC05T:Green house effect, importance of ozone layer CC07T:Time series analysis CC11T:Materials and method of research DSE03T:Urbanisation of India GEC01T:Ocean bottom relief GEC03T:Interpretation of thematic map
Week 14	Internal Examination	Internal Examination
Week 15 to Week 17	CC01P:Interpretation of geological map CC07P:Practise CC11P: Preparation of literature review on specific topic	CC05T:Stability and instability, barotropic and baroclinic condition CC07T:Revision CC11T: Methods of research DSE03T:Revision GEC01T:Revision

		GEC03T:Revision
Week 18	CC01P:Practise CC07P:Practise CC11P: Preparation of literature review on specific topic	CC05T:Revision CC07T:Revision CC11T: Revision DSE03T:Revision GEC01T:Revision GEC03T:Revision

NAME OF TEACHER: RITUPARNA KHAN

WEEK	PRACTICAL TOPICS	THEORETICAL TOPICS
1 TO 4	Sem1: none Sem 3: none Sem 5: GEOACOR12P: GIS practice	Sem1: GEOACOR02T Cartographic techniques: Grids. Angular, linear systems of measurement (cont.) Sem 3: GEOACOR06T Geography of India: tectonic and stratigraphic provinces, physiographic divisions, climate, soil, vegetation Sem 5: GEOACOR11T: Fieldwork & Research Methodology: positioning and collection of samples Sem 5: GEODSE01T: Soil & Bio Geography: bio geography
5 TO 8	Sem1: none Sem 3: none Sem 5: GEOACOR12P: GIS practice	Sem 1: GEOACOR02T Cartographic techniques: Grids. Angular, linear systems of measurement (cont.) Sem 3: GEOACOR06T Geography of India: population, tribes of India, agricultural regions Sem 5:GEOACOR11T: post field tabulation Sem 5: GEODSE01T: Soil & Bio Geography: bio geography
9 TO 12	Sem1: none Sem 3: none Sem 5:GEOACOR12P: GIS practice	Sem 1: GEOACOR02T Cartographic techniques: Grids. Angular, linear systems of measurement Sem 3: GEOACOR06T Geography of India: mineral and power resources, industrial development Sem 5:GEOACOR12T: RS & GIS: concept of GIS, principles of preparing attribute tables and data manipulation Sem 5: GEODSE01T: Soil & Bio Geography: bio geography
13	Sem1: none Sem 3: none Sem 5:GEOACOR12P: GIS practice	Sem 1: GEOACOR02T Cartographic techniques: Grids. Angular, linear systems of measurement Sem 3: GEOACOR06T Geography of India: regionalisation Sem 5:GEOACOR12T: RS & GIS: principles of GNSS positioning and waypoint collection, transferring waypoints to GIS Sem 5: GEODSE01T: Soil & Bio Geography: bio geography
14	Sem1: none	Revision

	Sem 3: none	Revision	
	Sem 5: Final sheet preparation	Revision	
15 TO 17	Sem1: none	Revision	
	Sem 3: none	Revision	
	Sem 5: class test & viva	Revision	
18	Sem1: none	Class tests	
	Sem 3: none	Class tests	
	Sem 5: class test & viva	Class tests	

Name of the Teacher: Dr Shewli Shabnam

Paper: GEOACOR1T, GEOACOR2T & 2P, GEOACO 5T & 5P, GEOACOR7T & 7P, GEOACOR11T & 11P, GEOADSE03T, GEOHGEC01T, GEOHGE03T & 3P

Time frame	Semester	Theory syllabus to be covered	Practical syllabus to be covered
Week 1 to Week 4	I	GEOACOR1T: Earth's tectonic and structural evolution with reference to geological time scale GEOACOR2T: Concept and application of scales: Plain, comparative GEOHGE01T: Planetary wind System	GEOACOR2P: Graphical construction of scales: Plain, comparative
	III	GEOACOR5T: Circulation in the atmosphere: Planetary winds, jet stream, index cycle, Air mass GEOHGE03T: Map projections: Criteria for choice of projections, Attributes and properties of Zenithal Gnomonic Polar Case	GEOACOR5P: Interpretation of daily weather map: Monsoon and post-monsoon GEOHGE03P: Construction of Polar Zenithal Gnomonic Projection
	V	GEOACOR11T: Fieldwork in geographical studies: Role and significance, selection of study area and objectives, pre-field academic preparations, ethics of fieldwork, Field techniques and tools: Participant and non-participant observations, questionnaire (open, closed, structured and non-structured), interview GEOADSE03T: Development of population geography as a field of specialization, relation between population geography and demography, sources of population data, their level of reliability and problems of mapping	GEOACOR11P: Fieldwork and research methodology (Lab): Discussion about old field studies conducted by the department
Week 5 to Week 8	I	GEOACOR1T: Earth's interior with special reference to seismology GEOACOR2T: Concept and application of scales: Diagonal GEOHGE01T: Characteristics of Monsoon	GEOACOR2P: Graphical construction of scales: Diagonal
	III	GEOACOR5T: Fronts: Warm and cold, frontogenesis and frontolysis, Tropical and mid-	GEOACOR5P: Interpretation of daily

		latitude cyclone GEOACOR7T: Importance and significance of statistics in geography, Sources of geographical data for statistical analysis GEOHGE03T: Attributes and properties of Zenithal Stereographic Polar Case	weather map: Monsoon and post-monsoon GEOHGE03P: Construction of Polar Zenithal Stereographic Projection
	V	GEOACOR11T: Field techniques and tools: Landscape survey using transects and quadrants, constructing a sketch, photo and video recording GEOADSE03T: Measurements of fertility and mortality, concept of cohort and life table, Population and development: population-resource regions	GEOACOR11P: Fieldwork and research methodology (Lab): Discussion and identification of the study area for field visit
Week 9 to Week 12	I	GEOACOR1T : Isostasy: Models of Airy and Pratt GEOACOR2T: Concept and application of scales: Vernier GEOHGE01T: Tropical cyclone	GEOACOR2P: Graphical construction of scales: Vernier
	III	GEOACOR5T: Climatic classification after Koppen, Thornthwaite (1955) and Oliver GEOACOR7T: Sampling: Need, types, and significance and methods of random sampling GEOHGE03T: Attributes and properties of Cylindrical Equal Area and Mercator's Projection	GEOACOR7P: From the data matrix a sample set (20%) would be drawn using random, systematic and stratified methods of sampling and locate the samples on a map with a short note on methods used GEOHGE03P: Construction of Cylindrical Equal Area and Mercator's Projection
	V	GEOADSE03: Migration: Causes and types, National and international patterns of migration with reference to India, Population policies in developed and less developed countries, India's population policies, population and environment dichotomy and implication for the future	GEOACOR11P: Fieldwork and research methodology (Lab): Collection of maps of the study area and secondary data analysis
Week 13	I	GEOACOR2T: Maps: Classification, types and components of a map GEOHGE01T: Revision	GEOACOR2P: Revision
	III	GEOACOR5T: Monsoon circulation and mechanism with reference to India GEOHGE03T: Concept of UTM projection	GEOACOR5P: Construction and interpretation of wind rose
	V	GEOADSE03: Concept of human development index and its components	GEOACOR11P: Fieldwork and research methodology (Lab): Preparation of field report
Week 14		Internal Examination	
Week 15 to Week 17	I	GEOACOR1T: Plate tectonics GEOACOR2T: Coordinate systems: Polar and Rectangular GEOHGE01T: Climatic classification: Koppen	GEOACOR2P: Revision
	III	GEOACOR5T: Condensation: Processes and forms, mechanism and forms of precipitation GEOHGE03T: Attributes and properties of Bonne's Projection	GEOACOR5P: Hythergraph and Climograph GEOHGE03P: Construction of Bonne's

			Projection
	V	GEOADSE03: Contemporary issues: Ageing of population, declining sex ratio, HIV/AIDS	GEOACOR11P: Fieldwork and research methodology (Lab): Preparation of field report
Week 18	I	GEOACOR1T &GEOACOR2T: Revision	GEOACOR2P: Revision
	III	GEOACOR5T: Revision	GEOACOR5P: Revision
	V	GEOACOR11T& GEOADSE03T: Revision	GEOACOR11P: Fieldwork and research methodology (Lab): Preparation of field report

CLASS: B.A/BSC.
SEMESTER: 2, 4 AND 6　　　　　　　　　　**NAME OF THE TEACHER: D.C.DAS.**
SUBJECT: GEOGRAPHY

	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week4	**CC04P :** Traverse survey using prismatic compass ,profile survey using dumpy level **CC14P :** Preparation of project report on disaster management	**CC04T:** concept of rounding scientific notation logarithm and anti logarithm natural and log scales**.** **CC09T** : 1 .Tertiary activity transport , trade , service **DSE04T :** 5. Major relief feature of ocean floor : Characteristics of origin according to plate tectonics water mass , T-S diagram
Week 5 to week 8	**CC04P :** Traverse survey using prismatic compass ,profile survey using dumpy level **CC14P :** preparation of project report on disaster management	**CC04T:** concept of rounding scientific notation logarithm and anti logarithm natural and log scales. **CC09T:** 2. Agricultural system case studies of tea plantation in India and mixed farming in Europe **DSE04T :** 5. Major relief feature of ocean floor : Characteristics of origin according to plate tectonics
Week 9 to week 12	**CC04P :** Traverse survey using prismatic compass ,profile survey using dumpy level **CC14P :** preparation of project report on disaster management.	**CC04T:** concept of rounding scientific notation logarithm and anti logarithm natural and log scales. **CC09T** : 3.Transnational sea routes , railway and highways with reference to India **DSE04T:** 6. physical and chemical properties of ocean water .
Week 13	**CC04P :** Traverse survey using prismatic compass ,profile survey using dumpy level **CC14P :** preparation of project report on disaster management.	**CC04T:** Concept of rounding scientific notation logarithm and anti logarithm natural and log scales. **CC09T:** 2. Agricultural system case studies of tea plantation in India and mixed farming in Europe **DSE04T:** 7. water mass , T-S diagram
Week 14	Internal Examination	Internal Examination
Week 15 to week 17	**CC04P :** Traverse survey using prismatic compass ,profile survey using dumpy level **CC14P :** preparation of project report on disaster management.	**CC04T:** concept of rounding scientific notation logarithm and anti logarithm natural and log scales. **CC09T:** 2. Agricultural system case studies of tea plantation in India and mixed farming in Europe **DSE04T:** 7. water mass , T-S diagram
Week 18	**PRACTICAL**	**REVISIONS**

NAME OF THE TEACHER: H.K. DATTA

	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 To Week 4	**CC04P:** Profile Survey using Dumpy Level. **CC014P:** Disaster Management.	**CC03T: HUMAN GEOGRAPHY:** Types and patterns of Rural Settlement. **CC04T: CARTOGRAMS AND THEMATIC MAPPING:** Basic concept of: Dumpy Level and Theodolite. **GEC02T: UNIT-I: MIGRATION:** Types, Causes and consequences. **CC08T: UNIT-II: THEORIES AND MODELS OF REGIONAL DEVELOPMENT:** CUMULATIVE CAUSATION (MYRDALL). **CC09T: UNIT-II: CONCEPT AND CLASSIFICATION OF ECONOMIC ACTIVITIES.** **CC010T: GEOGRAPHERS' APPROACH TO ENVIRONMENTAL STUDIES.** **GEC04T: ENVIRONMENTAL GEOGRAPHY:** Concepts and approaches. **CC014T: DISASTER MANAGEMENT** **UNIT-I**: 4. Hazards mapping: Data and geospatial techniques(for hazards enlistednin Unit-II and Core 14P) **DSE04T: HYDROLOGY AND OCEANOGRAPHY** **UNIT-I**: 1. Systems approach in hydrology: Global hydrological cycle: Its physical and biological role 4. Groundwater: Occurrence and storage. Factors controlling recharge, discharge and movement.

Week 5 To Week 8	**CC04P:** Profile Survey using Dumpy Level. **CC014P:** Disaster Management.	**CC03T: HUMAN GEOGRAPHY**: Types and patterns of Rural Settlements. **CC04T: CARTOGRAMS AND THEMATIC MAPPING**: Basic concepts of: Dumpy level and Theodolite. **GEC02T: UNIT-II: SECTORS OF THE ECONOMY**: Primary, Secondary and quaternry. **CC08T: UNIT-II: THEORIES AND MODELS OF REGIONAL DEVELOPMENT**: Stages of development (Rostow). **CC09T: UNIT-II: FACTORS AFFECTING LOCATION OF ECONOMIC ACTIVITY WITH SPECIAL REFERENCE TO AGRICULTURE** (Von Thunen). **CC010T: Concept of holistic environment and systems approach**. **GEC04T: ENVIRONMENTAL GEOGRAPHY**-Human-Environment Relationship in equatorial , desert, mountain and coastal regions. **CC014T: DISASTER MANAGEMENT UNIT-II**: 5. Earthquake: Factors, Vulnerability, consequences and management **DSE04T: HYDROLOGY AND OCEANOGRAPHY** 2. Run Off: controlling factors. Infiltration and evapotranspiration. Run off cycle
Week 9 To Week 12	**CC04P:** Profile Survey using Dumpy Level. **CC014P**: Disaster Management.	**CC03T: HUMAN GEOGRAPHY**: Types and patterns of Rural Settlements. **CC04T: CARTOGRAMS AND THEMATIC MAPPING**: Basic concepts: Dumpy level and Theodolite. **GEC02T: UNIT-II: Types and patterns of Rural Settlements.** **CC08T: THEORIES AND MODELS FOR REGIONAL DEVELOPMENT**: Growth Pole Model(Perroux). **CC09T: UNIT-II: FACTORS AFFECTING LOCATION OF ECONOMIC ACTIVITY WITH SPECIAL REFERENCE TO INDUSTRY** (Weber). **CC010T: ECOSYSTEM:** Concept, Structure and Functions. **GEC04T: Concept of holistic environment and system approach.** **CC014T: DISASTER MANAGEMENT UNIT-II**: 6. Landslide: Factors, vulnerability, consequences and management **DSE04T: HYDROLOGY AND OCEANOGRAPHY UNIT-I:** 3. Drainage basin as a hydrological unit. Principles of water harvesting and watershed management

Week 13	**CC04P:** Profile Survey using Dumpy Level. **CC014P**: Disaster Management.	**CC03T: HUMAN GEOGRAPHY**: Types and patterns of Rural Settlements. **CC04T: CARTOGRAMS AND THEMATIC MAPPING**: Basic concepts: Dumpy level and Theodolite. **CC09T: UNIT-II: PRIMARY ACTIVITIES:** Agriculture, Forestry, Fishing and mining. **CC010T: ECOSYSTEM:** Concept, Structure and Functions. **CC014T: DISASTER MANAGEMENT UNIT-II**: 8. Riverbank erosion: Factors, vulnerability, consequences and management **DSE04T: HYDROLOGY AND OCEANOGRAPHY** 4. Groundwater: Occurrence and storage. Factors controlling recharge, discharge and movement**.**
Week 14	INTERNAL EXAMINATION	INTERNAL EXAMINATION
Week 15 To Week 17	**CC04P:** Profile Survey using Dumpy Level. **CC014P**: Disaster Management.	**CC03T: HUMAN GEOGRAPHY**: Types and patterns of Rural Settlements. **CC04T: CARTOGRAMS AND THEMATIC MAPPING**: Basic concepts: Dumpy level and Theodolite. **CC09T: UNIT-II: SECONDARY ACTIVITIES**: Manufacturing (cotton textile, iron and steel), concept of manufacturing regions, special economic zones and technology parks. **CC014T: DISASTER MANAGEMENT - Revision** **DSE04T: HYDROLOGY AND OCEANOGRAPHY - Revision**

Week 18	**CC04P: Revision** **CC014P: Revision**	**Revision**

Name of the teacher: Dr.Somdatta Das

	Practical syllabus to be counted	Theory syllabus to be covered
Week 1 to 4	CC04p: Preparation of choropleth map CC10 p: Preparation of schedule /Questionnaire CC 14 p :Preparation of project report on disaster management	CC 03T : Concept and classification of race CC 04T : Choropleth, Isopleth, Proportional circle CC 08T: Concept,types ,objectives and principles of regional planning SSEC02M : Rank and product moment correlation DSE06T: Iron ore ,Bauxite,Coal and Petroleum resources GEC02T : Race ,Cultural region GEC04T: Concept of Ecosystem
Week 5 to 8	CC04P: Proportional pie Diagram preparation CC10P: Preparation of schedule/questionnaire CC14P: Preparation of project report on disaster management	CC04T:Line graph, Bar graph, Land use and Land cover map CC03T:Ethnicity,Cultural region ,Cultural region based on language and religion CC08T: Need for regional planning and multilevel planning in India SSEC2M: Linear and simple curvilinear regression DSE06T: Natural gas ,hydel power , nuclear power GEC02T: Religion and language GEC04T: Structure of Ecosystem
Week 9 to 12	CC04P: Dots and sphere diagram preparations CC10P: Preparation of schedules/Questionnaire CC14P: Preparation of project report on disaster management	CC04T: Dots and spheres CC03T: Morphology of urban settlement CC08T: Concept of Growth and development Economic, social , environmental indicators of development SSEC02M: Introduction to multivariate analysis, components of time series DSE06T: Non conventional energy sources GEC02T: Trend and pattern of urbanization GEC04T: Function of ecosystem
Week 13	CC04P: Practice CC10P: Practice CC14P: Preparation of project report on disaster management	CC04T: Revision CC03T:Morphology of urban settlement CC08T:Human Development SSEC02M: Time series analysis DSE06T: Sharing of natural resource particularly water GEC02T: Illiteracy and poverty GEC04T: Function of ecosystem
Week 14	INTERNAL EXAMINATION	INTERNAL EXAMINATION

Week 15 to 17	CC04P: Practice CC10P: Practice CC 14: Completion of project report and preparation for viva	CC04T: Revision CC03T: Revision CC08T: Revision SSEC02T: Revision DSE06T: Water resource GEC02T: Revision GEC04T: Revision

Week 18	CC04P: Practice CC10P: Practice CC14: Preparation for viva on project report	Revision of all papers

NAME OF TEACHER: RITUPARNA KHAN

WEEK	PRACTICAL TOPICS	THEORETICAL TOPICS
1 TO 4	Sem2: none Sem 4: none Sem6: Disaster Management project	Sem2: GEOACOR03T Nature, scope and recent trends in Human Geography. Sem 4: GEOACOR08T Regional Panning: metropolitan concept & urban region Sem 4: GEOACOR09T Economic Geography: meaning and approaches, concepts Sem6: GEOACOR13T: Geographical Thought: development of geography, impact of dark age, age of discovery and exploration.
5 TO 8	Sem2: none Sem 4: none Sem6: Disaster Management project	Sem 2: GEOACOR03T Approaches to study Human Geography. Sem 4: GEOACOR09T Economic Geography: concept of economic man, theories of choices, economic distance & transport costs, classification of economic activities, location theory, case studies of agriculture Sem6: GEOACOR13T: Geographical Thought: transition from cosmography to scientific geography, evolution of thoughts in Germany, France, Britain, USA
9 TO 12	Sem2: none Sem 4: none Sem6: Disaster Management project	Sem 2: GEOACOR03T UNIT II: Evolution of human societies. Human adaptation to environment. Sem 4: GEOACOR09T transnational sea routes, railways, highways, international trade and economic blocs Sem6: GEOACOR14T: Disaster Management: classification of hazards and disasters, approaches to hazard study, responses to hazards
13	Sem2: none Sem 4: none Sem6: Disaster Management project	Sem 2: GEOACOR03T Population-resource regions. Sem 4: GEOACOR10T Environmental Geography: Geographers' approach to environmental studies, holistic environment, systems approach, ecosystem, environmental

			policies, global initiatives to environmental management
			Sem6: GEOACOR14T: Disaster Management: landslides, tropical cyclone
14	Sem2: none	Revision	
	Sem 4: none	Revision	
	Sem6: Disaster Management project	Revision	
15 TO 17	Sem2: none	Revision	
	Sem 4: none	Revision	
	Sem6: Disaster Management project	Revision	
18	Sem2: none	Class tests	
	Sem 4: none	Class tests	
	Sem6: Disaster Management project signing	Class tests	

Name of the Teacher: Dr Shewli Shabnam
Paper: GEOACOR3T, GEOACOR4T & 4P, GEOACOR8T, GEOACOR10T & 10P, GEOACOR13T, GEOACOR14P, GEOADSE06T, GEOHGEC02T, GEOHGEC04T

Time frame	Semester	Theory syllabus to be covered	Practical syllabus to be covered
Week 1 to Week 4	II	GEOACOR3T: Population growth and distribution GEOACOR4T: Bearing: Magnetic and true GEOHGEC02T: Factors of growth and distribution of world population	GEOACOR4P: Maths related to bearing
	IV	GEOACOR8T: Concept of regions: Types of regions and their delineation GEOACOR10T: Urban environmental issues and concept of waste GEOHGEC04T: Problems and management of air & water pollution	GEOACOR10P: Interpretation of air quality using CPCB/ WBPCB data
	VI	GEOACOR13T: Contributions of Humboldt and Ritter, Richthofen, Hettner, Ratzel GEOADSE06T: Natural resources: Concept and classification, Significance of resource: Backbone of economic growth and development	GEOACOR14P: Disaster management project
Week 5 to Week 8	II	GEOACOR3T: Population composition GEOACOR4T: Basic concept of surveying and prismatic compass GEOHGEC02T: Demographic transition theory	GEOACOR4P: Traverse survey using prismatic compass
	IV	GEOACOR8T: Concept of regions: Types of regions and their delineation, Concept and causes of underdevelopment GEOHGEC04T: Biodiversity loss	GEOACOR10P: Interpretation of air quality using CPCB/ WBPCB data
	VI	GEOACOR13T: Contributions of Vidal de la Blache, Trends in geography in the post-World War-II period: Quantitative Revolution GEOADSE06T: Approaches to resource utilization: Utilitarian, Conservational, Community-based adaptation	GEOACOR14P: Disaster management project

Week 9 to Week 12	II	GEOACOR3T: Population composition GEOACOR4T: Basic concept of dumpy level GEOHGEC02T: World population composition: Age, gender, literacy	GEOACOR4P: Traverse survey using prismatic compass
	IV	GEOACOR8T: Regional development in India: Disparity and diversity GEOHGEC04T: Solid and liquid waste management	GEOACOR10P: Preparation of check-list for EIA
	VI	GEOACOR13T: System approach in geography, Evolution of Critical geography: Behavioural and humanistic geography GEOADSE06T: Pressure on resources: Appraisal and conservation of natural resources	GEOACOR14P: Disaster management project
Week 13	II	GEOACOR3T: Demographic transition GEOACOR4T: Basic concept of theodolite GEOHGEC02T: Revision	GEOACOR4P: Traverse survey using prismatic compass
	IV	GEOACOR10T: Urban waste management GEOHGEC04T: Revision	GEOACOR10P
	VI	GEOADSE06T: Sustainable resource development	GEOACOR14P: Disaster management project
Week 14		Internal Examination	
Week 15 to Week 17	II	GEOACOR3T: Space, society and cultural regions GEOHGEC02T: Migration: Types, causes and consequences	GEOACOR4P: Revision
	IV	GEOACOR8T: Need and measures for balanced development in India GEOACOR10T: Space-time hierarchy of environmental problems: Local, regional and global GEOHGEC04T: Problems and management of desertification and soil erosion	GEOACOR10P: Preparation of check-list for EIA
	VI	GEOACOR13T: Radical geography, Changing concept of time-space in geography in the 21st century GEOADSE06T: Problems of resource depletion-global scenario (forest, water, fossil fuel)	GEOACOR14P: Disaster management project
Week 18	II	GEOACOR3T &GEOACOR4T: Revision	GEOACOR4P: Revision
	IV	GEOACOR8T& GEOACOR10T: Revision	GEOACOR10P: Revision
	VI	GEOACOR13T& GEOADSE06T: Revision	GEOACOR14P: Disaster management project

Class: B.Sc.
Semester 1,3 and 5.   Name of the Teacher: Dr Sankha Priya Guha
Subject: Anthropology

Paper: ANTACOR01T, ANTACOR05T, 12T (Theory and Practical)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4		**ANTCOR01T, Unit – II: Concepts of Society and Culture** (Definitions and salient features) 1. Society, Group, Community **Old 3rd Year**: Tribal Development in India.
Week 5 to week 8	Field work Preparation	**ANTCOR01T Unit II**: Social Institution, Social Unit, Social Association, Social Fact, Socialization, Social System (Social Structure & Social function), Status and Role, Social Stratification, Gender, Ethnicity. **ANTACOR05T UNIT 1**: Anthropological concept of tribes i. General traditional concept of tribes (Meaning and Criteria) UNIT 1: Anthropological concept of tribes General traditional concept of tribes (Meaning and
Week 9 to Week 12		**ANTCOR01T Unit II**: Social Institution, Social Unit, Social Association, Social Fact, Socialization, Social System (Social Structure & Social function), Status and Role, Social Stratification, Gender, Ethnicity.
Week 13		**ANTACOR05T**: UNIT 2: Tribes and wider world i. The history of tribal administration Traditional political organization of the Santals, the Garos, the Todas, the Chenchus **ANTACOR12T** Unit I: Applied fields of Anthropology Applied, Action and Development Anthropology: Definition, Meaning and Historical Development and Empirical examples from projects.
Week13 to week 14		**Internal Exam**
Week 15 to 17		**ANTACOR12T** **Unit II: Role of Anthropology in Development** Introduction to the Concepts of Development
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, UG course Department of

Anthropology

Session (2021-2022)

Class: B.Sc.
Semester 1,3, and 5   **Name of the Teacher: Dr. Bandana Chakrabarti**
Subject: Anthropology
Paper: ANTACOR04T, ANTACOR05T, 12T, DSE01 **(Theory and Practical)**

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4		**ANTACOR04TUnit-IV**: The origin of Homo sapiens: Fossil evidences of Neandertals: Classic Neandertals (La-Chapelle-Aux – saints), Progressive Neandertals (Tabun); Archaic Homo sapiens. Unit-V: Origin of modern humans (Homo sapiens sapiens): Cro-Magnon, Grimaldi, Chancelade: Distribution and features and their phylogenetic status. Unit-VI: Hominization process, Bio-cultural evolution of Man. Suggested Readings ANTADSE01T: INDIAN ARCHAEOLOGY
Week 4 to week 8		. **ANTACOT12T**.Unit II: Role of Anthropology in Development Introduction to the Concepts of Development Anthropology & Anthropology of Development. Sustainable Development: Meaning, Characters and Empirical Projects. Concept of Development and Welfare;
Week 8 to Week 12		**ANTACOR05TUnit** 3: Anthropological study of Peasants i. The concept of peasantry (definition and type) ii. Approaches to the study of peasants – economic, political and cultural. iii. Characteristics of Indian village: social organization; economy iv. Tradition and changes in Indian villages v. Caste and peasantry in India: origin history and present situation. vi. Changes in traditional caste system in India.
Week 13		**ANTACOT12T**.Unit II: Role of Anthropology in Development Development of tribal communities in India in relation to Economic, Social, Educational, Health & Environmental concern (Development programmes); Role of NGOs in Development Anthropology
Week13 to week 14		**Internal Exam**
Week 15 to 17		ANTACOR05T Unit 3: Anthropological study of Peasants **ANTADSE01T: INDIAN ARCHAEOLOGY**
Week 18		Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, UG course Department of

Anthropology

Session 2021-2022

Class: B. Sc
Semester 1, 3 and 5.   Name of the Teacher: Dr Sudesna Chanda
Subject: Anthropology
Paper: ANTACOR01T,01P. ANTACOR06T, 07T, 6P,11T, DSE2T   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**ANTACOR06P** Craniometric Measurements (Skull & Mandible) (Direct measurements on at least 3 human skulls) Determination ABO and Rh(D) blood groups of ten subjects by direct slide method. Dermatoglyphics Paper 7/ Practical **ANTACOR11P:** HUMAN POPULATION GENETICS	**ANTACOR01T/ Unit – I: Biological Anthropology:** Definition, aim and scope; it's approaches – Bio-cultural, comparative and evolutionary. Concepts and application of adaptation and evolution in Biological anthropology **Unit – II: Theories of organic evolution:** Lamarckism, Neo-Lamarckism, Darwinism, Neo- Darwinism, Synthetic theory, Neutral theory; Some basic concepts of Evolution: Speciation - Allopatric, Parapatric, Sympatric **ANTADSE02T**: ANTHROPOLOGY OF HEALTH Theory **ANTACOR06T:** HUMAN ECOLOGY: BIOLOGICAL & CULTURAL DIMENSIONS **ANTACOR11T:** HUMAN POPULATION GENETICS
Week 5 to week 9	ANTACOR01P **Unit – I:** Identification of Human cranium – it's different normas - *norma verticalis; norma lateralis; norma occipitalis; norma basalis; norma frontalis;* Identification of Cranial bones: Frontal, Parietal, Temporal, Occipital, Maxilla, Zygomatic, Sphenoid, Mandible	**ANTACOR01T Unit – IV:** Human skeletal anatomy and functional morphology of bones as parts of total skeleton; relevance of studying human anatomy as a part of anthropology, classification of bones, their anatomical positions and functions. **Unit – III: Study of Primates in evolution:** 1. Primates: Definition, characteristics. 2. Classification of living primates up to family level with example (Simpson); concepts of Strepsirrhini and haplorrhine. **ANTACOR07T**: BIOLOGICAL DIVERSITY IN HUMAN POPULATIONS **ANTACOR11T**: HUMAN POPULATION GENETICS
Week 8 to Week 12	ANTACOR01P **Unit – I** Identification, anatomical position and side determination of Post- Cranial Bones: Scapula, Clavicle, Femur, Tibia, Fibula, Humerus, Radius, Ulna.	**ANTACOR01T Unit – III: Study of Primates in evolution:** 3. Primate evolutionary trends: limbs & locomotion, teeth & diet, senses, brain & behavior. Morphological and anatomical features of apes. **Unit – IV:** Human skeletal anatomy and functional morphology of bones as parts of total skeleton
Week 13	**Paper 7/ Practical** 1.Craniometric Measurements Linear: Maximum Cranial Length, Maximum Cranial Breadth, Morphological Facial Height, **ANTACOR11P**: HUMAN POPULATION GENETICS	**ANTACOR01T Unit – IV:** Human skeletal anatomy and functional morphology of bones as parts of total skeleton **ANTACOR 06T, Unit III:** Concepts of acclimatization, adaptation and adaptability; Adaptation to various ecological stressors: Temperature, Altitude and Nutrition; ANTACOR11TUnit V: Population structure and admixture in human populations **ANTADSE02T**: ANTHROPOLOGY OF HEALTH Theory
Week13 to week 14		**Internal Exam**
Week 15 to 17	**ANTACOR11P**: HUMAN POPULATION GENETICS Laboratory Note book	**ANTACOR07T/Unit IV**: Modern concepts of population **ANTACOR11T**: HUMAN POPULATION GENETICS
Week 18	Revision	Revision

Teaching Plan for Odd Semester, UG course Department of

Anthropology

Session (2021-2022)

Class: B. Sc

Semester 1, 3 and 5   Name of the Teacher: Dr Krishnendu Polley

Paper: ANTACOR01P, 02T, 05P, 12T, DSE1T   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4		**ANTACOR02TUnit II:** **Concepts of society and Culture** (Brief notes on meaning, definition and salient features) Society, Group, Community, Social Institution, Social Unit, **ANTACOR04TUnit-IV**: The origin of Homo sapiens: Fossil evidences of Neanderthals: Classic Neandertals (La-Chapelle-Aux – saints), Progressive Neandertals (Tabun); Archaic Homo sapiens.
Week 5 to week 9	ANTACOR01P **Unit – I:** Typo-technological attributes, cultural ages, probable functions, method of hafting, identification of cortex,	**ANTACOR05T Unit 3:** Anthropological study of Peasants The concept of peasantry (definition and type) Approaches to the study of peasants – economic, political and cultural. Characteristics of Indian village: social organization; economy **ANTACOR04TUnit-IV**: Unit-V: Origin of modern humans (Homo sapiens sapiens): Cro-Magnon, Grimaldi, Chancelade: Distribution and features and their phylogenetic status. Unit-VI: Hominization process, Bio-cultural evolution of Man. Suggested Readings
Week 8 to Week 12	ANTACOR01P Unit – **II:** Osteology	**ANTACOR05T Unit 3:** Tradition and changes in Indian villages Caste and peasantry in India: origin history and present situation. Changes in traditional caste system in India
Week 13		**ANTACOR06T, Unit VI:** Ecological themes of state formation: Neolithic revolution, ii. Hydraulic theory; Agriculture and peasantry; Industrial civilization and growth of urban societies. Unit I: Applied fields of Anthropology Applied, Action and Development Anthropology: Definition, Meaning and Historical Development and Empirical examples from projects. Brief discussion on modernization, dependency and world systems theory of Development Issues.
Week13 to week 14		**Internal Exam**
Week 15 to 17	Laboratory Note-Book	**ANTAC0R12T, Unit IV**: Anthropology and Development in Indian Context
Week 18	Revision	Revision

Class: B.Sc.
Semester 1,3,5   **Name of the Teacher: Kaushik Bhattacharya**
Paper: ANTACOR01T, 05T, 12T, DSE3T   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4		**ANTACOR01TUnit – I:** 1. Fundamentals of Social-Cultural Anthropology: Definition, aim & scope, Distinctiveness - Holism, Cultural Relativism and Cross Cultural Comparison, Fieldwork in Anthropology - Importance and Genesis.
Week 5 to week 9	**ANTA02P:** Writing ONE CASE STUDY on any one of the following events from one family - Birth, Marriage, Death, Thread Ceremony.	ANTACOR01T **Concepts of the major sub-fields**: Economic Anthropology, Political Anthropology, Anthropology of Religion, Psychological Anthropology, Cognitive Anthropology, Medical **Relationship with Social Sciences**: Economics, Geography, History, Political Science, Psychology, Sociology.
Week 8 to Week 12	**ANTA02P**: Household ritual (e.g. Pujas/ brotos, religious ritual and festival of other communities).	**Unit III: Religion:** Definition and Anthropological approach; Animism, Animatism, Manaism, Totemism; Magic and Religion. **ANTACOR05T** **UNIT 2:** Tribes and wider world The history of tribal administration Traditional political organization of the Santals, the Garos, the Todas, the Chenchus Constitutional safeguards for the Indian tribes
Week 13		**ANTACOR05T** UNIT Tribes and wider world Issues of acculturation assimilation and integration Impact of development schemes and programmes on tribal life
Week13 to week 14		**Internal Exam**
Week 15 to 17	Laboratory Note-Book	**ANTACOR05**T.Unit 4: Ethnicity in India i. Concepts and meaning of ethnicity ii. Tribal and peasant movements in colonial and post-colonial India **ANTADSE03P: TRIBAL CULTURES AND TRIBAL DEVELOPMENT IN INDIA**
Week 18	Revision	Revision

Class: B.Sc.

Semester 1 ,3, 5   Name of the Teacher: Kartik Chakraborty

Paper: ANTACOR01T, ANTACOR05T,12T, 1P, 6P, DSE3T (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**ANTA01P/UnitII:** Anthroposcopy (**at-least 10 subjects**): Assessment of skin color: exposed (forehead) and unexposed (inner surface of the upper arm). Head Hair: form, color, texture, quantity, whorl (number and type), hair limit. **ANTACOR06P**: HUMAN ECOLOGY: BIOLOGICAL & CULTURAL DIMENSIONS	**ANTACOR01T/ Unit III,4**. Primate evolutionary trends: limbs & locomotion, teeth & diet, senses, brain & behavior. Morphological and anatomical features of apes viz. gibbons, orangutan, chimpanzee, gorillas. Comparison of morphological and anatomical features of humans and apes **ANTACOR05T** Unit 3: Anthropological study of Peasants The concept of peasantry (definition and type) Approaches to the study of peasants – economic, political and cultural. Characteristics of Indian village: social organization; economy Tradition and changes in Indian villages Caste and peasantry in India: origin history and present situation. Changes in traditional caste system in India.
Week 5 to week 8	**ANTA01P:** Facial Hair: beard and moustache. Nose: depression of the nasal root, height of the nasal bridge, nasal profile, tip of the nose, inclination of the septum, nasal wings. Ear: size, shape, ear lobe (size, form and attachment), hypertrichosis of ear.	**ANTACOR01T/ Concepts of the major sub-fields**: Concept and brief overview of Linguistic Anthropology. **Relationship with Social Sciences**: Economics, Geography, History, Political Science, Psychology, Sociology. **ANTACOR12T:** ANTHROPOLOGY IN PRACTICE **ANTADSE03P**: TRIBAL CULTURES AND TRIBAL DEVELOPMENT IN INDIA
Week 9 to Week 12	**ANTA02P**: Household ritual (e.g. Pujas/ brotos, religious ritual and festival of other communities).	**ANTACOR05T Unit III: Religion:** Definition and Anthropological approach; Animism, Animatism, Manaism, Totemism; Magic and Religion.
Week 13	**ANTACOR06P**: HUMAN ECOLOGY: BIOLOGICAL & CULTURAL DIMENSIONS	**ANTACOR05T** UNIT 2: Tribes and wider world **ANTACOR12T: ANTHROPOLOGY IN PRACTICE** **ANTADSE03P**: TRIBAL CULTURES AND TRIBAL DEVELOPMENT IN INDIA
Week13 to week 14		**Internal Exam**
Week 15 to 17	Laboratory Note-Book	**ANTACOR05T** Unit 4: Ethnicity in India Concepts and meaning of ethnicity, Tribal and peasant movements in colonial and post-colonial India **ANTACOR12T**: ANTHROPOLOGY IN PRACTICE
Week 18	Revision	Revision

Class: B.Sc.
Semester 1, 3 ,5   **Name of the Teacher: Soumita Biswas**
Paper: ANTACOR02T, 05T, 12T,2P, DSE3T   **(Theory and Practical)**

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4		**ANTACOR02T** **Unit – III: Social Organization:** 1. **Family**: Definition, Types & Functions, Changes due to Industrialization & Urbanization (with special reference to Indian Context).
Week 5 to week 8	**ANTA02P:** Writing **ONE CASE STUDY** on any one of the following events from one family - Birth, Marriage, Death, Thread Ceremony, Household ritual (e.g. *Pujas/ brotos*, religious ritual and festival of other communities).	**ANTACOR02T** **Unit – III/ 2. Marriage**: Definition, Types, Preferential & Prescribed forms of marriage, Functions of marriage, Universality of marriage, Incest taboo, Ways of acquiring mates in tribal society, Forms of marital transaction and exchange theory (Dowry, Bride price, Gift), Post-marital residence, Divorce & Remarriage. **ANTADSE03P**: TRIBAL CULTURES AND TRIBAL DEVELOPMENT IN INDIA
Week 9 to Week 12	**ANTA02P**: Drawing ONE GENEALOGICAL CHART (with kinship terminology) of one family(Minimum 3 generations).	**Kinship**: Definition, Structure of kinship (Murdock); Function of kinship, Kinship behaviour - Avoidance, Joking, Couvade, Teknonymy; **ANTACOR12T** Unit IV: Anthropology and Development in Indian Context Major tool used in rural development and management- RRA and PRA; Local Self-Government (Constitutional provisions, Composition, Electoral Process, Membership, Functions, importance in decentralization of power) - Rural (Panchayat Raj System), Urban (Municipality and Municipal Corporation).
Week 13	Preparation of **SCHEDULE / QUESTIONNAIRE** any one of the following: Enumeration form (Census) Schedule for understanding Economic Pursuit Schedule for understanding Political Organization	**ANTACOR05T, Unit 3**: Anthropological study of Peasants The concept of peasantry (definition and type) Approaches to the study of peasants – economic, political and cultural. Tradition and changes in Indian villages Caste and peasantry in India: origin history Changes in traditional caste system in India. **ANTADSE03P**: TRIBAL CULTURES AND TRIBAL DEVELOPMENT IN INDIA
Week13 to week 14		**Internal Exam**
Week 15 to 17		Unit IV: Concept of Ethnicity
Week 18	Revision	Revision

Teaching Plan for Even Semester, UG course Department of

Anthropology

Session (2021-2022)

Class B.Sc.
Semester 2,4,6   Name of the Teacher: Dr Sankha Priya
Guha
Paper: ANTACOR04T, 08T,14T, DSE5T   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4		**ANTACOR04T: unit I:** **Introduction to Archaeological Anthropology:** Definition and scope of Archaeological Anthropology, Relationship with other disciplines - history, anthropology and other natural sciences. **ANTACOR14T: ANTHROPOLOGY OF INDIA Unit - I** : Indian Anthropology: Origin, History, Growth and Development of Anthropology (Mentioning Phases or Stages);
Week 5 to week 8		**ANTACOR04T: unit I** A brief introduction to different cultural stages in Prehistory and Protohistory; **ANTACOR08T UNIT I:** Theory: What is it? How to frame a theory? The Boundaries of theory; Importance of studying theory in Social Sciences at large and Social-Cultural Anthropology in particular, Nineteenth Century **ANTADSE05T**: RURAL AND URBAN ANTHROPOLOGY
Week 9 to Week 12		**Unit III: Religion:** Definition and Anthropological approach; Animism, Animatism, Manaism, Totemism; Magic and Religion. **ANTACOR14TUnit - I:** S.C. Roy, I. Karve, D.N. Majumdar, N.K. Bose, M.N. Srinivas, L.P. Vidhyarthi, T.C. Das, P.K. Bhowmick, Busoga and S.S. Sarkar, SRK Chopra, HD Sankalia, D. Sen, D.K. Bhattacharya; Racial and Linguistic elements in Indian population;
Week 13		**ANTACOR04T**, Dryopithecus, Sivapithecus, distribution, features and their phylogenetic relationships **ANTACOR08T.UNIT II** Cultural Relativism, Historical particularism: theories.
Week13 to week 14		**Internal Exam**
Week 15 to 17	Laboratory Note-Book	**ANTACOR08T** **UNIT I** Century Evolutionism: E.B. Tylor and L.H. Morgan. Neo-Evolutionism: L White; Multilinear Evolution: Julian Steward. ANTADSE05T: RURAL AND URBAN ANTHROPOLOGY
Week 18	Revision	Revision

Teaching Plan for Even Semester, UG course Department of

Anthropology

Session (2021-2022)

Class: B.Sc.
Semester 2,4 6   **Name of the Teacher: Dr Bandana Chakraborti**
Paper: ANTACOR03T, ANTACOR03P, ANTACOR10T,   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**ANTACOR03P/** **Unit – I:** Drawing and labeling of Tool types: Identification of Typo-technological attributes, cultural ages, probable functions,	**ANTACOR03T/Unit – II:** **Unit –II: Methods of Estimation of time in archaeology:** Concept of chronology in Prehistory, Following dating methods are to be studied based on the points - discovery, first use, datable material, basic principle, precautions, method of sample collection, advantages and disadvantages, specific examples; Methods of dating: Stratigraphy, Typo-technological analysis, C14, K/Ar, Dendrochronology, TL; Concept of Absolute (Chronometric) and Relative (Non-Chronometric) dating methods.
Week 5 to week 8	**ANTACOR03P/** **Unit – I:** Method of hafting, identification of cortex, flake scar, ripple mark.	**ANTACOR03T/Unit – V: World prehistory:** Africa: The earliest Paleolithic assemblages of Africa - Oldowan, Acheulian; Middle Stone Age, Later Stone Age; Europe: Acheulian, Levalloisian, Middle and Upper Paleolithic Culture, Mesolithic Culture, Neolithic Culture. Old 3rd Year: Mesolithic , Neolithic Culture
Week 9 to Week 12		**ANTACOR03T/Unit – V** Prehistoric art (home and cave art); India: The earliest Paleolithic assemblages,
Week 13		**ANTACOR03T/Unit – V** Acheulian, Middle Paleolithic Culture, Upper Paleolithic, Micro-blade assemblages, Late Stone Age and Neolithic Culture, Megaliths. **ANTACOR10T Unit III:** Iimportance of consent, privacy and confidentiality in research
Week13 to week 14		**Internal Exam**
Week 15 to 17	Laboratory Note-Book	**ANTACOR10T** Unit III: Ethics of Research
Week 18	Revision	Revision

Teaching Plan for Even Semester, UG course Department of

Anthropology

Session (2021-2022)

Class: B.Sc.
Semester 2,4, 6   Name of the Teacher: Dr Sudesna Chanda
Paper: ANTACOR04T, ANTACOR04P, ANTACOR09T ANTACOR09P (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**ANTACOR04P/ Unit – I:** Identification of extant anthropoid skulls with reference to features relevant to Hominid evolution (Gorilla, Chimpanzee, Orangutan and Gibbon). **ANTACOR09P**: HUMAN GROWTH AND DEVELOPMENT	**ANTACOR04T Unit –II** **Unit – I: Paleoanthropology:** Definition, aim & scope; Fossils - Process of fossilization, Significance of fossils. **ANTACOR04T, Unit-I:** Oligocene Anthropoids: Parapithecus, Aegyptopithecus; Primate origins and radiation with special reference to Miocene hominoids: Dryopithecus, Sivapithecus, distribution, relationships **ANTACOR09T.Unit I:** Concepts of human growth, development and maturation; Cellular processes: hyperplasia, hypertrophy and accretion; Unit II: Methods of studying human growth and development: cross sectional, longitudinal, mixed and linked longitudinal. **ANTACOR13T: FORENSIC ANTHROPOLOGY**
Week 5 to week 8	**ANTACOR04P/** *H. Sapiens neanderthalensis* (La-Chapple-aux-saints), *H. sapiens sapiens* (Cro- Magnon). ANTACOR13P: FORENSIC ANTHROPOLOGY	**ANTACOR04T/ Unit V:** La-Chapelle-Aux–saints, Tabun Man; Phylogenetic position. **ANTACOR09T, Unit V:** Growth and Nutritional Status: Growth retardation and faltering: low birth weight, stunting, wasting and underweight in children, concept of z-score statistic, MAM and SAM in children, Kwashiorkor, Marasmus; ANTACOR13T: FORENSIC ANTHROPOLOGY
Week 9 to Week 12	**Old 3rd Year:** Paper VII Anthropometry, Skinfold measurements, Dermatoglyphics. **ANTACOR09P**: HUMAN GROWTH AND DEVELOPMENT	**ANTACOR09T** Unit III: Stages of growth: Prenatal and Post-natal period of growth (general characteristics), growth spurt, Scammon 's curves of systemic growth; chronological age and biological age. Unit IV: Distance and velocity growth curves: their features and significance. Growth reference, growth standard, growth chart, Variation in normal growth curve (concepts of canalization, Catch – up growth). **ANTACOR13T: FORENSIC ANTHROPOLOGY**
Week 13	ANTACOR09P: HUMAN GROWTH AND DEVELOPMENT	**Old 3rd Year: Paper V:** Chromosomal aberrations Unit V: Growth and Nutritional Status: Growth retardation and faltering: low birth weight, stunting, wasting and underweight in
Week13 to week 14		**Internal Exam**
Week 15 to 17	Practical	**ANTACOR13T, Unit-V** Individualization: Forensic Odontology- tooth Structure and growth, bite marks, facial reconstruction, DNA Profiling: principles and application.
Week 18	Revision	Revision

Teaching Plan for Even Semester, UG course Department of

Anthropology

Session (2021-2022)

Class: B.Sc.
Semester 2,4, 6   Name of the Teacher: Dr Krishnendu Polley
Paper: ANTACOR03T, ANTACOR03P, 10T, 10P,   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**ANTACOR03P/ Unit – I:** Identification of extant anthropoid skulls with reference to features relevant to Hominid evolution (Gorilla, Chimpanzee, Orangutan and Gibbon).	**ANTACOR03T: Unit – I: Introduction to Archaeological Anthropology:** Definition and scope of ArchaeologicalAnthropology, Relationship with other disciplines - history, anthropology and other natural sciences. Prehistory: Definition, aim, scope, concept of periodization – **ANTACOR10T** Qualitative research and quantitative research, their relationship and uses in anthropology. **ANTADSE05T: RURAL AND URBAN ANTHROPOLOGY**
Week 5 to week 8	**ANTACOR03P/ Unit – I:** Drawing and labeling of Tool types: Identification of Typo-technological attributes,	ANTACOR03T Unit –**II: Methods of Estimation of time in archaeology:** Concept of chronology in Prehistory, following dating methods are to be studied based on the points - discovery, first use, datable material, basic principle, precautions, method of sample collection, advantages and disadvantages, specific examples; Methods of dating: Stratigraphy, Typo-technological analysis, C14, K/Ar, Dendrochronology, TL; Concept of Absolute (Chronometric) and Relative (Non-Chronometric) dating methods. **Unit – V: World prehistory:** Africa: The earliest Paleolithic assemblages of Africa - Oldowan, Acheulian; Middle Stone Age, Later Stone Age;
Week 9 to Week 12	**ANTACOR03P/ Unit – I:** cultural ages, probable functions, method of hafting, identification of cortex, flake scar, ripple mark, striking platform, point of impact, positive and negative bulb of percussion (wherever applicable):	**ANTACOR03T Unit – IV: Typo-technological Study of Stone tools:** Concept of tool types, primary and combination fabrication technology, Basic concept of stone tool manufacturing technology and estimation of their relative efficiency, basic ideas about identification of core and flake tools. **ANTACOR10T** Unit I: Research Design Review of literature, conceptual framework, formulation of research problem, formulation of hypothesis, **ANTADSE05T: RURAL AND URBAN ANTHROPOLOGY**
Week 13	**Unit – II:** Drawing and labeling of Pottery (any two) (In absence of original specimens, cast or distinct photographs may be utilized).	**Unit III:** Climatic fluctuations of Pleistocene period in Europe, Africa and India, Glacial and Pluvial zones, Evidences of Pleistocene period for reconstruction of paleo-environment - Moraine, Glacio-fluvial deposits, River terraces, U-shaped valley, Loess, Gravel and Silt deposition; Holocene period. Importance of paleo-environmental study in paleoanthropology and prehistory
Week13 to week 14		**Internal Exam**
Week 15 to 17	Laboratory Note-Book	Revision

Teaching Plan for Even Semester, UG course

Department of Anthropology

Session (2021-2022)

Class: B.Sc.
Semester 2,4, 6   **Name of the Teacher: Kaushik Bhattacharya**
Paper: ANTACOR04T, 3T, ANTACOR03P, 10T, 14T, DSE5T   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4		ANTACOR03T **Unit – V: World prehistory:** Africa: The earliest Paleolithic assemblages of Africa - Oldowan, Acheulian; Middle Stone Age, Later Stone Age; Europe: Acheulian, Levalloisian, Middle and Upper Paleolithic Culture, Mesolithic Culture, Neolithic Culture. **ANTACOR14T: ANTHROPOLOGY OF INDIA**
Week 5 to week 8		**Unit – III: Australopithecines:** Distribution and types, features and their phylogenetic relationships; Evolution & extinction of Australopithecines. Appearance of genus Homo (*Homo habilis*) morphological features and related finds; Phylogenetic status of *Homo habilis*. **ANTADSE05T: RURAL AND URBAN ANTHROPOLOGY**

Week 9 to Week 12	**ANTACOR03P/**
	Unit I: Tool typology, cultural ages, probable functions,
		Unit – IV: Tool manufacturing technology and estimation of their relative efficiency, basic ideas about identification of core and flake tools.
		
		ANTACOR10T
		
		Unit II: Field work tradition in Anthropology
		    Theoretical approaches
		    Cultural relativism, ethnocentrism, etic and emic perspectives, comparative and historical methods, inductive and deductive approach
		    techniques of rapport establishment; identification of representative categories of informants, maintenance of field diary and logbook
		ANTADSE05T: RURAL AND URBAN ANTHROPOLOGY

Week 13		**ANTACOR03T. Unit III:**
		Importance of paleo-environmental study in paleoanthropology and prehistory
		
		ANTACOR10T Unit IV: Analysis and Writing Up
		    Chapterization, preparing a text for submission and publication, concepts of preface, notes (end and footnotes), glossary, prologue and epilogue, appendix, bibliography (annotated) and references cited, review and index
		    Introduction of software for data analysis.

Week13 to week 14		**Internal Exam**
Week 15 to 17	Laborator y Note-Book	**ANTADSE05T**: RURAL AND URBAN ANTHROPOLOGY **ANTACOR14T:** ANTHROPOLOGY OF INDIA
Week 18	Revision	Revision

Class: B.Sc.
Semester 2, 4, 6   Name of the Teacher: Kartick Chakraborty
Paper: ANTACOR04P, ANTACOR03T, 08T, 14T, DSE 05T (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**ANTACOR04P/** **Unit – II:** Identification of extinct anthropoid remains: Parapithecus mandible, Dryopithecus mandibular fragment, Australopithecus africanus, One typical specimen of *H. habilis, H. erectus* (Java and Peking man),	ANTACOR03T**: Unit – I: Introduction to Archaeological Anthropology:** Definition and scope of Archaeological Anthropology, Relationship with other disciplines - history, anthropology and other natural sciences. Prehistory: Definition, aim, scope, concept of periodization - Three Age System. Definition of Tool,Artifact, Industry, Assemblage; A brief introduction to different cultural stages in Prehistory andProtohistory; **Unit – VI: Origin of modern humans (*Homo sapiens sapiens*):** Anatomically modern *Homosapiens* (AMHS) **ANTADSE05T: RURAL AND URBAN ANTHROPOLOGY**
Week 5 to week 8	**ANTACOR03P/** **Unit – I:** Drawing and labeling of Tool types: Identification of Typo-technological attributes,	**Unit – V:** World prehistory: Africa: The earliest Paleolithic assemblages of Africa - Oldowan, Acheulian; Middle Stone Age, Later Stone Age; Europe: Acheulian, Levalloisian, Middle and Upper Paleolithic Culture, Mesolithic Culture, Neolithic Culture. **ANTACOR10T** Unit IV: Analysis and Writing Up 1. Chapterization, preparing a text for submission and publication, concepts of preface, 2. Introduction of software for data analysis. **ANTACOR14T:** ANTHROPOLOGY OF INDIA
Week 9 to Week 12	**ANTACOR09P:** HUMAN GROWTH AND DEVELOPMENT	Unit – III: Prehistoric art (home and cave art); India: The earliest Paleolithic assemblages, Acheulian, Middle Paleolithic Culture, Upper Paleolithic, Micro-blade assemblages, Late Stone Age and Neolithic Culture, Megaliths. **ANTADSE05T:** RURAL AND URBAN ANTHROPOLOGY **ANTADSE05T:** RURAL AND URBAN ANTHROPOLOGY
Week 13		**Unit III:** Climatic fluctuations of Pleistocene period in Europe, Africa and India, Glacial and Pluvial zones
Week13 to week 14		**Internal Exam**

Week 15 to 17	Laborator y Note-Book	**ANTACOR10T**
		   Unit IV: Analysis and Writing Up
		   ANTACOR14T: ANTHROPOLOGY OF INDIA

Week 18	Revision	Revision

Class: B.Sc.

Semester 2,4, 6   Name of the Teacher: Soumita Biswas

Paper: ANTACOR03T, ANTACOR10T, DSE5T, 14T   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4		ANTACOR03T**: Unit – I: Introduction to Archaeological Anthropology:** Definition and scope of Archaeological Anthropology, Relationship with other disciplines - history, ANTADSE05T: RURAL AND URBAN ANTHROPOLOGY **Unit: II: Agrarian Social Structure, Agrarian Unrest & Changing Rural Society.** Peasant Movements in India. Peasant Movements in Pre and Independence India: Moplah Rebellion ((1921); Naxalbari Struggle & Other Contemp peasant struggles. **ANTACOR14**T: ANTHROPOLOGY OF INDIA
Week 5 to week 8		**ANTADSE05T: URBAN ANTHROPOLOGY** **Unit 1: Introducing the Concepts:** Defining the Concepts: **ANTACOR14**T: ANTHROPOLOGY OF INDIA
Week 9 to Week 12		**ANTACOR 03T/ Unit – III:** Upper Paleolithic, Micro-blade assemblages, Late Stone Age and Neolithic Culture, Megaliths. **ANTACOR10T**, Unit IV: Analysis and Writing Up 1. Chaptalization, preparing a text for submission and publication, concepts of preface, notes (end and footnotes), glossary, prologue and epilogue, appendix, bibliography (annotated) and references cited, review and index 2. Introduction of software for data analysis.
Week 13		**Unit III:** Climatic fluctuations of Pleistocene period in Europe, Africa and India, Glacial and Pluvial zones **ANTACOR14**T: ANTHROPOLOGY OF INDIA
Week13 to week 14		**Internal Exam**
Week 15 to 17		**ANTACOR10T** Unit I: Qualitative research and quantitative research, their relationship and uses in anthropology **ANTACOR14**T: ANTHROPOLOGY OF INDIA
Week 18	Revision	Revision

BIDHANNAGARCOLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA
Teaching Plan for Odd Semester, UG Course
Department of Philosophy
Session (2021-22)

Class: B.A.
Semester: 1, 3 and 5
Subject: Philosophy   Name of the Teacher: Mrinal Kanti Sarkar
Paper: CC 2, CC 7 and DSE-2

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Sem 1: Sem 3 : Sem 5	PHIACOR02T : Propositional Logic PHIACOR07T:Concept of Critical Theory, PHISSEC01M- Media Ethics DSE-2: Killing, Suicide and Euthanasia
Week 5 to week 8	Sem 1: Sem 3 : Sem 5	PHIACOR02T : The Method of Truth table and Truth Tree as decision procedures PHIACOR07T:Possibility of Metaphysics and Copernican Revolution, PHISSEC01M- Media Ethics DSE-2: Human Rights-Discrimination and its different types
Week 9 to Week 12	Sem 1: Sem 3 : Sem 5	PHIACOR02T : Concept of Tautologous, Contradictory and Contingent PHIACOR07T: Distinction between Analytic and Synthetic Judgement DSE-2:War,Violance and Terrorism
Week 13	Sem 1: Sem 3 : Sem 5	PHIACOR02T : Method of Deduction-Constuction of formal proof of validity by using 19 Rules PHIACOR07T: Possibility of Synthetic a priori Judgement DSE-2: Concept of Environmental Ethics
Week13 to week 14		Internal Exam
Week 15 to 17	Sem 1: Sem 3 : Sem 5	PHIACOR02T : IP and CP PHIACOR07T: Space and Time, PHISSEC01M- Media Ethics DSE-2: Feminist Ethics, Care ethics, female foeticide abortion
Week 18	Revision, Practise	Revision

BIDHANNAGARCOLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA
Teaching Plan for Even Semester, UG Course
Department of Philosophy
Session (2021-22)

Class: B.A.
Semester: 2, 4 and 6   Name of the Teacher: Mrinal Kanti Sarkar
Subject: Philosophy
Paper: CC 4, CC 8 and DSE05T (Theory)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Sem 2: Sem 4 : Sem 6:	PHIACOR04T : Need for Quantification Theory PHIACOR08T: Concept of Social Philosophy and Political Philosophy ,PHISSEC02M- Business Ethics DSE05T:Problems of Philosophy-Appearance and Reality
Week 5 to week 8	Sem 2: Sem 4 : Sem 6:	PHIACOR04T : Quantifiers, Propositional Functions and Quantifier PHIACOR08T: Basic Concepts of Society, Community Association. PHISSEC02M- Business Ethics DSE05T:Knowledge by acquaintance and knowledge by description
Week 9 to Week 12	Sem 2: Sem 4 : Sem 6:	PHIACOR04T : Individual Constant and Individual Variables PHIACOR08T: Caste and Cast ,Social groups DSE05T:On Induction
Week 13	Sem 2: Sem 4 : Sem 6:	PHIACOR02T : Quantification Rules and proving validity PHIACOR08T: Social Change-Marxist and Gandhian View DSE05T: The value of Philosophy
Week13 to week 14		Internal Exam
Week 15 to 17	Sem 2: Sem 4 : Sem 6:	PHIACOR02T : Proving Validity and Invalidity PHIACOR08T: Family ,The Marxist interpretation of Family DSE05T: Russell, Problems of Philosophy
Week 18	Revision, Practise	Revision

BIDHANNAGARCOLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA
Teaching Plan for Odd Semester, UG Course
Department of Philosophy
Session (2021-22)

Class: B.A.
Semester: 1, 3 and 5
Subject: Philosophy
Paper: CC 2, CC5 , DSE03Tand CC 12 (Theory)

Name of the Teacher: Utpal Mandal

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Sem 1: Sem 3 : Sem 5	PHIACOR02T : Statement and Statements forms PHIACOR05T: Brief description of Empiricism PHIACOR012T:Defination Dharma,Sadharana DSE03T: Proofs for the existence of God ,Ontological
Week 5 to week 8	Sem 1: Sem 3 : Sem 5	PHIACOR02T : The Method of Truth table PHIACOR05T:Locke-Ideas and their classification PHIACOR012T: Vishesh, Varna Dharma,Ashram Dharma swadharma DSE03T: Cosmological, Teleological and Moral
Week 9 to Week 12	Sem 1: Sem 3 : Sem 5	PHIACOR02T : Truth Tree Method PHIACOR05T: Refutation of innate ideas, Substance PHIACOR012T: Karma-Nitya Naimittik ,Kamya DSE03T:Ground for the disbelieve in God, Sociological and Freudian Theory
Week 13	Sem 1: Sem 3 : Sem 5	PHIACOR02T : Method of Deduction-Construction of formal proof of validity by using 19 Rules PHIACOR05T: Locke's realism and theory of knowledge PHIACOR012T: Nishkam,Sanchita,Sanchiyoman and Pararabdha Karma DSE03T:Some major Religious : Hinduism, Buddhism
Week13 to week 14		Internal Exam
Week 15 to 17	Sem 1: Sem 3 : Sem 5	PHIACOR02T : IP and CP DSE03T: Christianity and Islam Dharma
Week 18	Revision, Practise	Revision

BIDHANNAGARCOLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA
Teaching Plan for Even Semester, UG Course
Department of Philosophy
Session (2021-22)

Class: B.A.
Semester: 2, 4 and 6
Subject: Philosophy   Name of the Teacher: Utpal Mandal
Paper: CC 4, CC 9 and CC14 (Theory)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Sem 2: Sem 4 : Sem 6	PHIACOR04T : Difference between Deduction and Induction PHIACOR09T: Relation between Philosophy of Mind ,Psychology and Philosophy of Psychology PHIACOR014T:Some modern Indian Thinkers
Week 5 to week 8	Sem 2: Sem 4 : Sem 6	PHIACOR04T : Mills Method and Copi's Criticism PHIACOR09T: Psychology as Science, Associationism-Perception and learning PHIACOR014T:Vivekananda:Practical Vedanta,On Yoga ,unification of Religions
Week 9 to Week 12	Sem 2: Sem 4 : Sem 6	PHIACOR04T : Induction per simple enumeration, Analogical Inference PHIACOR09T: Gestalt Theory of Perception and learning PHIACOR014T: Gandhi: Sarvadaya, Non-violence and Trustiship,Caste
Week 13	Sem 2: Sem 4 : Sem 6	PHIACOR04T : Concept of Hypothesis PHIACOR09T: Methods of psychology(Introspection, Extrospection) PHIACOR014T: Aurobindo: Evolution and Involution
Week13 to week 14		Internal Exam
Week 15 to 17	Sem 2: Sem 4 : Sem 6	PHIACOR04T : Criteria of Scientific Hypothesis PHIACOR09T: Experimental method PHIACOR014T: Ambedkar: Caste, Equality and Fraternity
Week 18	Revision, Practise	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA
Teaching Planfor Odd Semester, UG Course
Department of Philosophy
Session (2021-22)

Class: B.A/ B.Sc

Semester: 1, 3, 5   Name of the Teacher: PARAMITA BASU

Subject: Philosophy

Paper : CC1, CC 7, GE 3, CC12 (Theory)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR01T : Introduction, Cosmology – Origin (Ionian), being and Change (Eliatics), Process Philosophy(Heraclitus) Paper B : PHIACOR07T : Introduction to Ethics Paper C : PHIHGEC03T : Brief Introduction to Indian Philosophy, Carvaka Epistemology and Metaphysics, Nyaya Introduction, Epistemology – Classification of *Pramanas* Paper D: PHIACOR12T: Introduction & Features of Indian Ethics, Difference from Western Ethics, *Karmoyoga* (cont.)
Week 5 to week 8	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR01T : The Sophists, Plato's Theory of Knowledge and Opinion Paper B: PHIACOR07T : Different types of Ethical Theories – Descriptivism vs Normativism and Prescriptivism, Deontologism, Teleologism Paper C : PHIHGEC03T : Nyaya Epistemology – *Pratyaksha Lakshana*, Classifications: Determinate and Indeterminate, *Sannikarsha* – *Laukika* and *a-laukika* , *Anumana* Paper D: PHIACOR12T: *Karmoyoga* , *Sthitaprajna*, *Yogakhema*
Week 9 to Week 12	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR01T :Plato's Theory of Idea, Aristotle's Refutation(partial) Paper B: PHIACOR07T : Naturalism, Naturalistic Fallacy, Deontologism – with special reference to Kant Paper C : PHIHGEC03T : *Vaisesika* Metaphysics Paper D: PHIACOR12T: *Yogakhema* (detailed), *Lokasamgraha*
Week 13	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR01T : Aristotle's Refutation of Plato's Ideas (remaining) Paper B : PHIACOR07T : Hedonism Paper C : PHIHGEC03T : *Vaisesika* Metaphysics – *Abhava* Paper D: PHIACOR12T: *Purusarthas*
Week13 to week 14		**Internal Exam**
Week 15 to 17	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR01T : Aristotle : Form and Matter Paper B: PHIACOR07T : Utilitarianism and its Different types, Act & Rule Utilitarianism Paper C : PHIHGEC03T : *Advaita* Metaphysics Paper D: PHIACOR12T: Interrelations among different *Purusarthas*, *Sukhavada-Carvaka*
Week 18	Revision, Practise	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA
Teaching Planfor Even Semester, UG course
Department of Philosophy
Session (2021-22)

Class: B.A.
Semester: 2, 4, 6   Name of the Teacher: PARAMITA BASU
Subject: Philosophy
Paper : CC 3, CC 10, GE 4, DSE6   (Theory)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR03T : Introduction, Basic Concepts of *Rta*, *Rna*, *Yajna*, *Panca-kosha*, *Atman*, *Brahman*, *Jiva*, *sreyas*, *preya*, *moksha* Paper B : PHIACOR10T : Brief Overview of Tarkasamgraha, Karana, Kaarana, Different *Pramanas*, Importance of *Pratyaksha* among Different *Pramanas* Paper C : PHIHGEC04T : Introduction, Difference between Indian and Western Ethics, Purusarthas, Karma Paper D: PHIADSE06T : Chapter 7, Chapter 8 (Partial)
Week 5 to week 8	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR03T : Carvaka Epistemology and Metaphysics, *Bauddha* Four Noble Truths Paper B: PHIACOR10T : *Pratyaksha lakshana, Laukika and Alaukika Pratyaksha*, Different kinds of *Laukika Sannikarsha* Paper C : PHIHGEC04T : Carvaka Ethics, Buddhist Ethics, Jaina Ethics Paper D: PHIADSE06T :Chapter 8 (remaining), Chapter 9
Week 9 to Week 12	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR03T : *Bauddha* theories of *Pratityasamutpadavada, Ksnabhangavada, Nairatmyavada*, Basic tenets of Four *Bauddha* Schools Paper B: PHIACOR10T : Different stages of *Pratyaksha - Nirvikalpaka* and *Savikalpaka Pratyaksha*, their *lakshana* and differences Paper C : PHIHGEC04T :Moral and Non-moral Actions, Teleological Ethics – Hedonism – Psychological Ethical, Ethical Egoism, Utilitarianism – Mill (Introduction) Paper D: PHIADSE06T : Chapter 10, Chapter 11(Introductory)
Week 13	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR03T : : *Jaina* Introduction, *Jiva*, *Ajiva* Paper B : PHIACOR10T : Justification for admitting *Nirvikalpaka pratyaksha* Paper C : PHIHGEC04T : Utilitarianism – Mill and Bentham Paper D: PHIADSE06T : Chapter 11
Week13 to week 14		Internal Exam
Week 15 to 17	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR03T : Jaina –*Dravya, Guna, Paryaya, Anekantavada, Syadavada* Paper B: PHIACOR10T : *Upamana pramana* Paper C: PHIHGEC04T :Deontological Ethics – Kant, Theories of Punishment Paper D: PHIADSE06T : Chapter 12
Week 18	Revision, Practise	Revision

Bidhannagar College

Teaching Plan for Odd Semester

Philosophy

Session 2021-2022

Name of the Teacher: Dr. Sankalita Guon

Week	Semester	Paper	Subject
Week 1-4	Sem-I	CC-1	Introduction about Western Philosophy, Descartes (Introduction-Method of Doubt)
	Sem-III	CC-6	Samkhya Philosophy (Duhkkha-traya, Satkaryavada as opposed to Asatkaryavada, argument in favour of Satkaryavada, Prakrti its constituents and evolutes, Arguments for the existence of prakriti, purusa Arguments for its existence, plurality of purusa, liberation, Yoga Citta, Cittabhumi)
	Sem-V	CC-11	Indian Philosophy of Language [Tarkasamgraha- Sabdobodha]]
Week 5-8	Sem-I	CC-1	Descartes -Cogito, Different types of Ideas, Criterion of Truth
	Sem-III	CC-6	Yoga Philosophy (Cittavrtti, Cittavrtti nirodha, Astangayoga concept of Isvara)
	Sem-V	CC-11	Indian Philosophy of Language [Tarkasamgraha -Sabdobodha]]
Week 9-12	Sem-I	CC-1	Descartes -Theory of Knowledge, Theory of Substance, Spinoza (Substance, Attributes & Modes, Existence of God)
	Sem-III	CC-6	Yoga Philosophy(concept of Isvara)
	Sem-V	CC-11	Indian Philosophy of Language [Tarkasamgraha-Sabdobodha]]
Week 15-17	Sem-I	CC-1	Spinoza (Pantheism, Theory of Knowedge)
	Sem-III	CC-6	Mimamsaka Philosophy(Pramanas, Arthapatti, Anupalabdhi- Prabhakara and Bhatta View)
	Sem-V	CC-11	Indian Philosophy of Language [Tarkasamgraha -Sabdobodha]]
Week 18	Revision, Class Test etc.		

Bidhannagar College

Teaching Plan for Even Semester

Philosophy

Session 2021-2022

Name of the teacher: Dr. Sankalita Ghom

Week	Semester	Paper	Subject
Week 1-4	Sem-II	CC-3	Introduction, Astika Schools, Nyaya Philosophy(Four Pramanas, Pratyaksa-Definition, Classification-Nirvikalpaka-Savikalpaka, Laukika-Aloukika), Pratyavijna
	Sem-IV	CC-10	Tarkasamgraha- Karana, Karana, Anubhava, Yathartha, Ayathartha
	Sem-VI	CC-13	Western Epistemology Western Epistemology - Knowledge
Week 5-8	Sem-II	CC-3	Nyaya - Anumana Pramana- Definition, Paksa, Sadya, Hetu, Vyapti, Vyaptigrohopaya, Svarthanumana, Pararthanumana,)
	Sem-IV	CC-10	Tarkasamgraha: Anumiti Pramana
	Sem-VI	CC-13	Western Epistemology -Theories of Truth, The Problem of induction
Week 9-12	Sem-II	CC-3	Nyaya – Upamana & Sabda Pramana, Vaisesika – Dravya, Guna, Karma, Samanya, Visesha
	Sem-IV	CC-10	Tarkasamgraha-Anumiti Pramana
	Sem-VI	CC-13	Western Metaphysics – The problem of Universal, Realism, Idealism, Phenomenalism
Week 15-17	Sem-II	CC-3	Vaisesika- Samavaya, Abhava, Paramanuvada
	Sem-IV	CC-10	Tarkasamgraha[Anumiti Pramana]
	Sem-VI	CC-13	Western Metaphysics- Causal Principles
Week 18			Revision, Class Test Etc.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE ,KOLKATA

Teaching Plan for oddSemester UG course

Department of Philosophy

Session(2021-2022)

Class: B.A

Semester1,3,5   Name of the Teacher:Tanima Chatterjee

Subject :Philosophy

Paper : CC1,CC5 CC7, CC11,DSE03T,GEC01T

Sl. No	WEEK	Theory Syllabus to be covered
1.	Week 1 to week4	PHIACOR01T:Theory of knowledge and opinion PHIACOR07T :Introduction to Ethics-Definition ,Scope ,Presupposition, Basic concept of morality PHIACOR5T: Hume: Impression and Idea PHIACOR11T :Western philosophy of language:John Hospers Word -Meaning PHIHGEC01T : Basic concept to Contraposition
2.	Week 5 to week 8	PHIACOR01T: Refutation of Plato's theory of knowledge by Aristotle PHIACOR07T: Moral problems, Moral action,Object of moral judgement PHIACOR05T: Association of Ideas PHiACOR11T: Ambiguity PHIHGEC01T: Categorical proposition to syllogism
3.	Week 9 to week 12	PHIACOR01T: Plato's theory of Idea PHIACOR07T:Ethical theories: Descriptivism vs Normativism, Prescriptivism PHIACOR05T: Relation of Ideas and Matters of Fact PHIACOR11T: Vagueness PHIHGEC01T: Venn diagram
4.	Week 13	PHIACOR01T: Aristotle's refutation of Plato's theory of Idea PHIACOR07T:Deontologism,Teleologism PHIACOR05T:Causality PHIACOR11T: Practice from covered topics PHIHGEC01T: Symbolic Logic
5.	Week 13to14	Internal exam
6.	Week 15 to17	PHIACOR01T :Aristotle: Form and Idea PHIACOR07T:Naturalism, Naturalistic Fallacy PHIACOR05T: Scepticism PHIACOR11T: Speech Act by P.Alston PHIHGEC01T : Inductive logic
7.	Week 18	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE ,KOLKATA

Teaching Plan for evenSemester UG course

Department of Philosophy

Session(2021-2022)

Class: B.A

Semester 2 ,4 ,6   Name of the Teacher:Tanima Chatterjee

Subject : Philosophy

Paper : CC4,CC9,DSE06T,GEC02T

Sl. No	WEEK	Theory Syllabus to be covered
1.	Week 1 to week4	PHIACOR04T:Probability PHIACOR09 : Relation between Psychology and philosophy of mind ,Psychology as science. PHIADSE06T: Chapter1 and 2 PHIHGEC02T: Theories regarding origin of knowledge
2.	Week 5 to week 8	PHIACOR04T: Induction per simple enumeration PHIACOR09T: Methods of Psychology , Perception-Associationism ,Gestalt theory of perception PHIADSE06T: Chapter 3 PHIHGEC02T:Realism and Idealism
3.	Week 9 to week 12	PHIACOR04T: Analogical Inference PHIACOR09T: Associationism- Learning ,Gestalt theory of learning PHIADSE06T: Chapter 4 PHIHGEC02T: Substance
4.	Week 13	PHIACOR04T: Probability Practice PHIACOR09T: freud's theory-Conscious and unconscious; Id ,ego, super ego ; Behaviourism. PHIADSE06T: Chapter 5 PHIHGEC02T: Causality
5.	Week 13 to14	Internal exam
6.	Week 15 to17	PHIACOR04T: Criteria of scientific hypothesis PHIACOR09T: Relation between mind and body PHIADSE06T: Chapter 6 PHIHGEC02T: Relation betweenmind and body.
7.	Week 18	Revision

Class:B.A/ B.Sc
Semester 1,3,5   **Name of the Teacher: Prof. Debesh Roy**
Subject: Statistics
Paper : CC1, CC11   **(Theory and Practical)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	STSACOR01T : Definition, scatter diagram, simple correlation, linear regression and principle of least squares, , , STSACOR11T : Stochastic Process: Introduction and Stationary Process.	STSACOR01P: Solution of numerical problems on topics covered in STSACOR01T 1. Fitting of polynomials, exponential curves. 2. Karl Pearson correlation coefficient. 3. Correlation coefficient for a bivariate frequency distribution
Week 5 to week 8	STSACOR01T: Fitting of polynomials and exponential curves STSACOR11T: Markov Chains: Definition of Markov Chain, transition probability matrix.	STSACOR01P: Solution of numerical problems on topics covered in STSACOR01T 4. Lines of regression, angle between lines and estimated values of variables. 5. Spearman rank correlation with and without ties.
Week 9 to Week 12	STSACOR01T: Spearman rank correlation, correlation ratio STSACOR11T : Order of Markov chain, Markov chain as graphs	STSACOR01P: Solution of numerical problems on topics covered in STSACOR01T 6. Computation of correlation ratio. 7. Computation of intra class correlation coefficient
Week 13	STSACOR01T: intra-class correlation STSACOR11T: Higher transition probabilities.	STSACOR01P: Solution of model numerical problems on topics covered in STSACOR01T
Week13 to week 14		**Internal Exam**
Week 15 to 17	STSACOR01T: Solution of model questions.	

Class:B.A/ B.Sc

Semester 1,3,5
Name of the Teacher: Mr. Arup Kumar Hait
Subject: Statistics
Paper : STSACOR01, STSACOR11,STSACOR12(Theory and Practical)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**STSACOR01P** • Graphical representation of data. • Stem and Leaf Display **STSACOR11P** • Determination of trend by curve fitting • Determination of trend by moving averages **STSACOR12P** • Price and quantity index numbers using simple and weighted average of price relatives. • To calculate the Chain Base index numbers.	**STSACOR01T** Definition and scope of Statistics, concepts of statistical population and sample. Data: quantitative and qualitative, attributes, variables, scales of measurement: nominal, ordinal, interval and ratio. Presentation: tabular and graphical, including histogram and ogives, column diagram and step diagrams. Stem and Leaf display. **STSACOR11T** Time Series as a Stochastic Process. Time Series data. Application of time series from various fields, Components of a times series, Decomposition of time series. Estimation of trend by free hand curve method, method of semi averages, fitting mathematical curves, and growth curves. Method of moving averages. **STSACOR12T** Index Numbers, price, quantity and value indices, choice of weights, Various formulae and their comparisons. Tests of index numbers. Fisher's ideal index number. Chain Index Number.
Week 5 to week 8	**STSACOR01P** • Problems based on measures of central tendency. **STSACOR11P** • Determination of seasonal indices by method of averages , Ratio to Trend, Ratio to Moving Averages and Link Relative method • Harmonic Analysis **STSACOR12P** • Problems on cost of living index numbers.	**STSACOR01T** Measures of Central Tendency: mathematical and positional. **STSACOR11T** Estimation of seasonal component by Method of simple averages, Ratio to Trend, Ratio to Moving Averages and Link Relative method. Harmonic Analysis. Variate component method. **STSACOR12T** Consumer Price Index, Wholesale Price index & Index of industrial Production- methods of construction and uses. Definition of national income. A brief account of product, expenditure and income approaches for estimation of National Income.
Week 9 to Week 12	**STSACOR01P** • Problems based on measures of dispersion. • Problems based on combined mean and variance and coefficient of variation. **STSACOR11P**	**STSACOR01T** Measures of Dispersion: range, quartile deviation, mean deviation, standard deviation, coefficient of variation. **STSACOR11T**

	• Correlogram Analysis **STSACOR12P** • Lorenz curve. • Pareto and lognormal fitting.	Stationary Time series Weak stationarity, autocorrelation function and correlogram .Some Special Processes: Moving-average (MA) process and Autoregressive (AR) process of orders one and two, **STSACOR12T** Measurement of poverty and inequality, Desirable properties and different descriptive measures including Gini's coefficient, Lorenz curve. Use of Pareto and Log Normal distributions. Measures of unemployment. Comparative Social Statistics, Indices related to human development and gender disparity.
Week 13 to week 14		**Internal Exam**
Week 15 to 17	**STSACOR01P** • Problems based on moments, skewness and kurtosis. **STSACOR11P** • Fitting of AR 1 and AR 2 models • Simple Exponential Smoothing **STSACOR12P** • Official Statistics	**STSACOR01T** Moments, absolute moments, factorial moments, Measures of skewness and kurtosis. Box Plot. Sheppard's corrections (without proof). **STSACOR11T**Estimation of the parameters of AR (1) and AR (2) – Yule-Walker equations. Simple Exponential smoothing. **STSACOR12T** Present official statistical system in India, Methods of collection of official statistics, their reliability and limitations. Role of Ministry of Statistics and Program Implementation (MoSPI). Central Statistical Office (CSO), National Sample Survey Office (NSSO), and National Statistical Commission. Government of India's Principal publications containing data on the topics such as population, industry and finance.

Class: B.Sc. (Honours)
Semesters: 1, 3,5 (CBCS)
Name of the Teacher: Kiranmoy Chatterjee
Subject: Statistics
Paper : STSACOR02T, STSACOR05T, STSACOR05P, STSACOR12T, STSACOR12P (CBCS)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	Paper STSACOR12P(CBCS) : 1. Price and quantity index numbers using simple and weighted average of price relatives.	Paper STSACOR02T(CBCS) : Vector spaces, subspaces, sum of subspaces, Span. Linear dependence and independence, basis and dimension, dimension theorem.

	2. To calculate the Chain Base index numbers. 3. Problems on cost of living index numbers. <u>Paper STSSSEC01M(CBCS) :</u> Statistical Data Analysis Using C-programming and Software Packages Minitab: Unit 1	<u>Paper STSACOR05T(CBCS) :</u> *Unit 1: Two dimensional random variables: Discrete* <u>Paper STSACOR12T(CBCS) :</u> Index Numbers, price, quantity and value indices, choice of weights, Various formulae and their comparisons. Tests of index numbers. Fisher's ideal index number. Chain Index Number. Consumer Price Index
Week 5 to week 8	<u>Paper STSSSEC01M(CBCS) :</u> Statistical Data Analysis Using C-programming and Software Packages Minitab: Unit 2	<u>Paper STSACOR02T(CBCS) :</u> Orthogonal vectors, Gram-Schmidt orthogonalization, ortho-complement space. Null space and nullity. A review, theorems related to triangular, symmetric and skew symmetric matrices, idempotent matrices, orthogonal matrices, singular and non-singular matrices and their properties. Trace of a matrix. <u>Paper STSACOR05T(CBCS) :</u> *Unit 2: Two dimensional random variables: Continuous* <u>Paper STSACOR12T(CBCS) :</u> Wholesale Price index & Index of industrial Production- methods of construction and uses. Definition of national income. A brief account of product, expenditure and income approaches for estimation of National Income
Week 9 to Week 12	<u>Paper STSACOR05P(CBCS) :</u> 1. Problems based on the property of normal distribution. 2. To find the ordinate for a given area for normal distribution. 3. Application-based problems using normal distribution. 4. Fitting of normal distribution when parameters are given. 5. Fitting of normal distribution when parameters are not given. 6. Fitting of some other continuous distributions. <u>Paper STSACOR12P(CBCS) :</u> 4. Lorenz curve. 5. Pareto and lognormal fitting. <u>Paper STSSSEC01M(CBCS) :</u> Statistical Data Analysis Using C-programming and Software Packages Minitab: Unit 3	Paper STSACOR02T (CBCS) : Row space and column space of a matrix. Definition, properties and applications of determinants for 3_{rd} and higher orders, evaluation of determinants of order 3 and more using transformations. Symmetric and Skew symmetric determinants, Circulant determinants and Vandermonde determinants for nth order. <u>Paper STSACOR05T(CBCS) :</u> *Unit 3: Generating Functions* *Unit 4: Standard continuous probability distributions:* Uniform, normal, exponential, Cauchy, beta, gamma, lognormal distributions <u>Paper STSACOR12T(CBCS) :</u> *Unit 2: Measurement of poverty and inequality and Social Statistics:* Measurement of poverty and inequality, Desirable properties and different descriptive measures including Gini's coefficient, Lorenz curve. Use of Pareto and Log Normal distributions. Measures of unemployment. Comparative Social Statistics, Indices related to human development and gender disparity.

Week 13-14:	Internal Exam (for CBCS) and Class Tests (for Part II & III in 1+1+1 system)

| Week 15 to 17 | Paper STSSSEC01M(CBCS) : Statistical Data Analysis Using C-programming and Software Packages Minitab: Unit 4 | Paper STSACOR02T : Jacobi's Theorem. Product of determinants. Adjoint and inverse of a matrix and related properties. Use of determinants in solution to the system of linear equations.

Paper STSACOR05T(CBCS) :
Unit 4: Standard continuous probability distributions:
Logistic, double exponential and Pareto along with their properties and limiting/approximation cases. Bivariate Normal Distribution and its properties (Statement only).

Paper STSACOR12T(CBCS) :
Unit 3: Official Statistics
Unit 3: Different Government Organizations |

Class:B.Sc
Semester 1, 3 and 5   **Name of the Teacher: Suryasish Chatterjee**
Subject: Statistics
Paper : STSACOR02T, STSACOR06T, STSACOR06P, STSADSE02T, STSADSE02P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**Paper STSACOR06P:** 1. Testing of significance for single proportion and difference of two proportions. 2. Testing of significance for single Poisson mean and difference of means of two independent Poisson distributions. **Paper STSADSE02P:** 1. Testing of significance and confidence intervals for single proportion and difference of two proportions using CLT. 2. Testing of significance and confidence intervals for single Poisson mean and difference of two Poisson means using CLT table.	**Paper STSACOR02T**: Sequence of real numbers and their convergence, limits of sequences, Cauchy's general principle of convergence, Cauchy's first theorem on limits, monotonic sequences, limit superior and limit inferior of a bounded sequence **Paper STSACOR06T:** Definitions of random sample, parameter and statistic, sampling distribution of a statistic. Distributions of functions of random variables. Illustration through simple transformation and generating function technique. **Paper STSADSE02T:** Convergence in Probability, Weak Laws of Large Numbers and their applications, Convergence in Distribution, relation between two kind of convergence, Slutsky's Theorem, De-Moivre-Laplace Limit Theorem. Normal approximation to Poisson distribution, Statement of Central Limit Theorem (iid case) and its use in test and confidence interval for binomial proportions and Poisson means.

Week 5 to week 8	**Paper STSACOR06P:** 3. Testing of significance and confidence intervals for single mean and difference of two means and paired tests. 4. Testing if the population variance has a specific value and its confidence intervals **Paper STSADSE02P:** 3. Testing of significance and confidence intervals concerning sample standard deviation, coefficient of variation and correlation coefficient (both single sample, two sample cases). 4. Testing of significance and confidence intervals using variance stabilizing transformations.	**Paper STSACOR02T**: Infinite series, positive-termed series and their convergence. Comparison tests, D'Alembert's ratio test and Cauchy's n_{th} root test, (Statements and examples only). Absolute convergence of series, Leibnitz's test for the convergence of alternating series, Conditional convergence. **Paper STSACOR06T:** Definition and derivation of p.d.f. of $\chi2$ with n degrees of freedom (d.f.) using m.g.f., nature of p.d.f. curve for different degrees of freedom, mean, variance, m.g.f., mode, additive property and limiting form of $\chi2$ distribution. Student's and Fishers t-distribution, Derivation of its p.d.f., nature of probability curve with different degrees of freedom, mean, variance, moments and limiting form of t distribution **Paper STSADSE02T:** Derivation and uses of large sample standard error of sample moments, Standard deviation, Coefficient of Variation, b_1 & b_2 measures, Correlation coefficient. Asymptotic distribution of sample quantiles. Transformation of Statistics, Derivation and use of sin_{-1}, square root, logarithmic & Fisher's Z- transformations.
Week 9 to Week 12	**Paper STSACOR06P:** 5. Testing of significance and confidence intervals of correlation coefficient. 6. Testing of equality of population variances for two independent normal populations and related confidence intervals. table.	**Paper STSACOR02T**: Statement of the fundamental theorem of algebra and its consequences. Relation between roots and coefficients of any polynomial equations. Solutions of cubic and biquadratic equations when some conditions on roots of equations are given **Paper STSACOR06T:** Snedecore's F-distribution, Derivation of p.d.f., nature of p.d.f. curve with different degrees of freedom, mean, variance and mode. Distribution of $1/F(n_1,n_2)$. Relationship between t, F and $\chi2$ distributions. Sampling distributions of sample mean and sample variance when parent population is normal. Null distribution of sample correlation coefficient (statement only). Exact tests relating to Binomial proportion (s) and Poisson mean (s) **Paper STSADSE02T:**

		Consistency Asymptotic efficiency, ARE, CAN and BAN estimators. Properties of MLE (statement only) and their uses in testing and confidence interval
Week 13	**Paper STSACOR06P:** 7. Testing of ratio of variances for bivariate normal population and related confidence interval **Paper STSADSE02P:** 5. Determination of the minimum sample size required to achieve normality by sample proportion, mean and standard deviation. 6. Tests for goodness of fit, independence and homogeneity using Pearsonian chi-square statistic	**Paper STSACOR06T:** Null and alternative hypotheses, level of significance, Type I and Type II errors, their probabilities and critical region. Tests of significance and confidence intervals based on χ_2, t and F distribution when samples are generated from Univariate and Bivariate normal population (s) **Paper STSADSE02T:** Large Sample distribution of Pearsonian χ_2 statistic, its uses goodness of fit.
Week13 to week 14		**Internal Exam**
Week 15 to 17		**Paper STSACOR06T:** Introduction, distribution of the rth order statistic, smallest and largest order statistics. Joint distribution of rth and sth order statistics, distribution of sample median and sample range **Paper STSADSE02T:** Chi square tests for independence, homogeneity. Yates' correction in a 2x2 contingency table.

Class:B.Sc
Semester 3 and 5   **Name of the Teacher: Soumyadeep Das**
Subject: Statistics
Paper : STSACOR07T, STSACOR07P, STSHGEC03T, STSHGEC03P, STSADSE01T, STSADSE01P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**Paper STSACOR07P:** 1. To select a SRS with and without replacement. 2. For a population of size 5, estimate population mean, population mean square and population variance. Enumerate all possible samples of size 2 by WR	**Paper STSACOR07T**: Concept of population and sample, complete enumeration versus sampling, sampling and non-sampling errors. Types of sampling: non-probability and probability sampling, basic principles of sample survey, simple random sampling with and without replacement, definition and procedure of selecting a sample, estimates of population mean, total and proportion, variances of

	and WOR and establish all properties relative to SRS. 3. For SRSWOR, estimate mean, standard error, the sample size **Paper STSHGEC03P:** 1. Estimators of population mean. 2. Confidence interval for the parameters of a normal distribution (one sample and two sample problems). **Paper STSADSE01P:** 1. Regression diagnostics **2.** Measures of association for 2x2 contingency table.	these estimates, estimates of their variances and sample size determination. **Paper STSHGEC03T:** Estimation of population mean, confidence intervals for the parameters of a normal distribution (one sample and two sample problems). **Paper STSADSE01T:** Introduction to Categorical Data, 2 X 2 contingency table, notion of independence & association, ideas of complete and absolute association. Yules measures of association and colligation, Cramer's measure of association, Extension to kxl contingency table: Pearson's chi-square, Kendall's tau's, Goodman-Kruskal's γ.
Week 5 to week 8	**Paper STSACOR07P:** 4. Stratified Sampling: allocation of sample to strata by proportional and Neyman's methods. Compare the efficiencies of above two methods relative to SRS. 5. Estimation of gain in precision in stratified sampling. **Paper STSADSE01P:** 3. Relative risk, odds ratio 4. Measures of association for kxl contingency table.	**Paper STSACOR07T:** Stratified random sampling, Technique, estimates of population mean and total, variances of these estimates, proportional and optimum allocations and their comparison with SRS. Practical difficulties in allocation, estimation of gain in precision. **Paper STSHGEC03T:** The basic idea of significance test. Null and alternative hypothesis. Type I & Type II errors. **Paper STSADSE01T:** Difference of proportions, relative risk, odds ratio, log odds ratio; types of observational studies.
Week 9 to Week 12	**Paper STSACOR07P:** 6. Comparison of systematic with stratified sampling and SRS in the presence of a linear trend. **Paper STSADSE01P:** 5. Fitting a logit model 6. Fitting a probit model 7. Fitting of multiple logistic regression. table.	**Paper STSACOR07T:** Systematic Sampling, Technique, estimates of population mean and total, variances of these estimates (N=n x k case). Comparison of systematic sampling with SRS and stratified sampling in the presence of linear trend and corrections. **Paper STSHGEC03T:** level of significance, concept of p-value. **Paper STSADSE01T:** Generalized linear Model, Components of a generalized linear model, Random component, systematic component, Link function. Generalized linear model for binary data, Logistic and probit regression model, Multiple logistic regression. Model fitting by using score function.
Week 13	**Paper STSACOR07P:** 7. Ratio and Regression estimation: Calculate the population mean or total of the population. Calculate mean squares. Compare the efficiencies of ratio and regression estimators relative to SRS. **Paper STSHGEC03P:** 3. Tests of hypotheses for the parameters of a normal distribution (one sample and two sample problems).	**Paper STSACOR07T:** Ratio and Regression methods of estimation in simple random sampling **Paper STSHGEC03T:** Tests of hypotheses for the parameters of a normal distribution (one sample and two sample problems). **Paper STSADSE01T:** Log linear model of independence for twoway table, Interpretation of the parameters in independence model, saturated model for two way table. The log-linear-logistic connection.

Week13 to week 14		**Internal Exam**
Week 15 to 17	**Paper STSACOR07P:** 8. Cluster sampling: estimation of mean or total, variance of the estimate, estimate of intra-class correlation coefficient, efficiency as compared to SRS. 9. Two stage sampling. **Paper STSHGEC03P:** 4. Chi-square test of proportions. 5. Chi-square tests of association. 6. Chi-square test of goodness-of-fit.	**Paper STSACOR07T:** Hartley-Ross estimator. Cluster sampling (equal-size clusters only) estimation of population mean and its variance, Concept of sub sampling. Two-stage sampling, Estimation of Population mean and variance of the estimate, comparison between two-stage, cluster and uni-stage sampling. **Paper STSHGEC03T:** Categorical data: Tests of proportions, tests of association and goodness-of-fit using Chi square test, Yates' correction.

Class:B.A/ B.Sc
Semester 2,4,6   **Name of the Teacher: Prof. Debesh Roy**
Subject: Statistics
Paper : cc14, …….. ……….   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	STSACOR14T: Bivariate Normal Distribution (BVN) 12 Lectures P.d.f. of BVN, properties of BVN, marginal and conditional p.d.f. of BVN. Random Vector: Probability mass/density functions, Distribution function, Mean vector & Dispersion matrix, Marginal and Conditional distributions.	STSACOR14P:
Week 5 to week 8	STSACOR14T: Multinomial Distribution, Multivariate Normal distribution and its properties. Sampling distribution for mean vector and variance- covariance matrix (Statement only).	STSACOR14P: 1. Multiple Correlation 2. Partial Correlation 3. Bivariate Normal Distribution.
Week 9 to Week 12	STSACOR14T: Applications of Multivariate Analysis, Discriminant Analysis,	STSACOR14P: 4. Multivariate Normal Distribution 5. Discriminant Analysis
Week 13	STSACOR14T: Principal Components Analysis	STSACOR14P 6. Principal Components Analysis
Week 13 to week 14		**Internal Exam**
Week 15 to 17	STSACOR14T: Solution of Model Problems.	

Class:B.A/ B.Sc
Semester 2,4,6
Name of the Teacher: Arup Kumar Hait
Subject: STATISTICS
Paper : STSACOR04,STSACOR13 &STSHGEC04 (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**STSACOR13** • Layout of Design **STSHGEC04** • Measurement of trend: Fitting of linear & quadratic trend and plotting of trend values and comparing with given data graphically.	**STSACOR04T** Row reduction and echelon forms. Partitioning of matrices and simple properties. Rank of a matrix,row-rank, column-rank, standard theorems on ranks, rank of the sum and the product of two matrices. **STSACOR13** Experimental designs, Role, historical perspective. Terminologies: Experimental error, Basic principles, Uniformity trials, Fertility contour maps, Choice of size and shape of plots and blocks. **STSHGEC04** Economic Time Series: Components of time series, Decomposition of time series- Additive and multiplicative model with their merits and demerits, Illustrations of time series. Measurement of trend by method of free-hand curve, method of semi-averages. Method of least squares (linear & quadratic).
Week 5 to week 8	**STSACOR13** • Analysis of CRD • Analysis of an RBD • Analysis of an LSD • Analysis of an RBD with one missing observation • Analysis of an LSD with one missing observation **STSHGEC04** • Measurement of trend: Fitting of exponential, modified exponential curve and plotting of trend values and comparing with given data graphically. • Measurement of seasonal indices by Ratio-to-trend method and plotting of trend values and comparing with given data graphically.	**STSACOR04T** Matrix equations Ax=b, solution sets of linear equations. Applications of linear equations, inverse of a matrix. **STSACOR13** Completely Randomized Design (CRD), Randomized Block Design (RBD), Latin Square Design (LSD) – Layout, Model and Analysis, Relative Efficiencies, Analysis with one missing observation. **STSHGEC04** Measurement of exponential trend and modified exponential trend. Measurement of seasonal variations by method of ratio to trend.

Week 9 to Week 12	**STSACOR13** • Intra Block analysis of a BIBD • Analysis of 2_2 and 2_3 factorial in CRD and RBD • Analysis of 2^2 and 2^3 factorial in LSD **STSHGEC04** • Construction of price and quantity index numbers by Laspeyre's formula, Paasche's formula, Marshall-Edgeworth's formula, Fisher's Formula. Comparison and interpretation.	**STSACOR04T** Characteristic roots and Characteristic vector, Properties of characteristic roots, Cayley Hamilton theorem, Quadratic forms: Classification and canonical reduction. Linear transformations. **STSACOR13** Balanced Incomplete Block Design (BIBD) – parameters, relationships among its parameters, incidence matrix and its properties. Advantages, Notations and Concepts of 2^n factorial experiments. 2^n factorial experiments -their design and analysis. **STSHGEC04** Index numbers: Definition, Criteria for a good index number, different types of index numbers.
Week 13 to week 14		**Internal Exam**
Week 15 to 17	**STSACOR13** • Analysis of a completely confounded two level factorial design in 2 block • Analysis of a completely confounded two level factorial design in 4 blocks • Analysis of a partially confounded two level factorial design • Analysis of a single replicate of a 2_n design • Analysis of a fraction of 2_n factorial design **STSHGEC04** • Construction of wholesale price index number, fixed base index number and consumer price index number with interpretation	**STSACOR04T** Applications of Linear Algebra in Statistics. **STSACOR13** Total and Partial confounding for 2^n factorial experiments.(N<6) **STSHGEC04** Construction of index numbers of prices and quantities, consumer price index number. Uses and limitations of index numbers.

Class: B.Sc. (Honours)
Semesters: 2, 4, 6 (CBCS)
Name of the Teacher: Kiranmoy Chatterjee
Subject: Statistics
Paper : STSACOR04T, STSACOR09T, STSACOR09P, STSADSE04T, STSADSE04P, STSHGEC04T, STSHGEC04P(CBCS)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	Paper STSACOR09P(CBCS): 1. Estimability in Gauss Markov Model. 2. Simple linear regression. 3. Multiple regression. Paper STSADSE04P(CBCS): 6. Computation of Mortality rate. 7. Preparation of Life Table.	Paper STSACOR04T(CBCS) : Row reduction and echelon forms. Partitioning of matrices and simple properties. Rank of a matrix, row-rank, column-rank, standard theorems on ranks, rank of the sum and the product of two matrices. Paper STSACOR09T(CBCS) : *Unit 1: Multivariate Data* *Unit 2: Gauss-Markov set-up* Theory of linear estimation, Estimability of linear parametric functions, Method of least squares, Gauss-Markov theorem, Estimation space and Error Space Paper STSADSE04T(CBCS) : *Unit 1: Introduction* *Unit 2: Measurements of Mortality* Paper STSHGEC04T(CBCS): *Unit 4: Demography* Demographic Methods: Introduction, measurement of population, rates and ratios of vital events
Week 5 to week 8	Paper STSACOR09P(CBCS): 4.Tests for linear hypothesis. 5. Analysis of variance of one way classified data. 6. Analysis of variance of a two way classified data with one observation per cell. Paper STSADSE04P(CBCS): 1. Computation of Crude Birth Rate. 2. Computation of different Fertility Rate. 3. Computation of Reproduction Rate. 4. Computation of Vital index.	Paper STSACOR04T(CBCS) : Matrix equations Ax=b, solution sets of linear equations. Applications of linear equations, inverse of a matrix. Characteristic roots and Characteristic vector. Paper STSACOR09T(CBCS) : *Unit 2: Gauss-Markov set-up* Estimation of error variance. Tests of General Linear Hypotheses (statements only)**.** Classification of Linear Models. *Unit 3: Regression analysis* Hypothesis testing in case of simple and multiple regression models. Paper STSADSE04T(CBCS): *Unit 3: Measurements of Fertility*

	Paper STSHGEC04P(CBCS): 7. Computation of measures of mortality 8. Completion of life table. 9. Computation of measures of fertility and population growth	Paper STSHGEC04T(CBCS): *Unit 4: Demography* Life (mortality) tables: definition of its main functions and uses. Measurement of fertility and reproduction: CBR, GFR, and TFR. Measurement of population growth: GRR, NRR.
Week 9 to Week 12	Paper STSACOR09P(CBCS): 7. Analysis of variance of two way classified data with equal number of observations per cell. 8. Analysis of covariance of a one way classified data with one concomitant variable. Paper STSADSE04P(CBCS): 5. Fitting of population curve for population forecasting. Paper STSHGEC04P(CBCS): 5. Construction and interpretation of X bar & R-chart. 6. Construction and interpretation p-chart (fixed sample size) and c-chart	Paper STSACOR04T(CBCS): Properties of characteristic roots, Cayley Hamilton theorem, Quadratic forms: Classification and canonical reduction. Paper STSACOR09T(CBCS): *Unit 4: Analysis of variance and covariance* Analysis of Variance in one-way and two-way classified data (with equal number of observations per cell) for fixed effect as well as random effect models. Paper STSADSE04T(CBCS): *Unit 4: Estimation* Paper STSHGEC04T(CBCS): *Unit 3: Statistical Quality Control* Statistical Quality Control: Importance of statistical methods in industrial research and practice. Determination of tolerance limits. Causes of variations in quality: chance and assignable. General theory of control charts, process & product control, Control charts for variables: X- bar and R-charts. Control charts for attributes: p and c-charts.
Week 13-14: Internal Exam (for CBCS)		
Week 15 to 17	Paper STSACOR09P(CBCS): 9. Analysis of covariance of a two way classified data with one concomitant variable.	Paper STSACOR04T(CBCS) : Linear transformations. Applications of Linear Algebra in Statistics. Revision of all the topics. Paper STSACOR09T(CBCS) : *Unit 4: Analysis of variance and covariance* Analysis of covariance for one-way and two-way classified data with one concomitant variable

Class:B.Sc
Semester 2, 4 and 6   **Name of the Teacher: Suryasish Chatterjee**
Subject: Statistics
Paper : STSACOR04T, STSACOR08T,STSACOR08P, STSACOR14T, STSACOR14P,
STSSSEC02M

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**Paper STSACOR08P:** 1. Unbiased estimators (including unbiased but absurd estimators) 2. Cramer-Rao inequality and MVB estimators 3. Sufficient Estimators – Factorization Theorem, Rao-Blackwell theorem, Complete Sufficient estimators 4. Lehman-Scheffe theorem and UMVUE **Paper STSACOR14P:** 1.Test for randomness based on total number of runs, 2.Kolmogrov Smirnov test for one sample. 3. Sign test: one sample, two samples, large samples. 4. Wilcoxon-Mann-Whitney U-test 5. Kruskal-Wallis test **Paper STSSSECO2M:** Learn how to load data, plot a graph viz. histograms (equal class intervals and unequal class intervals), box plot, stem-leaf, frequency polygon, pie chart, ogives with graphical summaries of data.	**Paper STSACOR04T:** Sequence of real numbers and their convergence, limits of sequences, Cauchy's general principle of convergence, Cauchy's first theorem on limits, monotonic sequences, limit superior and limit inferior of a bounded sequence. Infinite series, positive-termed series and their convergence. Comparison tests, D'Alembert's ratio test and Cauchy's n_{th} root test, (Statements and examples only). Absolute convergence of series, Leibnitz's test for the convergence of alternating series, Conditional convergence. **Paper STSACOR08T:** Concepts of estimation, unbiasedness, mean square error, sufficiency, completeness and exponential family of distributions. Factorization theorem. Minimum variance unbiased estimator (MVUE), Rao Blackwell and Lehmann-Scheffe theorems and their applications. Cramer-Rao inequality (statement and applications) and MVB estimators. **Paper STSACOR14T:** Nonparametric Tests, Introduction and Concept
Week 5 to week 8	**Paper STSACOR08P:** 5. Maximum Likelihood Estimation 6. Estimation by the method of moments, minimum Chi-square 7. Most powerful critical region (NP Lemma) 8. Uniformly most powerful critical region **Paper STSACOR14P:**	**Paper STSACOR04T:** Vector spaces, subspaces, sum of subspaces, Span. Linear dependence and independence, basis and dimension, dimension theorem. Orthogonal vectors, Gram-Schmidt orthogonalization, ortho complement space. Null space and nullity **Paper STSACOR08T:**

	3. Sign test: one sample, two samples, large samples. 4. Wilcoxon-Mann-Whitney U-test **Paper STSSSECO2M:** Generate automated reports giving detailed descriptive statistics, correlation and lines of regression.	Method of moments, method of maximum likelihood estimation, method of minimum Chi square, basic idea of Bayes estimators **Paper STSACOR14T:** Test for randomness based on total number of runs, Empirical distribution function,
Week 9 to Week 12	**Paper STSACOR08P:** 9. Unbiased critical region. 10. Power curves. 11. Likelihood ratio tests for simple null hypothesis against simple alternative hypothesis. 12. Likelihood ratio tests for simple null hypothesis against composite alternative hypothesis **Paper STSACOR14P:** 5. Kruskal-Wallis test **Paper STSSSECO2M:** Random number generation and sampling procedures. Fitting of polynomials and exponential curves. Application Problems based on fitting of suitable distribution, Normal probability plot.	**Paper STSACOR04T**: A review, theorems related to triangular, symmetric and skew symmetric matrices, idempotent matrices, orthogonal matrices, singular and non-singular matrices and their properties. Trace of a matrix. Row space and column space of a matrix. Definition, properties and applications of determinants for 3_{rd} and higher orders, evaluation of determinants of order 3 and more using transformations. Symmetric and Skew symmetric determinants, Circulant determinants and Vandermonde determinants for nth order, Jacobi's Theorem. Product of determinants. Adjoint and inverse of a matrix and related properties. Use of determinants in solution to the system of linear equations **Paper STSACOR08T:** Most powerful test, uniformly most powerful test, Neyman Pearson Lemma (statement and applications to construct most powerful test). Likelihood ratio test, properties of likelihood ratio tests (without proof). **Paper STSACOR14T:** Kolmogrov Smirnov test for one sample, Sign tests- one sample and two samples
Week 13 to week 14		**Internal Exam**
Week 15 to 17	**Paper STSACOR08P:** 13. Asymptotic properties of LR tests 14. SPRT procedure 15. OC function and OC curve 16. ASN function and ASN curve **Paper STSSSECO2M:**	**Paper STSACOR04T**: Statement of the fundamental theorem of algebra and its consequences. Relation between roots and coefficients of any polynomial equations. Solutions of cubic and biquadratic equations when some conditions on roots of equations are given. **Paper STSACOR08T:**

| | Simple analysis and create and manage statistical analysis projects import data, code editing. Basics of statistical inference to understand hypothesis testing and compute p-values and confidence intervals. | Sequential probability ratio test (SPRT) for simple vs simple hypotheses. Fundamental relations among α, β, A and B, determination of A and B in practice. Wald's fundamental identity and the derivation of operating characteristics (OC) and average sample number (ASN) functions. Examples based on Normal, Poisson, Binomial and Exponential distributions

Paper STSACOR14T:
Wilcoxon-Mann-Whitney test, Kruskal-Wallis test |

Class:B.Sc
Semester 2, 4 and 6　　　　　　　　**Name of the Teacher: Soumyadeep Das**
Subject: Statistics
Paper : STSACOR03T,STSACOR03P, STSACOR10T,STSACOR10P, STSADSE05T, STSADSE05P

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**Paper STSACOR03P**: 1. Numerical sums using classical definition of Probability. **Paper STSADSE05P:** 1.Practical problems on the uses of different interpolation formulae.	**Paper STSACOR03T**: Introduction, random experiments, sample space, events and algebra of events. Sigma algebra of events. Definitions of Probability – classical, statistical and axiomatic. **Paper STSACOR10T:** Definition, dimensions of quality, historical perspective of quality control and improvements starting from World War II, historical perspective of Quality Gurus and Quality Hall of Fame. Quality system and standards: Introduction to ISO quality standards, Quality registration. Statistical Process Control - Seven tools of SPC, chance and assignable Causes of quality variation. Statistical Control Charts- Construction and Statistical basis of 3-σ Control charts, Rational Sub-grouping. **Paper STSADSE05T:** Finite differences and interpolation. Difference and shift Operators. Newton's forward and backward interpolation formulae. Lagrange's interpolation formulae.
Week 5 to week 8	**Paper STSACOR03P:** 2. Numerical sums on conditional probability. **Paper STSACOR10P:** 1. Construction and Interpretation of statistical control charts X-bar & R chart X-bar & s-chart np- chart p-chart c-chart u- chart **Paper STSADSE05P:**	**Paper STSACOR03T**: Theorem of compound probability, theorem of total probability, Conditional probability and independence of event. Bayes theorem and its applications. **Paper STSACOR10T:** X-bar & R-chart, X-bar & s-chart. Control charts for attributes: np-chart, p-chart, c-chart and u-chart. Comparison between control charts for variables and control charts for attributes. Analysis of patterns on control chart. Estimation of process capability. **Paper STSADSE05T:**

	2.Computation of numerical integration. 3. Solution of transcendental equations.	Numerical Integration, Gauss quadrature, Trapezoidal rule, Simpson's one-third rule with error terms. Stirling's approximation to factorial n. Solution of equations in a single variable- Bisection, Iteration and Newton Raphson method.
Week 9 to Week 12	**Paper STSACOR03P:** 3. Fitting of binomial distribution for given n and p. 4. Fitting of binomial distribution after computing mean and variance. 5. Fitting of Poisson distribution for given value of lambda. 6. Fitting of Poisson distribution after computing mean. 7. Fitting of negative binomial. 8. Fitting of suitable distribution. 9. Application problem based on binomial distribution 10. Application problem based on Poisson distribution. 11. Application problem based on negative binomial distribution. **Paper STSACOR10P:** 2. Single sample inspection plan: Construction and interpretation of OC, AQL, LTPD, ASN, ATI, AOQ, AOQL curves. **Paper STSADSE05P:** 4. Computation of Simulation problems.	**Paper STSACOR03T**: Discrete random variables, p.m.f. and c.d.f., statement of properties of c.d.f, illustrations. Derivation of moments (discrete situation). Standard discrete probability distributions: binomial, Poisson, geometric, negative binomial, hypergeometric, uniform. **Paper STSACOR10T:** Principle of acceptance sampling plans. Single and Double sampling plan their OC, AQL, LTPD, AOQ, AOQL, ASN, ATI functions with graphical interpretation, use and interpretation of Dodge and Romig's sampling inspection plan tables. **Paper STSADSE05T:** Using the computer for random number generation (treated as a black box). A brief look at some popular approaches (no mathematical justification needed). Simulating a coin toss, a die roll and a card shuffle. CDF inversion method. Simulation from standard distributions. Finding probabilities and moments using simulation.
Week 13	**Paper STSACOR10P:** **3.** Calculation of process capability and comparison of 3-sigma control limits with specification limits. **Paper STSADSE05P:** 5.Computation of Monte Carlo integration.	**Paper STSACOR03T**: p.d.f. and c.d.f., illustrations and properties, **Paper STSACOR10T:** Overview of Six Sigma, Lean Manufacturing and Total Quality Management (TQM). Organizational Structure and Six Sigma training plans- Selection Criteria for Six-Sigma roles and training plans. Voice of customers (VOC): Importance and VOC data collection. Critical to Quality (CTQ). Introduction to DMAIC using one case study: Define Phase, Measure Phase, Analyse Phase, Improve Phase and Control Phase. **Paper STSADSE05T:** Monte Carlo integration. Basic idea of importance sampling. (MCMC not included). Generating from Binomial and Poisson distributions, and comparing the histograms to the PMFs.
Week13 to week 14		**Internal Exam**
Week 15 to 17	**Paper STSACOR10P:** **4.** Use a case study to apply the concept of six sigma application in DMAIC: practical application.	**Paper STSACOR03T**: univariate transformations with illustrations. Derivation of moments. Probability Inequalities: Markov and Chebyshev. **Paper STSADSE05T:**

| | **Paper STSADSE05P:**
6.Graphical understanding of the laws of large numbers. | Generating from Uniform (0, 1) distribution, and applying inverse CDF transforms. Simulating Gaussian distribution using Box-Muller method. Approximating the expectation of a given function of a random variable using simulation. Graphical demonstration of the Law of Large Numbers. Approximating the value of pi by simulating dart throwing. |

Class: B.Sc and M.Sc.

Semester: 1, 3, 5   Name of the Teacher: Dr. Nikhil Ranjan Pramanik

Subject: Chemistry

Paper: CEMACOR02T&P (UG SEM-I), CEMACOR05T&P (UG SEM-III), CEMADSE01T&P (UG SEM-V), CHEMCOR03 &04(PG SEM-I) and CHEMCOR13&14 (PG SEM-III)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR02P:** Physical Chemistry –I Lab: Discussion of principles of Physical experiments and Exp-1. **CEMACOR05P:** Physical Chemistry –II Lab: Discussion of principles of Physical experiments and Exp-1and 2 **CEMADSE01P:** Advanced Physical Chemistry Lab: Introduction to Fortran: Structure of Fortran program, Programming and running in Laptop/ mobile **CHEMCOR04:** Physical Chemistry Practical –I: Discussion of principles of Physical experiments and Exp-1 and 2 **CHEMCOR14**: Physical Chemistry Practical (Practical 5): Discussion of principles of Physical experiments and Exp-1and 2	**CEMACOR02T:** Physical Chemistry I: Chemical Thermodynamics: Introduction, Zeroth law and First law . **CEMACOR05T:** Physical Chemistry –II: Application of thermodynamics-I:Partial molar properties and chemical potential. **CEMADSE01T:** Advanced Physical Chemistry: Statistical thermodynamics: Introduction, Configurations. **CHEMCOR03:** Physical chemistry 1: Chemical Kinetics –I: Collision theory and activated complex theory. **CHEMCOR13:** Physical chemistry -3: Nanomaterials: Definition, classification and properties.
Week 5 to week 8	**CEMACOR02P:** Physical Chemistry –I Lab: Physical experiments, Exp-2 and 3 **CEMACOR05P:** Physical Chemistry –II Lab: Physical experiments, Exp-3and 4 **CEMADSE01P:** Advanced Physical Chemistry Lab: Inputs and outputs statements, Programming and running in Laptop/ mobile **CHEMCOR04** Physical Chemistry Practical –I:**:** Physical experiments, Exp-3and 4 **CHEMCOR14**: Physical Chemistry Practical (Practical 5): Physical experiments Exp-3, 4 and 5	**CEMACOR02T:** Physical Chemistry I: Chemical Thermodynamics: Thermochemistry **CEMACOR05T:** Physical Chemistry –II: Application of thermodynamics-I: Chemical potential and other properties of ideal substances: Pure and mixture. **CEMADSE01T:** Advanced Physical Chemistry: Statistical thermodynamics: Boltzmann distribution. **CHEMCOR03:** Physical chemistry 1: Chemical Kinetics –I: Reactions between ions in solution: Influence of dielectric constant, ionic strength and pressure on rate constatnt. **CHEMCOR13:** Physical chemistry -3: Nanomaterials: Relevance to dependency on size and shape.
Week 9 to Week 12	**CEMACOR02P:** Physical Chemistry –I Lab: Physical experiments, Exp-4 and 5 **CEMACOR05P:** Physical Chemistry –II Lab: Physical experiments, Exp-5 and 6 **CEMADSE01P:** Advanced Physical Chemistry Lab: Control statements,	**CEMACOR02T:** Physical Chemistry I: Chemical Thermodynamics: Second Law **CEMACOR05T:** Physical Chemistry –II: Application of thermodynamics-I: Chemical equilibrium. **CEMADSE01T:** Advanced Physical Chemistry: Statistical thermodynamics: Partition function and its applications.

	Programming and running in Laptop/ mobile	.
	CHEMCOR04: Physical Chemistry Practical –I: Physical experiments, Exp-5and 6 **CHEMCOR14**: Physical Chemistry Practical (Practical 5): Physical experiments Exp-6, 7 and 8	**CHEMCOR03:** Physical chemistry 1: Chemical Kinetics –I: Unimolecular reactions: Lindemann- Hinshelwood and RRK mechanism. **CHEMCOR13:** Physical chemistry -3: Nanomaterials: Synthetic methodologies – both physical and chemical methods.
Week 13	**CEMACOR02P:** Physical Chemistry –I Lab: Revision of physical Experiments **CEMACOR05P:** Physical Chemistry –II Lab: Revision of Physical Experiments **CEMADSE01P:** Advanced Physical Chemistry Lab: Do Loops, Programming and running in Laptop/ mobile **CHEMCOR04:** Physical Chemistry Practical –I: Revision of Physical experiments. **CHEMCOR14**: Physical Chemistry Practical (Practical 5): Physical experiments Exp-9 and 10	**CEMACOR02T:** Physical Chemistry I: Chemical Thermodynamics: Thermo dynamic relations. **CEMACOR05T:** Physical Chemistry –II: Transport processes: Viscosity **CEMADSE01T:** Advanced Physical Chemistry: Special Selected Topics: Third law of thermodynamics. **CHEMCOR03:** Physical chemistry 1: Chemical Kinetics –I: Chain reactions and its mechanism. **CHEMCOR13:** Physical chemistry -3: Carbon nanotubes, fullerene ,graphene
Week13 to week 14	**Internal Exam**	
Week 15 to 17	**CEMACOR02P:** Physical Chemistry –I Lab: Tutorial on principles and experiments of physical chemistry experiments **CEMACOR05P:** Physical Chemistry –II Lab: Tutorial on principles and experiments of physical chemistry experiments **CEMADSE01P:** Advanced Physical Chemistry Lab: Programming and running on several problems in Laptop/ mobile **CHEMCOR04:** Physical Chemistry Practical –I: Tutorial on principles and experiments of physical chemistry experiments **CHEMCOR14:** Physical Chemistry Practical (Practical 5): Tutorial on principles and experiments of physical chemistry experiments.	**CEMACOR02T:** Physical Chemistry I: Chemical Chemical Kinetics: Theory of rate process. **CEMACOR05T:** Physical Chemistry –II: Tutorial on application of thermodynamics-I and viscosity. **CEMADSE01T:** Advanced Physical Chemistry: Special Selected Topics: Tutorial on statistical thermodynamics and third law of thermodynamics. **CHEMCOR03:** Physical chemistry 1: Chemical Kinetics –I: Oscillatory reactions: Observation and mechanism. Autocatalytic reactions. **CHEMCOR13:** Physical chemistry -3: Applications of nanomaterials and nanotechnology.
Week 18	Class test	Problem solving

Class: B.Sc and M.Sc.
Semester: 1, 3, 5　　　　　　　　　　　　　**Name of the Teacher: Dr. Sanat Kumar Saha**
Subject: Chemistry
Paper: CEMACOR02T&P (UG SEM-I), CEMACOR05T&P (UG SEM-III), CEMADSE01T&P (UG SEM-V),
CHEMCOR03 &04(PG SEM-I) and CHEMCOR13&14 (PG SEM-III)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR02P:** Physical Chemistry –I Lab: Discussion of principles of Physical experiments and Exp-1.	**CEMACOR02T:** Physical Chemistry –I : Kinetic theory and gaseous state. Kinetic theory of gases: Ideal gas Part 1.
	CEMACOR05P: Physical Chemistry –II Lab: Discussion of principles of Physical experiments and Exp-1and 2	**CEMACOR05T:** Physical Chemistry –II: Foundation of Quantum Mechanics: Beginning of Quantum Mechanics, wave function, operators
	CEMADSE01P: Advanced Physical Chemistry Lab: Introduction to Fortran: Structure of Fortran program, Programming and running in Laptop/ mobile	**CEMADSE01T:** Advanced Physical Chemistry: Crystal structure: Bravais lattice and laws of crystallography
	CHEMCOR04: Physical Chemistry Practical –I: Discussion of principles of Physical experiments and Exp-1 and 2	**CHEMCOR03:** Physical chemistry 1: Quantum Mechanics-I: Part-1: Postulates, Barrier problems and Tunnelling.
	CHEMCOR14: Physical Chemistry Practical (Practical 5): Discussion of principles of Physical experiments and Exp-1and 2	**CHEMCOR13:** Physical chemistry -3: Electrochemistry II: Ion –transport in solution: Debye-Huckel- Onsager theory.
Week 5 to week 8	**CEMACOR02P:** Physical Chemistry –I Lab :Physical experiments, Exp-2 and 3	**CEMACOR02T:** Physical Chemistry –I :Kinetic theory and gaseous state. Maxwell's distribution: Ideal gas Part 2.
	CEMACOR05P: Physical Chemistry –II Lab: Physical experiments, Exp-3and 4	**CEMACOR05T:** Physical Chemistry –II :Foundation of Quantum Mechanics: Particle in a box, Simple harmonic oscillator
	CEMADSE01P: Advanced Physical Chemistry Lab: Inputs and outputs statements, Programming and running in Laptop/ mobile	**CEMADSE01T:** Advanced Physical Chemistry: Crystal structure: Crystal planes and determination of crystal structure.
	CHEMCOR04: Physical Chemistry Practical –I: Physical experiments, Exp-3and 4	**CHEMCOR03:** Physical chemistry 1: Quantum Mechanics-I: Part-2:Angular momentum, Ehrenfest's theorem, Hydrogen atom problem
	CHEMCOR14: Physical Chemistry Practical (Practical 5): Physical experiments Exp-3, 4 and 5	**CHEMCOR13:** Physical chemistry -3: Electrochemistry II: Thermodynamics of electrified interfaces.
Week 9 to Week 12	**CEMACOR02P:** Physical Chemistry –I Lab: Physical experiments, Exp-4 and 5	**CEMACOR02T:** Physical Chemistry –I: Kinetic theory and gaseous state. Real gases.
	CEMACOR05P: Physical Chemistry –II Lab: Physical experiments, Exp-5 and 6	**CEMACOR05T:** Physical Chemistry –II:Foundation of Quantum Mechanics: Particle in a box, Simple harmonic oscillator
	CEMADSE01P: Advanced Physical Chemistry Lab: Control statements,	**CEMADSE01T:** Advanced Physical Chemistry: Special topics: Specific heat of solid, 3rd Law of thermodynamics.

	Programming and running in Laptop/ mobile	
	CHEMCOR04: Physical Chemistry Practical –I: Physical experiments, Exp-5 and 6 **CHEMCOR14**: Physical Chemistry Practical (Practical 5): Physical experiments Exp-6, 7 and 8	**CHEMCOR03:** Physical chemistry 1: Electrochemistry I: Part-1:Ion-ion interaction: Debye Huckel theory of activity coefficient. **CHEMCOR13:** Physical chemistry -3: Electrochemistry II: Structure of electrified interfaces: Helmholtz -Perrin model and Gouy-Chapman model.
Week 13	**CEMACOR02P:** Physical Chemistry –I Lab: Revision of physical Experiments **CEMACOR05P:** Physical Chemistry –II Lab: Revision of Physical Experiments **CEMADSE01P:** Advanced Physical Chemistry Lab: Do Loops, Programming and running in Laptop/ mobile **CHEMCOR04:** Physical Chemistry Practical –I:Revision of Physical experiments. **CHEMCOR14**: Physical Chemistry Practical (Practical 5): Physical experiments Exp-9 and 10	**CEMACOR02T:** Physical Chemistry –I: Chemical Kinetics: Rate law, theory of reaction rate **CEMACOR05T:** Physical Chemistry –II:Transport processes: Conductance and transport number **CEMADSE01T:** Advanced Physical Chemistry: Special topics: Polymers **CHEMCOR03:** Physical chemistry 1: Electrochemistry I: Part-2:Electrode kinetics: Butler Volmer equation, Overpotential **CHEMCOR13:** Physical chemistry -3: Electrochemistry II: Structure of electrified interfaces: Stern model and Contact adsorption model (First part)
Week13 to week 14	**Internal Exam**	
Week 15 to 17	**CEMACOR02P:** Physical Chemistry –I Lab: Tutorial on principles and experiments of physical chemistry experiments **CEMACOR05P:** Physical Chemistry –II Lab: Tutorial on principles and experiments of physical chemistry experiments **CEMADSE01P:** Advanced Physical Chemistry Lab: Programming and running on several problems in Laptop/ mobile **CHEMCOR04:** Physical Chemistry Practical –I: Tutorial on principles and experiments of physical chemistry experiments **CHEMCOR14:** Physical Chemistry Practical (Practical 5): Tutorial on principles and experiments of physical chemistry experiments.	**CEMACOR02T:** Physical Chemistry –I: Chemical Kinetics: homogeneous catalysis and autocatalysis **CEMACOR05T:** Physical Chemistry –II:Tutorial on Quantum Mechanics and conductance **CEMADSE01T:** Advanced Physical Chemistry: Tutorial on crystallography , Specific heat and Polymer **CHEMCOR03:** Physical chemistry 1: Electrochemistry I: Part-2:Electrode kinetics: Overpotential **CHEMCOR13:** Physical chemistry -3: Electrochemistry II: Structure of electrified interfaces: Contact adsoption model (Second part)
Week 18	Class test	Problem solving

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG & PG course
Department of Chemistry
Session (2021-22)

Class: B.Sc. and M.Sc.

Semester: 1, 3, 5   Name of the Teacher: Anisur Rahaman Molla

Subject: Chemistry

Paper: CEMACOR01 (UG SEM-I), CEMACOR07 (UG SEM-III), CEMHGEC03 (UG SEM-III GE),
CEMACOR12 (UG SEM-V), CHEMCOR02&CHEMCOR05 (PG SEM-I) and CHEMCOR12 (PG SEM-III)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR07:** Qualitative analysis of single solid organic compounds (known samples) **CHEMGEC03:** Identification of pure organic compound (known solid) **CHEMCOR05:** Systematic qualitative analysis of a liquid organic compound (known samples)	**CEMACOR01:** Basics of organic chemistry – MO theory **CEMHGEC03:** Alcohols **CEMACOR12:** Structure of monosaccharides **CHEMCOR02:** Reaction mechanism:Types, thermodynamic & kinetic requirements, Hammond postulate, microscopic reversibility **CHEMCOR12:** Basic principles of photochemistry
Week 5 to week 8	**CEMACOR07:** Qualitative analysis of single solid organic compounds (2 unknown samples) **CHEMGEC03:** Identification of pure organic compound (unknown solid) **CHEMCOR05:** Systematic qualitative analysis of a liquid organic compound (2 unknown samples)	**CEMACOR01:** Basics of organic chemistry– FMO interactions **CEMHGEC03:** Phenols and ethers **CEMACOR12:** Reactions of monosaccharides **CHEMCOR02:** Methods of determination of reaction mechanism: Study of intermediates **CHEMCOR12:** Cis-trans isomerism, di-pi methane rearrangement
Week 9 to Week 12	**CEMACOR07:** Qualitative analysis of single solid organic compounds (2 unknown samples) **CHEMGEC03:** Identification of pure organic compound (known liquid) **CHEMCOR05:** Systematic qualitative analysis of a liquid organic compound (2 unknown samples)	**CEMACOR01:** Aromaticity **CEMHGEC03:** Aldehyde and ketone (preparation and reactivity) **CEMACOR12:** Ring structure of monosaccharides **CHEMCOR02:** Methods of determination of reaction mechanism: Identification of products, Isotope labeling, isotope effects. **CHEMCOR12:** Norish type-I and type-II reaction
Week 13	**CEMACOR07:** Qualitative analysis of single solid organic compounds (1 unknown samples) **CHEMGEC03:** Identification of pure organic compound (unknown liquid) **CHEMCOR05:** Systematic qualitative analysis of a liquid organic compound (1 unknown samples)	**CEMACOR01:** Mechanistic classification **CEMHGEC03:** Reactions of aldehydes & ketones-1 **CEMACOR12:** Fischer's proof of configuration of (+)-glucose **CHEMCOR02:** Methods of determination of reaction mechanism: catalysis. **CHEMCOR12:** Patterno-Buchi reaction
Week13 to week 14		**Internal Exam**
Week 15 to 17	**CEMACOR07:** Qualitative analysis of single solid organic compounds (1 unknown samples) **CHEMGEC03:** Identification of pure organic compound (unknown liquid) **CHEMCOR05:** Systematic qualitative analysis of a liquid organic compound (2 unknown samples)	**CEMACOR01:** Reactive intermediates **CEMHGEC03:** Reactions of aldehydes & ketones-2 **CEMACOR12:** Disaccharides and polysaccharides **CHEMCOR02:** Methods of determination of reaction mechanism: stereochemical course of the reaction. **CHEMCOR12:** Photo reduction of ketones
Week 18	Class test	Problem solving

Class: B.Sc and M.Sc.

Semester: 1, 3, 5   Name of the Teacher: Tirtha Pada Majhi

Subject: Chemistry

Paper: CEMACOR01 (UG SEM-I), CEMACOR07 (UG SEM-III), CEMHGEC03 (UG SEM-III GE),
CEMACOR12 (UG SEM-V), CHEMCOR02 (PG SEM-I) and CHEMCOR12 (PG SEM-III)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR07:** Qualitative analysis of single solid organic compounds (known samples) **CHEMGEC03:** Identification of pure organic compound (known solid) **CHEMCOR02:** Systematic qualitative analysis of a liquid organic compound (known samples)	**CEMACOR01:** Basics of organic chemistry – Valence Bond theory and orbital pictures of bonding **CEMACOR07:** Acidity of α-H of C=O, kinetic and thermodynamic enolates, halogenation of carbonyl compds. **CEMHGEC03:** Benzene-preparations **CEMACOR12:** Amino acids: types and properties **CHEMCOR02:** Reaction intermediate, thermodynamic and kinetic aspects **CHEMCOR12:** Radicals-generation, shape and stability
Week 5 to week 8	**CEMACOR07:** Qualitative analysis of single solid organic compounds (2 unknown samples) **CHEMGEC03:** Identification of pure organic compound (unknown solid) **CHEMCOR02:** Systematic qualitative analysis of a liquid organic compound (2 unknown samples)	**CEMACOR01:** Basics principles of organic chemistry– electronic displacement, inductive effect, resonance, hyperconjugation and steric effects. **CEMACOR07:** Condensation reaction of carbonyl compds. **CEMHGEC03:** Electrophilic substitution in benzene **CEMACOR12:** Synthesis of α - amino acids **CHEMCOR02:** Methods of determining reaction mechanism **CHEMCOR12:** Radical reactions
Week 9 to Week 12	**CEMACOR07:** Qualitative analysis of single solid organic compounds (2 unknown samples) **CHEMGEC03:** Identification of pure organic compound (known liquid) **CHEMCOR02:** Systematic qualitative analysis of a liquid organic compound (2 unknown samples)	**CEMACOR01:** Physical properties of organic molecules- bond energy, bond distance, bond angle, bond angle strain. **CEMACOR07:** Preparation and synthetic applications of diethyl malonate and ethyl acetoacetate **CEMHGEC03:** Grignard reagent-preparation and reaction **CEMACOR12:** Reactions of amino acids **CHEMCOR02:** Correlation of structure and reactivity **CHEMCOR12:** C – X bond, C – C bond forming reactions.
Week 13	**CEMACOR07:** Qualitative analysis of single solid organic compounds (1 unknown samples) **CHEMGEC03:** Identification of pure organic compound (unknown liquid) **CHEMCOR02:** Systematic qualitative analysis of a liquid organic compound (1 unknown samples)	**CEMACOR01:** Covalent & non-covalent intermolecular forces **CEMACOR07:** H.V.Z. reaction and Riley oxidation **CEMHGEC03:** Side chain oxidation of aromatic system **CEMACOR12:** Peptide syntheses **CHEMCOR02:** Nonlinear Hammett plots **CHEMCOR12:** C–C bond cleaving reactions via radical reactions
Week 13 to week 14	**Internal Exam**	
Week 15 to 17	**CEMACOR07:** Qualitative analysis of single solid organic compounds (1 unknown samples) **CHEMGEC03:** Identification of pure organic compound (unknown liquid) **CHEMCOR02:** Systematic qualitative analysis of a liquid organic compound (2 unknown samples)	**CEMACOR01:** Dipole moments; relative stabilities of isomeric hydrocarbons **CEMACOR07:** Organometallic compounds. **CEMHGEC03:** Aryl halides-preparation and reaction **CEMACOR12:** Determination of amino acid sequence and structure of protein **CHEMCOR02:** Discussion on question pattern **CHEMCOR12:** Radical rearrangements
Week 18	Class test	Problem solving

Class: B.Sc
Semester 1,3,5   Name of the Teacher: Dr. Shubhankar Samanta
Subject:
Paper : CEMACOR01P, CEMHGEC01P, CEMACOR12P, CEMACOR07T, CEMACOR12T, PG Core -02, PG Core -12

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**Paper CEMACOR01P**: Identification of a Pure Organic Compound Solid compounds: oxalic acid, tartaric acid **Paper CEMHGEC01P**: Qualitative Analysis of Single Solid Organic Compound(s) Experiment A: Detection of special elements (N, Cl, and S) in organic compounds. **Paper CEMACOR12P**: Chromatographic Separations 1. TLC separation of a mixture containing 2/3 amino acids	**Paper CEMACOR07T**: Substitution on -COX; directed ortho metalation of arenes using organolithiums, conjugate addition by Gilman cuprates; Corey-House synthesis. Paper **CEMACOR12T**: Bogert-Cook and other useful syntheses (with mechanistic details) **PG Core -02: Organic Chemistry – 1**: 1H NMR Spectroscopy: spin-spin coupling – notation for spin systems. **Core -12: Organic Chemistry – 3**: Reduction with metal-hydrides of B, Al, Sn, Si.
Week 5 to week 8	**Paper CEMACOR01P**: Identification of a Pure Organic Compound Solid compounds: citric acid, succinic acid, resorcinol **Paper CEMHGEC01P**: Qualitative Analysis of Single Solid Organic Compound(s) Experiment A: Solubility and Classification (solvents: H2O, dil. HCl, dil. NaOH) **Paper CEMACOR12P**: Chromatographic Separations 1. TLC separation of a mixture of dyes (fluorescein and methylene blue)	**Paper CEMACOR07T**: Grignard reagent; Organolithiums; Gilman cuprates: preparation and reactions (mechanism with evidence); addition of Grignard and organolithium to carbonyl compounds; Paper **CEMACOR12T**: Polynuclear hydrocarbons and their derivatives: synthetic methods include Haworth, Bardhan-Sengupta, **PG Core -02: Organic Chemistry – 1**: 1H NMR Spectroscopy: Equivalence and nonequivalence of protons **Core -12: Organic Chemistry – 3**: Dissolving metal-reduction, Synthetically useful hydrogenolysis reaction.
Week 9 to Week 12	**Paper CEMACOR01P**: Identification of a Pure Organic Compound Solid compounds: urea, glucose, cane sugar, benzoic acid and salicylic acid. **Paper CEMHGEC01P**: Qualitative Analysis of Single Solid Organic Compound(s): Detection of functional groups: Aromatic-NO2, Aromatic -NH2, -COOH **Paper CEMACOR12P**: Chromatographic Separations 1. Column chromatographic separation of leaf pigments from spinach leaves	**Paper CEMACOR07T**: abnormal behavior of Grignard reagents; comparison of reactivity among Grignard, organolithiums and organocopper reagents; Reformatsky reaction; Blaise reaction; concept of umpolung and base-nucleophile dichotomy in case of organometallic reagents. **Paper CEMACOR12T**: fixation of double bonds and Fries rule; reactions (with mechanism) of naphthalene, **PG Core -02: Organic Chemistry – 1**: coupling constant and its variation with stereochemistry – Karplus equation **Core -12: Organic Chemistry – 3**: Shapiro reaction, Mitsunobu reaction,
Week 13	**Paper CEMACOR01P**: Identification of a Pure Organic Compound Liquid Compounds: formic acid, acetic acid, methyl alcohol, ethyl alcohol, acetone, **Paper CEMHGEC01P**: Qualitative Analysis of Single carbonyl (no distinction of –CHO	**Paper CEMACOR07T**: Twelve (12) principles of green chemistry; planning of green synthesis; common organic reactions **Paper CEMACOR12T**: anthracene, phenanthrene and their derivatives,

	and >C=O needed), -OH (phenolic) in solid organic compounds. **Paper CEMACOR12P**: Paper chromatographic separation of a mixture containing 2/3 amino acids; NMR spectra analysis of (i) 4' -Bromoacetanilide (ii) 2-Bromo-4'-methylacetophenone (iii) Vanillin (iv) 2' - Methoxyacetophenone (v) 4-Aminobenzoic acid (vi) Salicylamide (vii) 2'Hydroxyacetophenone (viii) 1,3-Dinitrobenzene	**PG Core -02: Organic Chemistry – 1**: Application of 1H NMR and 13C NMR for structure elucidation. **Core -12: Organic Chemistry – 3**: Hofmann-Loffler-Freytag reaction, Barton reaction, Barton decarboxylation and deoxygenation reaction,
Week13 to week 14	**Internal Exam**	
Week 15 to 17	**Paper CEMACOR01P**: Identification of a Pure Organic Compound Liquid Compounds: aniline, dimethylaniline, benzaldehyde, chloroform and nitrobenzene; Unknown solid compound determination. **Paper CEMHGEC01P**: Qualitative determination unknown solid compounds **Paper CEMACOR12P**: Assignment of labelled peaks in the IR spectrum of the same compound explaining the relative frequencies of the absorptions (C-H, O-H, N-H, C-O, C-N, C-X, C=C, C=O, N=O, C≡C, C≡N stretching frequencies; characteristic bending vibrations are included).	**Paper CEMACOR07T**: Substitution at sp2 carbon (C=O system): mechanism (with evidence): BAC2, AAC2, AAC1, AAL1 (in connection to acid and ester); acid derivatives: amides, anhydrides & acyl halides (formation and hydrolysis including comparison). **Paper CEMACOR12T**: anthracene, phenanthrene and their derivatives, **PG Core -02: Organic Chemistry – 1**: Application of 1H NMR and 13C NMR for structure elucidation. **Core -12: Organic Chemistry – 3**: Tandem cycloaddition reaction, Baylis - Hilman Reaction, Passerini reaction , Ugi Reactions.
Week 18	Revision of whole allotted practical syllabus by University question papers	Revision the whole theory syllabus by University Question papers.

Class: B.Sc and M.Sc.

Semester: 1, 3, 5   Name of the Teacher: Susanta Kumar Manna

Subject: Chemistry

Paper: CEMACOR01 (UG SEM-I), CEMACOR07 (UG SEM-III), CEMHGEC03 (UG SEM-III GE),
CEMACOR12 (UG SEM-V), CHEMCOR02 (PG SEM-I) and CHEMCOR12 (PG SEM-III)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CHEMGEC03P:**Identification of pure organic compound (known solid) **CEMACOR12P:**Chromatographic separation mixture of amino acids-TLC **CHEMCOR02:** Drying of organic solvents Chlorinated solvent $CHCl_3$, DCM	**CEMACOR07T:** Aromatic electrophilic substitution-nitration, sulphonation, halogenation **CEMACOR12T:**Pericyclic reaction: pi molecular orbital **CHEMCOR02**: Pericyclic reaction, Woodward-Hoffmann selection rule, F.M.O, **CHEMCOR12**: Oxidation Zones reagent, Cr (VI), Collins, PCC
Week 5 to week 8	**CHEMCOR02:** Drying of organic solvents– Toluene, THF **CHEMGEC03:**Identification of pure organic compound (unknown solid) **CHEMCOR12p:**Alanine, Lysine, Leucine (known)	**CEMACOR07T:** Different electrophilic substitution and mechanism **CHEMCOR12T:**electrocyclic reaction CHEMCOR02: Electrocyclic reaction, Huckel-Mobius approach CHEMCOR12: Oxidation, PDC, PFC, DMSO based oxidation
Week 9 to Week 12	**CHEMCOR02:** Drying of organic solvents**MeOH** **CHEMGEC03:**Identification of pure organic compound (known liquid) **CEMACOR12P:**TLC separation with unknown and mixture	**CEMACOR07T:** Nucleophilic substitution**,** Benzyne mechanism **CHEMCOR12T:**Cycloaddition reaction CHEMCOR02: Cycloaddition reaction CHEMCOR12: Oxidation Mofatt, Swern, DMP, IBX, Ag_2O, RuO_4, OSO_4, $NaIO_4$,
Week 13	**CHEMGEC03:**Identification of pure organic compound (unknown liquid) **CHEMCOR02:**ET_3N **CEMACOR12P:**Paper chromatography	**CEMACOR07T:** Ipso substitution **CHEMCOR12T:**Sigmatropic rearrangement CHEMCOR02: Sigmatropic rearrangement [1,3] [1,5], [1,7]H shift -group transfer reaction CHEMCOR12: reduction with Metal hydride B, Al, Sn, Si, Sm, In
Week13 to week 14	Internal Exam	
Week 15 to 17	**CHEMGEC03:**Identification of pure organic compound (unknown liquid) **CEMACOR12P:**Column chromatography with spinach leaves	**CEMACOR07T:** Tutorial of entire aromatic substitution **CHEMCOR12T:**Claisen and Cope rearrangement CHEMCOR02: [3,3]Claisen and Cope rearrangement CHEMCOR12: Special reaction Shapiro, Mitsonobu, Barton, Ugi, Passerini reaction
Week 18	Class test	Problem solving

Class: B.Sc. and M.Sc.

Semester: 1, 3, 5   Name of the Teacher: Arup Kumar Adak

Subject: Chemistry

Paper: CEMACOR06 (UG SEM-III), CEMACOR11 (UG SEM-V), CHEMCOR01 (PG SEM-I) and CHEMCOR11 (PG SEM-III)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR06P:**Iodo-/ Iodimetricestimation of Cu^{2+}ions **CEMADSE02P:** Estimation of .calcium, magnesium. **AECC(PG):**Plot of graphs for change in the UV-visand fluorescence spectra of the sensor **L** and in the presence of various metal ions using **Origin Pro** software	**CEMACOR06:** Molecular orbital concept of bonding (The approximations of the theory, Linearcombination of atomic orbitals (LCAO)) (elementary pictorial approach **CEMACOR11:** General Comparison on electronic configuration, oxidation states of lanthanoids and actinoids **CEMADSE02:**Flame Atomic Absorption Spectrometry: Basic principles of instrumentation (choice of source, monochromator, detector, choice of flame and Burner designs. **CHEMCOR01(PG):**Basic principle, instrumentation, special futures of Polarography **CHEMCOR11(PG):**Nuclearstability, terrestrialabundance, distribution, relativistic effect of *f– BlockElements*
Week 5 to week 8	**CEMACOR06P:**Iodo-/ Iodimetric estimation of Vitamin C **CEMADSE02P:** To separate a mixture of Ni^{2+}& Fe^{2+} by complexation with DMG and extracting the Ni^{2+}-DMG complex in chloroform, and determine its concentration by spectrophotometry. **AECC(PG):** Limit of detection (LOD) calculation for sensor Lusing **Microsoft Excel** and **Origin Pro** software	**CEMACOR06:**sigma and pi bonds and delta interaction, multiple bonding. orbital designations: gerade, ungerade, HOMO, LUMO. orbital mixing **CEMACOR11:** General Comparison on colour of lanthanoids and actinoids **CEMADSE02:**Flame Emission Spectrometry: Basic principles of instrumentation (choice of source, monochromator, detector, choice of flame and Burner designs. **CHEMCOR01(PG):**Special futures of Polarography and Ilkovic equation, half wave potential and its significance **CHEMCOR11(PG):**Electronic configuration,oxidationstates,aqueous-,redox-andcomplex-chemistry of *f– BlockElements*
Week 9 to Week 12	**CEMACOR06P:**Iodo-/ Iodimetricestimation of available chlorine in bleaching powder. **CEMADSE02P:** Determination of pKa values of indicator using spectrophotometry. **AECC(PG)::**Association constant using Benesi-Hildebrand method for sensor L using**Microsoft Excel** and**Origin Pro** software	**CEMACOR06:** Bond properties: bond orders, bond lengths, MO diagrams of H_2, Li_2, Be_2, B_2, C_2, N_2, O_2, F_2, and their ions wherever possible **CEMACOR11:** General Comparison on spectral and of lanthanoids and actinoids **CEMADSE02:**Techniques of atomization and sample introduction **CHEMCOR01(PG):**Electroanalytical method : Basic principle, instrumentation, special futures of ion selective electrode **CHEMCOR11(PG):**Electronicspectra and magnetic properties. Lanthanide and actinide contractions and their consequences, separationof lanthanidesandactinidesand theirapplications(examples) of of *f– BlockElements*
Week 13	**CEMACOR06P:** Estimation of Cu in brass. **AECC(PG):**Job's plot for meatal ions calculated by absorption spectroscopy using **Origin Pro**	**CEMACOR06:** Heteronuclear molecular orbitals: CO, NO, NO^+, CN^- **CEMACOR11:**Lanthanide contraction, separation of lanthanides (ion-exchange method only). Orgel diagrams for 3d1 to 3d9 ions.

	software	**CEMADSE02:**Method of background correction, sources of chemical interferences and their method of removal. **CHEMCOR01(PG):**Electroanalytical method : Basic principle, instrumentation, special futures of cyclic voltametry **CHEMCOR11 (PG):**General Comparison on magnetic properties of lanthanoids and actinoids
Week13 to week 14		**Internal Exam**
Week 15 to 17	**CEMACOR06P:** Estimation of Fe in cement. **AECC(PG):** Plot of IR spectrausing **Origin Pro** software	**CEMACOR06:** Heteronuclear molecular orbitals: HF, BeH_2, CO_2 and H_2O **CEMACOR11:** General Comparison on magnetic properties of lanthanoids and actinoids **CEMADSE02:**Techniques for the quantitative estimation of trace level of metal ions from water samples. **CHEMCOR01(PG)** Electroanalytical method: Basic principle, instrumentation, special futures of ampherometric titration, **CHEMCOR11(PG):**Lanthanide compounds as high temperaturesuperconductor,nmr shiftreagentand MRI reagentof f– BlockElements
Week 18	Class test	Problem solving

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG & PG course
Department of Chemistry
Session (2021-22)

Class: B.Sc. and M.Sc.

Semester: 1, 3, 5   Name of the Teacher: Arabinda Mandal

Subject: Chemistry

Paper: CEMG01T (UG SEM-I G), CEMACOR06 (UG SEM-III), CEMACOR11 (UG SEM-V), CHEMCOR01 (PG SEM-I) and CHEMCOR11 (PG SEM-III)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR06P:** Estimation of Cu(II) **CEMACOR11P:** Principles involved in chromatographic separations. Paper chromatographic separation of following metal ions: 1. Ni (II) and Co (II) 2. Fe (III) and Al (III) **CHEMCOR01P:** Spectrophotometric Determination of: Fe(III) by sulphosalicylic acid and thiocyanate method	**CEMG01T:** Classification of elements on the basis of electronic configuration **CEMACOR06T:** Nuclear stability and nuclear binding energy. Nuclear forces: meson exchange theory. **CEMG03T:** Thermodynamic conditions for equilibrium, degree of advancement; Variation of free energy with degree of advancement; Equilibrium constant and standard Gibbs' free energy change. **CEMADSE02T:** Solvent extraction: Classification, principle and efficiency of the technique. Mechanism of extraction: extraction by solvation and chelation. Technique of extraction: batch, continuous and counter current extractions. **CHEMCOR01T:** Introduction to group, sub group **CHEMDSE1:** Franck-Condon principle, Mirror-image symmetry and its violation, Radiative and radiationless deactivation.
Week 5 to week 8	**CEMACOR06P:** Estimation of Vitamin C **CEMACOR11P:** Estimation of Ni(II) using Dimethylglyoxime (DMG). 2. Estimation of copper as CuSCN. **CHEMCOR01P:** Spectrophotometric Determination of: Mn(II) by periodate oxidation method	**CEMG01T:** General characteristics of s-, p-, d- and f-block elements. **CEMACOR06T:** Nuclear models (elementary idea): Concept of nuclear quantum number, magic numbers. Nuclear Reactions: Artificial radioactivity, transmutation of elements, fission, fusion and spallation reaction. **CEMG03T:** Definitions of KP, KC and KX and relation among them; van't Hoff's reaction isotherm, isobar and isochore from different standard states. **CEMADSE02T:** Qualitative and quantitative aspects of solvent extraction: extraction of metal ions from aqueous solution, extraction of organic species from the aqueous and nonaqueous media. **CHEMCOR01T:** Introduction to symmetry and symmetry operations. **CHEMDSE1:** Oscillator strength, Fluoroscence Quenchers and life-time variations, Photophysical processes of unimolecular processes
Week 9 to Week 12	**CEMACOR06P:** Estimation of available chlorine in bleaching powder. **CEMACOR11P:** Estimation of Al(III) by precipitating with oxine and weighing as Al(oxine)$_3$ (aluminium oxinate). **CHEMCOR01P:** Synthesis of Reinicke's salt	**CEMG01T:** Positions of hydrogen and noble gases. Atomic and ionic radii. **CEMACOR06T:** Nuclear energy and power generation. Separation and uses of isotopes. **CEMG03T:** Shifting of equilibrium due to change in external parameters e.g. temperature and pressure; variation of equilibrium constant with addition to inert gas; Le Chatelier's principle. **CEMADSE02T:** Chromatography: Classification, principle and efficiency of the technique.

		CHEMCOR01T: Matrix algebra for representation of group. CHEMDSE1: Delayed fluorescence, Kinetics of bimolecular processes: collision quenching.
Week 13	CEMACOR06P: Estimation of Cu in brass. CEMACOR11P: Estimation of chloride. CHEMCOR01P: Synthesis of *bis*(biguanido) copper(II) sulphate.	CEMG01T: Ionization potential, electron affinity, and electronegativity; periodic. CEMACOR06T: Radio chemical methods: principles of determination of age of rocks and minerals. CEMG03T: Strong, moderate and weak electrolytes, degree of ionization, factors affecting degree of ionization, ionization constant and ionic product of water; Ionization of weak acids and bases, pH scale, common ion effect. CEMADSE02T: Mechanism of separation: adsorption, partition & ion exchange. Development of chromatograms: frontal, elution and displacement methods. CHEMCOR01T: Matrix representation of symmetry operations, characters of symmetry operations . CHEMDSE1: Stern-Volmer equation, Concentration dependence of quenching.
Week13 to week 14	**Internal Exam**	
Week 15 to 17	CEMACOR06P: Estimation of Fe in cement. CEMACOR11P: **Spectrophotometry** 1. Measurement of 10Dq by spectrophotometric method. 2. Determination of λ_{max} of [Mn(acac)$_3$] and [Fe(acac)$_3$] complexes.	CEMG01T: Group-wise variation of above properties in respect of s- and p- block elements. CEMACOR06T: Radio carbon dating, hazards of radiation and safety measures. CEMG03T: Salt hydrolysis-calculation of hydrolysis constant, degree of hydrolysis and pH for different salts; Buffer solutions; Solubility and solubility product of sparingly soluble salts – applications of solubility product principle. CEMADSE02T: Qualitative and quantitative aspects of chromatographic methods of analysis: IC, GLC, GPC, TLC and HPLC. CHEMCOR01T: Examples og Reducible representation. CHEMDSE1:Excimer formation, Excited state electron transfer processes.
Week 18	Revision and Practice	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG & PG course
Department of Chemistry
Session (2021-22)

Class: B.Sc. and M.Sc.

Semester: 1, 3, 5   Name of the Teacher: Rituparna Biswas

Subject: Chemistry

Paper: CEMG01T (UG SEM-I G), CEMACOR06 (UG SEM-III), CEMACOR11 (UG SEM-V), CHEMCOR01 (PG SEM-I) and CHEMCOR11 (PG SEM-III)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR06P:** Estimation of Cu(II) **CEMADSE02P:** Estimation of calcium, magnesium. **CHEMCOR01P:** Spectrophotometric Determination of: Fe(III) by sulphosalicylic acid and thiocyanate method	**CEMG01T:** Bohr's theory for hydrogen atom, atomic spectra of hydrogen and Bohr's model. **CEMACOR06T:** radius ratio rule and its application and limitations. **CEMACOR11T:** Orbital and spin magnetic moments, spin only moments of dn ions. **CEMADSE02T:** basic principle of pH metric **CHEMCOR01T:** The concept of groups, subgroups, classes **CHEMCOR11T:** Stepwise and overall formation constants and their relations
Week 5 to week 8	**CEMACOR06P:** Estimation of Vitamin C **CEMADSE02P:** To separate a mixture of Ni^{2+} & Fe^{2+} by complexation with DMG and extracting the Ni^{2+}-DMG complex in chloroform, and determine its concentration by spectrophotometry. **CHEMCOR01P:** Spectrophotometric Determination of: Mn(II) by periodate oxidation method	**CEMG01T:** Sommerfeld's model, quantum numbers and their significance **CEMACOR06T:** Born-Landé equation with derivation and importance of Kapustinskii expression for lattice energy. **CEMACOR11T:** effective magnetic moments, including orbital contribution. **CEMADSE02T:** potentiometric titration **CHEMCOR01T:** Group multiplication tables and the rearrangement theorem. **CHEMCOR11T:** factors affecting the stability of metal complexes with reference to the nature of the metal ions and ligands.
Week 9 to Week 12	**CEMACOR06P:** Estimation of available chlorine in bleaching powder. **CEMADSE02P:** Determination of pKa values of indicator using spectrophotometry. **CHEMCOR01P:** Synthesis of Reinicke's salt	**CEMG01T:** Pauli's exclusion principle, Hund's rule **CEMACOR06T:** Madelung constant, Born-Haber cycle **CEMACOR11T:** quenching of magnetic moment: super exchange and antiferromagnetic interactions **CEMADSE02T:** conductometric titrations. **CHEMCOR01T:** Symmetry elements and operations, products of symmetry operations, **CHEMCOR11T:** non statistical factors influencing stability of complexes in solution.
Week 13	**CEMACOR06P:** Estimation of Cu in brass. **CHEMCOR01P:** Synthesis of *bis*(biguanido) copper(II) sulphate.	**CEMG01T:** Electronic configuration of many-electron atoms **CEMACOR06T:** Born-Haber cycle and its application, **CEMACOR11T:** Orgel diagrams for 3d1 to 3d9 ions. **CEMADSE02T:** Techniques used for the determination of equivalence points. **CHEMCOR01T:** identification of point groups, Matrix representation of symmetry operations, **CHEMCOR11T:** Stability and reactivity of mixed ligand complexes with reference to chelate effect and thermodynamic considerations. Macrocyclic effect.
Week13 to week 14		**Internal Exam**
Week 15 to 17	**CEMACOR06P:** Estimation of Fe in cement.	**CEMG01T:** Aufbau principle and its limitations **CEMACOR06T:** Defects in solids, Solubility energetics of

		dissolution process **CEMACOR11T:** Selection rules for electronic spectral transitions; spectrochemical series of ligands; charge transfer spectra **CEMADSE02T:** Determination of composition of metal complexes using Job's method of continuous variation and mole ratio method. **CHEMCOR01T:** reducible and irreducible representations, the "Great Orthogonality Theorem" **CHEMCOR11T:**Spectrophotometric and pH metric determination of binary formation constants.
Week 18	Revision and Practice	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, UG and PG courses
Department of Chemistry
Session (2021-22)

Class: B.Sc. and M.Sc.
Semester: 2, 4, 6   Name of the Teacher: Dr. Nikhil Ranjan Pramanik
Subject: Chemistry
Paper: CEMACOR08T&P (UG SEM-IV), CEMACOR14T&P (UG SEM-VI), CHEMCOR08 and,
CHEMCOR10 (PG SEM-II), ,CHEMDSE02 and CHEMDSE03 (PG SEM-IV)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR08P:** Physical Chemistry –III Lab: Discussion of principles of Physical experiments and Exp-1 and 2. **CEMACOR14P:** Physical Chemistry –IV Lab: Discussion of principles of Physical experiments and Exp-1 and 2. **CHEMCOR10:** Practical -4: Physical Chemistry Practical II: Discussion of principles of Physical experiments and Exp-1. **CHEMDSE03**: Laboratory Experiment and Research Project: Physical: Spectrophotometric experiments: Discussion of principles of Physical experiments and Exp-1 and 2.	**CEMACOR08T:** Physical Chemistry –III: Application of Thermodynamics- II: Colligative properties. **CEMACOR14T:** Physical Chemistry –IV: Surface Phenomenon: Surface tension and energy. **CHEMCOR08:** Physical Chemistry -2: Chemical Kinetics. Introduction: Enzyme catalysis. **CHEMDSE02:** Physical Chemistry: Macromolecules: Introduction, Definition and types of polymers.
Week 5 to week 8	**CEMACOR08P:** Physical Chemistry –III Lab: Physical experiments: Exp-3 and 4. **CEMACOR14P:** Physical Chemistry –IV Lab: Physical experiments Exp-3 and 4. **CHEMCOR10:** Practical -4: Physical Chemistry Practical II: Physical experiments: Exp 2 and Exp-3. **CHEMDSE03**: Laboratory Experiment and Research Project: Physical experiments: Exp-3, 4 and 5.	**CEMACOR08T:** Physical Chemistry –III: Application of Thermodynamics- II: Phase rule-Part 1.. **CEMACOR14T:** Physical Chemistry –IV: Surface Phenomenon: Adsorption. **CHEMCOR08:** Physical Chemistry -2: Chemical Kinetics: Characteristics and mechanism of enzyme catalysis. **CHEMDSE02:** Physical Chemistry: Macromolecules: Polymerization process.
Week 9 to Week 12	**CEMACOR08P:** Physical Chemistry –III Lab: Physical experiments: Exp-5 and 6. **CEMACOR14P:** Physical Chemistry –IV Lab: Physical experiments Exp-5 and 6. **CHEMCOR10:** Practical -4: Physical Chemistry Practical II: Physical experiments: Exp 4. **CHEMDSE03**: Laboratory Experiment and Research Project: Literature Review	**CEMACOR08T:** Physical Chemistry –III: Application of Thermodynamics- II: Phase rule-Part 2. **CEMACOR14T:** Physical Chemistry –IV: Surface Phenomenon: Heterogeneous catalysis. **CHEMCOR08:** Physical Chemistry -2: Chemical Kinetics: Surface reactions and kinetics. **CHEMDSE02:** Physical Chemistry: Macromolecules: Kinetics of polymerization.
Week 13	**CEMACOR08P:** Physical Chemistry –III Lab: Revision of Physical experiments. **CEMACOR14P:** Revision of Physical experiments	**CEMACOR08T:** Physical Chemistry –III: Application of Thermodynamics- II: Binary solutions. **CEMACOR14T:** Physical Chemistry –IV: Surface Phenomenon: Colloids.

	CHEMCOR10: **Revision** Physical Experiments. **CHEMDSE03**: Laboratory Experiment and Research Project: Project work	**CHEMCOR08:** Physical Chemistry -2: Chemical Kinetics: Micelles, micellar catalysis and its application. **CHEMDSE02:** Physical Chemistry: Macromolecules: Molecular weight of polymers- their determination.
Week13 to week 14	**Internal Exam**	
Week 15 to 17	**CEMACOR08P:** Physical Chemistry –III Lab: Tutorial on Principles and experiments of Physical chemistry. **CEMACOR14P:** Physical Chemistry –IV Lab: Tutorial on Principles and experiments of Physical chemistry. **CHEMCOR10:** Practical -4: Physical Chemistry Practical II: Tutorial on Principles and experiments of Physical Chemistry Experiments. **CHEMDSE03**: Laboratory Experiment and Research Project: Project work	**CEMACOR08T:** Physical Chemistry –III: Application of Thermodynamics- II: Tutorial on Application of thermodynamics. **CEMACOR14T:** Physical Chemistry –IV: Surface Phenomenon: Tutorial on Surface Phenomenon.. **CHEMCOR08:** Physical Chemistry -2: Chemical Kinetics: Kinetics of fast reactions. **CHEMDSE02:** Physical Chemistry: Macromolecules: Conducting polymers
Week 18	Class test	Problem solving

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, UG and PG courses
Department of Chemistry
Session (2021-22)

Class: B.Sc. and M.Sc.
Semester: 2, 4, 6   Name of the Teacher: Dr. Sanat Kumar Saha
Subject: Chemistry
Paper: CEMACOR08T&P (UG SEM-IV), CEMACOR14T&P (UG SEM-VI), CHEMCOR08 and,
CHEMCOR10 (PG SEM-II), CHEMCOR17,CHEMDSE02 and CHEMDSE03 (PG SEM-IV)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR08P:** Physical Chemistry –III Lab: Discussion of principles of Physical experiments and Exp-1 and 2. **CEMACOR14P:** Physical Chemistry –IV Lab: Discussion of principles of Physical experiments and Exp-1 and 2. **CHEMCOR10:** Practical -4: Physical Chemistry Practical II: Discussion of principles of Physical experiments and Exp-1. **CHEMDSE03**: Laboratory Experiment and Research Project: Spectrophotometric experiments: Discussion of principles of Physical experiments and Exp-1 and 2.	**CEMACOR08T:** Physical Chemistry –III: Electrical properties of molecules: Ionic equilibria, Electromotive force **CEMACOR14T:** Physical Chemistry –IV: Molecular spectroscopy: Introduction, Rotational spectroscopy **CHEMCOR08:** Physical Chemistry -2: Statistical Thermodynamics I: Introduction, Ensembles, Maxwell Boltzman distribution. **CHEMCOR17:** Physical Chemistry-4: Material Chemistry: Introduction, Classification-Conductors, insulators, semiconductors **CHEMDSE02:** Physical Chemistry: Non-equilibrium thermodynamics: Introduction, thermodynamic criteria for non-equilibrium states
Week 5 to week 8	**CEMACOR08P:** Physical Chemistry –III Lab: Physical experiments: Exp-3 and 4. **CEMACOR14P:** Physical Chemistry –IV Lab: Physical experiments Exp-3 and 4. **CHEMCOR10:** Practical -4: Physical Chemistry Practical II: Physical experiments: Exp 2 and Exp-3. **CHEMDSE03**: Laboratory Experiment and Research Project: Spectrophotometric experiments: Physical experiments: Exp-3, 4 and 5.	**CEMACOR08T:** Physical Chemistry –III: Electrical properties of molecules: Dipole moment and poarizability **CEMACOR14T:** Physical Chemistry –IV: Molecular spectroscopy: Vibrational and Raman spectroscopy **CHEMCOR08:** Physical Chemistry -2: Statistical Thermodynamics I: The molecular partition function and thermodynamic properties. **CHEMCOR17:** Physical Chemistry-4: Material Chemistry: Theoretical basis: Free electron theory of metals, Specific heat, Hall effect **CHEMDSE02:** Physical Chemistry: Non-equilibrium thermodynamics: Examples and criteria of irreversible processes
Week 9 to Week 12	**CEMACOR08P:** Physical Chemistry –III Lab: Physical experiments: Exp-5 and 6. **CEMACOR14P:** Physical Chemistry –IV Lab: Physical experiments Exp-5 and 6. **CHEMCOR10:** Practical -4: Physical Chemistry Practical II: Physical experiments: Exp 4. **CHEMDSE03**: Laboratory Experiment and Research Project: Literature Review	**CEMACOR08T:** Physical Chemistry –III: Quantum chemistry: Angular momentum, Hydrogen and Hydrogen-like atom **CEMACOR14T:** Physical Chemistry –IV: Molecular spectroscopy: NMR and ESR spectroscopy. **CHEMCOR08:** Physical Chemistry -2: Statistical Thermodynamics I: Factorisation of molecular partition function. **CHEMCOR17:** Physical Chemistry-4: Material Chemistry: Bloch theory, Bloch function **CHEMDSE02:** Physical Chemistry: Non-equilibrium thermodynamics: Phenomenological equations, equivalent systems. Onsager Reciprocity Relation, Examples and

		illustrations
Week 13	**CEMACOR08P:** Physical Chemistry –III Lab: Revision of Physical experiments. **CEMACOR14P:** Physical Chemistry –IV Lab: Revision of Physical experiments **CHEMCOR10:** Practical -4: Physical Chemistry Practical II: **Revision** Physical Experiments. **CHEMDSE03**: Laboratory Experiment and Research Project: Project work	**CEMACOR08T:** Physical Chemistry –III: Quantum chemistry: LCAO and HF-SCF method **CEMACOR14T:** Physical Chemistry –IV: Photochemistry: Lambert-Beer's law, Photochemical processes **CHEMCOR08:** Physical Chemistry -2: Statistical Thermodynamics I : Thermodynamic properties of ideal gases. **CHEMCOR17:** Physical Chemistry-4: Material Chemistry: Band theory and its consequences , Semiconductors- intrinsic and extrinsic **CHEMDSE02:** Physical Chemistry: Non-equilibrium thermodynamics: Onsager Reciprocity Relation, Examples and illustrations
Week13 to week 14	**Internal Exam**	
Week 15 to 17	**CEMACOR08P:** Physical Chemistry –III Lab: Tutorial on Principles and experiments of Physical chemistry. **CEMACOR14P:** Physical Chemistry –IV Lab: Tutorial on Principles and experiments of Physical chemistry. **CHEMCOR10:** Practical -4: Physical Chemistry Practical II:Tutorial on Principles and experiments of Physical Chemistry Experiments. **CHEMDSE03**: Laboratory Experiment and Research Project: Project work	**CEMACOR08T:** Physical Chemistry –III: Tutorial on electrical properties of molecules and Quantum chemistry. **CEMACOR14T:** Physical Chemistry –IV: Photochemistry: Rate of photochemical processes. **CHEMCOR08:** Physical Chemistry -2: Statistical Thermodynamics I : Calculation of equilibrium constant of gaseous reaction in terms of partition function. **CHEMCOR17:** Physical Chemistry-4: Material Chemistry: Superconductor: Theory and application. **CHEMDSE02:** Physical Chemistry: Non-equilibrium thermodynamics: Non-equilibrium stationary states: Prigogine's principle of entropy production.
Week 18	Class test	Problem solving

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Even Semester, UG & PG course
Department of Chemistry
Session (2021-22)

Class: B.Sc. and M.Sc.
Semester: 2,4,6   **Name of the Teacher: Anisur Rahaman Molla**
Subject: Chemistry
Paper: CEMACOR04 (UG SEM-II), CEMACOR10 (UG SEM-IV), CEMSSEC002 (UG SEM-IV), CEMHGEC04 (UG SEM-IV GE) CHEMCOR07&CHEMCOR10 (PG SEM-II) and CHEMDSE02 (PG SEM-IV)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR04:**Organic Preparations (1-3) **CHEMCOR10:**Separation, purification and identification of organic compounds in binary mixtures (Known samples)	**CEMACOR10:** Rearrangement to electron-deficient carbon **CEMSSEC002:** Carbohydrate **CEMHGEC04:** Solutions (1st part) **CHEMCOR07:**Heterocyclic Chemistry: Hantzsch-Widman nomenclature **CHEMDSE02:**Proteins
Week 5 to week 8	**CEMACOR04:**Organic Preparations (4-6) **CHEMCOR10:**Separation, purification and identification of organic compounds in binary mixtures (2 unknown samples)	**CEMACOR10:** Rearrangement to electron-deficient nitrogen **CEMSSEC002:** Protein **CEMHGEC04:** Solutions (2nd part) **CHEMCOR07:**Pyrrole-Synthesis & Reactivity **CHEMDSE02:**Carbohydrates
Week 9 to Week 12	**CEMACOR04:**Organic Preparations (7-9) **CHEMCOR10:**Separation, purification and identification of organic compounds in binary mixtures (2 unknown samples)	**CEMACOR10:** Aromatic rearrangements **CEMSSEC002:** Enzyme **CEMHGEC04:** Phase rule **CHEMCOR07:**Furan--Synthesis & Reactivity **CHEMDSE02:**Nucleic acids
Week 13	**CEMACOR04:**Organic Preparations (10) **CHEMCOR10:**Separation, purification and identification of organic compounds in binary mixtures (1 unknown samples)	**CEMACOR10:** Rearrangement to electron-deficient oxygen **CEMSSEC002:** Biocatalysis **CEMHGEC04:** Phase diagram (one component system) **CHEMCOR07:**Thiophene-Synthesis & Reactivity **CHEMDSE02:**Replication, transcription
Week13 to week 14	**Internal Exam**	
Week 15 to 17	**CEMACOR04:**Organic Preparations (11) **CHEMCOR10:**Separation, purification and identification of organic compounds in binary mixtures (1 unknown samples)	**CEMACOR10:** Rearrangement reactions by green approach **CEMSSEC002:** Biochemistry of disease **CEMHGEC04:** Phase diagram (two component system) **CHEMCOR07:**heterocycles in organic synthesis-Masked functionalities **CHEMDSE02:**Structural features of DNA and RNA
Week 18	Class test	Problem solving

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG & PG course
Department of Chemistry
Session (2021-22)

Class: B.Sc. and M.Sc.
Semester: 2,4,6   **Name of the Teacher: Tirtha Pada Majhi**
Subject: Chemistry
Paper: CEMACOR04 (UG SEM-II), CEMACOR10 (UG SEM-IV), CEMSSEC002 (UG SEM-IV), CEMHGEC04 (UG SEM-IV GE) CHEMCOR07 (PG SEM-II) and CHEMCOR16 (PG SEM-IV)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR04:** Organic Preparations (1-3) **CHEMCOR10:** Separation, purification and identification of organic compounds in binary mixtures (Known samples)	**CEMACOR04:** Chirality arising out of stereo-axis **CEMACOR1:** Nitro compounds: aliphatic and aromatic **CEMSSEC002:** Lipids **CEMHGEC04:** Conductance, cell constant, specific conductance: variation with dilution **CEMADSE05T:** Chemical explosives **CHEMCOR07:** Reduction using boron compounds **CHEMCOR16:** Bacterial and animal cells, mode of action of antibacterial agents, Sulfonamides
Week 5 to week 8	**CEMACOR04:** Organic Preparations (4-6) **CHEMCOR10:** Separation, purification and identification of organic compounds in binary mixtures (2 unknown samples)	**CEMACOR04:** Concept of pro-stereoisomerism **CEMACOR10:** Amines: Aliphatic **CEMSSEC002:** Lipoproteins **CEMHGEC04:** Conductance at infinite dilution and their determination for strong and weak electrolytes, Ostwald's dilution law **CHEMCOR07:** Hydroboration **CHEMCOR16:** β-lactum antibiotics-1
Week 9 to Week 12	**CEMACOR04:** Organic Preparations (7-9) **CHEMCOR10:** Separation, purification and identification of organic compounds in binary mixtures (2 unknown samples)	**CEMACOR04:** Conformational: nomenclature, energy barrier, stability **CEMACOR10:** Amines: Aromatic **CEMSSEC002:** Structure and biological role of DNA and RNA **CEMHGEC04:** Application of conductance measurement **CHEMCOR07:** Reactions of organoboranes **CHEMCOR16:** 2nd generation antibiotics
Week 13	**CEMACOR04:** Organic Preparations (10) **CHEMCOR10:** Separation, purification and identification of organic compounds in binary mixtures (1 unknown samples)	**CEMACOR04:** Strains in molecules **CEMACOR10:** Alkylnitrile and isonitrile **CEMSSEC002:** Replication, Transcription and Translation **CEMHGEC04:** Transport Number **CHEMCOR07:** Unsaturated hydrocarbon synthesis **CHEMCOR16:** Anti-AIDS drugs
Week 14	**Internal Exam**	
Week 15 to 17	**CEMACOR04:** Organic Preparations (11) **CHEMCOR10:** Separation, purification and identification of organic compounds in binary mixtures (1 unknown samples)	**CEMACOR04:** Conformational analysis of selected alkanes and haloalkanes **CEMACOR10:** Diazonium salts and their related compounds **CEMSSEC002:** Biochemistry of disease **CEMHGEC04:** Electromotive force **CHEMCOR07:** Rearrangements of borane compounds **CHEMDSE02:** Structural features of DNA and RNA **CHEMCOR16:** Omeprazole, Prostaglandins- structure and synthesis
Week 18	Class test	Problem solving

Class:B.A/ B.Sc
Semester 2,4,6   Name of the Teacher: Dr. Shubhankar Samanta
Subject:
Paper : CEMACOR04P, CEMADSE04P, Core -05: Practical – 2, DSE – 03 – Laboratory Experiment & Research
Project:

(Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**CEMACOR04P**: Estimation of glycine by Sörensen"s formol method **CEMADSE04P**: Use of molecular model kit to stimulate the reaction to investigate how the atom economy can illustrate Green Chemistry. **Core -05: Practical – 2**: Solvent Distillation **DSE – 03 – Laboratory Experiment & Research Project**: Project Work & Separation, purification and identification of organic compounds in binary mixtures	**CEMACOR04T**: Nucleophilic substitution reactions: substitution at sp3 centre: mechanisms (with evidence), relative rates & stereochemical features: SN1. **CEMACOR10T**: Amines: Aliphatic & Aromatic: preparation, separation (Hinsberg"s method) and identification of primary, secondary and tertiary amines; reaction (with mechanism) **CEMADSE04T**: Green Synthesis of the following compounds: adipic acid, catechol, disodium iminodiacetate (alternative to Strecker synthesis) Core -07: Organic Chemistry – 2, PG2: Organosulphur: Sulphur stabilization of anions and cations PG4-DSE: Advanced NMR spectroscopy 13M Application of DEPT,1H1H COSY,
Week 5 to week 8	**CEMACOR04P**: Estimation of glucose by titration using Fehling"s solution Estimation of vitamin-C (reduced) **CEMADSE04P**: •Benzoin condensation using Thiamine Hydrochloride as a catalyst instead of cyanide. PG-2: Solvent Distillation PG-4: Project Work & Separation, purification and identification of organic compounds in binary mixtures	**CEMACOR04T**: SNi; effects of solvent, substrate structure, leaving group and nucleophiles (including ambident nucleophiles, cyanide & nitrite); **CEMACOR10T**: Eschweiler–Clarke methylation,diazo coupling reaction, Mannich reaction; formation and reactions of phenylenediamines, diazomethane and diazoacetic ester. **CEMADSE04T**: Microwave assisted reactions in water: Hofmann Elimination, methyl benzoate to benzoic acid, oxidation of toluene and alcohols; microwave assisted reactions 54 in organic solvents Diels-Alder reaction and Decarboxylation reaction 3. Ultrasound assisted reactions: sonochemical Simmons-Smith Reaction Core -07: Organic Chemistry – 2, PG2: Organosulphur: Sulphonium salts, Sulphonium and sulphoxonium ylides PG4-DSE: Advanced NMR spectroscopy. Application of TOCSY, NOESY
Week 9 to Week 12	**CEMACOR04P**: Estimation of formaldehyde (Formalin) Estimation of acetic acid in commercial vinegar **CEMADSE04P**: •Mechanochemical solvent free synthesis of azomethines. Photoreduction of benzophenone to benzopinacol in the presence of	**CEMACOR04T**: substitutions involving NGP; role of crown ethers and phase transfer catalysts; **CEMACOR10T**: preparation and reaction (with mechanism): reduction under different conditions; Nef carbonyl synthesis, Henry reaction and conjugate addition of nitroalkane anion. **CEMADSE04T**: Ultrasound assisted reactions: sonochemical Simmons-Smith Reaction (Ultrasonic alternative to Iodine) 4 Surfactants for carbon dioxide – replacing smog producing and ozone

	sunlight PG-2: Solvent Distillation PG-4: Project Work & Separation, purification and identification of organic compounds in binary mixtures	depleting solvents with CO2 for precision cleaning and dry cleaning of garments. 5 Designing of Environmentally safe marine antifoulant. 6 Rightfit pigment: synthetic azopigments to replace toxic organic and inorganic pigments. 7 An efficient, green synthesis of a compostable and widely applicable plastic (poly lactic acid) made from corn. Core -07: Organic Chemistry – 2, PG2: Oganosilicon Compounds PG4-DSE: Advanced NMR spectroscopy. Application of HMBC, HSQC
Week 13	**CEMACOR04P**: Estimation of Aniline Estimation of Phenol C**EMADSE04P**: Photoreduction of benzophenone to benzopinacol in the presence of sunlight PG-2: Solvent Distillation PG-4: Project Work & Separation, purification and identification of organic compounds in binary mixtures	**CEMACOR04T**: substitutions involving NGP; role of crown ethers and phase transfer catalysts; **CEMACOR10T**: preparation and reaction (with mechanism): reduction under different conditions; Nef carbonyl synthesis, Henry reaction and conjugate addition of nitroalkane anion. **CEMADSE04T**: Oxidation reagents and catalysts; Biomimetic, multifunctional reagents; Combinatorial green chemistry; Proliferation of solventless reactions; co crystal controlled solid state synthesis (C2 S 3); Green chemistry in sustainable development. Core -07: Organic Chemistry – 2, PG2: Oganosilicon Compounds PG4-DSE: Advanced NMR spectroscopy. Solid State NMR
Week13 to week 14		**Internal Exam**
Week 15 to 17	**CEMACOR04P**: Estimation of Unknown sample solution PG-2: Solvent Distillation PG-4: Project Work & Separation, purification and identification of organic compounds in binary mixtures	**CEMACOR04T**: substitutions involving NGP; role of crown ethers and phase transfer catalysts; **CEMACOR10T**: preparation and reaction (with mechanism): reduction under different conditions; Nef carbonyl synthesis, Henry reaction and conjugate addition of nitroalkane anion. **CEMADSE04T**: Oxidation reagents and catalysts; Biomimetic, multifunctional reagents; Combinatorial green chemistry; Proliferation of solventless reactions; co crystal controlled solid state synthesis (C2 S 3); Green chemistry in sustainable development. Core -07: Organic Chemistry – 2, PG2: Oganosilicon Compounds PG4-DSE: Problem and Solution of NMR spectroscopy
Week 18	Revision, Practise	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG & PG course
Department of Chemistry
Session (2021-22)

Class: B.Sc. and M.Sc.
Semester: 2,4,6   **Name of the Teacher: Susanta Kumar Manna**
Subject: Chemistry
Paper: CEMACOR04 (UG SEM-II), CEMACOR10 (UG SEM-IV), CEMSSEC002 (UG SEM-IV),
CEMHGEC04 (UG SEM-IV GE) CHEMCOR07 (PG SEM-II) and CHEMDSE02 (PG SEM-IV)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR10P:**estimation (1,2)) **CHEMDSE03**: multistep organic synthesis; TLC treatment	**CEMACOR10T:** NMR Spectroscopy-principle **CHEMCOR07:**alkaloid (Coniine, tropine) **CHEMDSE04T:**Principles of green chemistry **CHEMDSE02**: Advanced pericyclic reaction, General perturbation molecular orbital theory, **CEMACOR04T:** elimination reaction –E1, E1CB
Week 5 to week 8	**CEMACOR10P:**estimation (3-5)) **CHEMDSE03**: multistep organic synthesis; Preparation of phthalic acid to pthalimide	**CEMACOR10T:** NMR Spectroscopy Chemical shift **CHEMDSE04T:**Design of green solvent in ionic liquids, fluorous biphasic solvent, PEG, **CHEMCOR07:**Alkalod (Cocaine, quinine) **CHEMDSE02:**Correlation diagram, **[1,3]** Dipolar cycloaddition **CEMACOR04T:** elimination reaction E2 , Ei, mechanism
Week 9 to Week 12	**CEMACOR10P:**estimation (6,7)) **CHEMDSE03**: project work and literature review	**CEMACOR10T:** NMR Spectroscopy, diamagnetic anisotropic effect **CHEMDSE04T:**Solventless approach in green chemistry **CHEMCOR07:**Terpenoid (pinene, camphor,) **CHEMDSE02:**Electrocyclic reaction in charged system **CEMACOR04T:** Hoffmann and Saytzeff elimination reaction
Week 13	**CEMACOR10P:**estimation (8,9)) **CHEMDSE03**: project work and literature review	**CEMACOR10T:** NMR Spectroscopy- **CHEMDSE04T:**Instrumental approach Microwave, sonication, in green chemistry **CHEMCOR07:**Terpenoid (caryophyllene) **CHEMDSE02:**Ene reaction, group transfer reaction **CEMACOR04T:** elimination reaction-Bredts rule, comparison of Substitution and elimination
Week13 to week 14		**Internal Exam**
Week 15 to 17	**CEMACOR10P:**estimation (10)) **CHEMDSE03**: project work and literature review	**CEMACOR10T:** NMR Spectroscopy **CHEMDSE04T:**Future trends ingreen chemistry **CHEMCOR07:**Steroid (cholesterol) **CHEMDSE02:**Cope and Claisen rearrangement **[**5,5**]** and [2,3] shift in ylide **CEMACOR04T:** elimination reaction tutorial class
Week 18	Class test	Problem solving

Class: B.Sc and M.Sc.
Semester:2,4,6   Name of the Teacher: ARUP KUMAR ADAK
Subject: Chemistry
Paper: CEMACOR03 (UG SEM-II), CEMACOR09 (UG SEM-IV), CEMACOR13 (UG SEM-VI),
CHEMCOR06 (PG SEM-II) and CHEMCOR11 (PG SEM-IV)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR03P:**Estimation of Fe(II) using standardized $KMnO_4$ solution **CEMACOR09P:** Complexometric titration Zn(II) **CHEMCOR15P:** Determination of composition of complexes formed in solution by spectrophotometric methods: Mole-ratio method	**CEMACOR03T:** Ion-electron method of balancing equation of redox reaction **CEMACOR09T:** Relative stability of different oxidation states, diagonal relationship and anomalous behaviour of first member of group 1 and 2. Study of Beryllium hydrides and halides compounds with emphasis on structure, bonding, preparation, properties and uses. **CEMACOR13T:**Definition and classification of organometallic compounds on the basis of bond type .Concept of hapticity of organic ligands. 18-electron and 16-electron rules (pictorial MO approach) **CHEMCOR06T(PG):***Main group organometallics:* Classification, synthesis, reactions, structure and bonding and applications with typical examples **CHEMCOR15T:**Catalysisby Organometalliccompounds: Hydrogenationofolefins,Wilkinson'scatalyst, Tolmancatalytic loop,synthesis gas, water-gas shift reaction;
Week 5 to week 8	**CEMACOR03P:**Estimation of Fe(II) and Fe(III) in a given mixture using K2Cr2O7 solution. **CEMACOR09P:** Zn(II) in a Zn(II) and Cu(II) mixture. **CHEMCOR15P:**Determination of composition of complexes formed in solution by spectrophotometric methods: Slope- ratio method	**CEMACOR03T:** Elementary idea on standard redox potentials with sign conventions, Nernst equation (without derivation). **CEMACOR09T:** Relative stability of different oxidation states, diagonal relationship and anomalous behaviour of first member of group 13 and 14 **CEMACOR13T:**Applications of 18-electron rule to metal carbonyls, nitrosyls, cyanides **CHEMCOR06T(PG):**Application of 18- electron and 16- electron rules to transition metal organometallics, structure, bonding pictorial mo-approach) and reactions of of $\eta 2$-ethylinic , $\eta 3$-allylic and $\eta 5$- cyclopentadineyl compounds: K [Pt ($\eta 2$-C2H4)Cl3], [($\eta 3$-C3H5) Pd Cl]2, ($\eta 5$- C5H5)2 Fe]; **CHEMCOR15T(PG):**), CatalysisbyOrganometalliccompounds: Hydroformylation(oxo process),Monsantoaceticacidprocess,Wackerprocess;.
Week 9 to Week 12	**CEMACOR03P:** Estimation of Fe(III) and Mn(II) in a mixture using standardized KMnO4 solution . **CEMACOR09P:** Ca(II) and Mg(II) in a mixture. **CHEMCOR15P:**Determination of composition of complexes formed in solution by spectrophotometric methods: Job's method of continuous variation	**CEMACOR03T:** Influence of complex formation on redox potentials; formal potential **CEMACOR09T:** Allotropy and catenation and relative stability of different oxidation states and anomalous behaviour of first member of group 15 **CEMACOR13T:**General methods of preparation of mono and binuclear carbonyls of 3d series.Structures of mononuclear and binuclear carbonyls. **CHEMCOR06T(PG):**Carbene and carbyne complexes. **CHEMCOR15T(PG):**Syntheticgasoline:Fischer-Tropsch processandMobileprocess,polymerization, oligomerization
Week 13	**CEMACOR03P:** Estimation of Fe(III) and Cu(II) in a	**CEMACOR03T:** Influence of precipitation on redox potentials **CEMACOR09T:**Study of Boric acid and borates, boron

		nitrides, borohydrides (diborane) compounds with emphasis on structure, bonding, preparation, properties and uses,
	mixture using K2Cr2O7. **CEMACOR09P:** Hardness of water. **CHEMCOR15P:**Determination of the rates of consecutive aquation of the complex, H[Co(III)(DMGH)$_2$Cl$_2$], by conductance method	**CEMACOR13T:**Pi-acceptor behaviour of CO, synergic effect and use of IR data to explain extent of back bonding. **CHEMCOR06T(PG):**Reactions of organometallic complexes: substitution, oxidative addition, reductive elimination, **CHEMCOR15T(PG):**Metathesisreactionsof alkenesandalkynes,Zieglar-Nattacatalysis.
Week13 to week 14	**Internal Exam**	
Week 15 to 17	**CEMACOR03P:** Estimation of Fe(III) and Cr(III) in a mixture using K2Cr2O7. **CEMACOR09P: Preparation of** [Mn(acac)3] and Fe(acac)3] (acac= acetylacetonate)	**CEMACOR03T:** Influence of change of pH on redox potentials,Disproportionation and comproportionation reactions. **CEMACOR09T:** Study of graphitic compounds, silanes, Oxides and oxoacids of nitrogen, phosphorus compounds with emphasis on structure, bonding, preparation, properties and uses, **CEMACOR13T:**Reactions of organometallic complexes: substitution, oxidative addition, reductive elimination and insertion reactions **CHEMCOR06T(PG):**Reactions of organometallic complexes: insertion and elimination, electrophilic and nucleophilic reactions of coordinated ligands **CHEMCOR15T:**Photo dehydrogenationcatalyst(platinum POP).
Week 18	Class test	Problem solving

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG & PG course
Department of Chemistry
Session (2021-22)

Class: B.Sc and M.Sc.
Semester: 2,4,6   Name of the Teacher: Arabinda Mandal
Subject: Chemistry
Paper: CEMACOR03 (UG SEM-II), CEMACOR09 (UG SEM-IV), CEMACOR13 (UG SEM-VI),
CHEMCOR06 (PG SEM-II) and CHEMCOR11 (PG SEM-IV)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR03P:** Estimation of Fe(II) using standardized $KMnO_4$ solution **CEMACOR09P:** Complexometric titration Zn(II) **CEMACOR13P:** Qualitative semimicro analysis of mixtures containing four radicals: Cation Radicals: Na^+, K^+, Ca^{2+}, Sr^{2+}, Ba^{2+}, Al^{3+}, Cr^{3+}, Mn^{2+}/Mn^{4+} **CEMGEP2:** Inorganic Chemistry-LAB Qualitative semimicro analysis of mixtures containing three radicals. **CEMGEP4:** To find the total hardness of water by EDTA titration. **CHEMCOR13P:** Semimicro qualitative inorganic analysis including rare elements. Cation Radicals derived from: Ag, Hg, Pb, Bi, Cd, Cu, As, Sb, Sn, Fe, Al, Cr, Co, Ni, Mn, Zn, Ba, Sr, Ca, Mg, Na, K and NH_4^+ ion.	**CEMACOR03T:** Modern IUPAC Periodic table, Effective nuclear charge, screening effects and penetration, **CEMACOR09T:** Occurrence and uses, rationalization of inertness of noble gases, peculiar behaviour of liquid helium, Clathrates **CEMACOR13T:** Zeise's salt: Preparation, structure, evidences of synergic effect. **CEMADSE-O5T:** Classification of alloys, ferrous and non-ferrous alloys **DSE T2:** Separation techniques: Solvent extraction: Classification, principle and efficiency of the technique. Mechanism of extraction: extraction by solvation and chelation. **CEMGET2:** Comparative study of p-block elements: Group trends in electronic configuration, modification of pure elements. **CEMGET4:** The Atmosphere: composition and structure of the atmosphere; troposphere, stratosphere, mesosphere and thermosphere; ozone layer and its role; major air pollutants: CO, SO2, NOx and particulate matters – their origin and harmful effects **CHEMCOR06 (PG SEM-II):** LCAO-MO and VB treatments on H_2^+, H_2 **CHEMCOR13T:** Construction of character tables (C_2v, C_3v, C_4v, D_4). **CHEMCOR15T:** Fundamentals of X-ray crystallography, crystal forms, lattice, primitive cell, crystal systems and symmetry.
Week 5 to week 8	**CEMACOR03P:** Estimation of Fe(II) and Fe(III) in a given mixture using $K_2Cr_2O_7$ solution. **CEMACOR09P:** Zn(II) in a Zn(II) and Cu(II) mixture. **CHEMCOR13P:** Qualitative semimicro analysis of mixtures containing four radicals: , Fe^{3+}, Co^{2+}/Co^{3+}, Ni^{2+}, Cu^{2+}, Zn^{2+}, Pb^{2+}, Cd^{2+}, Bi^{3+}, Sn^{2+}/Sn^{4+}, As^{3+}/As^{5+}, $Sb^{3+}/^{5+}$, NH^{4+}, Mg^{2+}. **CEMGEP2:** Inorganic Chemistry-LAB Qualitative semimicro analysis of mixtures containing three radicals. **CEMGEP4:** To find the PH of an unknown solution by comparing color of a series of HCl solutions + 1 drop of methyl orange, and a similar series of NaOH solutions + 1 drop of phenolphthalein.	**CEMACOR03T:** Slater's rules, atomic radii, ionic radii (Pauling's univalent), covalent radii, lanthanide contraction. Ionization potential, electron affinity **CEMACOR09T:** preparation and properties of XeF2, XeF4 and XeF6 **CEMACOR13T:** Ferrocene: Preparation and reactions (acetylation, alkylation, metallation, Mannich Condensation) **DSE T2:** Separation techniques: Technique of extraction: batch, continuous and counter current extractions. Qualitative and quantitative aspects of solvent extraction: extraction of metal ions from aqueous solution, extraction of organic species from the aqueous and non aqueous media. **CEMGET2:** common oxidation states, inert pair effect, and their important compounds in respect of the following groups of elements. **CEMGET4:** Problem of ozone layer depletion; green house effect; acid rain and photochemical smog; air pollution episodes: air quality standard; air pollution control measures: cyclone collector, electrostatic precipitator, catalytic converter. **CHEMCOR06 (PG SEM-II):** application to homo- and hetero- nuclear diatomic molecules/ ions of second period

	CHEMCOR13P: Anion Radicals: F^-, Cl^-, Br^-, I^-, BrO_3^-, IO_3^-, SCN^-, S^{2-} $S_2O_3^{2-}$, SO_3^{2-}, SO_4^{2-}, NO_2^-, NO_3^-, PO_4^{3-}, AsO_3^{3-}, AsO_4^{3-}, BO_3^{3-}, H_3BO_3, SiO_2^-, CrO_4^{2-}, $Cr_2O_7^{2-}$, $[Fe(CN)_6^{4-}]$, $[Fe(CN)_6^{3-}]$.	elements **CHEMCOR13T:** representation for cyclic groups, wave functions as bases for Irreducible Representations. **CHEMCOR15T:** non-primitive lattices, crystal classes, space groups, crystals and their properties.
Week 9 to Week 12	**CEMACOR03P:** Estimation of Fe(III) and Mn(II) in a mixture using standardized $KMnO_4$ solution . **CEMACOR09P:** Ca(II) and Mg(II) in a mixture. **CEMACOR13P:** Qualitative semimicro analysis of mixtures containing four radicals: Anion Radicals: F^-, Cl^-, Br^-, BrO_3^-, I^-, IO_3^-, SCN^-, S^{2-}, SO_4^{2-}, NO_3^- **CEMGEP2:** Inorganic Chemistry-LAB Qualitative semimicro analysis of mixtures containing three radicals. **CEMGEP4:** To determine the rate constant for the acid catalysed hydrolysis of an ester. **CHEMCOR13P:** Insoluble Materials: $PbSO_4$, $BaSO_4$, $SrSO_4$, $PbCrO_4$, CaF_2, SiO_2 and various silicates, SnO_2, Al_2O_3, Fe_2O_3, Cr_2O_3, AgCl, AgBr, AgI. Cation radicals, anion radicals and insoluble materials derived from the following rare Elements: V, Mo, W, U, Ti, Zr and Ce.	**CEMACOR03T:** electronegativity (Pauling's, Mulliken's and Allred-Rochow's scales) and factors influencing these properties **CEMACOR09T:** Nature of bonding in noble gas compounds (Valence bond treatment **CEMACOR13T:** Reactions of organometallic complexes: substitution. **DSE T2:** Separation techniques: **Chromatography:** Classification, principle and efficiency of the technique. Mechanism of separation: adsorption, partition & ion exchange. **CEMGET2:** Comparative study of B-Al-Ga-In-Tl and C-Si-Ge-Sn-Pb **CEMGET4:** The Hydrosphere: environmental role of water, natural water sources, water treatment for industrial, domestic and laboratory uses; water pollutants; action of soaps and detergents, phosphates, industrial effluents, agricultural runoff, domestic wastes; thermal pollution, radioactive pollution and their effects on animal and plant life. **CHEMCOR06 (PG SEM-II):** Electron density, forces and theirrole in chemical bonding. Hybridization and valences. **CHEMCOR13T:** Symmetry of normal modes, normal mode analysis, selection rules for IR and Raman transitions. **CHEMCOR15T:** Diffraction of x-ray, lattice planes, indices, Bragg's condition, reciprocal lattice, Bragg's law in reciprocal.
Week 13	**CEMACOR03P:** Estimation of Fe(III) and Cu(II) in a mixture using $K_2Cr_2O_7$. **CEMACOR09P:** Hardness of water. **CEMACOR13P:** Qualitative semimicro analysis of mixtures containing four radicals: NO^{2-}, PO_4^{3-}, AsO_4^{3-}, BO_3^{3-}, CrO_4^{2-} / $Cr_2O_7^{2-}$, $Fe(CN)_6^{4-}$, $Fe(CN)_6^{3-}$. **CEMGEP2:** Inorganic Chemistry-LAB Qualitative semimicro analysis of mixtures containing three radicals. **CEMGEP4:** Determination of the strength of the H_2O_2 sample. **CHEMCOR13P:** Analysis of Dolomite ($CaCO_3$, $MgCO_3$, Fe_2O_3, SiO_2) and Pyrolusite (MnO_2, MnO, Fe_2O_3).	**CEMACOR03T:** group electronegativities. Group trends and periodic trends in these properties in respect of s-, p- and d-block elements **CEMACOR09T:** MO treatment for $XeF2$ and $XeF4$). Xenon-oxygen compounds. **CEMACOR13T:** Reactions of organometallic complexes: oxidative addition, reductive elimination. **DSE T2:** Separation techniques: Development of chromatograms: frontal, elution and displacement methods. **CEMGET2:** Comparative study of N-P-As-Sb-Bi **CEMGET4:** Water pollution episodes: water pollution control measures: waste water treatment; chemical treatment and microbial treatment; water quality standards: DO, BOD, COD, TDS and hardness parameters; desalination of sea water : reverse osmosis, electrodialysis**.** **CHEMCOR06 (PG SEM-II):** MO's of H_2O, NH_3, CH_4. Huckel – pi – electron theory. **CHEMCOR13T:** Projection operator (without derivation). **CHEMCOR15T:** Geometric data collection (simple examples), structure factor, systematic absence, heavy atom method.
Week13 to week 14	**Internal Exam**	
Week 15 to 17	**CEMACOR03P:** Estimation of Fe(III) and Cr(III) in a mixture using $K_2Cr_2O_7$. **CEMACOR09P: Preparation of** $[Mn(acac)_3]$ and $Fe(acac)_3]$ (acac= acetylacetonate)	**CEMACOR03T:** Secondary periodicity, Relativistic Effect, Inert pair effect. **CEMACOR09T:** Molecular shapes of noble gas compounds (VSEPR theory). **CEMACOR13T:** Reactions of organometallic complexes: insertion reactions.

	CEMACOR13P: Qualitative semimicro analysis of mixtures containing four radicals: Insoluble Materials: Al_2O_3(ig), Fe_2O_3(ig), Cr_2O_3(ig), SnO_2, $SrSO_4$, $BaSO_4$, CaF_2, $PbSO_4$. **CEMGEP2:** Inorganic Chemistry-LAB Qualitative semimicro analysis of mixtures containing three radicals. **CEMGEP4:** To determine the solubility of a sparingly soluble salt, e.g. KHTa (one bottle). **CHEMCOR13P:** Brass (Cu, Zn); Bronze (Cu, Zn, Sn), Steel (Cr, Mn, Ni, P).	**DSE T2:** Separation techniques: Qualitative and quantitative aspects of chromatographic methods of analysis: IC, GLC, GPC, TLC and HPLC **CEMGET2:** Comparative study of O-S-Se-Te and F-Cl-Br-I **CEMGET4:** The Lithosphere: water and air in soil, waste matters and pollutants in soil, waste classification, treatment and disposal; soil pollution and control measures. **CHEMCOR06 (PG SEM-II):** applications of HMO to ethylene, butadiene and benzene, idea of self consistent field. Concept of resonance. **CHEMCOR13T:** use of the projection operator to form symmetry adapted linear combination (SALC) of simple system. **CHEMCOR15T:** Fourier synthesis, Patterson function, experimental diffraction methods (Laue method, rotating crystal method).
Week 18	Practice	Revision and Practice

Class: B.Sc and M.Sc.
Semester: 2,4,6   **Name of the Teacher: Rituparna Biswas**
Subject: Chemistry
Paper: CEMACOR03 (UG SEM-II), CEMACOR09 (UG SEM-IV), CEMG04T (UG SEM –IV G)
CEMACOR13 (UG SEM-VI), CHEMCOR06 (PG SEM-II) and CHEMCOR15 (PG SEM-IV)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	**CEMACOR03P:** Estimation of Fe(II) using standardized $KMnO_4$ solution **CEMACOR09P:** Complexometric titration Zn(II) **CHEMCOR15P:** Determination of composition of complexes formed in solution by spectrophotometric methods: Mole-ratio method	**CEMACOR03T:** Solubility product principle **CEMACOR09T:** Werner's theory of coordination complexes, **CEMACOR13T:** Biological nitrogen fixation **CEMG04T:** Composition and structure of the atmosphere; troposphere, stratosphere, mesosphere and thermosphere; ozone layer and its role **CHEMCOR06T:** Electronic configuration, oxidation states; aqueous, redox and complex chemistry, spectral and magnetic properties of compounds in different oxidation states **CHEMCOR15T:** Magnetic susceptibility and its determination by Gouy and Faraday method.
Week 5 to week 8	**CEMACOR03P:** Estimation of Fe(II) and Fe(III) in a given mixture using $K_2Cr_2O_7$ solution. **CEMACOR09P:** Zn(II) in a Zn(II) and Cu(II) mixture. **CHEMCOR15P:** Determination of composition of complexes formed in solution by spectrophotometric methods: Slope- ratio method	**CEMACOR03T:** common ion effect **CEMACOR09T:** Classification of ligands, Ambidentate ligands, chelates, **CEMACOR13T:** Photosynthesis: Photosystem-I and Photosystem-II. **CEMG04T:** Problem of ozone layer depletion; green house effect; acid rain and photochemical smog **CHEMCOR06T:** Ti-Zr-Hf, Cr-Mo-W, Mn-Tc-Re and Pt group metals **CHEMCOR15T:** Diamagnetism in atoms and polyatomic systems, Pascal's constants.
Week 9 to Week 12	**CEMACOR03P:** Estimation of Fe(III) and Mn(II) in a mixture using standardized $KMnO_4$ solution . **CEMACOR09P:** Ca(II) and Mg(II) in a mixture. **CHEMCOR15P:** Determination of composition of complexes formed in solution by spectrophotometric methods: Job's method of continuous variation	**CEMACOR03T:** common ion effect and their applications **CEMACOR09T:** Coordination numbers, IUPAC nomenclature of coordination complexes **CEMACOR13T:** Toxic metal ions and their effects **CEMG04T:** The Hydrosphere: environmental role of water, natural water sources, water treatment for industrial **CHEMCOR06T:** Mixed valence compounds of Fe, Cu, Pt; Fe-S compounds, **CHEMCOR15T:** Spin and orbital moments, spin-orbit coupling, Lande interval rule, energies of J states. Curie equation, Curies law and Curie-Weiss law.
Week 13	**CEMACOR03P:** Estimation of Fe(III) and Cu(II) in a mixture using $K_2Cr_2O_7$. **CEMACOR09P:** Hardness of water. **CHEMCOR15P:** Determination of the rates of consecutive aquation of the complex, $H[Co(III)(DMGH)_2Cl_2]$, by conductance method	**CEMACOR03T:** Redox potential diagram (Latimer and Frost diagrams) **CEMACOR09T:** Isomerism in coordination compounds constitutional and stereo isomerism, **CEMACOR13T:** chelation therapy (examples only) **CEMG04T:** Waste water treatment; chemical treatment and microbial treatment;: DO, BOD, COD, TDS and hardness parameters reverse osmosis, electrodialysis. **CHEMCOR06T:** thermochromism of Ni(II) compounds, Ru(II) and Ru(III) compounds **CHEMCOR15T:** First order and second order Zeeman effects, temperature independent paramagnetism, simplification and application of Van Vleck susceptibility equation.
Week13 to week 14	**Internal Exam**	

Week 15 to 17	**CEMACOR03P:** Estimation of Fe(III) and Cr(III) in a mixture using $K_2Cr_2O_7$. **CEMACOR09P: Preparation of** $[Mn(acac)_3]$ and $Fe(acac)_3]$ (acac= acetylacetonate)	**CEMACOR03:T** Disproportionation and comproportionation reactions. **CEMACOR09T:** Geometrical and optical isomerism in square planar and octahedral complexes. **CEMACOR13T:** Pt and Au complexes as drugs, metal dependent diseases **CEMG04T:** Soil, waste matters and pollutants in soil, waste classification, treatment and disposal; soil pollution and control measures. **CHEMCOR06T:** oxo compounds of Ru and Os, **CHEMCOR15T:** Quenching of magnetic moments, low spin-high spin crosser. Magnetic behaviour of Lanthanides and actinides.
Week 18	Practice	Revision

Teaching Plan for Odd Semester, UG & PG course

Department of Microbiology: **Session (2021-22)**

Class: B.Sc/M.Sc.
Semester 1,3,5 (UG) & 1,3 (PG)   Name of the Teacher: Dr. Abul Kalam
Subject: Microbiology
Paper :   UG/PG Theory and Practical

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**UG 1 (CBCS):** Paper – MCBCOR01P: Preparation of culture media : Complex media (Nutrient Broth, NA slant, NA stab, Lactose broth); chemically defined, synthetic media (Czapekdox broth / agar).	**UG 1 (CBCS):** Paper – MCBCOR1T: Binomial Nomenclature, Whittaker's five kingdom and Carl Woese's three kingdom classification systems and their utility. **UG 3 (CBCS):** Paper – MCBCOR 05T: **Unit 4 Chemolithotrophic and Phototrophic Metabolism** Introduction to aerobic and anaerobic chemolithotrophy with an example each. **UG 5 (CBCS): MCBACOR11T** Brief history and developments in industrial microbiology Sources of industrially important microbes and methods for their isolation, preservation and maintenance of industrial strains, strain improvement, **PG Sem I:** Paper 2: Maintenance & preservation of pure cultures, Enrichment culture techniques **PG Sem III**: paper 14 DSE 01 **Bioethics :** Biotechnology And Risk Ethical implications of cloning: Reproductive cloning , therapeutic cloning ; Ethical, legal and socio-economic aspects of gene therapy,
Week 5 to week 8	**UG 1 (CBCS):** Paper – MCBCOR02P: Cultivation of microorganisms: on agar – slant /agar plate streak culture: Moulds (*Penicillium notatum, Aspergillus niger*	**UG 1 (CBCS):** Paper – MCBCOR01T: Difference between prokaryotic and eukaryotic microorganisms **UG 3 (CBCS):** Paper – MCBCOR 05T: Hydrogen oxidation (definition and reaction) **UG 5 (CBCS): MCBACOR11T** Crude and synthetic media; molasses, corn- steep liquor, sulphite waste liquor, whey, yeast extract and protein hydrolysates **PG Sem I:** Paper 2: **Microbial Systematics:** General account of systematics, Classification and nomenclature; Classification systems-artificial or phonetic, **PG Sem III**: Paper 14 DSE 01 **Introduction to intellectual property and intellectual property rights – types: patents, copy rights, trade marks, design rights, geographical indications –**
Week 9 to Week 12	**UG 3 (CBCS): MCBACOR06P** Study a representative plant (Allium cepa or any other suitable plant material) Study of different stages of Mitosis.	**UG 1 (CBCS):** Paper – MCBCOR01T: Aim and principles of classification, systematics and taxonomy, concept of species, taxa, strain; **UG 3 (CBCS):** Paper – MCBCOR 05T: Methanogenesis (definition and reaction) **UG 5 (CBCS): MCBACOR11T** Types of fermentation processes - Solid-state and liquid-state (stationary and submerged) fermentations; batch, fed-batch (eg. baker's yeast) and continuous fermentations **PG Sem I:** Paper 2: natural and phylogenetic; Species concept;

		monophyletic, paraphyletic, polyphyletic; Molecular taxonomy, Molecular phylogeny, Molecular chronometers; **PG Sem III**: Paper 14 DSE 01 importance of IPR – patentable and non patentable – patenting life
Week 13	**UG 3 (CBCS): MCBACOR06P** Study a representative plant (Allium cepa or any other suitable plant material) Study of different stages of Meiosis.	**UG 1 (CBCS):** Paper – MCBCOR01T: Conventional, molecular and recent approaches to polyphasic bacterial taxonomy, evolutionary chronometers, **UG 3 (CBCS):** Paper – Revision **UG 5 (CBCS): MCBACOR11T** Components of a typical bio-eactor, **PG Sem I:** Paper 2: Polyphasic taxonomy, Numerical taxonomy, Describing a new Prokaryotic species, **PG Sem III**: Paper 14 DSE 01 legal protection of biotechnological inventions – world intellectual property rights organization (WIPO) . Establishment and functions of General Agreement on Trade and Tariff (GATT) and World Trade Organizations
Week13 to week 14		**Internal Exam**
Week 15 to 17		**UG 1 (CBCS):** Paper – MCBCOR01T: , rRNA oligonucleotide sequencing, signature sequences, and protein sequences. **UG 3 (CBCS):** Paper – Revision **UG 5 (CBCS): MCBACOR11T** Revision **PG Sem I:** Paper 2: Valid publication of names of bacterial taxa, Culture collection. PG Sem III**:** Indian Patent Act, 1970 and its amendments.
Week 18	Revision, Practice	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for even Semester, UG/PG course

Department of Microbiology   **Session (2021-22)**

Class: B.Sc/M.Sc.
Semester 2,4,6 (UG) & 2,4 (PG)   **Name of the Teacher: Dr. Abul Kalam**
Subject: Microbiology
Paper : UG & PG Theory and Practical

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**UG 2 (CBCS):** Paper MCBCOR04P: Isolation of microbes (bacteria & fungi) from soil.	**UG 2 (CBCS)**: **Paper MCBCOR04T: Waste Management:** Solid Waste management: Sources and types of solid waste, **UG 4 (CBCS): MCBACOR10T:** Intrinsic and extrinsic factors that affect growth and survival of microbes in foods, natural flora and source of contamination of foods in general **UG 6 (CBCS): MCBACOR DSE 05T** Concept of IPR, Designs, trademarks, trade secrets, domain names, geographical indications, copyright, Evolution of patent laws, hist ory of Indian patent system, Agreements and Treaties: GATT, TRIPS Agreements. **PG Sem II:** Paper 10**: Aeromicrobiology:** Microbes of indoor and outdoor environment, pathways, enumeration,

		PG Sem IV: Paper 16 **Bioterrorism and Bioweapons :** Introduction to Bioterrorism and Bioweapons, Pathogenic microorganisms used for these purpose and their properties, Infectious agents and their epidemiology
Week 5 to week 8	**UG 4 (CBCS): MCBACOR10P:** MBRT of milk samples and their standard plate count.	**UG 2 (CBCS):** Paper MCBCOR 04T: Methods of solid waste disposal (composting and sanitary landfill) **UG 4 (CBCS): MCBACOR10T:** Principles, physical methods of food preservation: temperature (low, high, canning, drying), irradiation, hydrostatic pressure, high voltage pulse, microwave processing and aseptic packaging, chemical methods of food preservation: salt, sugar, organic acids,. **UG 6 (CBCS): MCBACOR DSE 05T** Role of Madrid Agreement; Hague Agreement; WIPO Treaties; Budapest Treaty on international recognition of the deposit of microorganisms; UPOV & Brene conventions; Patent Co-operation Treaty (PCT); Indian Patent Act 1970 & recent amendments. Classification of patents in India, **PG Sem II:** Paper 10**:** Extramural and intramural, control, bioterrorism. Eutrophication, **PG Sem IV**: Paper 17: **Fermentation:** an overview, isolation, screening and selection of industrially important microorganisms
Week 9 to Week 12	**UG 4 (CBCS): MCBACOR10P:** Alkaline phosphatase test to check the efficiency of pasteurization of milk. 1. Isolation of any food borne bacteria from food products.	**UG 2 (CBCS):** Paper – MCBCOR04T: Liquid waste management: Composition and strength of sewage **UG 4 (CBCS): MCBACOR10T:** Irradiation, hydrostatic pressure, high voltage pulse, microwave processing and aseptic packaging, chemical methods of food preservation: salt, sugar, organic acids,. UG 6 (CBCS): MCBACOR DSE 05T Classification of patents by WIPO, categories of patent, special patents, patenting biological products, Patentable inventions in India and abroad, non patentable inventions in India and abroad, Rights of patent holder and co-owners, transfer of patent rights, limitations of patent rights, **PGSem II:** Paper 10**: Waste Management:** Biomass waste management of plant's residues: Lignocellulolytic microorganisms, **PG Sem IV**: Paper 17: strain improvement for industrial purposes, use of recombinant DNA technology,
Week 13	**UG 4 (CBCS): MCBACOR10P:** Isolation of any food borne bacteria from food products. Mock Viva-voce from the practical	**UG 2 (CBCS):** Paper – MCBCOR04T: Primary, secondary (oxidation ponds, trickling filter, activated sludge process and septic tank) and tertiary sewage treatment Revision **UG 4 (CBCS): MCBACOR10T:** Chemical methods of food preservation: salt, sugar, organic acids. **UG 6 (CBCS): MCBACOR DSE 05T** Patent and economy, patent management, patent growth, patenting of life forms, biodiversity and IPR, Study of famous case study between Diamond and Chakraborty **PG Sem II:** Paper 10**:** enzymes and their biotechnological applications in: (i) biopulping, (ii) biobleaching, (iii) textiles (iv) biofules, (v) animal feed production. **PG Sem IV**: Paper17: **Bioreactors:** Design and components of basic fermentor
Week 13 to week 14		**Internal Exam**
Week 15 to 17		**UG 2 (CBCS):** Paper – MCBCOR04T: Solid Waste management: Revision **UG 4 (CBCS): MCBACOR10T:** Revision

		UG 6 (CBCS): MCBACOR DSE 05T Revision
		PG Sem II: Paper 10**:** Revision
		PG Sem IV: Revision
Week 18	Mock Viva-voce from the practical	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, UG & PG course

Department of Microbiology: **Session (2021-22)**

Class: B.Sc/M.Sc.

Semester 1,3,5 (UG) & 1,3 (PG)   Name of the Teacher: Dr. Sandip Bandopadhyay

Subject: Microbiology

Paper :   UG/PG Theory and Practical   Blended (Online + offline)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**PG Sem III**: Paper 15: Biostatistics: 1. Measures of central tendency: mean, median, mode 2. Measures of Dispersion: MD, SD 3. Measures of statistical errors	**UG 1 (CBCS):** Paper – MCBCOR02T: Bacterial growth, phases of growth, kinetics & Numerical problems **UG III (CBCS):** MCBCOR05T: Fermentative pathways: homo-lactate, hetero-lactate fermentaion **UG V(CBCS):** PaperMCBDSE02T:Reaction kinetics, enzyme kinetics **PG Sem I:** Paper 2: Bacterial growth, phases of growth, kinetics & Numerical problems **PG Sem III**: paper 13- RDT: restriction & modification enzymes
Week 5 to week 8	**PG Sem III**: Paper 15: Biostatistics: 4. Concept of bi-variate data: correlation, calculation of correlation co-efficient 5. Analysis of regression	**UG 1 (CBCS):** Paper – MCBCOR02T: physical factors affecting growth: pH, temperature, pressure, O2 & CO2 concentration etc. **UG III:** MCBCOR05T: Mixed acid & Alcohol fermentation pathways **UG V(CBCS):** PaperMCBDSE02T: Free energy, Radioactivity **PG Sem I:** Paper 2: Physical factors affecting on microbial growth **PG Sem III**: Paper 13: Ligation: E. coli & T4 DNA ligase, cloning
Week 9 to Week 12	**PG Sem III**: Paper 15: Biostatistics: 6. one-tail t-test 7. chi square test 8. concept of probability, degrees of freedom	**UG 1 (CBCS):** Paper – MCBCOR02T: Chemical factors of growth: Acid, alkali, salt, detergent, alcohol, heavy metals etc. **UG III:** MCBCOR05T: Fermentative pathways: Revision **UG V(CBCS):** PaperMCBDSE02T: Biomath: PH & buffer, bacterial growth, D-value **PG Sem I:** Paper 2: Chemical factors affecting on microbial growth **PG Sem III**: paper 13: enzymes: TdT, Taq pol., pfu Pol, S1 nuclease
Week 13	**UG III:** MCBCOR05P: Demonstration of Alcohol fermentation using *Saccharomyces cerevisiae*	**UG 1 (CBCS):** Paper – MCBCOR02T: Batch & continuous culture: Chemostat & turbidostat **UG III:** MCBCOR05T: Fermentative pathways: Question-answer discussion of previous University exams **UG V(CBCS):** PaperMCBDSE02T: Biostat: standard error, t-test **PG Sem I:** Paper 2: Batch & continuous culture: chemostat **PG Sem III**: paper 13: genomic & pDNA: Isolation & purification
Week13 to week 14		**Internal Exam**
Week 15 to 17	**UG V(CBCS):** PaperMCBDSE02P: Biostatistics 1. Demonstration of t-test 2. Demonstration of chi square test	**UG 1 (CBCS):** Paper – MCBCOR02T: methods of growth measurement: turbidimetric, plate count, membrane filter etc. **UG III:** MCBCOR05T: Fermentative pathways: Question-answer discussion of previous University exams **UG V(CBCS):** PaperMCBDSE02T: Biostat: chi square test,

		correlation, regression, probability
		PG Sem I: Paper 2: Numerical problems on bacterial growth
		PG Sem III: paper 13: RNA & protein: Isolation & purification
Week 18	Revision, Practice	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for even Semester, UG/PG course

Department of Microbiology   Session (2021-22)

Class: B.Sc/M.Sc.

Semester 2,4,6 (UG) & 2,4 (PG)   Name of the Teacher: Dr. Sandip Bandopadhyay

Subject: Microbiology

Paper : UG & PG Theory and Practical (Offline)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**UG 2 (CBCS):** Paper MCBCOR03P: Laboratory preparation of buffers: numerical calculations	**UG 2 (CBCS):** Paper MCBCOR03T: Acid, base, pH, buffer: concept **UG 4 (CBCS):** Paper MCBSEC: Water microbiology: coliforms, properties, types, waterborne pathogens **UG** 6(**CBCS**): Paper MCBCOR14T: RDT: Restriction & modification. ligation: T4 DNA ligase, E coli DNA ligase, homopolymer tailing **PG Sem II:** Paper 9**:** Chromatography**:** ion-exchange, gel filtration **PG Sem IV**: Paper17:Fermentation: penicillin, streptomycin, VitB$_{12}$
Week 5 to week 8	**PG Sem IV**: Paper 17: Fermentative production of Alcohol	**UG 2 (CBCS):** PaperMCBCOR03T: Numerical problems: pH ,buffers **UG 4 (CBCS):** Paper MCBSEC: Water microbiology: MPN test, presumptive, confirmed & completed test **UG** 6 **CBCS**: Paper MCBCOR14T: RDT: Vectors: mechanism, types **PG Sem II:** Paper 7**:** Chromatography**:** affinity, HPLC, GLC **PG Sem IV**: Paper 17: Fermentation: lactic acid, citric acid, vinegar
Week 9 to Week 12		**UG 2 (CBCS):** Paper – MCBCOR03T: Polyprotic acids & its Numerical problems **UG 4 (CBCS):** Paper MCBSEC: Water microbiology: IMViC test **UG 6 (CBCS) :** Paper MCBCOR14T: RDT: Modern vectors: HAC, BAC, PAC, YAC **PG Sem II:** Paper 7**:** Chromatography**:** affinity, HPLC, GLC **PG Sem IV**: Paper 17: Fermented food: curd, yogurt, cheese, tofu
Week 13	**UG 6 (CBCS):** Paper MCBDSE06P: Separation of protein mixture by column chromatography	**UG 2 (CBCS):** Paper – MCBCOR03T: Revision **UG 4 (CBCS):** Paper MCBSEC: Water microbiology: Revision **UG** 6: Paper MCBCOR14T: RDT: Cloning: blue-white screening **PG Sem II:** Paper 7: Chromatography: paper chromatography, TLC **PG Sem IV**: Paper17:bread, pickles, dosa, sauerkraut fermentation
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Mock Viva-voce from the practical	**UG 2 (CBCS):** Paper – MCBCOR03T: titration curve, isoelectric pH **UG 4 (CBCS):** Paper MCBSEC: Water microbiology: Purification of water: sedimentation, filtration, UV, RO, bleaching etc. **UG** 6: Paper MCBCOR14T: RDT: properties of expression vectors **PG Sem II:** Paper 7**:** Chromatography**:** Revision **PG Sem IV**: Paper17: Probiotics, SCP, mushroom production
Week 18	Revision, Practice	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Planfor Odd Semester, UG & PG courses

Department of Microbiology

Session (2021-22)

Class: B.Sc /M.Sc.
UG Semester 1,3,5, PG semester 1 and 3
Name of the Teacher: Dr. Rini Roy
Subject: Microbiology
Paper : cc1, cc3 and cc12, PG Paper 1 and paper 11   (Theory and Practical)   Mode : Online + Offline

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**UG3 (CBCS)Paper MCBACOR05P:** Microbial Physiology and Metabolism 1. Effect of temperature on growth of *E. coli* 2. Effect of pH on growth of *E. coli* 3. Effect of carbon and nitrogen sources on the growth of *E. coli*	**UG 1 (CBCS) Paper MCBACOR01T**: Unit 1 History of Development and scope of Microbiology No. of Hours: 8 Development of Microbiology as a discipline, spontaneous generation vs. biogenesis. Contributions of Anton von Leeuwenhoek, Louis Pasteur, Robert Koch, Joseph Lister, Alexander Fleming Role of microorganisms in fermentation, Germ theory of disease **UG 3 (CBCS) Paper MCBHGEC03T/ MCBGCOR03T (For General Students):** Unit 1: Structures of DNA and RNA / Genetic Material DNA structure, Salient features of double helix, Types of DNA, denaturation and renaturation, topoisomerases; Organization of DNA in Prokaryotes. **UG3 (CBCS) Paper MCBACOR05T**: Microbial Physiology and Metabolism: EMP, ED, Pentose phosphate pathway TCA cycle **UG 5 (CBCS)** Paper MCBACOR12T: Immunology Unit 1 Introduction: Concept of Innate and Adaptive Immunity **PG1: Paper 1**: Biomolecules & Enzymology: Carbohydrates **PG 3: Paper 11**: Immunology: Anatomic barriers, Physiologic barriers, Phagocytic/endocytic barriers, inflammatory barriers.
Week 5 to week 8	**UG3 (CBCS)Paper MCBACOR05P:**: Microbial Physiology and Metabolism 4. Effect of salt on growth of E. coli 5. Demonstration of alcoholic fermentation	**UG 1 (CBCS) Paper MCBACOR01T**: Development of various microbiological techniques and golden era of microbiology, Development of the field of soil microbiology: Contributions of Martinus W. Beijerinck, Sergei N. Winogradsky, Selman A.Waksman, Establishment of fields of medical microbiology and immunology through the work of Paul Ehrlich, Elie Metchnikoff, Edward Jenner **UG 3 (CBCS) Paper MCBACOR05T**: Electron transport chain: components of the respiratory chain, comparison of mitochondrial and bacterial ETC, electron transport phosphorylation, uncouplers and inhibitors **UG 5 (CBCS) Paper MCBACOR12T:** Immunology Unit 1 Introduction Concept of Innate and Adaptive immunity; Contributions of

		following scientists to the development of the field of immunology - Edward Jenner, Karl Landsteiner, Robert Koch, Paul Ehrlich, Elie Metchnikoff, Peter Medawar, MacFarlane Burnet, Neils K Jerne, Rodney Porter and Susumu Tonegawa **PG1: Paper 1: Biomolecules & Enzymology: Enzymes**: Nature of enzyme: protein and non-protein, co-factor & prosthetic group, apoenzyme & holoenzyme, IUB classification, active site, cofactors, coenzymes and prosthetic groups, activation energy and transition state, catalytic efficiency, activity, specific activity and turnover no. Principles of Enzyme kinetics: Michaelis-Menten Equation, Significance of K_m and V_{max}, Determination of K_m and V_{max}, Double reciprocal Plot, Eadie- Hofstee plot **PG 3: Paper 11**: Immunology: Cytokines: Properties of Cytokines; Cytokine Receptors;
Week 9 to Week 12	**UG3 (CBCS)Paper MCBACOR05P:**: Practical write-up given to students.	**UG 5 (CBCS) Paper MCBACOR12T**: Immunology Unit 3 Antigens Characteristics of an antigen (Foreignness, Molecular size and Heterogeneity); Haptens; Epitopes (T& B cell epitopes); T-dependent and T-independent antigens; Adjuvants **PG1: Paper 1: Biomolecules & Enzymology**: two substrate kinetics- single and double displacement reaction (Ping Pong, Bi-Bi reaction), three substrate kinetics, Ligand binding studies, Effect of temperature, pH and Inhibitors (Reversible Inhibition: competitive, un-competitive and non-competitive and Irreversible Inhibition), **PG 3: Paper 11: Immunology: Cytokines**: Cytokine Antagonists; Cytokine Secretion by TH1 and TH2 Subsets; Cytokine-Related Diseases; Therapeutic Uses of Cytokines and Their Receptors; Cytokines in Hematopoiesis.
Week 13	Practical copywriting completion	**UG 5 (CBCS) Paper MCBACOR12T**: Immunology Unit 6 Complement System: Components of the Complement system; Activation pathways (Classical, Alternative and Lectin pathways); Biological consequences of complement Activation **PG1: Paper 1: Biomolecules & Enzymology:** Allosteric Enzymes and Feedback Inhibition,
Week13 to Week 14		**Internal Exam**
Week 15 to 17	**UG 3 (CBCS) Paper MCBACOR05P**: Microbial Physiology and Metabolism Practical copy checking	**PG1: Paper 1: Biomolecules & Enzymology:** Isozymes, Abzymes. Regulation of enzymes. Industrial application of several enzymes. Ribozymes Class tests and question-answer discussion
Week 18	Revision, Practise	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Planfor even Semester, UG & PG courses

Department of Microbiology

Class: B.Sc /M.Sc.
Semester 2,4,6 (UG) and PG 2 and PG 4
Name of the Teacher: Dr. Rini Roy
Subject: Microbiology
Paper : cc3, Sec02, cc 13 and DSE 06 (UG), PG Paper 6 and Paper 16 (Theory and Practical)
Mode: Offline

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**UG 2 (CBCS) Paper MCBACOR03P**: Biochemistry: 1. Preparation of buffers and numerical problems to explain the concepts 2. Qualitative/Quantitative tests for carbohydrates, reducing sugars, non reducing sugars	**UG 2 (CBCS) Paper MCBACOR03T:** Unit2Carbohydrates: Families of monosaccharides: aldoses and ketoses, trioses, tetroses, pentoses, and hexoses. Stereo isomerism of monosaccharides, epimers, Mutarotation and anomers of glucose. Furanose and pyranose forms of glucose and fructose, Haworth projection formulae for glucose; chair and boat forms of glucose, Sugar derivatives, glucosamine, galactosamine, muramic acid, N- acetyl neuraminic acid **UG 6 (CBCS) Paper MCBACOR13T:** Medical Microbiology Unit 3 Bacterial diseases: *Helicobacter pylori* Others: *Staphylococcus aureus, Bacillus anthracis, Clostridium tetani* **UG 4 (CBCS) Paper MCBSSEC02M**: Microbiological analysis of air and water: Unit 1: Aeromicrobiology: Bioaerosols, Air borne microorganisms (bacteria, Viruses, fungi) and their impact on human health and environment, significance in food and pharma industries and operation theatres, allergens **PG 2: Paper 6: Metabolism & Bioenergetics:**Catabolism and Anabolism, Glycolysis: Fate of pyruvate under aerobic and anaerobic conditions. Pentose phosphate pathway and its significance, Gluconeogenesis
Week 5 to week 8	**UG 2 (CBCS) Paper MCBACOR03P**: Biochemistry: Study of enzyme kinetics – calculation of Vmax , Km, Kcatvalues	**UG 2 (CBCS) Paper MCBACOR03T:** **Unit2**Carbohydrates: Disaccharides; concept of reducing and non-reducing sugars, occurrence and Haworth projections of maltose, lactose, and sucrose, Polysaccharides, storage polysaccharides, starch and glycogen. Structural Polysaccharides, cellulose, peptidoglycan and chitin **Unit4**Proteins: Functions of proteins, Primary structures of proteins: Amino acids, the building blocks of proteins. General formula of amino acid and concept of zwitterion. **UG 4 (CBCS) Paper MCBSSEC02M**: Microbiological analysis of air and water: Unit 2 Air Sample Collection and Analysis: Bioaerosol sampling, air samplers, methods of analysis, CFU, culture media for bacteria and fungi, Identification characteristics **UG 6 (CBCS) Paper MCBADSE06T**: Instrumentation and Biotechniques Principles and applications of paper chromatography (including Descending and 2-D), Thin layer chromatography. Column packing and fraction collection, Gel filtration chromatography

		PG 2: Paper 6: Metabolism & Bioenergetics: Glycogenolysis and glycogen synthesis.TCA cycle, Entner-Doudoroff pathaway, phosphoketolase pathway. Microbial Metabolism: Elementary Microbial nutrition, mode of uptake of nutrient
Week 9 to Week 12	**UG 2 (CBCS) Paper MCBACOR03P**: Biochemistry: Formol titration ofglycine	**UG 2 (CBCS) Paper MCBACOR03T:** **Unit 5.** Enzymes: Structure of enzyme: Apoenzyme and cofactors, prosthetic group-TPP, coenzyme NAD, metal cofactors, Classification of enzymes, Mechanism of action of enzymes: active site, transition state complex and activation energy. Lock and key hypothesis, and Induced Fit hypothesis. **UG 4 (CBCS) Paper MCBSSEC02M**: Microbiological analysis of air and water: Unit 3 Control Measures: Fate of bioaerosols, inactivation mechanisms – UV light, HEPA filters, desiccation, Incineration **UG 6 (CBCS) Paper MCBADSE06T**: Instrumentation and Biotechniques: Unit 2 Chromatography: ion-exchange chromatography and affinity chromatography, GLC, HPLC. **PG 4: Paper 16**: **Medical Microbiology**: Human diseases**:** *Staphylococcus, Streptococcus,* Gastritis *(Helicobacter pylori) , clostridium,* Chlamydia
Week 13	**UG 6 (CBCS) Paper MCBADSE06P** : Instrumentation and Biotechniques: Separation of amino acid mixtures by thin-layer chromatography.	**UG 2 (CBCS) Paper MCBACOR03T:** Unit 5. Enzymes: Significance of hyperbolic, double reciprocal plots of enzyme activity, Km, and Definitions of terms – enzyme unit, specific activity and turnover number, **UG 6 (CBCS) Paper MCBADSE06T**: Unit5Centrifugation: Preparative and analytical centrifugation, fixed angle and swinging bucket rotors. RCF and sedimentation coefficient Paper C etc:
Week 13 to week 14		**Internal Exam**
Week 15 to 17	**UG 6 (CBCS) Paper MCBADSE06P** : Instrumentation and Biotechniques: Separation of protein mixtures by any form of chromatography.	**UG 2 (CBCS) Paper MCBACOR03T:** **Unit 5.** Enzymes: allosteric mechanism, Multienzyme complex:pyruvate dehydrogenase; isozyme: lactate dehydrogenase, Effect of pH and temperature on enzymeactivity. Enzyme inhibition: competitive-sulfa drugs; non-competitive-heavy metal salts **UG 6 (CBCS) Paper MCBADSE06T**: Unit5Centrifugation: differential centrifugation, density gradient centrifugation and ultracentrifugation **PG 2: Paper 6: Nucleotide Metabolism:** Biosynthesis of purine & pyrimidine (de novo & salvage pathways); degradation of purine & pyrimidine.
Week 18	Revision, Practise and copy checking	Revision, class tests

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, UG & PG course

Department of Microbiology: **Session (2021-22)**

Class: B.Sc/M.Sc.
Semester 1,3,5 (UG) & 1,3 (PG) Name of the Teacher: Dr. Upal Das Ghosh
Subject: Microbiology

Paper : UG/PG Theory and Practical **Blended (Online + offline)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**PG Sem III**: Paper 15: Bioinformatics: Basic concept, Sequence alignment	**UG 1 (CBCS):** Paper – MCBCOR02T: Staining **UG 3 (CBCS):** MCBCOR07T: MCBCOR07T: DNA structure, Denaturation, Renaturation, topology **UG V(CBCS):** PaperMCBDSE02T:Frequency distribution **PG Sem I:** Paper 1: DNA structure, DNA denaturation **PG Sem III**: paper 12- Genetics: Transformation, Conjugation, Transduction
Week 5 to week 8	**PG Sem III**: Paper 15: Bioinformatics: Phylogenetic tree preperation	**UG 1 (CBCS):** Paper – MCBCOR02T: physical factors affecting growth: pH, temperature, pressure, O2 & CO2 concentration etc. **UG III:** MCBCOR07T DNA Replication **UG V(CBCS):** PaperMCBDSE02T: Frequency distribution **PG Sem I:** Paper 1: DNA topology **PG Sem III**: paper 12- Genetics: Mutation
Week 9 to Week 12	**UG III:** MCBCOR07P: Genomic DNA isolation, Agarose gel electrophoresis	**UG III:** MCBCOR07T: Transcription **UG V(CBCS):** PaperMCBDSE02T: Measures of Central tendency & Dispersion **PG Sem I:** Paper 1: Gene mapping haploid system **PG Sem III**: paper 12- Genetics: DNA repair
Week 13	**UG V(CBCS):** PaperMCBDSE02P: Biostatistics 1. Frequency Distribution 2. Measures of central tendency and deviation	**UG III:** MCBCOR07T: RNA processing **UG V(CBCS):** PaperMCBDSE03T: Mendelian Genetics **PG Sem I:** Paper 1: Gene mapping deploid system **PG Sem III**: paper 12: Recombination in DNA
Week13 to week 14		**Internal Exam**
Week 15 to 17		**UG III:** MCBCOR05T: **UG III:** MCBCOR07T: Revision **UG V(CBCS):** PaperMCBDSE03T: Extrachromosomal DNA **PG Sem I:** Paper 1: Revision **PG Sem III**: paper 12- Genetics: Transposon
Week 18	Revision, Practice	Revision

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**UG 4 (CBCS):** Paper MCBCOR08P: Plasmid DNA isolation, Agarose gel electrophoresis **UG 6 (CBCS):** PCR	**UG 4 (CBCS):** Paper MCBCOR09T: Virology general concept **UG** 6: Paper MCBCOR14T: RDT: PCR general idea **PG Sem II:** Paper 7: Proteomics **PG Sem IV**: Paper18:Virology: Viral vectors
Week 5 to week 8	**PG Sem II**: Paper 9: Molecular Biology Practical: Genomic DNA isolation, RFLP **UG 6 (CBCS):** RE digestion	**UG 4 (CBCS):** Paper MCBCOR09T: Lambda, T4 phage genetics **UG** 6: Paper MCBCOR14T: RT PCR **PG Sem II:** Paper 8: Replication **PG Sem IV**: Paper18:Virology: Viral vectors
Week 9 to Week 12	**UG 4 (CBCS):** Paper MCBCOR08P: Bacterial Conjugation **UG 6 (CBCS):** Transformation	**UG 4 (CBCS):** Paper MCBCOR08T: Transformation, Transduction **UG** 6: Paper MCBCOR14T: RDT: Mod vectors: HAC, BAC, PAC, YAC **PG Sem II:** Paper 8: Transcription **PG Sem IV**: Paper18:Virology: Cancer
Week 13	**PG Sem II**: Paper 9: Molecular Biology Practical: Cloning, RE Digestion	**UG 4 (CBCS):** Paper MCBCOR08T: Plasmid, conjugation **UG** 6: Paper MCBCOR14T: Real Time PCR **PG Sem II:** Paper 8: RNA processing **PG Sem IV**: Paper18:Virology: Cancer
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Mock Viva-voce from the practical	**UG 4 (CBCS):** Paper MCBCOR08T: Revision **UG** 6: Paper MCBCOR13T: Viral pathogens **PG Sem II:** Paper 8: Protein Synthesis **PG Sem IV**: Paper18:Virology: Revision
Week 18	Revision, Practice	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Planfor Odd Semester, UG, PG course

Department of Microbiology

Session (2021-22   )

Class:B.Sc /M.Sc.

Semester 1,3,5 (UG), PG1,3
Name of the Teacher: Parama Das Gupta
Subject: Microbiology
Paper : ….UG& PG. ………   (Theory and Practical)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	UG Sem I (CBCS:)Core Paper :MCBACOR01P,Introduction to microbiology and microbial diversity: Study of instruments, Media Preparation, Sterilization UG Sem V (CBCS):Core Paper :MCBACOR11P: Industrial Microbiology PG Sem I Paper 5: Microbiology and Molecular Biology	UG Sem I (CBCS) Core Paper : MCBACOR02T, Bacteriological Techniques UG Sem III (CBCS)Core Paper : MCBACOR05T,Phototrophic Metabolism UG Sem V (CBCS) Core Paper :MCBACOR11T, Microbial Production of Industrial Products PG Sem I Paper 2 : Diversity of Prokaryotic and Eukaryotic Microbes: Bacteria with special features PG Sem III Paper 14 DSE 1: Bioethics: GM foods

Week 5 to week 8	UG Sem I (CBCS):Core Paper :MCBACOR01P, Introduction to microbiology and microbial diversity: Fungal Cultivation, fungal staining	UG Sem I (CBCS) Core Paper : MCBACOR02T, Bacteriological Techniques
	UG Sem V (CBCS) Core Paper : MCBACOR11P, Industrial Microbiology	UG Sem III (CBCS)Core Paper : MCBACOR05T,Phototrophic Metabolism
		UG Sem V (CBCS) Core Paper :MCBACOR11T, Microbial Production of Industrial Products
	PG Sem I Paper 5: Microbiology and Molecular Biology	PG Sem I Paper 2 : Diversity of Prokaryotic and Eukaryotic Microbes: Bacteria with special features
		PG Sem III Paper 14 DSE 1: Bioethics: GM foods
Week 9 to Week 12	UG Sem I (CBCS) Paper :MCBACOR02P, Bacteriology: Bacterial Staining	UG Sem I (CBCS) Core Paper :MCBACOR02T, Important archeal and eubacterial groups: Firmicutes
	UG Sem V (CBCS)Paper MCBACOR11P : Mock Viva voce for practical examination	UG Sem III (CBCS)Core Paper : MCBACOR05T,Phototrophic Metabolism
		UG Sem V (CBCS) Core Paper :MCBACOR11T, Microbial Production of Industrial Products
	PG Sem I Paper 5: Microbiology and Molecular Biology	PG Sem I: PG Sem I Paper 2 : Diversity of Prokaryotic and Eukaryotic Microbes: Bacteria with special features
		PG Sem III: GEC Paper: Microbes in sustainable development
Week 13	Paper A: MCBACOR02P, Bacteriology: Pure Culture Techniques	UG Sem I (CBCS) Core Paper :MCBACOR02T, Important archeal and eubacterial groups: Actinobacteria
	MCBACOR11P : Mock Viva voce for practical examination	UG Sem III (CBCS): SEC Paper :MCBSSEC001, Probiotics
		UG Sem V(CBCS): DSE Paper:MCBADES03T, Inheritance biology: Human genetics
	PG Sem I Paper 5: Microbiology and Molecular Biology	PG Sem I: PG Sem I Paper AECC Laboratory Safety Measures: Different Laboratory Hazards: Biological Hazards
		PG Sem III: GEC Paper: Microbes in sustainable development
Week13 to week 14		**Internal Exam**
Week 15 to 17	Core Paper : MCBACOR02P, Bacteriology: Pure Culture Techniques	UG Sem I (CBCS) Core Paper :MCBACOR02T, Important archeal and eubacterial groups :Cyanobacteria
		UG Sem III (CBCS): SEC Paper :MCBSSEC001, Probiotics
		UG Sem V(CBCS): DSE Paper: MCBADES03T, Inheritance biology: Human genetics
	PG Sem I Paper 5: Microbiology and Molecular Biology	PG Sem I Paper 2 :Diversity of Prokaryotic and Eukaryotic Microbes: Protozoa
		PG Sem III: GEC Paper: Microbes in sustainable development
Week 18	Revision, Practise	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for even Semester, UG, PG course

Department of ……Microbiology………….

Session (2021-22)

Class: B.Sc./M.Sc.

Semester :2,4,6(UG) & PG 2,4   **Name of the Teacher: Parama Das Gupta**

Subject: Microbiology

Paper : UG & PG.. ……….   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	UG Sem II (CBCS):Core Paper :MCBACOR04P, Environmental Microbiology: Water Microbiology UG Sem IV(CBCS) Core Paper : MCBACOR10P, Food and Dairy Microbiology UG Sem VI(CBCS):Core Paper:MCBACOR13P, Medical Microbiology	UG Sem II(CBCS): Core Paper: MCBACOR04T, Water Potability UG Sem IV(CBCS):Core Paper: MCBACOR10T, Food borne diseases UG Sem VI(CBCS):Core Paper: MCBACOR13T, Normal microflora of the human body and host pathogen interaction PG Sem II Paper10 : Environmental Microbiology: Water Microbiology PG Sem IV: Paper 16: Medical Microbiology: Pathogenicity of Microorganism
Week 5 to week 8	UG Sem II (CBCS):Core Paper :MCBACOR04P, Environmental Microbiology: Water Microbiology UG Sem IV(CBCS) Core Paper : MCBACOR10P, Food and Dairy Microbiology UG Sem VI(CBCS):Core Paper:MCBACOR13P, Medical Microbiology	UG Sem II(CBCS): Core Paper: MCBACOR04T, Water Potability UG Sem IV(CBCS):Core Paper: MCBACOR10T, Food borne diseases UG Sem VI(CBCS):Core Paper: MCBACOR13T, Normal microflora of the human body and host pathogen interaction PG Sem II Paper10 : Environmental Microbiology: Water Microbiology PG Sem IV: Paper 16: Medical Microbiology: Pathogenicity of Microorganism
Week 9 to Week 12	UG Sem II (CBCS):Core Paper :MCBACOR04P, Environmental Microbiology: Water Microbiology UG Sem IV(CBCS) Core Paper : MCBACOR10P, Food and Dairy Microbiology UG Sem VI(CBCS):Core Paper:MCBACOR13P, Medical Microbiology	UG Sem II(CBCS) Core Paper: MCBACOR04T, Microbial Interactions UG Sem IV(CBCS): Core Paper: MCBACOR10T, Food borne diseases UG Sem VI(CBCS):Core Paper: MCBACOR13T, Normal microflora of the human body and host pathogen interaction PG Sem II Paper10 : Environmental Microbiology: Waste Management: Solid Waste Management PG Sem IV: Paper 16: Medical Microbiology: Human Diseases :Caused by Protozoa
Week 13	UG Sem II (CBCS):Core Paper :MCBACOR04P, Environmental	UG Sem II(CBCS) Core Paper: MCBACOR04T, Microbial

	Microbiology: Water Microbiology	Interactions
	UG Sem IV(CBCS) Core Paper : MCBACOR10P, Food and Dairy Microbiology	UG Sem IV(CBCS) Core Paper: MCBACOR10T, Food borne diseases
	UG Sem VI(CBCS):Core Paper:MCBACOR13P, Medical Microbiology	UG Sem VI(CBCS) Core Paper: MCBACOR13T, Normal microflora of the human body and host pathogen interaction
		PG Sem II : Paper 10 : Environmental Microbiology: Microorganism and metal pollutants: Microbial strategy to detoxify heavy metals
		PG Sem IV: Paper 16: Medical Microbiology: Human Diseases :Caused by Protozoa
Week 13 to week 14		**Internal Exam**
Week 15 to 17	UG Sem II (CBCS):Core Paper :MCBACOR04P, Environmental Microbiology: Water Microbiology	UG Sem II(CBCS) Core Paper: MCBACOR04T, Microbial Interactions
	UG Sem IV(CBCS) Core Paper : MCBACOR10P, Food and Dairy Microbiology	UG Sem IV(CBCS) Core Paper: MCBACOR10T, Food borne diseases
	UG Sem VI(CBCS):Core Paper:MCBACOR13P, Medical Microbiology	UG Sem VI(CBCS) Core Paper: MCBACOR13T, Protozoan Diseases
		PG Sem II : SEC Paper: Diagnostic Microbiology: Understanding Infection
		PG Sem IV: Paper 19DSE 2: Agricultural Microbiology: Biofertilizer
Week 18	Revision, Practise	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, UG & PG course

Department of Microbiology: **Session (2021-22)**

Class: B.Sc/M.Sc.
Semester 1,3,5 (UG) & 1,3 (PG)   Name of the Teacher: Dr. Sudipta Chakraborty Subject: Microbiology

Paper :   UG/PG Theory and Practical   Blended (Online + offline)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**UG 1 (CBCS):** Paper – MCBCOR01P: Microbiological instruments and their functions, fungal staining	**UG 1 (CBCS):** Paper – MCBCOR02T: Bacterial morphology, Proteobacteria, Archaebacteria. **Part II (UG):** Paper –V: Oxadative phosphorylation, Thermodynamics **Part III (UG)**: Paper –V: Transposons & its mechanism, TN family **PG Sem I:** Paper 2: Bacterial morphology, Quoram sensing **PG Sem III**: paper 13- RDT vectors, CRISPR-Cas
Week 5 to week 8	**UG 1 (CBCS):** Paper – MCBCOR02P: Biochemical assay of protein carbohydrate lipids, Quantitative	**UG 1 (CBCS):** Paper – MCBCOR02T: physical factors affecting growth: pH, temperature, pressure, O2 & CO2 concentration etc. **Part II (UG):** Paper – VI: Cellsignalling, Intracellular Trafficking

		Part III (UG): Paper –V: RDT: restriction & modification enzymes PG Sem I: Paper 2: Physical factors affecting on microbial growth PG Sem III: Paper 13: Ligation: E. coli & T4 DNA ligase, cloning
Week 9 to Week 12	PG Sem III: Paper 15: Biostatistics: 1. Measures of central tendency: mean, median, mode 2. Measures of Dispersion: MD, SD 3. Measures of statistical errors	UG 1 (CBCS): Paper – MCBCOR02T: Chemical factors of growth: Acid, alkali, salt, detergent, alcohol, heavy metals etc. Part II (UG): Paper – IV: Water Microbiology: detailed mechanism of IMViC test, potability of water Part III (UG): Paper –V: RDT: types & mechanism of vectors PG Sem I: Paper 3: Spectroscopy, NMR, ESR, Fluorescence sepectrosopy, SPR, Mass Spectroscopy PG Sem III: paper 13: enzymes: TdT, Taq pol., pfu Pol, S1 nuclease
Week 13	PG Sem III: Paper 15: Biostatistics: 4. Concept of bi-variate data: correlation, calculation of correlation co-efficient 5. Analysis of regression	UG 1 (CBCS): Paper – MCBCOR02T: Batch & continuous culture: Chemostat & turbidostat Part II (UG): Paper – IV: Water Microbiology: Purification of sewage water: trickling filter, oxidation pond etc Part III (UG): Paper –V: RDT: mechanism & types of PCR PG Sem I: Paper 2: Batch & continuous culture: chemostat PG Sem III: paper 13: genomic & pDNA: Isolation & purification
Week13 to week 14		**Internal Exam**
Week 15 to 17	PG Sem III: Paper 15: Biostatistics: 6. one-tail t-test 7. chi square test 8. concept of probability, degrees of freedom	UG 1 (CBCS): Paper – MCBCOR02T: methods of growth measurement: turbidimetric, plate count, membrane filter etc. Part II (UG): Paper – IV: Water Microbiology: Purification of drinking water: sedimentation, filtration, bleaching, RO etc. Part III (UG): Paper :V: RDT: genomic & cDNA library construction PG Sem I: Paper 2: Numerical problems on bacterial growth PG Sem III: paper 13: RNA & protein: Isolation & purification
Week 18	Revision, Practice	Revision

Teaching Plan for even Semester, UG/PG course

Department of Microbiology   Session (2021-22)

Class: B.Sc/M.Sc.

Semester 2,4,6 (UG) & 2,4 (PG)   Name of the Teacher: Dr. Sudipta Chakraborty

Subject: Microbiology

Paper : UG & PG Theory and Practical (Offline)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**UG 2 (CBCS):** Paper MCBCOR03P: Study effect of temperature, pH and Heavy metals on enzyme activity, Qualitative/Quantitative tests for proteins: Biuret & Lowry's method **UG 4 (CBCS):** Paper **MCBACOR09P** Plaque assay of bacteriophages from standard teaching kit	**UG 2 (CBCS):** Paper MCBCOR03T: Bioenergetics and oxydative phosphorylation **UG 4 (CBCS):** Paper MCBCOR11T: Unit 4 Down-stream processing: Cell disruption, filtration, centrifugation, solvent extraction, precipitation, lyophilization and spray drying **UG 6(CBCS):** Paper MCBCOR13T: Antimicrobial agents: antibiotic and their mode of actions. Antibacterial agents: Five modes of action with one example each:; Inhibitor Antifungal, Antibiotic resistance, MDR, XDR, MRSA, NDM-1 **PG Sem II:** Paper MCBT203: Vectors, Si RNA and Mi RNA **PG Sem IV**: Paper17:Fermentation: penicillin, streptomycin, VitB$_{12}$

Week 5 to week 8	**PG Sem IV**: Paper 17: Fermentative production of penicillin	**UG 2 (CBCS):** PaperMCBCOR03T: Numerical problems: pH ,buffers **UG 4 (CBCS):** Paper MCBSEC: Water microbiology: MPN test, presumptive, confirmed & completed test **UG** 6 **CBCS**: Paper MCBCOR14T: RDT: Vectors: mechanism, types **PG Sem II:** Paper MCBT203: Gene Knockout, gene expression analysis **PG Sem IV**: Paper MCB03DSE: Developmental Biology
Week 9 to Week 12	UG sem VI (**MCBACOR13P: MEDICAL MICROBIOLOGY)** 1. Antibacterial sensitivity test by agar cup assay 2. Antibacterial sensitivity test by Kirby-Bauer method 3. Determination of minimal inhibitory concentration (MIC) of an antibiotic.	**UG 2 (CBCS):** Paper – MCBCOR03T: Numerical problems on bioenergetics **UG 4 (CBCS):** Paper MCBCOR12T: Transposons **UG 6 (CBCS) :** Paper MCBCOR14T: RDT: Modern vectors: HAC, BAC, PAC, YAC **PG Sem II:** Paper MCBT202: Regulation of prokaryotic gene expression, CRISPR-CAS mechanisms **PG Sem IV**: Paper MCB03DSE: Developmental Biology, Pattern formation, anterior posterior
Week 13	UG 6 (CBCS): Paper MCBDSE06P: 1. Determination of λ max for an unknown sample and calculation of extinction coefficient. 2. Separation of components of a given mixture using a laboratory scale centrifuge.	**UG 2 (CBCS):** Paper – MCBCOR03T: Revision **UG 4 (CBCS):** Paper MCBSEC: Water microbiology: Revision **UG** 6: Paper MCBCOR14T: RDT: Cloning: blue-white screening **PG Sem II:** Paper MCBT203: RDT: Isolation & purification of protein: PAGE, Western blot **PG Sem IV**: Paper17:bread, pickles, dosa, sauerkraut fermentation
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Mock Viva-voce from the practical	**UG 2 (CBCS):** Paper – MCBCOR03T: titration curve, isoelectic pH **UG 4 (CBCS):** Paper MCBSEC: Water microbiology: Purification of water: sedimentation, filtration, UV, RO, bleaching etc. **UG** 6: Paper MCBCOR14T: RDT: properties of expression vectors **PG Sem II:** Paper MCBT203: RDT: Revision **PG Sem IV**: Paper17: Probiotics, SCP, mushroom production
Week 18	Revision, Practice	Revision

Teaching Planfor Odd Semester, UG & PG courses
Department of Microbiology
Session (2021-22)

Class: B.Sc /M.Sc.
UG Semester 1,3,5, PG semester 1 and 3
Name of the Teacher: Dr. Sandip Misra
Subject: Microbiology
Paper : cc1, cc6 and cc12, PG Paper 1 and paper 11   (Theory and Practical)   Mode : Online + Offline

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**UG1 (CBCS)Paper MCBACOR01P :** study the principal of important laboratory instrument. **UG1 (CBCS)Paper MCBACOR02P :** bacterial staning (gram, endospore), estimation of CFU by spread and pour plate method.	**UG 1 (CBCS) Paper MCBACOR01T**: Unit -2 - microscopy **UG3 (CBCS) Paper MCBACOR06T**: Unit 2 – Nucleus Unit -5 – cell cycle regulation **UG 5 (CBCS) Paper MCBACOR12T**: Immunology Unit 2. Immuno cell and organ **PG1: Paper 1**: Biomolecules & Enzymology:

		Protein structure **PG 3: Paper 11**: Immunology: Antibody diversity
Week 5 to week 8	**UG5 (CBCS)Paper MCBACOR012P Immunology practical**	**UG3 (CBCS) Paper MCBACOR06T**: Unit 2 – Nucleus Unit -5 – cell cycle regulation **UG 5 (CBCS) Paper MCBACOR12T**: Immunology Unit 4 Antibodies Unit 7- Generation of immune response **PG1: 1**: Biomolecules & Enzymology: Protein structure **PG 3: Paper 11**: Immunology: Antibody diversity
Week 9 to Week 12	**UG5 (CBCS)Paper MCBACOR012P Immunology practical**	**UG 5 (CBCS) Paper MCBACOR12T**: Immunology Unit 7- Generation of immune response **PG 3: Paper 11**: Immunology: B cell development and T cell development, activation, positive and negative selection
Week 13	Practical copywriting completion	**PG 3: Paper 11**: Immunology: B cell development and T cell development, activation, positive and negative selection
Week13 to Week 14	**Internal Exam**	
Week 15 to 17	**UG5 (CBCS)Paper MCBACOR012P Immunology practical**	**PG1: Paper MCBT101**: Biomolecules & Enzymology: Protein structure **PG 3: Paper 11**: Immunology: B cell development and T cell development, activation, positive and negative selection
Week 18	Revision, Practise	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA
Teaching Planfor even Semester, UG & PG courses
Department of Microbiology
Session (2021-2022)

Class: B.Sc /M.Sc.
Semester 2,4,6 (UG) and PG 2 and PG 4
Name of the Teacher: Dr. Sandip Misra
Subject: Microbiology
Paper : cc3, cc9, cc 13, cc14 and, PG Paper 6 (Theory and Practical)
Mode: Offline

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**UG 2 (CBCS) Paper MCBACOR04P**: Isolation of microbes from soil	**UG 2 (CBCS) Paper MCBACOR03T**: Unit 4- proteins structure **UG 4 (CBCS) Paper MCBACOR09T**: Unit 3- Viral nucleic, viral transmission and replication **UG 6 (CBCS) Paper MCBACOR13T**: Unit 2- sample collection, transport and diagnosis **Paper MCBACOR14T** UNIT-5 Construction and screening of genomic and cDNA library

		PG 2: Paper 6: Metabolism & Bioenergetics: Catabolism of amino acid
Week 5 to week 8	**UG 2 (CBCS) Paper MCBACOR04P**: Isolation of microbes from rhizosphere	**UG 2 (CBCS) Paper MCBACOR03T:** **Unit 4-** proteins structure **UG 4 (CBCS) Paper MCBACOR09T:** **Unit 3-** Viral nucleic, viral transmission and replication **UG 6 (CBCS) Paper MCBACOR14T**: UNIT-5 Construction and screening of genomic and cDNA library **PG 2: Paper 6: Metabolism & Bioenergetics:** Catabolism of amino acid
Week 9 to Week 12	**UG 2 (CBCS) Paper MCBACOR04P**: Isolation of microbes from phylosphere PG2- Paper 9- immunology practical	**UG 2 (CBCS) Paper MCBACOR03T:** Unit 4- proteins structure . **UG 4 (CBCS) Paper MCBACOR09T:** Unit 3- Viral nucleic, viral transmission and replication **UG 6 (CBCS) Paper MCBACOR14T** UNIT-5 Construction and screening of genomic and cDNA library **UNIT-6** Application of recombinant DNA technology **UG 2 (CBCS) Paper MCBACOR04T:** Unit 3- biogeochemical cycle **PG 2: Paper 6: Metabolism & Bioenergetics:** Catabolism of fatty acid
Week 13	PG2- Paper 9- immunology practical	UG 6- **(CBCS) Paper MCBADSE06T** Microscope
Week 13 to week 14		**Internal Exam**
Week 15 to 17	PG2- Paper 9- immunology practical	**UG 2 (CBCS) Paper MCBACOR04T:** Unit 3- biogeochemical cycle UG 6- **(CBCS) Paper MCBADSE06T- Microscopy**
Week 18		Revision, class tests

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, UG & PG course

Department of Microbiology: **Session (2021-22)**

Class: B.Sc/M.Sc.

Semester 1,3,5 (UG) & 1,3 (PG)   Name of the Teacher: Dr. Sourav Pakrashi

Subject: Microbiology

Paper :   **UG/PG Theory and Practical**   **Blended (Online + offline)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	**UG Sem 1:** Gram staining, Pure culture, Streaking	**UG 1 (CBCS):** Paper – MCBCOR01T: General characteristics of Protozoa **UG III (CBCS):** MCBCOR05T: Membrane transport **UG V(CBCS):** PaperMCBDSE03T: Inheritance biology **PG Sem I:** Paper 1: bacterial Cell wall , **PG Sem III**: paper 13- RDT: restriction & modification enzymes
Week 5 to week 8	**PG Sem 3:** Bradford assay to identify concentration of unknown protein sample	**UG 1 (CBCS):** Paper – MCBCOR01T: General characteristics of Protozoa, *Plasmodium vivax* **UG III:** MCBCOR06T: Cell organelle of eukaryotic cell **UG V(CBCS):** PaperMCBDSE03T: Gene, allele, mono and di hybride cross, **PG Sem I:** Paper 2: FACS, FRAP, FLIP **PG Sem III**: Paper 13: RDT: Southern blotting,
Week 9 to Week 12		**UG 1 (CBCS):** Paper – MCBCOR01T: General characteristics of Protozoa, *Leishmania donovani* **UG III:** MCBCOR07T: Translation **UG V(CBCS):** PaperMCBDSE03T: Linkage **PG Sem I:** Paper 1: Lipid **PG Sem III**: paper 13: RDT: Northern blotting
Week 13	**UG III:** MCBCOR05P: Quantification of unknown DNA sample using spectrophotometer	**UG 1 (CBCS):** Paper – MCBCOR01T: General characteristics of Protozoa, **UG III:** MCBCOR07T: Translation **UG V(CBCS):** PaperMCBDSE03T: Pedigree **PG Sem I:** Paper 1: Bacterial cell wall, archaeal cell wall **PG Sem III**: paper 13: Western blotting

Week13 to week 14		**Internal Exam**
Week 15 to 17	**UG V(CBCS):** PaperMCBDSE02P: Biostatistics 1. Demonstration of t-test 2. Demonstration of chi square test	**UG 1 (CBCS):** Paper – MCBCOR02T: methods of growth measurement: turbidimetric, plate count, membrane filter etc. **UG III:** MCBCOR05T: Fermentative pathways: Question-answer discussion of previous University exams **PG Sem I:** Paper 2: Numerical problems on bacterial growth **PG Sem III**: paper 13: RNA & protein: Isolation & purification
Week 18	Revision, Practice	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for even Semester, UG/PG course

Department of Microbiology   Session (2021-22)

Class: B.Sc/M.Sc.

Semester 2,4,6 (UG) & 2,4 (PG)   Name of the Teacher: Dr. Sourav Pakrashi

Subject: Microbiology

Paper : UG & PG Theory and Practical (Offline)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	**UG 2 (CBCS):** Paper MCBCOR03P: Laboratory preparation of buffers:	**UG 2 (CBCS):** Paper MCBCOR03T: Membrane transport, **UG 4 (CBCS):** Paper MCBCOR6T: Cancer **UG** 6: Paper MCBCOR14T: RDT: Restriction & modification. ligation: T4 DNA ligase, E coli DNA ligase, homopolymer tailing **PG Sem II:** Paper 9: Chromatography**:** ion-exchange, gel filtration **PG Sem IV**: Paper17:Fermentation: penicillin, streptomycin, VitB$_{12}$
Week 5 to week 8	**UG 4 (CBCS):** Isolation of UV resistant bacteria.	**UG 2 (CBCS):** PaperMCBCOR03T: Lipid **UG 4 (CBCS):** Paper MCBSEC: Cancer **Part III (UG**): Paper V : Applications of RDT: RFLP, RAPD, fingerprint **PG Sem II:** Paper 7: DNA mutation **PG Sem IV**: Paper 17: *Vibrio cholerae*
Week 9 to Week 12		**UG 2 (CBCS):** Paper – MCBCOR03T: Various disease related to lipid **UG 4 (CBCS):** Paper MCBSEC: Water microbiology: IMViC test **Part III (UG**): Paper - V: RDT: Isolation & purification of DNA, RNA, protein: Agarose Gel Electrophoresis & PAGE

		PG Sem II: Paper 7: Chromatography**:** affinity, HPLC, GLC
		PG Sem IV: Paper 17: Fermented food: curd, yogurt, cheese, tofu
Week 13		**UG 2 (CBCS):** Paper – MCBCOR03T: Revision
		UG 4 (CBCS): Paper MCBSEC: Water microbiology: Revision
		Part III (UG): Paper - V: RDT: Revision
		PG Sem II: Paper 7: Chromatography: paper chromatography, TLC
		PG Sem IV: Paper17:bread, pickles, dosa, sauerkraut fermentation
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Mock Viva-voce from the practical	**UG 2 (CBCS):** Paper – MCBCOR03T: titration curve, isoelectic pH
		UG 4 (CBCS): Paper MCBSEC: Water microbiology: Purification of water: sedimentation, filtration, UV, RO, bleaching etc.
		Part III (UG): Paper - V: RDT: Revision
		PG Sem II: Paper 7: Chromatography**:** Revision
		PG Sem IV: Paper17: Probiotics, SCP, mushroom production
Week 18	Revision, Practice	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for ODD Semester, UG course

Department of ………ENGLISH……….

Session (2021-2022   )

Class: B.A. Hons
Semester I, III, V   **Name of the Teacher: TAPOMOY DAS**
Subject: ENGLISH
Paper : CC1,CC2,CC5,CC6,CC7, CC11,CC12,DSE   (Theory and Practical)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	NA	CC1: Vyasa, "The Book of the Assembly Hall' in The Mahabharata CC5 : Anne Bradstreet-'The Prologue', Background – Romanticism and Modern, Keats ('When I have fears', 'Ode on a Grecian Urn'), Yeats ('The Second Coming'), Eliot ('The Love Song of J. Alfred Prufrock'), Ted Hughes ('The Thought Fox') & Sh. Story - Kew Gardens CC11: Emily Dickinson- 'I cannot live with you' CC12: Rupert Brooke- Peace DSE: Tragedy
Week 5 to week 8	NA	CC2: Sophocles, 'Oedipus the King' CC5: Toni Morrison—Beloved CC11: Charlotte Perkins Gilman- 'The Yellow Wallpaper' CC12: Virginia Woolf- To the Lighthouse DSE: Indo-European family of Languages, Grimm's Law, Latin, Greek, Scandinavian, French influences, Native Resources, Impact of the Bible, Influence of Shakespeare, American Influence, Philological notes.
Week 9 to Week 12	NA	CC2: Sophocles, 'Oedipus the King' CC6: Shyam Selvadurai—Funny Boy CC7: Aphra Behn -The Rover CC11: Rassundari Debi, excerpts from Amar Jiban DSE: Old English Poetry- Background of the age, culture, structure of the epic, style, theme. A passage from Beowulf.
Week 13	NA	Revision and Tutorial
Week 13 to week 14		**Internal Exam**
Week 15 to 17	NA	Revision
Week 18	NA	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for ODD Semester, UG course

Department of …ENGLISH…………….

Session (2021-2022)

Class. B.A. Hons
Semester I, III, V   **Name of the Teacher: SIDHARTHA DEY**
Subject: ENGLISH
Paper : CC1,CC2, CC5,CC6,CC7,CC11,CC12,DSE   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	NA	CC1: Sudraka, Mrcchakatika trans M.M. Ramachandra Kale. CC5: Walt Whitman -'Passage to India' (lines 1–68) CC11: Sylvia Plath -'Daddy','Lady Lazarus' CC12: W.H.Auden- Musée des Beaux Arts DSE: COMEDY
Week 5 to week 8	NA	CC1: Sudraka, Mrcchakatika trans M.M. Ramachandra Kale. CC5: Edgar Allan Poe -'The Purloined Letter' CC7: John Milton - Paradise Lost Book I CC11: Katherine Mansfield -'Bliss'
Week 9 to Week 12	NA	CC2: Homer, The Illiad, Bk I & II, trans. E.V. Rieu. CC5: Tenesse Williams- A Street Car Named Desire CC12: W.B. Yeats 'Lake Isle of Innisfree, 'Sailing to Byzantium' DSE: Pre-Christian Latin loans; Scandinavian war & law terms; hybridism; Johnsonese; monosyllabism; back-formation; free and fixed compounds; French law terms; assimilation; ing-endging; s-ending.
Week 13	NA	CC2: Homer, The Illiad, Bk I & II, trans. E.V. Rieu. CC6: Herge-Tintin in Tibet DSE: Non-epic, secular, elegiac poetry, theme, style, social picture, language, style : Deor's Lament
Week13 to week 14		**Internal Exam**
Week 15 to 17	NA	Revision
Week 18	NA	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for ODD Semester, UG course

Department of …ENGLISH…………….

Session (2021-2022   )

Class: B.A. Hons

Semester I, III, V   **Name of the Teacher: ANIRUDDHA PAL**

Subject: ENGLISH

Paper : CC1,CC2, CC5,CC6, CC7,CC11,CC12,DSE   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	NA	CC1: Banabhatta, Kadambari (Chp I & II) CC5: Langston Hughes- 'The Negro Speaks of Rivers' CC11: Eunice De Souza 'Advice to Women', 'Bequest' CC12: Joseph Conrad- Heart of Darkness. DSE: NOVEL
Week 5 to week 8	NA	CC1: Banabhatta, Kadambari (Chp I & II) CC5: F. Scott Fitzgerald- 'The Crack-up' DSE: Philological Word Notes CC11: Mary Wollstonecraft A Vindication of the Rights of Woman (New York: Norton, 1988) chap. 1, pp. 11–19; chap. 2, pp. 19–38.
Week 9 to Week 12	NA	CC2: Ovid, Selections from Metamorphoses, 'Bacchus' (BK III) CC6: Lewis Carroll—Through the Looking Glass CC7: Alexander Pope -The Rape of the Lock (Cantos I & III) CC12: T.S. Eliot 'The Love Song of J. Alfred Prufrock', Preludes
Week 13	NA	CC2: Ovid, Selections from Metamorphoses, 'Bacchus' (BK III) CC6: Lewis Carroll—Through the Looking Glass DSE: Christian poetry- Caedmon's hymn; Cynewulf, Dream of the Rood
Week 13 to week 14		**Internal Exam**
Week 15 to 17	NA	Revision
Week 18	NA	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for ODD Semester, UG course

Department of ……ENGLISH………….

Session (2021-2022)

Class. B.A. Hons
Semester I, III, V   **Name of the Teacher: KETAKI DUTTA**
Subject: ENGLISH
Paper : CC1,CC2, CC5,CC6,CC7, CC11,CC12,DSE   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	NA	CC1: Kalidasa, 'Abhijnana Shakuntalam' in The Loom of Time, CC5: Alexie Sherman Alexie-'Crow Testament'; 'Evolution' CC11: Jean Rhys—The Wide Sargasso Sea CC12: D.H. Lawrence- Sons and Lovers DSE: Loan words • Loan translations • Hybrids • Adaptations • Diffusions
Week 5 to week 8	NA	CC1: Kalidasa, 'Abhijnana Shakuntalam' in The Loom of Time, trans. Chandra Rajan. (CONTD) CC5: William Faulkner 'Dry September' CC11: Ramabai Ranade 'A Testimony of our Inexhaustible Treasures', in Pandita Ramabai Through Her Own Words: Selected Works, tr. Meera Kosambi (New Delhi: OUP, 2000) pp. 295–324.
Week 9 to Week 12	NA	CC2: Plautus, Pot of Gold, trans. E.F.Watling. CC6: Agatha Christie—The Murder of Roger Ackroyd CC7: John Webster -The White Devil CC12: Owen- Spring Offensive
Week 13	NA	CC2: Plautus, Pot of Gold, trans. E.F.Watling. (CONTD.) CC6: J.K. Rowling--The Philosopher's Stone DSE: Old English Prose - An overview
Week 13 to week 14		**Internal Exam**
Week 15 to 17	NA	Revision
Week 18	NA	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for EVEN Semester, UG course

Department of ………ENGLISH……….

Session (2021-2022   )

Class:B.A. Hons
Semester II , IV, VI   **Name of the Teacher: TAPOMOY DAS**
Subject: ENGLISH
Paper : CC3, CC4, CC8, CC9, CC10, CC13, CC14, DSE   (Theory and Practical)

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	NA	CC3: H.V. Derozio—'Freedom to the Slave' CC4: Spenser – 'One day I wrote her name' CC9: S.T. Coleridge- 'Kubla Khan,' Christabel I CC10: Christina Rossetti --'The Goblin Market' CC14: Pablo Neruda-- 'Tonight I can Write';'The Way Spain Was'
Week 5 to week 8	NA	CC3: Nissim Ezekiel—'The Night of the Scorpion' CC4: Herbert, 'Pulley' CC9: William Hazlitt- 'On the Love of the Country' CC10: Arnold –'Modern Elements in Literature' CC14: Chinua Achebe—Things Fall Apart
Week 9 to Week 12	NA	CC3: Ruskin Bond- 'Tiger, Tiger, Burning Bright' CC8: William Congreve, The Way of the World CC14: Grace Ogot 'The Green Leaves'
Week 13	NA	DSE: Maggie Humm: Practising Feminist Criticism: An Introduction. London 1995. DSE: Faiz Ahmad Faiz, 'For Your Lanes, My Country', tr. and ed. Riz Rahim (California: Xlibris, 2008) p. 138. DSE: Intizar Husain --Basti, tr. Frances W. Pritchett
Week13 to week 14		**Internal Exam**
Week 15 to 17	NA	DSE: Lalithambika Antharajanam, 'A Leaf in the Storm '
Week 18	NA	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for EVEN Semester, UG course

Department of …ENGLISH……………

Session (2021-2022   )

Class:B.A. Hons
Semester II, IV, VI   Name of the Teacher: SIDHARTHA DEY
Subject: ENGLISH
Paper : CC3, CC4, CC8,CC9,CC10,CC13, CC14, DSE   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	NA	CC3: Michael Madhusudan—'I Stood in Solitude,-- and as I looked' CC4: Shakespeare, Sonnets : 30, 129 CC8: Jonathan Swift, Gulliver's Travels BK.3 & 4 CC10: Matthew Arnold- Dover Beach CC14: Derek Walcott --'A Far Cry from Africa';'Names'
Week 5 to week 8	NA	CC3: Jayanta Mahapatra-Hunger CC4: William Shakespeare-Macbeth CC9: P.B. Shelley- 'Ode to the West Wind', Ozymandias CC10: Darwin- 'Introduction'. Origin of Species CC14: Gabriel Garcia Marquez-- Chronicle of a Death Foretold
Week 9 to Week 12	NA	CC3: Salman Rushdie- 'The Free Radio' CC9: Horace Walpole-The Castle of Otranto DSE: William Wordsworth: Preface to the Lyrical Ballads (1802)
Week 13	NA	DSE: T.S. Eliot: "Tradition and the Individual Talent" 1919; "The Function of Criticism" 1920 DSE: Jibananda Das, 'I Shall Return to This Bengal', tr. Sukanta Chaudhuri
Week13 to week 14		**Internal Exam**
Week 15 to 17	NA	DSE: Dibyendu Palit, 'Alam's Own House'
Week 18	NA	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for EVEN Semester, UG course

Department of …ENGLISH…………….

Session (2021-2022)

Class. B.A. Hons
Semester II, IV, VI   **Name of the Teacher: ANIRUDDHA PAL**

Subject: ENGLISH
Paper : CC3,CC4,CC8,CC9,CC10,CC14,DSE   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	NA	CC3: Kamala Das- Introduction CC4: Donne, 'Cannonization' CC8: Non-fictional Prose: Joseph Addison, 'The Scope of Satire'; Daniel Defoe, 'The Complete English Gentleman'); Samuel Johnson, Essay 156 CC10: Jane Austen - Pride and Prejudice CC14: David Malouf --'Revolving Days';'Wild Lemons'
Week 5 to week 8	NA	CC3: R.K.Narayan—The Guide CC4: William Shakespeare- Twelfth Night CC9: John Keats— 'Ode on a Grecian Urn', Ode to Autumn CC10: Carlyle- Heroes and Hero Worship, Lecture III, 'The Hero as Poet' (only the portion on Shakespeare) CC14: Bessie Head 'The Collector of Treasures'
Week 9 to Week 12	NA	CC3: Girish Karnad- Tughlaq CC10: Tennyson-'Ulysses'; 'The Lady of Shallot' DSE: Gulzar, 'Toba Tek Singh', tr. Anisur Rahman, in Translating Partition, ed. Tarun Saint
Week 13	NA	DSE: S.T. Coleridge: Biographia Literaria. Chapters IV, XIII and XIV DSE: I.A. Richards: Principles of Literary Criticism, Chapters 1,2 and 34 (London 1924) and Practical Criticism (London, 1929) DSE: Manik Bandhopadhyay, 'The Final Solution'
Week 13 to week 14		**Internal Exam**
Week 15 to 17	NA	Revision

Week 18	NA	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for EVEN Semester, UG course

Department of ……ENGLISH………….

Session (2021-2022   )

Class:B.A. Hons
Semester II, IV, VI   **Name of the Teacher: KETAKI DUTTA**
Subject:ENGLISH
Paper : CC3,CC4,CC8,CC9,CC10,CC14   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	NA	CC3: Ramanujan—'Another View of Grace' CC4: Marvell, 'To His Coy Mistress' CC9: William Wordsworth- 'Tintern Abbey'; Ode on Intimations of Immortality CC10: Charles Dickens—David Copperfield CC14: Mamang Dai --'Small Towns and the River';'The Voice of the Mountain'
Week 5 to week 8	NA	CC3: Sashi Despande—'The Intrusion' CC8: Samuel Johnson, 'London'; Gray, 'Elegy Written in a Country Churchyard'; Blake, Introduction to Songs of Innocence, 'The Lamb', 'The Tyger' from Songs of Experience CC14: Ama Ata Aidoo 'The Girl who can'
Week 9 to Week 12	NA	CC4: Geoffrey Chaucer—'Prologue (lines 1-42) CC9: Charles Lamb- Dream Children, The Superannuated Man CC10: Robert Browning - 'My Last Duchess'; 'The Last Ride Together'
Week 13	NA	DSE: Virginia Woolf: Modern Fiction DSE: Cleanth Brooks: "The Heresy of Paraphrase", and "The Language of Paradox" in The Well-Wrought Urn: Studies in the Structure of Poetry (1947)
Week 13 to week 14		**Internal Exam**
Week 15 to 17	NA	DSE: Khuswant Singh—Train to Pakistan DSE: Sa'adat Hasan Manto, 'Toba Tek Singh'
Week 18	NA	Revision

BIDHANNAGAR COLLEGE

GOVERNMENT OF WESTBENGAL

SALTLAKE, KOLKATA

Teaching Plan for Odd Semester, UG course Department of Zoology

Session (2021-2022)

Class: B.Sc.
Semester: 1, 3 and 5.   **Name of the Teacher: Dr Ranajit Karmakar**
                                                          Subject: Zoology

Paper: ZOOACOR01, ZOOACOR05, ZOOACOR06, ZOOACOR07, ZOOACOR11, ZOOACOR12, ZOOADSE01   **(Theory and Practical)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	ZOOACOR01P: Study of *Obelia, Physalia, Millepora, Aurelia, Tubipora, Corallium, Alcyonium, Gorgonia, Metridium, Pennatula, Fungia, Meandrina, Madrepora* ZOOACOR06P: Study of permanent slides of Mammalian skin, Cartilage, Bone, Spinal cord, Nerve cell, Pituitary, Pancreas, Testis, Ovary, Adrenal, Thyroid 4. Microtomy: Preparation of permanent slide of any five (lung, salivary gland, stomach, small intestine, large intestine only) mammalian (white rat) tissues	ZOOACOR01T, Unit 3: Cnidaria General characteristics and Classification up to classes Metagenesis in Obelia Polymorphism in Cnidaria Corals and coral reefs: types, formation, distribution, conservation significance ZOOACOR06T: Unit 1: Tissues 4 classes Structure, locations, classification and functions of epithelial tissues, connective tissues, muscular tissues and nerve tissues Unit 2: Bone and Cartilage Structure and types of bones and cartilages, Ossification Unit 3: Nervous System 4 10 Structure of neuron, resting membrane potential, Origin of action potential and its propagation across the myelinated and unmyelinated nerve fibers; Types of synapse, Synaptic transmission and Neuromuscular junction; Reflex action and its types ZOOACOR12T, Unit 1: Mendelian Genetics and its Extension Background of Mendel's experiments Principles of Mendelian inheritance, Incomplete dominance and co-dominance, Epistasis, Multiple alleles, Lethal alleles, Pleiotropy, Sex-linked, sex- influenced and sex-limited inheritance, Polygenic Inheritance.
Week 5 to Week 8	ZOOACOR05P: Aves Study of six common birds from different orders (Stork, Owl/Falcon, Sun Bird, Jacanna, Duck)- types of beaks and claws. ZOOADSE01P	ZOOACOR05T, Unit 8: Aves General characteristics and classification up to Sub-Classes Exoskeleton and migration in Birds Principles and aerodynamics of flight ZOOACOR12T, Unit 2: Linkage, Crossing Over and Chromosomal Mapping Linkage and Crossing Over, molecular basis of crossing over, Measuring Recombination frequency and linkage intensity using three factor crosses, Interference and coincidence ZOOADSE01T, Unit 3: Social and Sexual Behaviour 1. Social Behaviour: Concept of Sociality, Types of animal Society with examples, Altruism 3. Insects' society with Honey bee as example; Foraging in honey bee and advantages of the waggle dance.
Week 9 to Week 12	ZOOACOR07P: Study of the enzymatic activity of Trypsin and Lipase. ZOOACOR12P: Chi-square analyses Statistical tests of data and decision making Chi square test for goodness of fit and student t test for comparing means of two small samples from normal populations (paired/unpaired)	ZOOACOR07T: Unit 1: Fundamentals of biochemical reactions and metabolism correlations. XII Edition. Ionization of water, weak acids and bases, buffering and pH changes in living systems Metabolism: Catabolism and Anabolism, Compartmentalization of metabolic pathways, Shuttle systems and membrane transporters; ATP as "Energy Currency of cell"; coupled reactions; Use of reducing equivalents and cofactors; Intermediary metabolism and regulatory mechanisms
Week 13	ZOOACOR12P : Pedigree analysis of some inherited traits in human	ZOOACOR07T Unit 2: Carbohydrates Structure and Biological importance: Monosaccharides, Disaccharides, Polysaccharides; Derivatives of Monosachharides Carbohydrate metabolism: Glycolysis, Citric acid cycle, Pentose phosphate pathway, Gluconeogenesis
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

Teaching Plan for Odd Semester, UG course Department of Zoology

Session (2021-2022)

Class: B.Sc.
Semester: 1, 3 and 5.   **Name of the Teacher: Dr Somnath Mandal**
            Subject: Zoology

Paper: ZOOACOR01, ZOOACOR02, ZOOACOR05, ZOOACOR06, ZOOACOR07, ZOOACOR11, ZOOACOR12 **(Theory and Practical)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	ZOOACOR01P: Study of adult *Ascaris lumbricoides* and its life stages (Slides/micro-photographs) ZOOACOR02P: 1. Study of life tables and plotting of survivorship curves of different types from the hypothetical/real data provided	ZOOACOR01T, Unit 6: Nemathelminthes General characteristics and Classification-Life cycle, and pathogenicity of *Ascaris lumbricoides*, *Ancylostoma duodenale* and *Wuchereria bancrofti* Parasitic adaptations in helminths Origin and evolution of parasitic helminthes ZOOACOR02T: Unit 1: History of ecology, Autecology and synecology, Levels of organization, Laws of limiting factors, Study of Physical factors, The Biosphere. Unit 2: Unitary and Modular populations Unique and group attributes of population: Demographic factors, life tables, fecundity tables, survivorship curves, dispersal and dispersion. Geometric, exponential and logistic growth, equation and patterns, r and K strategies Population regulation - density dependent and independent factors Population Interactions, Gause's Principle with laboratory and field examples, Lotka-Volterra equation for competition. ZOOACOR11T: Unit 3: Transcription Mechanism of Transcription in prokaryotes and eukaryotes, Transcription factors, Difference between prokaryotic and eukaryotic transcription. Unit 5: Post Transcriptional Modifications and Processing of Eukaryotic RNA Capping and Poly A tail formation in mRNA; Split genes: concept of introns and exons, splicing mechanism, alternative splicing, exon shuffling, and RNA editing, Processing of tRNA
Week 5 to Week 8	ZOOACOR05P: 1. Protochordata Herdmania, Branchiostoma, Colonial Urochordates; Sections of Balanoglossus through proboscis and branchiogenital regions, Sections of Amphioxus through pharyngeal, intestinal and caudal regions, Herdmania spicules ZOOACOR06P: Recording of simple muscle twitch with electrical stimulation (or Virtual) 2. Preparation of temporary mounts: Squamous epithelium, Striated muscle fibers and nerve cells	ZOOACOR05T: Unit 1: Introduction to Chordates General characteristics and outline classification of Phylum Chordata Unit 2: Protochordata General characteristics and classification of sub-phylum Urochordata and Cephalochordata up to Classes. Metamorphosis in Ascidia Chordate Features and Feeding in Branchiostoma ZOOACOR06T: Unit 3: Nervous System 4 10 Structure of neuron, resting membrane potential, Origin of action potential and its propagation across the myelinated and unmyelinated nerve fibers; Types of synapse, Synaptic transmission and Neuromuscular junction; Reflex action and its types
Week 9 to Week 12	ZOOACOR07P Performing the Acid and Alkaline phosphatase assay from serum/ tissue. 4. Demonstration of proteins separation by SDS-PAGE.	ZOOACOR07T: Unit 4: Proteins Amino acids Structure, Classification, General and Electro chemical properties of α-amino acids; Physiological importance of essential and non-essential amino acids Proteins Bonds stabilizing protein structure; Levels of organization Protein metabolism: Transamination, Deamination, Urea cycle, Fate of C-skeleton of Glucogenic and Ketogenic amino acids ZOOACOR12T, Unit 7: Transposable Genetic Elements Transposons in bacteria, Ac-Ds elements in maize and P elements in Drosophila, LINE, SINE, Alu elements in humans
Week 13	ZOOACOR12P: Agarose gel electrophoresis for DNA	ZOOACOR06T , Unit 4: Muscular system 10 Histology of different types of muscle; Ultra structure of skeletal muscle; Molecular and chemical basis of muscle contraction; Characteristics of muscle fiber Unit 5: Reproductive System Histology of testis and ovary; Physiology of Reproduction
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

Teaching Plan for Odd Semester, UG course Department of Zoology

Session (2021-2022)

Class: B.Sc.

Semester: 1, 3 and 5.   **Name of the Teacher: Dr Suman Mukherjee**

Subject: Zoology

Paper: ZOOACOR01, ZOOACOR02, ZOOACOR05, ZOOACOR06, ZOOACOR07, ZOOACOR11, ZOOACOR12**(Theory and Practical)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	ZOOACOR01P :Study of adult *Fasciola hepatica*, *Taenia solium* and their life cycles (Slides/microphotographs) ZOOACOR02P: Study of an aquatic ecosystem: Sampling of Phytoplankton and zooplankton, Measurements of temperature, turbidity/penetration of light, determination of pH, and Dissolved Oxygen content (Winkler's method), Chemical Oxygen Demand and free CO_2.	ZOOACOR01T, Unit 5: Platyhelminthes-General characteristics and Classification up to classes Life cycle and pathogenicity of *Fasciola hepatica* and *Taenia solium* ZOOACOR02T, Unit 4: Ecosystem 10 classes Types of ecosystem with an example in detail, Food chain: Detritus and grazing food chains, Linear and Y-shaped food chains, Food web, Energy flow through the ecosystem, Ecological pyramids and Ecological efficiencies Nutrient and biogeochemical cycle with an example of Nitrogen cycle Human modified ecosystem
Week 5 to Week 8	ZOOACOR05P: Amphibia Ichthyophis/Ureotyphlus, Necturus, Bufo, Hyla, Alytes, Salamandra	ZOOACOR05T: Unit 6: Amphibia General characteristics and classification up to living Orders Metamorphosis and parental care in Amphibia ZOOACOR06T: Unit 6: Endocrine System 16 6 Histology and function of pituitary, thyroid, pancreas and adrenal; Classification of hormones; Mechanism of Hormone action; Signal transduction pathways for Steroidal and Non steroidal hormones; Hypothalamus (neuroendocrine gland) - principal nuclei involved in neuroendocrine control of anterior pituitary and endocrine system; Placental hormones
Week 9 to Week 12	ZOOACOR07P: 1. Qualitative tests of functional groups in carbohydrates, proteins and lipids.	ZOOACOR07T: Unit 3: Lipids Structure and Significance: Physiologically important saturated and unsaturated fatty acids, Triacylglycerols, Phospholipids, Sphingolipid, Glycolipids, Steroids, Eicosanoids and terpinoids. Lipid metabolism: β-oxidation of fatty acids; Fatty acid biosynthesis ZOOACOR12T: Unit 6: Recombination in Bacteria and Viruses Conjugation, Transformation, Transduction, Complementation test in Bacteriophage
Week 13	ZOOACOR07P 3. Quantitative estimation by Lowry Method	ZOOACOR11T, Unit 8: Molecular Lab Techniques PCR, Western and Southern blot, Northern Blot, Sanger DNA sequencing , cDNA technology
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

Class: B.Sc.

Semester: 1, 3 and 5.   **Name of the Teacher: Mrs Urmi Mitra**

Subject: Zoology

Paper: ZOOACOR01, ZOOACOR05, ZOOACOR07, ZOOACOR11, ZOOADSE01   **(Theory and Practical)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	ZOOACOR01P: Study of whole mount of *Euglena*, *Amoeba* and *Paramoecium*, Binary fission and Conjugation in *Paramoecium* To submit a Project Report on any related topic on pond water protozoan or invertebrate diversity/ life cycles of mosquitoes, butterfly/moth etc /coral and coral reefs. ZOOACOR05P: Reptilia *Chelone, Trionyx, Hemidactylus, Varanus, Uromastix, Chamaeleon, Ophiosaurus, Draco, Bungarus, Vipera, Naja, Hydrophis, Zamenis, Crocodylus* Key for Identification of poisonous and non poisonous snakes	ZOOACOR01T, Unit 1: General characteristics and Classification up to classes Life cycle and pathogenicity of *Giardia intestinalis*, *Leishmania donovani*, *Entamoeba histolytica* and *Plasmodium vivax* Locomotion and Reproduction in Protista ZOOACOR05T, Unit 7: Reptilia General characteristics and classification up to living Orders Poison apparatus and Biting mechanism in Snake ZOOACOR11T, Unit 3: Transcription Mechanism of Transcription in prokaryotes and eukaryotes, Transcription factors, Difference between prokaryotic and eukaryotic transcription.
Week 5 to Week 8	ZOOADSE01P: 3. To study geotaxis behaviour in earthworms. 4. To study the phototaxis behaviour in insects/defensive behaviour in mosquito larvae.	ZOOACOR07T: Unit 6: Enzymes Nomenclature and classification; Cofactors; Specificity of enzyme action; Isozymes; Mechanism of enzyme action; Enzyme kinetics; Derivation of Michaelis-Menten equation, Lineweaver Burk plot; Factors affecting rate of enzyme-catalyzed reactions; Enzyme inhibition; Allosteric enzymes and their kinetics; Strategy of enzyme action- Catalytic and Regulatory (Basic concept with one example each)
Week 9 to Week 12	ZOOADSE01P: 7. Study of circadian functions in humans (daily eating, sleep and temperature patterns).	ZOOADSE01T , Unit 4: Introduction to Chronobiology 1. Historical developments in chronobiology; 2. Biological oscillation: the concept of Average, amplitude, phase and period 3. Adaptive significance of biological clocks
Week 13	ZOOADSE01P: 6. Study and actogram construction of locomotor activity of suitable animal models.	ZOOADSE01T, Unit 5: Biological Rhythm 1. Types and characteristics of biological rhythms: Short- and Long- term rhythms; Circadian rhythms; Tidal rhythms and Lunar rhythms; 2. Concept of synchronization and masking; Photic and non-photic zeitgebers; Circannual rhythms; 3. Photoperiod and regulation of seasonal reproduction of vertebrates; Role of melatonin.
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE

GOVERNMENT OF WESTBENGAL

SALTLAKE, KOLKATA

Teaching Plan for Odd Semester, UG course Department of Zoology

Session (2021-2022)

Class: B.Sc.

Semester: 1, 3 and 5.   **Name of the Teacher: Dr Suman Bej**

Subject: Zoology

Paper: ZOOACOR01, ZOOACOR05, ZOOACOR06, ZOOACOR07, ZOOACOR11, ZOOACOR12 **(Theory and Practical)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	ZOOACOR01P: Study of Sycon (T.S. and L.S.), *Hyalonema*, *Euplectella*, *Spongilla* One specimen/slide of any Ctenophore	ZOOACOR01T, Unit 2: Porifera General characteristics and Classification up to classes Canal system and spicules in sponges Unit 4: Ctenophora General characteristics ZOOACOR05T, Unit 3: Origin of Chordata Dipleurula concept and the Echinoderm theory of origin of chordates Advanced features of vertebrates over Protochordata Unit 4: Agnatha General characteristics and classification of cyclostomes up to order ZOOACOR11T: Unit 1: Nucleic Acids Salient features of DNA and RNA Watson and Crick Model of DNA Unit 2: DNA Replication Mechanism of DNA Replication in Prokaryotes, Semi-conservative, bidirectional and discontinuous Replication, RNA priming, Replication of telomeres
Week 5 to Week 8	ZOOACOR05P**:** Agnatha *Petromyzon, Myxine* Fishes-*Scoliodon, Sphyrna, Pristis, Torpedo, Chimaera, Mystus, Heteropneustes, Labeo, Exocoetus, Echeneis, Anguilla, Hippocampus, Tetraodon,* Anabas, Flat fish	ZOOACOR05T, Unit 5: Pisces General characteristics and classification of Chondrichthyes and Osteichthyes up to Subclasses Accessory respiratory organ, migration and parental care in fishes Swim bladder in fishes. Classification up to Sub Classes
Week 9 to Week 12	ZOOACOR05P: Mount of weberian ossicles of Mystus or Grass Carp, Pecten from Fowl head,	ZOOACOR07T: Unit 5: Nucleic Acids Structure: Purines and pyrimidines, Nucleosides, Nucleotides, Nucleic acids Types of DNA and RNA, Complementarity of DNA, Hypo- Hyperchromaticity of DNA Outlines of nucleotide metabolism
Week 13	Dissection of Fowl head (Dissections and mounts subject to permission)	ZOOACOR12T: Unit 3: Mutations 1. Types of gene mutations (Classification), Types of chromosomal aberrations (Classification with one suitable example of each), Chromosomal aberrations, gene mutations and human diseases (Down's, Klienfelter's, Turner's, Cri du Chat, Sickle cell, Haemophilia, Thallassimia, Albinism – only genetical aspects here, details of physiological consequences not required), Sex chromosomes and sex-linked inheritance 2. Non-disjunction and variation in chromosome number; Molecular basis of mutations in relation to UV light and chemical mutagens
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Laboratory Note Book	Revision
Week 18	Field work Report	Revision

<u>**Teaching Plan for Odd Semester, UG course Department of Zoology**</u>

<u>**Session (2021-2022)**</u>

Class: B.Sc.

Semester: 1, 3 and 5.   **Name of the Teacher: Dr Biswatosh Ghosh**

Subject: Zoology

Paper: ZOOACOR01, ZOOACOR02**,** ZOOACOR05, ZOOACOR07, ZOOACOR11, ZOOACOR12, ZOOADSE01 **(Theory and Practical)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	ZOOACOR01P: Examination of freshwater pond water collected from different places for diversity of protists in it. ZOOACOR05P: Mammalia *Sorex*, Bat (Insectivorous and Frugivorous), *Funambulus*, *Loris*, *Herpestes*, *Erinaceous*.	ZOOACOR01T, Unit 1: Protista, Parazoa and Metazoa Study of *Euglena*, *Amoeba* and *Paramoecium* Evolution of symmetry and segmentation of Metazoa ZOOACOR05T, Unit 9: Mammals General characters and classification up to living orders Phylogenetic significance of Prototheria Exoskeleton derivatives of mammals Adaptive radiation in mammals with reference to locomotory appendages Echolocation in Microchiropterans and Cetaceans ZOOADSE01T, Unit 1: Introduction to Animal Behaviour 1. A brief history of animal behaviour studies including the works of Fabre, Darwin, Von Frisch, Lorenz, Tinbergen, Jane Goodal, Biruté Galdikas, Dian Fossey, Salim Ali, Gopal Bhattacharyya, M. K. Chandrashekhar, Raghavendra Gadagkar. 2. The objectives of modern animal behaviour studies: Tinbergen's four questions.
Week 5 to Week 8	ZOOACOR02P: Determination of population density of a natural/hypothetical population. Study of species diversity of a community by quadrat or any other suitable sampling method and calculation of Shannon-Weiner diversity index for the same community. ZOOACOR12P: Identification of chromosomal aberration in Drosophila from photographs ZOOADSE01P: 1. To study nests (non-invasively) and nesting habits of the birds and social insects (e.g. Social Wasps).	ZOOACOR02T: Unit 3: Community characteristics: species diversity, abundance, dominance, richness, Vertical stratification, Ecotone and edge effect. Ecological succession and example of it. Unit 5: Applied Ecology Wildlife Conservation (in-situ and ex-situ conservation). Management strategies for tiger conservation; Wild life protection act (1972) ZOOACOR05T, Unit 10: Zoogeography Zoogeographical realms, Plate tectonic and Continental drift theory, Distribution of birds and mammals in different realms ZOOACOR12T: Unit 4: Sex Determination Mechanisms of sex determination in Drosophila with reference to alternative splicing Sex determination in mammals Dosage compensation in *Drosophila* & Human
Week 9 to Week 12	ZOOACOR07P: 2. Paper chromatography of amino acids. ZOOACOR11P: 1. Demonstration of polytene Chromosome from *Drosophila* /Chironomid larvae ZOOADSE01P: Study and actogram construction of locomotor activity of suitable animal models.	ZOOACOR07T: Unit 7: Oxidative Phosphorylation Redox systems; Review of mitochondrial respiratory chain, Inhibitors and un-couplers of Electron Transport System ZOOACOR11T: Unit 6: Gene Regulation Regulation of Transcription in prokaryotes: lac operon and trp operon; Regulation of Transcription in eukaryotes: Activators, enhancers, silencer, repressors, miRNA mediated gene silencing, Genetic imprinting ZOOADSE01T Unit 3: Communications in animals- different types (e.g. pheromones, visuals, tactile, acoustics, etc) with common examples 4. Sexual Behaviour: Asymmetry of sex, Sexual dimorphism, Mate choice, Intra-sexual selection (male rivalry), Inter-sexual selection (female choice), Sexual conflict in parental care.
Week 13	ZOOACOR11P : Isolation and quantification of genomic DNA using spectrophotometer (A260 measurement) ZOOADSE01P: 2. To study the behavioural responses of rice weevil /wood lice to dry and humid conditions. 5. Visit to Forest/ Wild life Sanctuary/Biodiversity Park/Zoological Park (within West Bengal) to study behavioural activities of animals and prepare a short report.	ZOOACOR12T , Unit 5: Extra-chromosomal Inheritance Criteria for extra chromosomal inheritance, Antibiotic resistance in *Chlamyadomonas*, Kappa particle in *Paramoecium* Shell spiralling in snail ZOOADSE01T, Unit 2: Behaviours of Individuals 1. Reflexes and Orientations 2. Instinct 3. Learning: Imprinting and other Programmed Learning, Habituation, Innovations and Cultural Transmission / Social Learning
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Laboratory Note Book	Revision
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE

GOVERNMENT OF WESTBENGAL

SALTLAKE, KOLKATA

Teaching Plan for Even Semester, UG course Department of Zoology

Session (2021-2022)

Class: B.Sc.
Semester: 2, 4 and 6.   **Name of the Teacher: Dr Ranajit Karmakar**
                                         Subject: Zoology

Paper: ZOOACOR03, ZOOACOR04, ZOOACOR08, ZOOACOR09, ZOOACOR10, ZOOACOR13, ZOOACOR14, ZOOADSE04 **(Theory and Practical)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	ZOOACOR04P: 1. Preparation of temporary stained squash of onion root tip to study various stages of mitosis	ZOOACOR03T, Unit 1: Introduction to Coelomates Evolution of coelom and metamerism ZOOACOR04T, Unit 1: Overview of Cells Prokaryotic and Eukaryotic cells, Virus, Viroids, Mycoplasma, Prions Unit 2: Plasma Membrane Various models of plasma membrane structure Transport across membranes: Active and Passive transport, Facilitated transport Cell junctions: Tight junctions, Desmosomes, Gap junctions Extracellular Matrix-Cell Interactions ZOOACOR14T, Unit 4: Sources of variations 3 Heritable variations present in natural populations (classical study of Lewontin and Hubby, 1966 in Drosphila, as example) Unit 5: Population genetics: Concept of Populations and calculation of allele frequencies in a population Hardy-Weinberg Law and equilibrium (derivations, applications of law to find gene and genotype frequencies in human Populations) Evolutionary forces disrupting H-W equilibrium- 16 Natural selection: Definition as the non-differential rate of reproductions and survivals of competing alleles, concept of fitness, selection coefficient, Types of natural selection with examples- Disrupting, Stabilizing, Directional. Genetic Drift- outline of its mechanism, basic concepts and examples of founder's effect, bottleneck phenomenon; Role of Gene flow and Mutation rates in changing allele frequencies in a population (No mathematical models)
Week 5 to Week 8	ZOOACOR04P : Preparation of permanent slide to demonstrate: a. DNA by Feulgen reaction b. Mucopolysaccharides by PAS reaction c. Proteins by Mercurobromophenol blue/Fast Green	ZOOACOR08T , Unit 1: Integumentary System Structure, function and derivatives of integument in amphibian, birds and mammals Unit 7: Nervous System Comparative account of brain, Cranial nerves in mammals ZOOACOR09T, Unit 1: Physiology of Digestion 12 Structural organisation and functions of Gastrointestinal tract and Associated glands; Mechanical and chemical digestion of food, absorption of Carbohydrates, Lipids, Proteins and Nucleic Acids; Digestive enzymes ZOOADSE04T, Unit 1: Introduction and Classification General description of fish Feeding habit, habitat and manner of reproduction Classification of fish (up to Subclasses) with important examples
Week 9 to Week 12	ZOOACOR10P: 1. Demonstration of lymphoid organs. 2. Histological study of spleen, thymus and lymph nodes through slides/ photographs	ZOOACOR09T, Unit 2: Physiology of Respiration 10 Mechanism of Respiration, Respiratory volumes and capacities, transport of Oxygen and Carbon dioxide in blood, Dissociation curves and the factors influencing it, respiratory pigments; Carbon monoxide poisoning ZOOACOR10T, Unit 1: Overview of Immune System Basic concepts of health and diseases, Historical perspective of Immunology, Organs (Primary & Secondary lymphoid organs and its importance) and Cells of the Immune system, Concept of Haematopoiesis and development of progenitor cells of the Immune system (Brief idea)
Week 13	ZOOACOR14P: 3. Verification of Hardy-Weinberg equilibrium in a population by chi square analysis 5. Collection of a sample of height, weight, age, sex data from at least 100 individuals and applying of different statistical analyses (frequency distribution, mean, mode, standard deviations, correlations, etc) and graphical representations.	ZOOACOR13T, Unit 1: Introduction 2 Basic concepts: Phases of Development, Cell-cell interaction, Differentiation and growth, Differential gene expression Unit 2: Early Embryonic Development Gametogenesis, Spermatogenesis, Oogenesis; Types of eggs, Egg membranes; 20 Fertilization (External and Internal): Changes in gametes, Blocks to polyspermy; Planes and patterns of cleavage; Types of Blastula; Fate maps (including Techniques); Early development of frog and chick up to gastrulation; Embryonic induction and organizers
Week 13 to week 14	**Internal Exam**	
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

<u>**Teaching Plan for Even Semester, UG course Department of Zoology**</u>

<u>**Session (2021-2022)**</u>

Class: B.Sc.
Semester: 2, 4 and 6.   **Name of the Teacher: Dr Somnath Mandal**
                                                                             Subject: Zoology

Paper: ZOOACOR03, ZOOACOR04, ZOOACOR08, ZOOACOR09, ZOOACOR10, ZOOACOR14, ZOOADSE05 **(Theory and Practical)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	ZOOACOR03P: Hemichordates- Saccoglossus	ZOOACOR03T, Unit 7: Hemichordata General characteristics of phylum Hemichordata. Phylogenetic relationship with non-chordates and chordates (only recent concept)* ZOOACOR14T, Unit 6: Products of evolution 10 Inter-population variations: clines, races, Species concepts and modes of speciation (just outlines of Allopatric, Sympatric and Parapatric speciation models with examples), Isolating mechanisms Adaptive radiations/ macroevolution as exemplified by Galapagos finches Unit 7: Extinctions 2 Major mass extinctions in the history of life and their impacts on biodiversity on earth (brief descriptions) Unit
Week 5 to Week 8	ZOOACOR10P: 5. Demonstration of ELISA using kit.	ZOOACOR04T, Unit 4: Mitochondria and Peroxisomes Mitochondria: Structure, Semi-autonomous nature, Endosymbiotic hypothesis Mitochondrial Respiratory Chain, Chemi-osmotic hypothesis Peroxisomes ZOOADSE05T, Unit 4: Parasitic Arthropoda 3 Mosquitoes and flies as vectors of human pathogen Biology,importance and control of myiasis causing diptera Biology, importance and control of ticks, mites, Pediculus humanus (head and body louse), Xenopsylla cheopis and Cimex lectularius
Week 9 to Week 12	ZOOADSE05P: Study of monogenea from the gills of fresh/marine fish [Gills can be procured from fish market as by product of the industry]	ZOOACOR08T, Unit 3: Digestive System 6 Classes 6 8 Comparative anatomy of stomach; dentition in mammals ZOOACOR09T, Unit 3: Physiology of Circulation 12 Components of Blood and their functions; Structure and functions of haemoglobin; Haemostasis; Blood clotting system, Fibrinolytic system; Haemopoiesis: Basic steps and its regulation; Blood groups; ABO and Rh factor ZOOADSE05T, Unit 6: Parasitic Vertebrates 2 A brief account of parasitic vertebrates; Cookiecutter Shark, Candiru, Hood Mockingbird and Vampire bat
Week 13	ZOOADSE05P: Study of nematode/cestode parasites from the intestines of Poultry bird [Intestine can be procured from poultry/market as a by product]	ZOOACOR10T, Unit 3: T Cell development Structure of T cell receptors, Co-stimulatory molecules on T cells Concept of synapse between APC & T cells (between MHC≈TCR & between Co stimulatory molecules) in details. Central differentiation of T cells; T cell selection in thymus Peripheral differentiation of T cells; Th1 & Th2 ZOOACOR14T, 8: Origin and evolution of man 6 Unique hominin characteristics contrasted with primate characteristics (including social and cultural ones), Primate phylogeny: from Dryopithecus leading to Homo sapiens, Molecular evidences of human origin and migrations (brief outline)
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE

GOVERNMENT OF WESTBENGAL

SALTLAKE, KOLKATA

<u>**Teaching Plan for Even Semester, UG course Department of Zoology**</u>

<u>**Session (2021-2022)**</u>

Class: B.Sc.

Semester: 2, 4 and 6.   **Name of the Teacher: Dr Suman Mukherjee**

                                        Subject: Zoology

Paper: ZOOACOR03, ZOOACOR04, ZOOACOR08, ZOOACOR09, ZOOACOR10, ZOOADSE05 **(Theory and Practical)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	ZOOACOR03P: Annelids - Aphrodita, Nereis, Heteronereis, Sabella, Serpula, Chaetopterus, Pheretima, Hirudinaria ZOOACOR04P: 5. Cell viability study by Trypan Blue staining ZOOADSE05P: Study of adult and life stages of Ascaris lumbricoides, Ancylostoma duodenale, Wuchereria bancrofti and Trichinella spiralis through permanent slides/micro photographs . • Study of plant parasitic root knot nematode, Meloidogyne from the soil sample • Study of Pediculus humanus (Head louse and Body louse), Xenopsylla cheopis and Cimex lectularius through permanent slides/ photographs	ZOOACOR03T, Unit 2: Annelida General characteristics and Classification up to classes Excretion in Annelida ZOOACOR04T, Unit 3: Endomembrane System Structure and Functions: Endoplasmic Reticulum, Golgi Apparatus, Lysosomes ZOOACOR09T, Unit 4: Physiology of Heart 8 Structure of mammalian heart, Coronary Circulation, Structure and working of conducting myocardial fibers, Origin and conduction of cardiac impulses; Cardiac Cycle and cardiac output; Blood pressure and its regulation
Week 5 to Week 8	ZOOACOR03P : 1. Molluscs - Chiton, Dentalium, Pila, Doris, Helix, Unio, Ostrea, Pinctada, Sepia, Octopus, Nautilus 2. Digestive system, septal nephridia and pharyngeal nephridia of earthworm 3. T.S. through pharynx, gizzard, and typhlosolar intestine of earthworm	ZOOACOR03T Unit 5: Mollusca General characteristics and Classification up to classes Respiration in Mollusca Torsion and detorsion in Gastropoda Pearl formation in bivalves Evolutionary significance of trochophore larva ZOOACOR08T, Unit 6: Urinogenital System Succession of kidney, Evolution of urinogenital ducts, Types of mammalian uteri Unit 7: Nervous System Comparative account of brain, Cranial nerves in mammals
Week 9 to Week 12	ZOOACOR09P: 1. Determination of ABO Blood group 2. Enumeration of red blood cells and white blood cells using haemocytometer 3. Estimation of haemoglobin using Sahli's haemoglobinometer 4. Preparation of haemin and haemochromogen crystals 5. Recording of blood pressure using a sphygmomanometer/digital meter	ZOOACOR10T, Unit 8: Hypersensitivity Gell and Coombs' classification and brief description of various types of hypersensitivities. Unit 9: Immunology of diseases Malaria, Visceral Leishmaniasis, Filariasis, Dengue and Tuberculosis
Week 13	ZOOACOR10P: 3. Preparation of stained blood film to study various types of blood cells. 4. ABO blood group determination. ZOOACOR14P: 2. Study of homology and analogy from suitable specimens (from Photographs/models)	ZOOADSE05T, Unit 3: Parasitic Platyhelminthes 15 Study of Morphology, Life Cycle, Prevalence, Epidemiology, Pathogenicity, Diagnosis, Prophylaxis and Treatment of Fasciola hepatica, Paragonimus westermani, Schistosoma haematobium, Taenia solium , Echinococcus granulosus and Hymenolepis nana Unit 3: Parasitic Nematodes 15 Study of Morphology, Life Cycle, Prevalence, Epidemiology, Pathogenicity, Diagnosis, Prophylaxis and Treatment of Ascaris lumbricoides, Ancylostoma duodenale, Wuchereria bancrofti and Trichinella spiralis. Study of structure, life cycle and importance of Meloidogyne (root knot nematode), Pratylencus (lesion nematode)
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE

GOVERNMENT OF WESTBENGAL

SALTLAKE, KOLKATA

Teaching Plan for Even Semester, UG course Department of Zoology

Session (2021-2022)

Class: B.Sc.

Semester: 2, 4 and 6.   **Name of the Teacher: Mrs Urmi Mitra**

Subject: Zoology

Paper: ZOOACOR03, ZOOACOR04, ZOOACOR08, ZOOACOR09, ZOOACOR10, ZOOADSE05 **(Theory and Practical)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	ZOOACOR03P: Echinodermates - Pentaceros/Asterias, Ophiura, Clypeaster, Echinus, Cucumaria and Antedon 2. Study of disarticulated skeleton of Toad, Pigeon and Guineapig 3. Demonstration of Carapace and plastron of turtle	ZOOACOR03T, Unit 6: Echinodermata General characteristics and Classification up to classes Water-vascular system in Asteroidea Larval forms in Echinodermata Affinities with Chordates ZOOACOR09T, Unit 5: Thermoregulation & Osmoregulation Physiological classification based on thermal biology. Thermal biology of endotherms; Osmoregulation in aquatic vertebrates; Extra-renal osmo-regulatory organs in vertebrates
Week 5 to Week 8	ZOOACOR03P : To submit a Project Report (mostly literature review) on any related topic to larval forms (crustacean, mollusc and echinoderm)	ZOOACOR04T, Unit 5: Cytoskeleton Structure and Functions: Microtubules, Microfilaments and Intermediate filaments Unit 6: Nucleus Structure of Nucleus: Nuclear envelope, Nuclear pore complex, Nucleolus Chromatin: Euchromatin and Heterochromatin and packaging (nucleosome) ZOOADSE05T, Unit 1: Introduction to Parasitology 3 Brief introduction of Parasitism and other animal associations, Parasite, Parasitoid and Vectors (mechanical and biological vector) Host parasite relationship and zoonosis
Week 9 to Week 12	ZOOACOR08P : 4. Identification of mammalian skulls: One herbivorous (Guineapig) and one carnivorous (Dog) animal	ZOOACOR08T, Unit 2: Skeletal System Overview of axial and appendicular skeleton; Jaw suspension; Visceral arches. ZOOACOR10T, Unit 2: Innate and Adaptive Immunity Principle of Innate and Adaptive Immunity. • Components of innate immunity – Epithelial barriers (skin and mucosal membranes [concept]) – Cellular mechanisms (phagocytes, NK cells, mast cells, eosinophils, inflammation [concept]) – Humoral mechanisms (complement, cytokines, chemokines etc. [concept]) • Components of adaptive immunity – Cellular mechanisms (Cell-Mediated Immune System (CMIS) or T Cell Immunity [concept]) – Humoral mechanisms (Formation of Plasma B cells and Memory B cells [concept])
Week 13	ZOOADSE05P: Study of life stages of Entamoeba histolytica, Giardia intestinalis, Trypanosoma gambiense, Leishmania donovani and Plasmodium vivax through permanent slides/micro photographs • Study of adult and life stages of Fasciola hepatica, Schistosoma haematobium, Taenia solium and Hymenolepis nana through permanent slides/micro photographs	ZOOACOR10T, Unit 10: Vaccines 4 Various types of vaccines. Active & passive immunization (Artificial and natural). ZOOADSE05T, Unit 2: Parasitic Protists 15 15 Study of Morphology, Life Cycle, Prevalence, Epidemiology, Pathogenicity, Diagnosis, Prophylaxis and Treatment of Entamoeba histolytica, Giardia intestinalis, Trypanosoma gambiense, Leishmania donovani, Plasmodium vivax , Plasmodum falciparum and Toxoplasma gondii
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE

GOVERNMENT OF WESTBENGAL

SALTLAKE, KOLKATA

<u>**Teaching Plan for Even Semester, UG course Department of Zoology**</u>

<u>Session (2021-2022)</u>

Class: B.Sc.

Semester: 2, 4 and 6. **Name of the Teacher: Dr Suman Bej**

Subject: Zoology

Paper: ZOOACOR04, ZOOACOR08, ZOOACOR09, ZOOACOR10, ZOOACOR13, ZOOADSE04 **(Theory and Practical)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	ZOOACOR04P: 2. Study of various stages of meiosis (in pre-prepared slides and/or in photographs obtained from websites).	ZOOACOR04P Unit 7: Cell Division Mitosis and Meiosis Cell cycle and its regulation Cancer (Concept of oncogenes and tumor suppressor genes) Mechanisms of cell death: brief overview ZOOACOR13T, Unit 3: Late Embryonic Development 8 Fate of Germ Layers; Extra-embryonic membranes in birds; Implantation of embryo in humans, Placenta (Structure, types and functions of placenta)
Week 5 to Week 8	ZOOACOR08P: 1. Study of placoid, cycloid and ctenoid scales through permanent slides/photographs ZOOADSE04P: 5. Water quality criteria for Aquaculture: Assessment of pH, conductivity, Total solids, Total dissolved solids 6. Study of air breathing organs in Channa, Heteropneustes, Anabas and Clarias 7. Project Report on a visit to any fish farm/ pisciculture unit/Zebra fish rearing Lab.	ZOOACOR08T, Unit 4: Respiratory System- Respiratory organs in fish, amphibian, birds and mammals ZOOACOR09T, Unit 6: Renal Physiology 8 Structure of Kidney and its functional unit, Mechanism of urine formation, Regulation of acid-base balance ZOOADSE04T, Unit 4: Aquaculture 16 Sustainable Aquaculture; Extensive, semi-intensive and intensive culture of fish; Pen and cage culture; Polyculture; Composite fish culture; Brood stock management; Induced breeding of fish; Management of finfish hatcheries; Preparation and maintenance of fish aquarium; Preparation of compound diets for fish; Role of water quality in aquaculture; Fish diseases: Bacterial, viral and parasitic; Preservation and processing of harvested fish, Fishery by-products
Week 9 to Week 12	ZOOACOR13P: 1. Study of whole mounts of developmental stages of chick through permanent slides: Primitive streak (13 and 18 hours), 21, 24, 28, 33, 36, 48, 72, and 96 hours of incubation (Hamilton and Hamburger stages) 2. Study of the developmental stages and life cycle of Drosophila from stock culture 3. Study of different sections of placenta (microphotographs/ slides)	ZOOACOR08T, Unit 5: Circulatory System General plan of circulation, Comparative account of heart and aortic arches ZOOACOR10T, Unit 6: Cytokines & Chemokines Brief concept on types of Cytokines & Chemokines Cytokines (source & function of IL-1, IL-2, IL-4, IL-5, IL-6, IL-8, IL-10, IL-12, Interferons, Tumor Necrosis Factors, Tumor Growth Factors, GM-CSF, M-CSF). Chemokines (source & function of CCL2, CCL3, CCL4, CCL5, CxCL8, CxCL10)
Week 13	ZOOADSE04P: 2. Study of external salient features in Petromyzon, Myxine, Pristis, Chimaera, Exocoetus, Hippocampus, Gambusia, Labeo, Heteropneustes, Anabas (all from photographs) 3. Study of different types of scales (through permanent slides/ photographs).	ZOOACOR13T, Unit 4: Post Embryonic Development Development of brain and Eye in Vertebrate Regeneration: Modes of regeneration, epimorphosis, morphallaxis and compensatory regeneration (with one example each) Unit 5: Implications of Developmental Biology Teratogenesis: Teratogenic agents and their effects on embryonic development; In vitro fertilization, Stem cell (ESC), Amniocentesis ZOOADSE04T, Unit 2: Morphology and Physiology 4 14 Types of fins and their modifications; Locomotion in fish; Hydrodynamics; Types of Scales, Use of scales in Classification and determination of age of fish; Gills and gas exchange; Swim Bladder: Types and role in Respiration, buoyancy; Osmoregulation in Elasmobranchs; Reproductive strategies (special reference to Indian fish); Electric organ, Bioluminescence
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Laboratory Note Book	Revision
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE

GOVERNMENT OF WESTBENGAL

SALTLAKE, KOLKATA

Teaching Plan for Even Semester, UG course Department of Zoology

Session (2021-2022)

Class: B.Sc.

Semester: 2, 4 and 6.   Name of the Teacher: **Dr Biswatosh Ghosh**

                                                                                    Subject: Zoology

Paper: ZOOACOR03, ZOOACOR04, ZOOACOR08, ZOOACOR10, ZOOACOR13, ZOOACOR14, ZOOADSE04 **(Theory and Practical)**

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	ZOOACOR03P: Arthropods - Limulus, Palamnaeus, Palaemon, Daphnia, Balanus, Sacculina, Cancer, Eupagurus, Scolopendra, Julus, Bombyx, Periplaneta, termites and honey bees Onychophora – Peripatus ZOOACOR13P : 4. Project report on Drosophila culture/chick embryo development	ZOOACOR03T, Unit 3: Arthropoda General characteristics and Classification up to classes Vision and Respiration in Arthropoda Metamorphosis in Insects Social life in bees and termites ZOOACOR08T, Unit 8: Sense Organs Classification of receptors, Brief account of auditory receptors in vertebrate ZOOACOR14T, Unit 3: Evidences in favour of Evolution 5 7 4 Fossil records: types of fossils, geological time scale, transitional forms: examples of fossils depicting the evolutionary stages of the modern horses Molecular (universality of genetic code and protein synthesis machinery) evidences Unit 4: Sources of variations 3 Heritable variations present in natural populations (classical study of Lewontin and Hubby, 1966 in Drosphila, as example)
Week 5 to Week 8	ZOOACOR03P: Mount of mouth parts and dissection of digestive system and nervous system of Periplaneta ZOOACOR04P: 3. Preparation of permanent slide to show the presence of Barr body in human female blood cells/cheek cells.	ZOOACOR03T Unit 4: Onychophora General characteristics and Evolutionary significance ZOOACOR04T, Unit 8: Cell Signaling Cell signalling transduction pathways; Types of signaling molecules and receptors GPCR and Role of second messenger (cAMP) ZOOACOR10T, Unit 7: Complement System 4 Components and pathways of complement activation.
Week 9 to Week 12	ZOOACOR08P: 5. Dissection of Tilapia: Circulatory system, Brain, pituitary, urinogenital system ZOOADSE04P: 4. Study of crafts and gears used in Fisheries	ZOOACOR10T, Unit 4: Immunoglobulins Structure and functions of different classes of immunoglobulins, Antigen- antibody interactions, Immunoassays (ELISA and RIA), Hybridoma technology, Monoclonal antibody production ZOOADSE04T, Unit 5: Fish in research 6 Transgenic fish, Zebra fish as a model organism in research
Week 13	ZOOACOR14P: 1. Study of fossils from models/ photographs- Direct ancestors of horses, Archaeopteryx	ZOOACOR14T, Unit 8: Molecular Phylogeny 7 The basic concept of molecular phylogeny, Neutral theory of molecular evolution, molecular clock (brief introductions) Example of evolution in vertebrate globin genes ZOOADSE04T, Unit 3: Fisheries Inland Fisheries; Marine Fisheries; Environmental factors influencing the seasonal variations in fish catches in the Arabian Sea and the Bay of Bengal; Fishing crafts and Gears; Depletion of fishery resources; Application of remote sensing and GIS in fisheries; Fisheries law and regulations
Week 13 to week 14		**Internal Exam**
Week 15 to 17	Laboratory Note Book	Revision
Week 18	Field work Report	Revision

Teaching Plan for Odd Semester, UGcourse

Department of Economics

Session (2021-22)

Class:B.A/ B.Sc
Semester 1,3,5Name of the Teacher: Amit Kumar RoyChoudhury
Subject:Economics
Paper :CC1, CC5, CC11(Theory)

S. No	Theory syllabus to be covered (Paper code to be mentioned)

Week 1 to week 4	Core Course 1 : ECOACOR01T Introductory Microeconomics
	   1. Exploring the subject matter of Economics
	Core Course 5 : ECOACOR05T Intermediate Microeconomics 1
	   1. Consumer Theory Revisited
	Core Course 11 : ECOACOR011T Introductory Econometrics
	   1. Classical Statistical Inference:Basic Concepts of Estimation

Week 5 to week 8	Core Course 1 : ECOACOR01T Introductory Microeconomics
	   2. Supply and Demand: How Markets work, Markets and Welfare
	Core Course 5 : ECOACOR05T Intermediate Microeconomics 1
	   2. Market Structure: Perfect Competition
	Core Course 11 : ECOACOR011T Introductory Econometrics
	2. Linear Regression: Specifications of the model

Week 9 to Week 12	Core Course 1 : ECOACOR01T Introductory Microeconomics
	   3. Supply and Demand: How Markets work, Markets and Welfare
	Core Course 5 : ECOACOR05T Intermediate Microeconomics 1
	   4. Imperfect Market Structure : Monopoly i) Monopoly and Anti-trust policy ii) Equilibrium with single plant
	Core Course 11 : ECOACOR011T Introductory Econometrics
	2. Linear Regression: Prediction with the Simple Regression model

Week 13	Core Course 1 : ECOACOR01T Introductory Microeconomics
	   3. The Households
	Core Course 5 : ECOACOR05T Intermediate Microeconomics 1
	   4. Imperfect Market Structure : Monopoly iii) Price Discxrimination iv) Monopsony
	Core Course 11 : ECOACOR011T Introductory Econometrics
	2. Linear Regression:prediction with the Simple Regression model continued

Week 15 to 17	Core Course 1 : ECOACOR01T Introductory Microeconomics
	   4. Production and Cost
	   5. Market Structure
	Core Course 5 : ECOACOR05T Intermediate Microeconomics 1
	   3. Imperfect Market Structure : Monopolistic Competition
	Core Course 11 : ECOACOR011T Introductory Econometrics
	5. Specification Analysis

Week 18	Revision

Teaching Plan for even Semester, UG course

Department of Economics

Session (2021-22)

Class:B.A/ B.Sc
Semester 2,4,6 Name of the Teacher: Amit Kumar RoyChoudhury
Subject: Economics
Paper : CC4, CC10, GE4, DSE4   (Theory)

S. No	Theory topics to be covered (Paper code to be mentioned)

Week 1 to week 4	Core Course 4 : ECOACOR04T Statistical Methods for Economics-1
	2. Measures of Central Tendency
	Core Course 10 : ECOACOR010T Statistical Methods for Economics 11
	1. Introduction and Overview
	DSE 4(Group B(a) : ECOADSE04T Contemporary Development Economics
	6 i). Globalisation: Development as Historical Processes
	GE Course-4: ECOHGEC04T Indian Economy
	    1. Structure of Indian Economy
	    2. Human resources and economy development

Week 5 to week 8	Core Course 4 : ECOACOR04T Statistical Methods for Economics-1
	3. Measures of Dispersion
	Core Course 10 : ECOACOR010T Statistical Methods for Economics 11
	    3. Random Variables and Probability distribution: Concepts of some special distributions, Transformations and Expectations of variables
	DSE 4(Group B(a) : ECOADSE04T Contemporary Development Economics
	    6 ii). Globalisation: Evolution of new International economic order

Week 9 to Week 12	Core Course 4 : ECOACOR04T Statistical Methods for Economics-1
	    5. Bivariate Frequency Distribution: Regression Analysis
	Core Course 10 : ECOACOR010T Statistical Methods for Economics 11
	4. Random Sampling and Jointly distributed Random Variables
	DSE 4(Group B(a) : ECOADSE04T Contemporary Development Economics
	    6 ii). Globalisation: Evolution of new International economic order

Week 13	Core Course 4 : ECOACOR04T Statistical Methods for Economics-1
	6. ANOVA tables
	Core Course 10 : ECOACOR010T Statistical Methods for Economics 11
	    4. Random Sampling and Jointly distributed Random Variables: Computation of Expected values; covariance and correlation coefficients
	DSE 4(Group B(a) : ECOADSE04T Contemporary Development Economics
	    6 ii). Globalisation: GATT and Dunkel Draft, WTO

Week 15 to 17	Core Course 4 : ECOACOR04T Statistical Methods for Economics-1 8. Index Numbers Core Course 10 : ECOACOR010T Statistical Methods for Economics 11 6. Introduction to Statistical Inference DSE 4(Group B(a) : ECOADSE04T Contemporary Development Economics 6 iii). Globalisation: Foreign Finance , Investment and Development

Week 18	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Plan for Odd Semester, UG course

Department of Economics

Session (2021-22)

Class:B.A/ B.Sc
Semester 1,3,5 Name of the Teacher: Santosh Kumar Dutta
Subject:Economics
Paper : SEC 1, DSE1   (Theory)

S. No	Theory syllabus to be covered (Paper code to be mentioned)
Week 1 to week 4	SEC Course-1: ECOSSEC001 Survey methodology 1. Introduction, Inference and Error in Surveys DSE1 Group A(a): ECOADSE01T Applied Econometrics 1. Stages in Empirical Econometric Research
Week 5 to week 8	SEC Course-1: ECOSSEC001 Survey methodology Sampling in Survey Research DSE1 Group A(a): ECOADSE01T Applied Econometrics 2. Essential steps in primary data collection: Problem selection, designing of questionnaire, sample design, pre-testing of questionnaire for collection of primary data, introduction to secondary data sources.
Week 9 to Week 12	SEC Course-1: ECOSSEC001 Survey methodology 3. Mode of Data Collection DSE1 Group A(a): ECOADSE01T Applied Econometrics 3. Application of Statistics: Estimation of descriptive statistics: mean, median, mode, standard deviation, simple correlation, rank correlation. Graphical representation of data sets: pie-chart, bar chart, linear and nonlinear curve fitting.
Week 13	SEC Course-1: ECOSSEC001 Survey methodology Nonresponse DSE1 Group A(a): ECOADSE01T Applied Econometrics 3. Application of Statistics: Introduction to probability theory, random sampling using random number, Testing of hypothesis
Week 15 to 17	SEC Course-1: ECOSSEC001 Survey methodology 1. Post-Survey Processing; Estimation (Lepkowski) DSE1 Group A(a): ECOADSE01T Applied Econometrics 4. Application of Econometrics: Linear regression, heteroscedasticity, autocorrelation, multicollinearity, application of dummy variable models. Interpretation of Estimated parameters

		5. Dummy variables: dummy variable for changes in intercept term, slope coefficient, dummy variable trap, dummy variables for testing in the regression coefficient
Week 18		Revision

Class:B.A/ B.Sc
Semester 2,4,6 Name of the Teacher: Santosh Kumar Dutta
Subject: Economics
Paper : CC10, SEC2   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course-10 (ECOACOR10T) STATISTICAL METHODS FOR ECONOMICS-II 1. Elementary Probability Theory SEC Course 2: ECOSSEC02M Indian Official Statistics 1. Introduction
Week 5 to week 8	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course-10 (ECOACOR10T) STATISTICAL METHODS FOR ECONOMICS-II 1. Random Variables and Probability Distributions Defining random variables; probability distributions;properties of discrete and continuous distributions, expected values of random variables SEC Course 2: ECOSSEC02M Indian Official Statistics 2. Economic Census Paper C etc:
Week 9 to Week 12	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course-10: (ECOACOR10T) STATISTICAL METHODS FOR ECONOMICS-II 1. Sampling (a) Principal steps in a sample survey; methods of sampling; the role of sampling theory; SEC Course 2: ECOSSEC02M Indian Official Statistics 3. Sources of Demographic data
Week 13	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course-10 (ECOACOR10T) STATISTICAL METHODS FOR ECONOMICS-II 1. Sampling (a) Principal steps in a sample survey; methods of sampling; the role of sampling theory (continued) SEC Course 2: ECOSSEC02M Indian Official Statistics 3. Sources of Demographic data continued
Week13 to week 14		**Internal Exam**

| Week 15 to 17 | DSE Course Group B(c): ECOADSE02P Project/ Dissertation | Core Course-10 (ECOACOR10T) STATISTICAL METHODS FOR ECONOMICS-II
  1. Sampling (b) Distributions of sample mean and sample variance, properties of random samples.
SEC Course 2: ECOSSEC02M Indian Official Statistics
  4. International Statistical System |
| Week 18 | Revision, Practise | Revision |

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Plan for Odd Semester, UG course

Department of Economics

Session (2021-22)

Class:B.A/ B.Sc
Semester 1,3,5 Name of the Teacher: Tapas Kumar Pal
Subject:Economics
Paper : CC6, CC11   (Theory)

S. No	Theory syllabus to be covered (Paper code to be mentioned)

Week 1 to week 4	Core Course 6 : ECOACOR06T Intermediate Macroeconomics-1
	  1. The Classical System
	Core Course 11 : ECOACOR011T Introductory Econometrics
	  2. Classical Statistical Inference :Basic Concepts of Estimation

Week 5 to week 8	Core Course 6 : ECOACOR06T Intermediate Macroeconomics-1
	  2. The Complete Keynesian model
	Core Course 11 : ECOACOR011T Introductory Econometrics
	2. Linear Regression: Regression Model
	  3. Problems in OLS method: Violation and Assumptions, Analysis of Residuals

Week 9 to Week 12	Core Course 6 : ECOACOR06T Intermediate Macroeconomics-1
	  3. Inflation, Unemployment and Expectations i) Phillip's Curve
	Core Course 11 : ECOACOR011T Introductory Econometrics
	  3. Problems in OLS method: Heteroskedasticity, Autocorrelation, Multicollinearity

Week 13	Core Course 6 : ECOACOR06T Intermediate Macroeconomics-1
	  3. Inflation, Unemployment and Expectations ii) Aggregate supply and Phillip's curve
	Core Course 11 : ECOACOR011T Introductory Econometrics
	  4. Multiple Regression with qualitative information: Describing qualitative information

Week 15 to 17	Core Course 6 : ECOACOR06T Intermediate Macroeconomics-1
	    4. Open economy Models
	Core Course 11 : ECOACOR011T Introductory Econometrics
	    3. Multiple Regression with qualitative information: Dummy Variables, Interaction, the linear probability model

Week 18	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Plan for Even Semester, UG course

Department of Economics

Session (2021-22)

Class:B.A/ B.Sc
Semester 2,4,6Name of the Teacher: Tapas Kumar Pal
Subject: Economics
Paper : CC3, CC9, CC14, DSE3, DSE2P   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)

Week 1 to week 4	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course 3: ECOACOR03T Introductory Macroeconomics
		    1. Introduction to Macroeconomics and National Income Accounting : Methods of calculating GDP, NI NI
		Core Course 9: ECOACOR09T Intermediate Macroeconomics – II
		    1. Economic Growth
		Core Course 14: ECOACOR14T International Economics
		    1. International trade: a)Meaning and scope, Arbitrage, Difference between inter and intra-national trade

Week 5 to week 8	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course 3: ECOACOR03T Introductory Macroeconomics
		    2. Introduction to Macroeconomics and National Income Accounting : Measurement of Cost of Living, Measuring Joblessness, Okun's Law
		Core Course 9: ECOACOR09T Intermediate Macroeconomics – II
		    3. Microeconomic Foundations a) Consumption
		Core Course 14: ECOACOR14T International Economics
		    1. International trade: b) Concept od Absolute and Comparative advantage c) International equilibrium

Week 9 to Week 12	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course 3: ECOACOR03T Introductory Macroeconomics 1. Introduction to Macroeconomics and National Income Accounting : National Income accounting for an open economy, Balance of payments: Current and Capital accounts Core Course 9: ECOACOR09T Intermediate Macroeconomics – II 2. Microeconomic Foundations b) Investment Core Course 14: ECOACOR14T International Economics 1. International trade: c) International equilibrium d) Gains from trade
Week 13	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course 3: ECOACOR03T Introductory Macroeconomics 1. Introduction to Macroeconomics and National Income Accounting: National Income accounting for an open economy: NI as a measure of economic welfare Core Course 9: ECOACOR09T Intermediate Macroeconomics – II 3. Microeconomic Foundations c) Demand for money Core Course 14: ECOACOR14T International Economics 2. Theories of International Trade a) technology and trade
Week13 to week 14		**Internal Exam**
Week 15 to 17	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course 3: ECOACOR03T Introductory Macroeconomics 4.The Closed Economy in the short run Core Course 9: ECOACOR09T Intermediate Macroeconomics – II 4. Schools of macroeconomic Thoughts Core Course 14: ECOACOR14T International Economics 2. Theories of International Trade b) Factor endowment and trade c) New trade theories
Week 18	Revision, Practise	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Plan for odd Semester, UG course

Department of Economics

Session (2021-22)

Class:B.A/ B.Sc
Semester 1,3,5Name of the Teacher: Sudip Kumar Ghosh
Subject: Economics
Paper : GE3, CC7, CC12(Theory)

S. No	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	GE-3 Development Economics ECOHGEC03T 2. Basic Concepts of Development: Core Course-12: ECOACOR12T Development Economics 1. Basic concepts of development
Week 5 to week 8	GE-3 Development Economics ECOHGEC03T 3. Development Planning & its necessity Core Course-12: (ECOACOR12T) Development Economics 2. Persistence of Underdevelopment and Strategies of Development: Characteristics, obstacles to development -Trap models, Big Push and Hirschmanmodel
Week 9 to Week 12	GE-3 Development Economics ECOHGEC03T 4. Concept and Role of Domestic Capital Formation in an Underdeveloped Country 5. Foreign Investment Core Course-12: (ECOACOR12T) Development Economics 2. Persistence of Underdevelopment and Strategies of Development: Choice of technique, Labour surplus and Lewis model, Harris-Todaro model
Week 13	GE-3 Development Economics ECOHGEC03T 5. Role of International Institutions Core Course-12: ECOACOR12T Development Economics 3. Poverty and Inequality
Week 15 to 17	Core Course-7 (ECOACOR07T): MATHEMATICAL METHODS FOR ECONOMICS-II 5.Dynamical Methods: algebraic and geometric exposition and application GE-3 Development Economics ECOHGEC03T 6. Gender Related Issues Core Course-12: (ECOACOR12T) Development Economics 4. Globalization
Week 18	Revision

Teaching Plan for Even Semester, UG course

Department of Economics

Session (2021-22)

Class:B.A/ B.Sc
Semester 2,4,6 Name of the Teacher: Sudip Kumar Ghosh
Subject: Economics
Paper : CC4, GE4,CC13,DSE4, DSE2P(Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course-4 (ECOACOR04T) STATISTICAL METHODS FOR ECONOMICS-I 2. Basic Concepts Core Course-13(ECOACOR13T) INDIAN ECONOMY 1. Economic Development since Independence: Major features of the economy at independence; Structural constraints; Economic planning, Evolution of Indian Planning and its development goals and strategies: Debates between Growth and distribution DSE Course-Group B(a) (ECOADSE04T) CONTEMPORARY DEVELOPMENT ECONOMICS 1. Meaning of Economic Development
Week 5 to week 8	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course-4 (ECOACOR04T) STATISTICAL METHODS FOR ECONOMICS-I 4. Measures of Skewnessand Kurtosis Core Course-13(ECOACOR13T) INDIAN ECONOMY 1. Economic Development since Independence: Public sector vs. Private sector, Consumer goods vs. Capital goods, Import substitution vs. Export promotion ; growth and development under different policy regimes—goals, constraints, institutions and policy framework; an assessment of performance—sustainability and regional contrasts; structural change, savings and investment. DSE Course-Group B(a) (ECOADSE04T) CONTEMPORARY DEVELOPMENT ECONOMICS 2. Poverty and Inequality
Week 9 to Week 12	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course-4 (ECOACOR04T) STATISTICAL METHODS FOR ECONOMICS-I 5. Bivariate frequency distribution: Simple Correlation: scatter diagram, sample correlation coefficient - Karl Pearson"s correlation coefficient and itsproperties, probable error of correlation coefficient, Spearman's rank correlation coefficient, partial and multiple correlation

		Core Course-13(ECOACOR13T) INDIAN ECONOMY
		2. Population and Human Development
		DSE Course-Group B(a) (ECOADSE04T) CONTEMPORARY DEVELOPMENT ECONOMICS
		2. Poverty and Inequality
		GE Course-4: ECOHGEC04T Indian Economy
		3. Agriculture
		4. Industry
		5.Banking
Week 13	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course-4 (ECOACOR04T) STATISTICAL METHODS FOR ECONOMICS-I
		4. Time series
		Core Course-13(ECOACOR13T) INDIAN ECONOMY
		3. Growth and Distribution
		DSE Course-Group B(a) (ECOADSE04T) CONTEMPORARY DEVELOPMENT ECONOMICS
		2. Poverty and Inequality
Week13 to week 14		**Internal Exam**
Week 15 to 17	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course-4 (ECOACOR04T) STATISTICAL METHODS FOR ECONOMICS-I
		9. Vital Statistics
		Core Course-13(ECOACOR13T) INDIAN ECONOMY
		4. Macroeconomic Policies and Their Impact
		DSE Course-Group B(a) (ECOADSE04T) CONTEMPORARY DEVELOPMENT ECONOMICS
		3. Political Institutions and the State
Week 18	Revision, Practise	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Plan for Odd Semester, UG course

Department of Economics

Session (2021-22)

Class:B.A/ B.Sc
Semester 1,3,5Name of the Teacher: Tina Barma
Subject: Economics
Paper : CC2, CC 7, DSE2   (Theory)

S. No	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course-2 ECOACOR02TMathematical Methods for Economics-**I** 1. Concept,Set Theory, Functions and Relations 2**.** Brief Review of Differential and Integral Calculus

	Core Course- 7 ECOACOR07T Mathematical Methods for Economics-II **1.**Multi-variable function: Convex and quasi-convex functions and their properties, Homogenous and Homothetic functions, Envelope theory, Shadow prices DSE2 -Course-Group A(b): ECOADSE02TPublic Economics **1.** Nature and Scope of Public Economics:

Week 5 to week 8	Core Course-2 ECOACOR02TMathematical Methods for Economics-I
	    2. Brief Review of Differential and Integral Calculus and their application
	Core Course- 7 ECOACOR07T Mathematical Methods for Economics-II
	    2. Classical Optimization: Kuhn Tucker and lagrangean methods and conditions 3. Linear Programming and Duality
	DSE2 -Course-Group A(b): ECOADSE02TPublic Economics
	2. Theory of Public Good

Week 9 to Week 12	Core Course-2 ECOACOR02TMathematical Methods for Economics-I 5. Single variable optimisation Core Course- 7 ECOACOR07T Mathematical Methods for Economics-II 3. Linear Programming and Duality DSE2 -Course-Group A(b) ECOADSE02T Public Economics 3. Taxation: Classification of Taxes; Canons of Taxation; Benefit Principle; Equal Sacrifice Principle; Ability to Pay Principle; Incidence and Burden of Taxes; Effects of taxation on income distribution, work efforts, and on savings; dead weight loss and distortion, efficiency and equity considerations
Week 13	Core Course-2 ECOACOR02T Mathematical Methods for Economics-I 4. Other topics: Series, Trigonometric functions and associated curves Core Course- 7 ECOACOR07T Mathematical Methods for Economics-II 4. Simultaneous Equation Systems DSE2 -Course-Group A(b) ECOADSE02T Public Economics 3. Taxation (continued): tax incidence, optimal taxation; the Laffer curve.
Week 15 to 17	Core Course-2 ECOACOR02T Mathematical Methods for Economics-I 6. Multi-variable optimization and its application Core Course- 7 ECOACOR07T Mathematical Methods for Economics-II 4. Simultaneous Equation Systems (continued) 6.Game Theory and its Applications DSE2 -Course-Group A(b) ECOADSE02T Public Economics 4. Public Expenditure and Public Debt DSE Course-Group A(a:) (ECOADSE01T) APPLIED ECONOMETRICS 6.Introduction to Econometric Software Package(STATA)
Week 18	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALTLAKE, KOLKATA

Teaching Plan for Even Semester, UG course

Department of Economics

Session (2021-22)

Class:B.A/ B.Sc
Semester 2,4,6 Name of the Teacher: Tina Barma
Subject: Economics
Paper : CC3, CC8, GE4 CC14, DSE4, DSE2P   (Theory and Practical)

S. No	Practical works to be covered (Paper code to be mentioned)	Theory topics to be covered (Paper code to be mentioned)

Week 1 to week 4	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course 3: ECOACOR03T Introductory Macroeconomics
		    3. Money: Functions of money; quantity theory of money
		Core Course 8: ECOACOR08T Intermediate Microeconomics – II
		     1 . Market Structure: Oligopoly and Strategic Behaviour of Firms
		Core Course 14: ECOACOR14T International Economics
		3. Trade Policy: Effect of Instruments of Trade Policy: Tariff and Quota- partial and general equilibrium analysis; Export Subsidy, Voluntary Export restraint in partial equilibrium framework for small country,
		DSE Course-Group B(a) (ECOADSE04T) CONTEMPORARY DEVELOPMENT ECONOMICS
		    4. Individuals, Communities and Collective Outcomes: Individual behavior in social environments, multiple social equilibria

Week 5 to week 8	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course 3: ECOACOR03T Introductory Macroeconomics
		    2. Money: determination of money supply and demand; credit creation
		Core Course 8: ECOACOR08T Intermediate Microeconomics – II
		    2. Market Failure
		Core Course 14: ECOACOR14T International Economics
		3. Trade Policy:General Equilibrium Analysis distinction between large and small economy, welfare effects of a tariff on small country and large country, Offer curve and ToT, Tariff ridden offer curve, Tariff war, Optimum tariff for large economy, Metzler's Paradox.
		DSE Course-Group B(a) (ECOADSE04T) CONTEMPORARY DEVELOPMENT ECONOMICS
		 4. Individuals, Communities and Collective Outcomes: Governance in organizations and in communities; individual responses to organizational inefficiency

Week 9 to Week 12	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course 3: ECOACOR03T Introductory Macroeconomics 3. Inflation and its social cost Core Course 8: ECOACOR08T Intermediate Microeconomics – II 3.Input Markets: Derived demand for a single input & multiple input in competitive & imperfectly competitive markets, Firm demand & industry demand, Adding up problem, Collective bargaining & exploitation Core Course 14: ECOACOR14T International Economics

		4. Balance of Payment: a). Balance of Payment accounts in an open economy; Determination of National Income, Transfer problem, Introduction of foreign Country & repercussion effect - open economy multiplier with & without repercussion effect;. DSE Course-Group B(a) (ECOADSE04T) CONTEMPORARY DEVELOPMENT ECONOMICS 5. Environment and Sustainable Development: Defining sustainability for renewable resources; a brief history of environmental change; common-pool resources; environmental externalities and state regulation of the environment; economic activity and climate change.
Week 13	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course 3: ECOACOR03T Introductory Macroeconomics 3. Inflation: Demand pull and Cost push inflation Core Course 8: ECOACOR08TIntermediate Microeconomics – II 3.Input Markets : Rent & Quasi-rent. Core Course 14: ECOACOR14T International Economics 4. Balance of Payment b). Fixed &Flexible Exchange Rate: adjustment of demand and supply of Foreign Exchange, Effect of devaluation DSE Course-Group B(a) (ECOADSE04T) CONTEMPORARY DEVELOPMENT ECONOMICS 5. Environment and Sustainable Development: Defining sustainability for renewable resources; a brief history of environmental change; common-pool resources; environmental externalities and state regulation of the environment; economic activity and climate change.
Week13 to week 14		**Internal Exam**
Week 15 to 17	DSE Course Group B(c): ECOADSE02P Project/ Dissertation	Core Course 3: ECOACOR03T Introductory Macroeconomics 3. Inflation : hyperinflation; antiinflationary policies Core Course 8: ECOACOR08T Intermediate Microeconomics – II 4.General Equilibrium, Efficiency and Welfare Core Course 14: ECOACOR14T International Economics 4. Balance of Payment c). Pegged Exchange Rate and BoP: Expenditure Switching Policy (Elasticity Approach) and Expenditure Reducing Policy (Absorption Approach)-Synthesis Approach d). Effects of exchange rate on domestic prices and ToT, Marshall-Lerner Condition, J-Curve effect. DSE Course-Group B(a): (ECOADSE04T) Contemporary Development Economics 5. Environment and Sustainable Development: Environmental externalities and state regulation of the environment; economic activity and climate change. GE Course-4: ECOHGEC04T Indian Economy 6. Indian Public Finance 7. Foreign trade
Week 18	Revision, Practise	Revision

বিধাননগর কলেজ

বাংলা বিভাগ

পাঠ পরিকল্পনা : বিজোড় সেমেস্টার (জুলাই – ডিসেম্বর)

২০১৮-১৯ শিক্ষাবর্ষ

শিক্ষকের নাম – ড. উদয় শঙ্কর বর্মা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
			UNIT 2 অনুবাদ সাহিত্যের ধারা অংশবিশেষ
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
			UNIT 2 অনুবাদ সাহিত্যের ধারা অংশবিশেষ
সপ্তাহ ৯ – ১২	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
			UNIT 2 অনুবাদ সাহিত্যের ধারা অংশবিশেষ
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
সপ্তাহ ১৫-১৭			UNIT 2 অনুবাদ সাহিত্যের ধারা অংশবিশেষ
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগর কলেজ

বাংলা বিভাগ

পাঠ পরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি –জুন)

২০১৮-১৯ শিক্ষাবর্ষ

শিক্ষকের নাম – ড. উদয় শঙ্কর বর্মা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 4	UNIT 1 : বাংলা প্রবন্ধ সাহিত্যের ধারাফোর্ট উইলিয়াম কলেজ থেকে প্রমথ চৌধুরী পর্যন্ত
			UNIT 3বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ
সপ্তাহ ৫ – ৮	২	CC 4	UNIT 1 : বাংলা প্রবন্ধ সাহিত্যের ধারা ফোর্ট উইলিয়াম কলেজ থেকে প্রমথ চৌধুরী পর্যন্ত
			UNIT 3 বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 1 : বাংলা প্রবন্ধ সাহিত্যের ধারা ফোর্ট উইলিয়াম কলেজ থেকে প্রমথ চৌধুরী পর্যন্ত
			UNIT 3 বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	২	CC 4	UNIT 1 : বাংলা প্রবন্ধ সাহিত্যের ধারা ফোর্ট উইলিয়াম কলেজ থেকে প্রমথ চৌধুরী পর্যন্ত
			UNIT 3 বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগর কলেজ

বাংলা বিভাগ

পাঠ পরিকল্পনা : বিজোড় সেমেস্টার (জুলাই – ডিসেম্বর)

২০১৯-২০ শিক্ষাবর্ষ

শিক্ষকের নাম – ড. উদয় শঙ্কর বর্মা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
	৩	CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
		CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
		SEC 1	UNIT 1 : বিষয় চলচ্চিত্র – সত্যজিৎ রায়
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
	৩	CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
		CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
		SEC 1	UNIT 1 : সিনেমারঅআকখ – ধীমানদাশগুপ্ত
	১ ৩	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
		CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
সপ্তাহ ৯ – ১২	১	CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
	৩ ১	SEC 1	UNIT 1 : সিনেমারঅআকখ – ধীমানদাশগুপ্ত
		CC 1	UNIT 4 :বাংলাসাহিত্যেরইতিহাস : চৈতন্যজীবনী
		CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	৩	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
		SEC 1	UNIT 1 : বিষয় চলচ্চিত্র – সত্যজিৎ রায়
		DSE 3	UNIT 1: কবিতার কথা – জীবনানন্দ দাশ
	৩ ৫	DSE 3	UNIT 2 : আধুনিকতা ও রবীন্দ্রনাথ এবং পথের শেষ কোথায় – আবু সয়ীদ আইয়ুব UNIT 3 : শক্তি চট্টোপাধ্যায় – ৫ টি কবিতা

	পাঠ- পুনর্বিবেচনা ও অনুশীলন		UNIT 4 : বিনয় মজুমদারের কবিতা
সপ্তাহ ১৮			

বিধাননগর কলেজ

বাংলা বিভাগ

পাঠ পরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি – জুন)

২০১৯-২০ শিক্ষাবর্ষ

শিক্ষকের নাম – ড. উদয় শঙ্কর বর্মা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		SEC 2	UNIT 2 : কম্পুটারে বাংলা লিখন
	৬	DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
		DSE 6	UNIT 1: রবীন্দ্র জীবনকথা – প্রভাতকুমার মুখোপাধ্যায় UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
সপ্তাহ ৫ – ৮	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		SEC 2	UNIT 2 : কম্পুটারে বাংলা লিখন
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণ মূল্যায়ন			
সপ্তাহ ১৫-১৭	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
		CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		SEC 2	UNIT 2 : কম্পুটারে বাংলা লিখন

	৬	DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
		DSE 6	UNIT 1: রবীন্দ্র জীবনকথা – প্রভাতকুমার মুখোপাধ্যায়
			UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
সপ্তাহ ১৮			**পাঠ-পুনর্বিবেচনা ও অনুশীলন**

বিধাননগর কলেজ

বাংলা বিভাগ

পাঠ পরিকল্পনা : বিজোড় সেমেস্টার (জুলাই – ডিসেম্বর)

২০২০-২১ শিক্ষাবর্ষ

শিক্ষকের নাম – ড. উদয় শঙ্কর বর্মা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
	৩	CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
		CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
		SEC 1	UNIT 1 : সিনেমারঅআকখ – ধীমানদাশগুপ্ত
	৫	DSE 3	UNIT 1: কবিতার কথা – জীবনানন্দ দাশ
		DSE 3	UNIT 2 : আধুনিকতা ও রবীন্দ্রনাথ এবং পথের শেষ কোথায় – আবু সয়ীদ আইয়ুব UNIT 3 : শক্তি চট্টোপাধ্যায় – ৫ টি কবিতা UNIT 4 : বিনয় মজুমদারের কবিতা
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
	৩	CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
		CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
		SEC 1	UNIT 1 : সিনেমারঅআকখ – ধীমানদাশগুপ্ত
	৫	DSE 3	UNIT 1: কবিতার কথা – জীবনানন্দ দাশ
		DSE 3	UNIT 2 : আধুনিকতা ও রবীন্দ্রনাথ এবং পথের শেষ কোথায় – আবু সয়ীদ আইয়ুব UNIT 3 : শক্তি চট্টোপাধ্যায় – ৫ টি কবিতা UNIT 4 : বিনয় মজুমদারের কবিতা
সপ্তাহ ৯ – ১২	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
	৩	CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
		CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন

		SEC 1	UNIT 1 : বিষয় চলচ্চিত্র – সত্যজিৎ রায়
	৫	DSE 3	UNIT 1: কবিতার কথা – জীবনানন্দ দাশ
		DSE 3	UNIT 2 : আধুনিকতা ও রবীন্দ্রনাথ এবং পথের শেষ কোথায় – আবু সয়ীদ আইয়ুব UNIT 3 : শক্তি চট্টোপাধ্যায় – ৫ টি কবিতা UNIT 4 : বিনয় মজুমদারের কবিতা
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
		CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
		CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
	৩	SEC 1	UNIT 1 : সিনেমারঅআকখ – ধীমানদাশগুপ্ত
		DSE 3	UNIT 1: কবিতার কথা – জীবনানন্দ দাশ
	৫	DSE 3	UNIT 2 : আধুনিকতা ও রবীন্দ্রনাথ এবং পথের শেষ কোথায় – আবু সয়ীদ আইয়ুব UNIT 3 : শক্তি চট্টোপাধ্যায় – ৫ টি কবিতা UNIT 4 : বিনয় মজুমদারের কবিতা
সপ্তাহ ১৮	**পাঠ-পুনর্বিবেচনা ও অনুশীলন**		

বিধাননগর কলেজ

বাংলা বিভাগ

পাঠ পরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি – জুন)

২০২০-২১ শিক্ষাবর্ষ

শিক্ষকের নাম – ড. উদয় শঙ্কর বর্মা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		SEC 2	UNIT 2 : কম্পুটারে বাংলা লিখন
	৬	DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
		DSE 6	UNIT 1: রবীন্দ্র জীবনকথা – প্রভাতকুমার মুখোপাধ্যায় UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
সপ্তাহ ৫ – ৮	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		SEC 2	UNIT 2 : কম্পুটারে বাংলা লিখন
	৬	DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
		DSE 6	UNIT 1: রবীন্দ্র জীবনকথা – প্রভাতকুমার মুখোপাধ্যায় UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
	৬	DSE 6	UNIT 1: রবীন্দ্র জীবনকথা – প্রভাতকুমার মুখোপাধ্যায় UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
		DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)

সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণ মূল্যায়ন			
সপ্তাহ ১৫-১৭	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ
			UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
		CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		SEC 2	UNIT 2 : কম্পিউটারে বাংলা লিখন
	৬	DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
		DSE 6	UNIT 1: রবীন্দ্র জীবনকথা – প্রভাতকুমার মুখোপাধ্যায়
			UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বাংলা বিভাগ

পাঠ পরিকল্পনা : বিজোড় সেমেস্টার (জুলাই – ডিসেম্বর)

২০২১-২২ শিক্ষাবর্ষ

শিক্ষকের নাম – ড. উদয় শঙ্কর বর্মা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
	৩	CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
		CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
		SEC 1	UNIT 1 : সিনেমারঅআকখ – ধীমানদাশগুপ্ত

	৫	DSE 3	UNIT 1: কবিতার কথা – জীবনানন্দ দাশ
		DSE 3	UNIT 2 : আধুনিকতা ও রবীন্দ্রনাথ এবং পথের শেষ কোথায় – আবু সয়ীদ আইয়ুব UNIT 3 : শক্তি চট্টোপাধ্যায় – ৫ টি কবিতা UNIT 4 : বিনয় মজুমদারের কবিতা
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
	৩	CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
		CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
		SEC 1	UNIT 1 : সিনেমারঅআকখ – ধীমানদাশগুপ্ত
	৫	DSE 3	UNIT 1: কবিতার কথা – জীবনানন্দ দাশ
		DSE 3	UNIT 2 : আধুনিকতা ও রবীন্দ্রনাথ এবং পথের শেষ কোথায় – আবু সয়ীদ আইয়ুব UNIT 3 : শক্তি চট্টোপাধ্যায় – ৫ টি কবিতা UNIT 4 : বিনয় মজুমদারের কবিতা
সপ্তাহ ৯ – ১২	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
	৩	CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
		CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
		SEC 1	UNIT 1 : সিনেমারঅআকখ – ধীমানদাশগুপ্ত
	৫	DSE 3	UNIT 1: কবিতার কথা – জীবনানন্দ দাশ
		DSE 3	UNIT 2 : আধুনিকতা ও রবীন্দ্রনাথ এবং পথের শেষ কোথায় – আবু সয়ীদ আইয়ুব UNIT 3 : শক্তি চট্টোপাধ্যায় – ৫ টি কবিতা UNIT 4 : বিনয় মজুমদারের কবিতা
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
		CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
		CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
	৩	SEC 1	UNIT 1 : সিনেমারঅআকখ – ধীমানদাশগুপ্ত
		DSE 3	UNIT 1: কবিতার কথা – জীবনানন্দ দাশ
	৫	DSE 3	UNIT 2 : আধুনিকতা ও রবীন্দ্রনাথ এবং পথের শেষ কোথায় – আবু সয়ীদ আইয়ুব UNIT 3 : শক্তি চট্টোপাধ্যায় – ৫ টি কবিতা

			UNIT 4 : বিনয় মজুমদারের কবিতা
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগর কলেজ

বাংলা বিভাগ

পাঠ পরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি – জুন)

২০২১-২২ শিক্ষাবর্ষ

শিক্ষকের নাম – ড. উদয় শঙ্কর বর্মা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ
			UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		SEC 2	UNIT 2 : কম্পুটারে বাংলা লিখন
	৬	DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
		DSE 6	UNIT 1: রবীন্দ্র জীবনকথা – প্রভাতকুমার মুখোপাধ্যায়
			UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
সপ্তাহ ৫ – ৮	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ
			UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ

		SEC 2	UNIT 2 : কম্পুটারে বাংলা লিখন
	৬	DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
		DSE 6	UNIT 1: রবীন্দ্র জীবনকথা – প্রভাতকুমার মুখোপাধ্যায় UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
	4	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
	৬	DSE 6	UNIT 1: রবীন্দ্র জীবনকথা – প্রভাতকুমার মুখোপাধ্যায় UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
		DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণ মূল্যায়ন			
সপ্তাহ ১৫-১৭	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
		CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		SEC 2	UNIT 2 : কম্পুটারে বাংলা লিখন
	৬	DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
		DSE 6	UNIT 1: রবীন্দ্র জীবনকথা – প্রভাতকুমার মুখোপাধ্যায় UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বাংলা বিভাগ

পাঠ পরিকল্পনা : বিজোড় সেমেস্টার (জুলাই – ডিসেম্বর)

২০২২-২৩ শিক্ষাবর্ষ

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – 4	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
	৩	CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
		CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
		SEC 1	UNIT 1 : চলচ্চিত্রের অ আ ক খ – ধীমান দাশগুপ্ত
	৫	DSE 3	UNIT 1: কবিতার কথা – জীবনানন্দ দাশ
		DSE 3	UNIT 2 : আধুনিকতা ও রবীন্দ্রনাথ এবং পথের শেষ কোথায় – আবু সয়ীদ আইয়ুব UNIT 3 : শক্তি চট্টোপাধ্যায় – ৫ টি কবিতা UNIT 4 : বিনয় মজুমদারের কবিতা
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
	৩	CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
		CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
		SEC 1	UNIT 1 : সিনেমারঅআকখ – ধীমানদাশগুপ্ত
	৫	DSE 3	UNIT 1: কবিতার কথা – জীবনানন্দ দাশ
		DSE 3	UNIT 2 : আধুনিকতা ও রবীন্দ্রনাথ এবং পথের শেষ কোথায় – আবু সয়ীদ আইয়ুব UNIT 3 : শক্তি চট্টোপাধ্যায় – ৫ টি কবিতা UNIT 4 : বিনয় মজুমদারের কবিতা
সপ্তাহ ৯ – ১২	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
	৩	CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
		CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
		SEC 1	UNIT 1 : সিনেমারঅআকখ – ধীমানদাশগুপ্ত
	৫	DSE 3	UNIT 1: কবিতার কথা – জীবনানন্দ দাশ
		DSE 3	UNIT 2 : আধুনিকতা ও রবীন্দ্রনাথ এবং পথের শেষ কোথায় – আবু সয়ীদ আইয়ুব

			UNIT 3 : শক্তি চট্টোপাধ্যায় – ৫ টি কবিতা
			UNIT 4 : বিনয় মজুমদারের কবিতা
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
		CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
	৩	CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
		SEC 1	UNIT 1 : সিনেমারঅআকখ – ধীমানদাশগুপ্ত
		DSE 3	UNIT 1: কবিতার কথা – জীবনানন্দ দাশ
	৫	DSE 3	UNIT 2 : আধুনিকতা ও রবীন্দ্রনাথ এবং পথের শেষ কোথায় – আবু সয়ীদ আইয়ুব
			UNIT 3 : শক্তি চট্টোপাধ্যায় – ৫ টি কবিতা
			UNIT 4 : বিনয় মজুমদারের কবিতা
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগর কলেজ

বাংলা বিভাগ

পাঠ পরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি – জুন)

২০২২-২৩ শিক্ষাবর্ষ

শিক্ষকের নাম – ড. উদয় শঙ্কর বর্মা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – 4	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক

			পত্রের ইতিহাস – নির্বাচিত অংশ
			UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		SEC 2	UNIT 2 : কম্পিউটারে বাংলা লিখন
	৬	DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
		DSE 6	UNIT 1: রবীন্দ্র জীবনকথা – প্রভাতকুমার মুখোপাধ্যায়
			UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
সপ্তাহ ৫ – ৮	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ
			UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		SEC 2	UNIT 2 : কম্পিউটারে বাংলা লিখন
	৬	DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
		DSE 6	UNIT 1: রবীন্দ্র জীবনকথা – প্রভাতকুমার মুখোপাধ্যায়
			UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ
			UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
	৬	DSE 6	UNIT 1: রবীন্দ্র জীবনকথা – প্রভাতকুমার মুখোপাধ্যায়
			UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
		DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণ মূল্যায়ন			
সপ্তাহ ১৫-১৭	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস – নির্বাচিত অংশ
			UNIT 3 : কাব্য কবিতার ইতিহাস (উদ্ভব ও বিকাশ)
		CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
		SEC 2	UNIT 2 : কম্পিউটারে বাংলা লিখন
	৬	DSE 4	UNIT 1: সন্মার্গ সপর্যা – শম্ভু মিত্র (নির্বাচিত)
		DSE 6	UNIT 1: রবীন্দ্র জীবনকথা – প্রভাতকুমার মুখোপাধ্যায়
			UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিকল্পনা : দ্বিতীয় বর্ষ, তৃতীয় বর্ষ

বিজোড় সেমেস্টার (জুলাই – জুন)

২০১৮-২০১৯ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপক জয়ন্ত মিত্রি

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
		CC 2	UNIT 2 শাক্ত পদাবলি
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
		CC 2	UNIT 2 শাক্ত পদাবলি
সপ্তাহ ৯ – ১২	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
		CC 2	UNIT 2 শাক্ত পদাবলি
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
		CC 2	UNIT 2 শাক্ত পদাবলি
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিকল্পনা : জোড়সেমেস্টার (জানুয়ারি – জুন)

২০১৮-২০১৯ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপক জয়ন্ত মিত্রি

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 4	UNIT 1 : বাংলা নাট্য সাহিত্যের ধারা
			UNIT 3 বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ অংশবিশেষ
সপ্তাহ ৫ – ৮	২	CC 4	UNIT 1 : বাংলা নাট্য সাহিত্যের ধারা
			UNIT 3 বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ অংশবিশেষ
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 1 : বাংলা নাট্য সাহিত্যের ধারা
			UNIT 3 বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ অংশবিশেষ
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	২	CC 4	UNIT 1 : বাংলা নাট্য সাহিত্যের ধারা
			UNIT 3 বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ অংশবিশেষ
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিকল্পনা : বিজোড় সেমেস্টার (জানুয়ারি – জুন)

২০১৯-২০২০ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপক জয়ন্ত মিত্রি

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)

			UNIT 2 শাক্ত পদাবলি
	৩	CC 6	UNIT 3 রাজা-রবীন্দ্রনাথ ঠাকুর
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
			UNIT 2 শাক্ত পদাবলি
	৩	CC 6	UNIT 3 রাজা-রবীন্দ্রনাথ ঠাকুর
		CC 7	UNIT 1: সাম্য –রবীন্দ্রনাথ ঠাকুর
	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
			UNIT 2 শাক্তপদাবলি
সপ্তাহ ৯ – ১২	৩	CC 6	UNIT 3 রাজা-রবীন্দ্রনাথ ঠাকুর
	৩	CC 7	UNIT 1: সাম্য –রবীন্দ্রনাথ ঠাকুর
	১		
		CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	৩	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
	৩ পাঠ-পুনর্বিবেচনা ও অনুশীলন	CC 7	UNIT 1: সাম্য –রবীন্দ্রনাথ ঠাকুর
সপ্তাহ ১৮			

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বাংলাবিভাগ

পাঠপরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি – জুন)

২০১৯-২০২০ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপক জয়ন্ত মিত্রি

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 4	UNIT 1 : বাংলা নাট্যসাহিত্যের ধারা
			UNIT 3 : বাংলাকাব্যকবিতারউদ্ভবওবিকাশঅংশবিশেষ
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
			UNIT 1 : মেঘনাদবধ কাব্য
সপ্তাহ ৫ – ৮	২	CC 4	UNIT 1 : বাংলা নাট্যসাহিত্যের ধারা
			UNIT 3 : বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ অংশবিশেষ
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
			UNIT 1 : মেঘনাদবধ কাব্য
	৬	CC 9	UNIT 4: রাশিয়ার চিঠি- রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT 2: প্রবন্ধ সাহিত্যের প্রকারভেদ
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 1 : বাংলা নাট্যসাহিত্যের ধারা
			UNIT 3 : বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ অংশবিশেষ
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
			UNIT 1 : মেঘনাদবধকাব্য
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণ মূল্যায়ন			
		CC 4	UNIT 1 : বাংলা নাট্যসাহিত্যের ধারা
	২		UNIT 3 : বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ অংশবিশেষ
		CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
সপ্তাহ ১৫-১৭			UNIT 1 : মেঘনাদবধকাব্য
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বাংলাবিভাগ
পাঠপরিকল্পনা : বিজোড় সেমেস্টার (জানুয়ারি – জুন)
২০২০-২০২১ শিক্ষাবর্ষ
শিক্ষকেরনাম – অধ্যাপক জয়ন্ত মিত্রি

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
			UNIT 2 শাক্ত পদাবলি
	৩	CC 6	UNIT 3 রাজা-রবীন্দ্রনাথ ঠাকুর
	৫	CC 7	UNIT 1: সাম্য –রবীন্দ্রনাথ ঠাকুর
			UNIT 3 : প্রবন্ধ সংগ্রহ-প্রমথ চৌধুরী
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
			UNIT 2 শাক্ত পদাবলি
	৩	CC 6	UNIT 3 রাজা-রবীন্দ্রনাথ ঠাকুর
		CC 7	UNIT 1: সাম্য –রবীন্দ্রনাথ ঠাকুর
	৫		UNIT 3 : প্রবন্ধ সংগ্রহ-প্রমথ চৌধুরী
সপ্তাহ ৯ – ১২	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
			UNIT 2 শাক্তপদাবলি
	৩	CC 6	UNIT 3 রাজা-রবীন্দ্রনাথ ঠাকুর
		CC 7	UNIT 1: সাম্য –রবীন্দ্রনাথ ঠাকুর
	৫		UNIT 3 : প্রবন্ধ সংগ্রহ-প্রমথ চৌধুরী
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস

সপ্তাহ ১৫-১৭			(অনুবাদ সাহিত্যের অংশবিশেষ)
	৩	CC 6	UNIT 2 শাক্তপদাবলি UNIT 3 রাজা-রবীন্দ্রনাথ ঠাকুর
		CC 7	UNIT 1: সাম্য –রবীন্দ্রনাথ ঠাকুর
	৫		UNIT 3 : প্রবন্ধ সংগ্রহ-প্রমথ চৌধুরী
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি – জুন)
২০২০-২০২১ শিক্ষাবর্ষ
শিক্ষকেরনাম – অধ্যাপক জয়ন্ত মিত্রি

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 4	UNIT 1 : বাংলা নাট্যসাহিত্যের ধারা UNIT 3 : বাংলাকাব্যকবিতারউদ্ভবওবিকাশঅংশবিশেষ
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
			UNIT 1 : মেঘনাদবধ কাব্য
	৬	CC 9	UNIT 4: রাশিয়ার চিঠি- রবীন্দ্রনাথ ঠাকুর
		CC 10 CC 13	UNIT 2: প্রবন্ধ সাহিত্যের প্রকারভেদ UNIT 4 ; অহমীয়া সাহিত্যের ইতিহাস
সপ্তাহ ৫ – ৮	২	CC 4	UNIT 1 : বাংলা নাট্যসাহিত্যের ধারা UNIT 3 : বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ অংশবিশেষ
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
			UNIT 1 : মেঘনাদবধ কাব্য
	৬	CC 9	UNIT 4: রাশিয়ার চিঠি- রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT 2: প্রবন্ধ সাহিত্যের প্রকারভেদ
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 1 : বাংলা নাট্যসাহিত্যের ধারা UNIT 3 : বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ অংশবিশেষ
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ

	৬	CC 9	UNIT 1 : মেঘনাদবধকাব্য
			UNIT 4: রাশিয়ার চিঠি- রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT 2: প্রবন্ধ সাহিত্যের প্রকারভেদ
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণ মূল্যায়ন			
সপ্তাহ ১৫-১৭	২	CC 4	UNIT 1 : বাংলা নাট্যসাহিত্যের ধারা
			UNIT 3 : বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ অংশবিশেষ
		CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
	৬		UNIT 1 : মেঘনাদবধকাব্য
		CC 9	UNIT 4: রাশিয়ার চিঠি- রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT 2: প্রবন্ধ সাহিত্যের প্রকারভেদ
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বাংলাবিভাগ
পাঠপরিকল্পনা :বিজোড়সেমেস্টার (জানুয়ারি – জুন)
২০২১-২০২২ শিক্ষাবর্ষ
শিক্ষকেরনাম – অধ্যাপক জয়ন্ত মিত্রি

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
			UNIT 2 শাক্ত পদাবলি
	৩	CC 6	UNIT 3 রাজা-রবীন্দ্রনাথ ঠাকুর
	৫	CC 7	UNIT 1: সাম্য –রবীন্দ্রনাথ ঠাকুর
			UNIT 3 : প্রবন্ধ সংগ্রহ–প্রমথ চৌধুরী
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
			UNIT 2 শাক্ত পদাবলি
	৩	CC 6	UNIT 3 রাজা-রবীন্দ্রনাথ ঠাকুর
		CC 7	UNIT 1: সাম্য –রবীন্দ্রনাথ ঠাকুর
	৫		UNIT 3 : প্রবন্ধ সংগ্রহ–প্রমথ চৌধুরী

সপ্তাহ ৯ – ১২	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
			UNIT 2 শাক্তপদাবলি
	৩	CC 6	UNIT 3 রাজা-রবীন্দ্রনাথ ঠাকুর
		CC 7	UNIT 1: সাম্য –রবীন্দ্রনাথ ঠাকুর
	৫		UNIT 3 : প্রবন্ধ সংগ্রহ-প্রমথ চৌধুরী
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অনুবাদ সাহিত্যের অংশবিশেষ)
	৩	CC 6	UNIT 2 শাক্তপদাবলি UNIT 3 রাজা-রবীন্দ্রনাথ ঠাকুর
		CC 7	UNIT 1: সাম্য –রবীন্দ্রনাথ ঠাকুর
	৫		UNIT 3 : প্রবন্ধ সংগ্রহ-প্রমথ চৌধুরী
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি – জুন)
২০২১-২০২২ শিক্ষাবর্ষ
শিক্ষকেরনাম – অধ্যাপক জয়ন্ত মিত্রি

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 4	UNIT 1 : বাংলা নাট্যসাহিত্যের ধারা
			UNIT 3 : বাংলাকাব্যকবিতারউদ্ভবওবিকাশঅংশবিশেষ
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ

			UNIT 1 : মেঘনাদবধ কাব্য
	৬	CC 9	UNIT 4: রাশিয়ার চিঠি- রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT 2: প্রবন্ধ সাহিত্যের প্রকারভেদ
সপ্তাহ ৫ – ৮	২	CC 4	UNIT 1 : বাংলা নাট্যসাহিত্যের ধারা
			UNIT 3 : বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ অংশবিশেষ
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
			UNIT 1 : মেঘনাদবধ কাব্য
	৬	CC 9	UNIT 4: রাশিয়ার চিঠি- রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT 2: প্রবন্ধ সাহিত্যের প্রকারভেদ
		CC 13	UNIT 4 ; অহমীয়া সাহিত্যের ইতিহাস
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 1 : বাংলা নাট্যসাহিত্যের ধারা
			UNIT 3 : বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ অংশবিশেষ
	৪	CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
			UNIT 1 : মেঘনাদবধকাব্য
	৬	CC 9	UNIT 4: রাশিয়ার চিঠি- রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT 2: প্রবন্ধ সাহিত্যের প্রকারভেদ
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণ মূল্যায়ন			
সপ্তাহ ১৫-১৭	২	CC 4	UNIT 1 : বাংলা নাট্যসাহিত্যের ধারা
			UNIT 3 : বাংলা কাব্য কবিতার উদ্ভব ও বিকাশ অংশবিশেষ
		CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
			UNIT 1 : মেঘনাদবধকাব্য
	৬	CC 9	UNIT 4: রাশিয়ারচিঠি- রবীন্দ্রনাথঠাকুর
		CC 10	UNIT 2: প্রবন্ধসাহিত্যেরপ্রকারভেদ
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিকল্পনা : দ্বিতীয় বর্ষ, তৃতীয় বর্ষ

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা		বিষয়
সপ্তাহ ১ – ৪	১	CC 1		UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
		CC 2		UNIT 3চণ্ডীমঙ্গল
সপ্তাহ ৫ – ৮	১	CC 1		UNIT 2 : বাংলামঙ্গলকাব্যেরধারা
		CC 2		UNIT 3চণ্ডীমঙ্গল
সপ্তাহ ৯ – ১২	১	CC 1		UNIT 2 : বাংলামঙ্গলকাব্যেরধারা
		CC 2		UNIT 3চণ্ডীমঙ্গল
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন				
	১	CC 1		UNIT 2 : বাংলামঙ্গলকাব্যেরধারা
সপ্তাহ ১৫-১৭		CC 2		UNIT 3চণ্ডীমঙ্গল
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন			

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিকল্পনা : জোড়সেমেস্টার (জানুয়ারি – জুন)

২০১৮-২০১৯ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপক লিপিকা সাহা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 3	UNIT 4 : বাংলা শব্দ ভাণ্ডার

		CC 4	UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
সপ্তাহ ৫ – ৮	২	CC 3	UNIT 4 : বাংলা শব্দ ভাণ্ডার
		CC 3	UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 4 : বাংলা শব্দ ভাণ্ডার
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
	২	CC 3	UNIT 4 : বাংলা শব্দ ভাণ্ডার
সপ্তাহ ১৫-১৭		CC 4	UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপরিকল্পনা : বিজোড় সেমেস্টার (জানুয়ারি – জুন)
২০১৯-২০২০ শিক্ষাবর্ষ
শিক্ষকেরনাম – অধ্যাপক লিপিকা সাহা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
			UNIT 3চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1অলঙ্কার সঙ্গার্থ
			UNIT 2 অলঙ্কার নির্ণয়
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
			UNIT 3চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1অলঙ্কার সঙ্গার্থ
			UNIT 2 অলঙ্কার নির্ণয়
		CC 6	UNIT 2: কৃষ্ণকুমারীনাটক

		CC 7	UNIT 1 : সাম্য
সপ্তাহ ৯ – ১২	১	CC 1	UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
			UNIT 3চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1অলঙ্কার সঙ্গার্থ
			UNIT 2 অলঙ্কার নির্ণয়
		CC 6	UNIT 2: কৃষ্ণকুমারীনাটক
		CC 7	UNIT 1 : সাম্য
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
			UNIT 3 চণ্ডীমঙ্গল
			UNIT 1অলঙ্কার সঙ্গার্থ
	৩		
			UNIT 2অলঙ্কার নির্ণয়
		CC 6	UNIT 2: কৃষ্ণকুমারীনাটক
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি – জুন)

২০১৯-২০২০ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপক লিপিকা সাহা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 4	UNIT 4 : বাংলা শব্দ ভাণ্ডার
			UNIT 4 বাংলাকথাসাহিত্যেরউদ্ভবওবিকাশ
	৪	CC 8	UNIT 2 সঞ্চয়িতা কাব্যসংকলনের অংশবিশেষ
		CC 9	UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT-নাটকের রূপভেদ
সপ্তাহ ৫ – ৮	২	CC 4	UNIT 4 : বাংলা শব্দ ভাণ্ডার
			UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
	৪	CC 8	UNIT 2 সঞ্চয়িতা কাব্যসংকলনের অংশবিশেষ
			UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 4 : বাংলা শব্দ ভাণ্ডার
			UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
	৪	CC 8	UNIT 2 সঞ্চয়িতা কাব্যসংকলনের অংশবিশেষ
			UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণ মূল্যায়ন			
সপ্তাহ ১৫-১৭	২	CC 4	UNIT 4 : বাংলা শব্দ ভাণ্ডার
			UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
	৪	CC 8	UNIT 2 সঞ্চয়িতা কাব্যসংকলনের অংশবিশেষ
			UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT 2 সঞ্চয়িতা কাব্যসংকলনের অংশবিশেষ
		CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যাণ্ডে বঙ্গমহিলা
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপরিকল্পনা : বিজোড় সেমেস্টার (জানুয়ারি – জুন)

২০২০-২০২১ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপক লিপিকা সাহা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়

সপ্তাহ ১ – ৪	১	CC 1	UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
			UNIT 3চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1অলঙ্কার পরিচয়
			UNIT 2 অলঙ্কার নির্ণয়
	৫	CC 6	UNIT 2: কৃষ্ণকুমারীনাটক
		CC 7	UNIT 1 : সাম্য
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
			UNIT 3চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1অলঙ্কার পরিচয়
			UNIT 2 অলঙ্কার নির্ণয়
		CC 6	UNIT 2: কৃষ্ণকুমারীনাটক
	৫	CC 7	UNIT 1 : সাম্য
সপ্তাহ ৯ – ১২	১	CC 1	UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
			UNIT 3চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1অলঙ্কার পরিচয়
			UNIT 2 অলঙ্কার নির্ণয়
		CC 6	UNIT 2: কৃষ্ণকুমারীনাটক
	৫	CC 7	UNIT 1 : সাম্য
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
			UNIT 3 চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1অলঙ্কার পরিচয়
			UNIT 2অলঙ্কার নির্ণয়
		CC 6	UNIT 2: কৃষ্ণকুমারীনাটক
	৫	CC 7	UNIT 1 : সাম্য

সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি – জুন)

২০২০-২০২১ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপক লিপিকা সাহা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 4	UNIT 4 : বাংলা শব্দ ভাণ্ডার
			UNIT 4 বাংলাকথাসাহিত্যেরউদ্ভবওবিকাশ
	৪	CC 8	UNIT 2 সঞ্চয়িতা কাব্সংকলনের অংশবিশেষ
		CC 9	UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT-নাটকের রূপভেদ
	৬	CC 13	UNIT-4 হিন্দি, সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যাণ্ডে বঙ্গমহিলা
সপ্তাহ ৫ – ৮	২	CC 4	UNIT 4 : বাংলা শব্দ ভাণ্ডার
			UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
	৪	CC 8	UNIT 2 সঞ্চয়িতা কাব্সংকলনের অংশবিশেষ
			UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
	৬	CC 9	UNIT-নাটকের রূপভেদ
		CC 10	UNIT 2 সঞ্চয়িতা কাব্সংকলনের অংশবিশেষ
	৬	CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যাণ্ডে বঙ্গমহিলা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 4 : বাংলা শব্দ ভাঙার
			UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
	৪	CC 8	UNIT 2 সঞ্চয়িতা কাব্যসংকলনের অংশবিশেষ
			UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
	৬	CC 9	UNIT-নাটকের রূপভেদ
		CC 10	UNIT 2 সঞ্চয়িতা কাব্যসংকলনের অংশবিশেষ
		CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যাণ্ডে বঙ্গমহিলা

সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণ মূল্যায়ন				

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১৫-১৭	২	CC 4	UNIT 4 : বাংলা শব্দ ভাঙার
			UNIT 4 বাংলা কথাসাহিত্যের উড্ভব ও বিকাশ
		CC 8	UNIT 2 সঞ্চয়িতা কাব্যসংকলনের অংশবিশেষ
			UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
	৬	CC 9	UNIT-নাটকের রূপভেদ
		CC 10	UNIT 2 সঞ্চয়িতা কাব্যসংকলনের অংশবিশেষ
		CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যাণ্ডে বঙ্গমহিলা
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন			

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপরিকল্পনা : বিজোড় সেমেস্টার (জানুয়ারি – জুন)
২০২১-২০২২ শিক্ষাবর্ষ
শিক্ষকেরনাম – অধ্যাপক লিপিকা সাহা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
			UNIT 3চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1অলঙ্কার সঙ্গর্থ

			UNIT 2 অলঙ্কার নির্ণয়
	৫	CC 6	UNIT 2: কৃষ্ণকুমারীনাটক
		CC 7	UNIT 1 : সাম্য
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
			UNIT 3চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1অলঙ্কার সঙ্গার্থ
			UNIT 2 অলঙ্কার নির্ণয়
		CC 6	UNIT 2: কৃষ্ণকুমারীনাটক
	৫	CC 7	UNIT 1 : সাম্য
সপ্তাহ ৯ – ১২	১	CC 1	UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
			UNIT 3চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1অলঙ্কার সঙ্গার্থ
			UNIT 2 অলঙ্কার নির্ণয়
		CC 6	UNIT 2: কৃষ্ণকুমারীনাটক
	৫	CC 7	UNIT 1 : সাম্য
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
			UNIT 3 চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1অলঙ্কার সঙ্গার্থ
			UNIT 2অলঙ্কার নির্ণয়
		CC 6	UNIT 2: কৃষ্ণকুমারীনাটক
	৫	CC 7	UNIT 1 : সাম্য
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি – জুন)

২০২১-২০২২ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপক লিপিকা সাহা

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 4	UNIT 4 : বাংলা শব্দ ভাণ্ডার
			UNIT 4 বাংলাকথাসাহিত্যেরউদ্ভবওবিকাশ
	৪	CC 8	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
		CC 9	UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT-নাটকের রূপভেদ
	৬	CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যাণ্ডে বঙ্গমহিলা
সপ্তাহ ৫ – ৮	২	CC 4	UNIT 4 : বাংলা শব্দ ভাণ্ডার
			UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
	৪	CC 8	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
			UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
	৬	CC 9	UNIT-নাটকের রূপভেদ
		CC 10	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
	৬	CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যাণ্ডে বঙ্গমহিলা
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 4 : বাংলা শব্দ ভাণ্ডার
			UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
	৪	CC 8	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
			UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর

	৬	CC 9	UNIT-নাটকের রূপভেদ
		CC 10	UNIT 2 সঞ্চয়িতা কাব্যসংকলনের অংশবিশেষ
		CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যান্ডে বঙ্গমহিলা

সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণ মূল্যায়ন				

সপ্তাহ ১৫-১৭	২	CC 4	UNIT 4 : বাংলা শব্দ ভাণ্ডার
			UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
		CC 8	UNIT 2 সঞ্চয়িতা কাব্যসংকলনের অংশবিশেষ
			UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
	৬	CC 9	UNIT-নাটকের রূপভেদ
		CC 10	UNIT 2 সঞ্চয়িতা কাব্যসংকলনের অংশবিশেষ
		CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যান্ডে বঙ্গমহিলা

সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন			

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপরিকল্পনা :বিজোড়সেমেস্টার (জুলাই – ডিসেম্বর)
২০২২-২৩ শিক্ষাবর্ষ
শিক্ষকেরনাম – ড. দীপঙ্কর ভট্টাচার্য

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 2 : বাংলা মঙ্গলকাব্যের ধারা – পরিচয়, উৎস, মনসা
	৩	CC 6	UNIT 3 : রাজা – রবীন্দ্রনাথ ঠাকুর

		CC 7	UNIT 1 : সাম্য – বঙ্কিমচন্দ্র চট্টোপাধ্যায়(ভূমিকা, পরিচ্ছেদ – ১)
		GE 3	UNIT 2 : স্বামীজীকে যেরূপ দেখিয়াছি – ভগিনী নিবেদিতা (ভূমিকা, পরি – ১-২)
	৫	CC 12	UNIT 3: স্বাধীনতা পূর্ববর্তী বাংলা ছোটগল্প (২ টি)
		DSE 2	UNIT 3 : পঞ্চভূত - রবীন্দ্রনাথ ঠাকুর (ভূমিকা, পরিচয়, সৌন্দর্যের সম্বন্ধ)
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 2 : বাংলা মঙ্গলকাব্যের ধারা – চণ্ডী
	৩	CC 6	UNIT 3 : রাজা – রবীন্দ্রনাথ ঠাকুর
		CC 7	UNIT 1 : সাম্য – বঙ্কিমচন্দ্র চট্টোপাধ্যায় (পরি ২)
		GE 3	UNIT 2 : স্বামীজীকে যেরূপ দেখিয়াছি – ভগিনী নিবেদিতা (পরি ৩ - ১০)
	৫	CC 12	UNIT 3: স্বাধীনতা পূর্ববর্তী বাংলা ছোটগল্প (৪ টি)
		DSE 2	UNIT 3 : পঞ্চভূত - রবীন্দ্রনাথ ঠাকুর
সপ্তাহ ৯ – ১২	১	CC 1	UNIT 2 : বাংলা মঙ্গলকাব্যের ধারা – ধর্ম
	৩	CC 6	UNIT 3 : রাজা – রবীন্দ্রনাথ ঠাকুর
		CC 7	UNIT 1 : সাম্য – বঙ্কিমচন্দ্র চট্টোপাধ্যায় (পরি ৩)
		GE 3	UNIT 2 : স্বামীজীকে যেরূপ দেখিয়াছি – ভগিনী নিবেদিতা (পরি ১১ - ১৬)
	৫	CC 12	UNIT 3: স্বাধীনতা পূর্ববর্তী বাংলা ছোটগল্প (২ টি)
		DSE 2	UNIT 3 : পঞ্চভূত - রবীন্দ্রনাথ ঠাকুর
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 2 : বাংলা মঙ্গলকাব্যের ধারা – শিবায়ন, অন্নদা
	৩	CC 6	UNIT 3 : রাজা – রবীন্দ্রনাথ ঠাকুর
		CC 7	UNIT 1 : সাম্য – বঙ্কিমচন্দ্র চট্টোপাধ্যায় (পরি ৪ ও পাঠ সমাপ্তি)
		GE 3	UNIT 2 : স্বামীজীকে যেরূপ দেখিয়াছি – ভগিনী নিবেদিতা (অবশিষ্টাংশ)
	৫	CC 12	UNIT 3: স্বাধীনতা পূর্ববর্তী বাংলা ছোটগল্প (২ টি)
		DSE 2	UNIT 3 : পঞ্চভূত - রবীন্দ্রনাথ ঠাকুর
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগর কলেজ

বাংলা বিভাগ

পাঠপরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি – জুন)

২০২২-২৩ শিক্ষাবর্ষ

শিক্ষকের নাম – ড. দীপঙ্কর ভট্টাচার্য

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস
		AECC	সহজ পাঠ - রবীন্দ্রনাথ ঠাকুর
	8	CC 9	UNIT 1 : ঘরে বাইরে - রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT 2 : বাংলা কথাসাহিত্যের রূপভেদ
	৬	CC 14	UNIT 2: য়ুরোপ প্রবাসীর পত্র - রবীন্দ্রনাথ ঠাকুর
		CC 14	UNIT 4: হে পূর্ণ তব চরণের কাছে – নবনীতা দেবসেন
সপ্তাহ ৫ – ৮	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস
		AECC	সহজ পাঠ - রবীন্দ্রনাথ ঠাকুর
	8	CC 9	UNIT 1 : ঘরে বাইরে - রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT 2 : বাংলা কথাসাহিত্যের রূপভেদ
	৬	CC 14	UNIT 2: য়ুরোপ প্রবাসীর পত্র - রবীন্দ্রনাথ ঠাকুর
		CC 14	UNIT 4: হে পূর্ণ তব চরণের কাছে – নবনীতা দেবসেন
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস
		AECC	সহজ পাঠ - রবীন্দ্রনাথ ঠাকুর
	8	CC 9	UNIT 1 : ঘরে বাইরে - রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT 2 : বাংলা কথাসাহিত্যের রূপভেদ
	৬	CC 14	UNIT 2: য়ুরোপ প্রবাসীর পত্র - রবীন্দ্রনাথ ঠাকুর
		CC 14	UNIT 4: হে পূর্ণ তব চরণের কাছে – নবনীতা দেবসেন
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস
		AECC	সহজ পাঠ - রবীন্দ্রনাথ ঠাকুর
	8	CC 9	UNIT 1 : ঘরে বাইরে - রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT 2 : বাংলা কথাসাহিত্যের রূপভেদ
	৬	CC 14	UNIT 2: য়ুরোপ প্রবাসীর পত্র - রবীন্দ্রনাথ ঠাকুর
		CC 14	UNIT 4: হে পূর্ণ তব চরণের কাছে – নবনীতা দেবসেন

সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিকল্পনা :বিজোড়সেমেস্টার (জুলাই – ডিসেম্বর)

২০২২-২৩ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপকদেবপ্রিয়ভট্টাচার্য

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 4 :বাংলাসাহিত্যেরইতিহাস : পদাবলি,শাক্তপদাবলি।
		CC 2	UNIT 2 : শাক্তপদাবলি
	৩	CC 5	UNIT 1 : বাংলাঅলঙ্কার
		CC 7	UNIT 2 : বিশ্বপরিচয় – রবীন্দ্রনাথঠাকুর (পরমানুলোক)
		GE 3	UNIT 3 : আত্মপরিচয় – শিবনাথশাস্ত্রী (পরিচ্ছেদ ৭-৮)
	৫	CC 12	UNIT 1: ছোটগল্প – রবীন্দ্রনাথঠাকুর (নির্বাচিত ২টি)
		DSE 2	UNIT 1 : মুচিরামগুড়েরজীবনচরিত –বঙ্কিমচন্দ্রচট্টোপাধ্যায়
সপ্তাহ৫ – ৮	১	CC 1	UNIT 4 :বাংলাসাহিত্যেরইতিহাস : পদাবলি, শাক্তপদাবলি।
		CC 2	UNIT 2 : শাক্তপদাবলি
	৩	CC 5	UNIT 1 : বাংলাঅলঙ্কার
		CC 7	UNIT 2 : বিশ্বপরিচয় – রবীন্দ্রনাথঠাকুর (নক্ষত্রলোক, সৌরজগৎ)
		GE 3	UNIT 3 : আত্মপরিচয় – শিবনাথশাস্ত্রী (পরিচ্ছেদ৯-১১)
	৫	CC 12	UNIT 1: ছোটগল্প – রবীন্দ্রনাথঠাকুর (নির্বাচিত৩টি)
		DSE 2	UNIT 1 : মুচিরামগুড়েরজীবনচরিত – বঙ্কিমচন্দ্রচট্টোপাধ্যায়
সপ্তাহ৯ – ১২	১	CC 1	UNIT 4 :বাংলাসাহিত্যেরইতিহাস : চৈতন্যজীবনী
		CC 2	UNIT 2 : শাক্তপদাবলি
	৩	CC 5	UNIT 1 : বাংলাঅলঙ্কার

		CC 7	UNIT 2 : বিশ্বপরিচয় – রবীন্দ্রনাথঠাকুর(গ্রহলোক, ভূলোক)
		GE 3	UNIT 3 : আত্মপরিচয় – শিবনাথশাস্ত্রী(পরিচ্ছেদ১১-১২)
	৫	CC 12	UNIT 1: ছোটগল্প – রবীন্দ্রনাথঠাকুর (নির্বাচিত৩টি)
		DSE 2	UNIT 1 : মুচিরামগুড়েরজীবনচরিত – বঙ্কিমচন্দ্রচট্টোপাধ্যায়
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 4 :বাংলাসাহিত্যেরইতিহাস : চৈতন্যজীবনী
		CC 2	UNIT 2 : শাক্তপদাবলি
	৩	CC 5	UNIT 1 : বাংলাঅলঙ্কার
		CC 7	UNIT 2 : বিশ্বপরিচয় – রবীন্দ্রনাথঠাকুর (উপসংহার)
		GE 3	UNIT 3 : আত্মপরিচয় – শিবনাথশাস্ত্রী(পরিচ্ছেদ১৩)
	৫	CC 12	UNIT 1: ছোটগল্প – রবীন্দ্রনাথঠাকুর (নির্বাচিত২টি)
		DSE 2	UNIT 1 : মুচিরামগুড়েরজীবনচরিত – বঙ্কিমচন্দ্রচট্টোপাধ্যায়
সপ্তাহ ১৮	**পাঠ-পুনর্বিবেচনা ও অনুশীলন**		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিকল্পনা : জোড়সেমেস্টার (জানুয়ারি – জুন)

২০২২-২৩ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপকদেবপ্রিয়ভট্টাচার্য

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 3	UNIT 3 : স্বরধ্বনি ও ব্যঞ্জনধ্বনি - পরিচয়
		CC 2	UNIT 3 : ধ্বনিপরিবর্তন
		AECC	বাংলাব্যাকরণ (পদপরিচয়, পদান্তর)
	৪	CC 10	UNIT 1 : কাব্যেররূপভেদ
		CC 10	UNIT 3 : কাব্যজিজ্ঞাসা – অতুলচন্দ্রগুপ্ত (রস)
		GE 4	UNIT 1 : বাংলাশিশু ও কিশোরসাহিত্যেরইতিহাস
	৬	CC 13	UNIT 4: হিন্দিসাহিত্যেরইতিহাস
		DSE 3	UNIT 4: শঙ্খঘোষেরকবিতা (১ টি)
সপ্তাহ ৫ – ৮	২	CC 3	UNIT 3 : স্বরধ্বনি ও ব্যঞ্জনধ্বনি, বর্গীকরণ
		CC 3	UNIT 4 : শব্দভাণ্ডার
		AECC	বাংলাব্যাকরণ (সমাস, ক্রিয়া)
	৪	CC 10	UNIT 1 : কাব্যেররূপভেদ
		CC 10	UNIT 3 : কাব্যজিজ্ঞাসা – অতুলচন্দ্রগুপ্ত (ধ্বনি)
		GE 4	UNIT 1 : বাংলাশিশু ও কিশোরসাহিত্যেরইতিহাস
	৬	CC 13	UNIT 4: হিন্দিসাহিত্যেরইতিহাস

		DSE 3	UNIT 4: শঙ্খঘোষেরকবিতা (২ টি)
সপ্তাহ ৯ – ১২	২	CC 3	UNIT 3 : স্বরধ্বনি ও ব্যঞ্জনধ্বনি, বর্গীকরণ
		CC 3	UNIT 4 : শব্দার্থপরিবর্তন
		AECC	বাংলাব্যাকরণ (ক্রিয়ারকাল, বাংলাবানানচর্চা)
	৪	CC 10	UNIT 1 : কাব্যেররূপভেদ
		CC 10	UNIT 3 : কাব্যজিজ্ঞাসা – অতুলচন্দ্রগুপ্ত (রস ও ধ্বনি)
		GE 4	UNIT 1 : বাংলাশিশু ও কিশোরসাহিত্যেরইতিহাস
	৬	CC 13	UNIT 4: হিন্দিসাহিত্যেরইতিহাস
		DSE 3	UNIT 4: শঙ্খঘোষেরকবিতা (২ টি)
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	২	CC 3	UNIT 3 : স্বরধ্বনি ও ব্যঞ্জনধ্বনি, বর্গীকরণ
		CC 3	UNIT 4 : শব্দার্থপরিবর্তন
	৪	AECC	বাংলাব্যাকরণ (ক্রিয়ারকাল, বাংলাবানানচর্চা)
		CC 10	UNIT 1 : কাব্যেররূপভেদ
		CC 10	UNIT 3 : কাব্যজিজ্ঞাসা – অতুলচন্দ্রগুপ্ত (কথা ও ফল)
		GE 4	UNIT 1 : বাংলাশিশু ও কিশোরসাহিত্যেরইতিহাস
	৬	CC 13	UNIT 4: হিন্দিসাহিত্যেরইতিহাস
		DSE 3	UNIT 4: শঙ্খঘোষেরকবিতা (১-৫ প্রশ্ন ও উত্তরআলোচনা)
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

পাঠপরিকল্পনা :বিজোড়সেমেস্টার (জুলাই – ডিসেম্বর)
২০২২-২৩ শিক্ষাবর্ষ
শিক্ষকেরনাম – অধ্যাপক অমরেশ মণ্ডল

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 2	UNIT 2 : প্রাগাধুনিক বাংলা সাহিত্য , চণ্ডীমঙ্গল কাব্য, আখেটিক খণ্ড
	৩	CC 7	UNIT 3 : প্রমথ চৌধুরী, প্রবন্ধসংগ্রহ ,নির্বাচিত অংশ
	৫	CC 11	UNIT 2: শরৎচন্দ্রের পথের দাবী
		CC 12	UNIT 4 : স্বাধীনতা পরবর্তী ছোট গল্প(১০টি)
		DSE 3 :	UNIT 3 : শক্তি চট্টোপাধ্যায়ের নির্বাচিত কবিতা

সপ্তাহ৫ – ৮	১	CC 2	UNIT 2 : প্রাগাধুনিক বাংলা সাহিত্য , চণ্ডীমঙ্গল কাব্য, আখেটিক খণ্ড
	৩	CC 7	UNIT 3 : প্রমথ চৌধুরী, প্রবন্ধসংগ্রহ ,নির্বাচিত অংশ
	৫	CC 11	UNIT 2: শ্রৎচন্দ্রের পথের দাবী
		CC 12	UNIT 4 : স্বাধীনতা পরবর্তী ছোট গল্প(১০টি)
		DSE 3 :	UNIT 3 : শক্তি চট্টোপাধ্যায়ের নির্বাচিত কবিতা
সপ্তাহ৯ – ১২	১	CC 2	UNIT 2 : প্রাগাধুনিক বাংলা সাহিত্য , চণ্ডীমঙ্গল কাব্য, আখেটিক খণ্ড
	৩	CC 7	UNIT 3 : প্রমথ চৌধুরী, প্রবন্ধসংগ্রহ ,নির্বাচিত অংশ
	৫	CC 11	UNIT 2: শ্রৎচন্দ্রের পথের দাবী
		CC 12	UNIT 4 : স্বাধীনতা পরবর্তী ছোট গল্প(১০টি)
		DSE 3 :	UNIT 3 : শক্তি চট্টোপাধ্যায়ের নির্বাচিত কবিতা
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	১		UNIT 2 : প্রাগাধুনিক বাংলা সাহিত্য , চণ্ডীমঙ্গল কাব্য, আখেটিক খণ্ড
	৩	CC 7	UNIT 3 : প্রমথ চৌধুরী, প্রবন্ধসংগ্রহ ,নির্বাচিত অংশ
	৫	CC 11	UNIT 2: শ্রৎচন্দ্রের পথের দাবী
		CC 12	UNIT 4 : স্বাধীনতা পরবর্তী ছোট গল্প(১০টি)
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
3	১	CC 2	UNIT 2 : প্রাগাধুনিক বাংলা সাহিত্য , চণ্ডীমঙ্গল কাব্য, আখেটিক খণ্ড
	৩	CC 7	UNIT 3 : প্রমথ চৌধুরী, প্রবন্ধসংগ্রহ ,নির্বাচিত অংশ
	৫	CC 11	UNIT 2: শ্রৎচন্দ্রের পথের দাবী
		CC 12	UNIT 4 : স্বাধীনতা পরবর্তী ছোট গল্প(১০টি)

		DSE 3 :	UNIT 3 : শক্তি চট্টোপাধ্যায়ের নির্বাচিত কবিতা
সপ্তাহ৫ – ৮	১	CC 1	UNIT 4 :বাংলাসাহিত্যেরইতিহাস : পদাবলি, শাক্তপদাবলি।
	৩	CC 5	UNIT 1 : বাংলাঅলঙ্কার
	৫	CC 12	UNIT 1: ছোটগল্প – রবীন্দ্রনাথঠাকুর (নির্বাচিত৩টি)
		DSE 2	UNIT 1 : মুচিরামগুড়েরজীবনচরিত – বঙ্কিমচন্দ্রচট্টোপাধ্যায়
সপ্তাহ৯ – ১২	১	CC 1	UNIT 4 :বাংলাসাহিত্যেরইতিহাস : চৈতন্যজীবনী
		CC 2	UNIT 2 : শাক্তপদাবলি
	৩	CC 5	UNIT 1 : বাংলাঅলঙ্কার
		CC 7	UNIT 2 : বিশ্বপরিচয় – রবীন্দ্রনাথঠাকুর(গ্রহলোক, ভূলোক)
		GE 3	UNIT 3 : আত্মপরিচয় – শিবনাথশাস্ত্রী(পরিচ্ছেদ১১-১২)
	৫	CC 12	UNIT 1: ছোটগল্প – রবীন্দ্রনাথঠাকুর (নির্বাচিত৩টি)
		DSE 2	UNIT 1 : মুচিরামগুড়েরজীবনচরিত – বঙ্কিমচন্দ্রচট্টোপাধ্যায়
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 4 :বাংলাসাহিত্যেরইতিহাস : চৈতন্যজীবনী
		CC 2	UNIT 2 : শাক্তপদাবলি
		CC 5	UNIT 1 : বাংলাঅলঙ্কার
	৩	CC 7	UNIT 2 : বিশ্বপরিচয় – রবীন্দ্রনাথঠাকুর (উপসংহার)
		GE 3	UNIT 3 : আত্মপরিচয় – শিবনাথশাস্ত্রী(পরিচ্ছেদ১৩)
	৫	CC 12	UNIT 1: ছোটগল্প – রবীন্দ্রনাথঠাকুর (নির্বাচিত২টি)
		DSE 2	UNIT 1 : মুচিরামগুড়েরজীবনচরিত – বঙ্কিমচন্দ্রচট্টোপাধ্যায়
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিকল্পনা : জোড়সেমেস্টার (জানুয়ারি – জুন)

২০২২-২৩ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপক অমরেশ মণ্ডল

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 4	UNIT 2 : বাংলা নাট্য সাহিত্যের উদ্ভব ও বিকাশের ইতিহাস
	8	CC 8	UNIT 1 : মেঘনাদবধ কাব্য ১-৬ সর্গ
		CC 9	UNIT 4 : রবীন্দ্রনাথের 'রাশিয়ার চিঠি'
	৬	CC 14	UNIT 1: কৃষ্ণভামিণী দেবী, ইংল্যাণ্ডে বঙ্গমহিলা
		DSE 4	UNIT 4: ফুল্লকেতুর পালা নাটক
সপ্তাহ ৫ – ৮	২	CC 4	UNIT 2 : বাংলা নাট্য সাহিত্যের উদ্ভব ও বিকাশের ইতিহাস
	8	CC 8	UNIT 1 : মেঘনাদবধ কাব্য ১-৬ সর্গ

		CC 9	UNIT 4 : রবীন্দ্রনাথের 'রাশিয়ার চিঠি'
	৬	CC 14	UNIT 1: কৃষ্ণভামিণী দেবী, ইংল্যাণ্ডে বঙ্গমহিলা
		DSE 4	UNIT 4: ফুল্লকেতুর পালা নাটক
সপ্তাহ ৯ – ১২	২	CC 4	UNIT 2 : বাংলা নাট্য সাহিত্যের উদ্ভব ও বিকাশের ইতিহাস
	৪	CC 8	UNIT 1 : মেঘনাদবধ কাব্য ১-৬ সর্গ
		CC 9	UNIT 4 : রবীন্দ্রনাথের 'রাশিয়ার চিঠি'
	৬	CC 14	UNIT 1: কৃষ্ণভামিণী দেবী, ইংল্যাণ্ডে বঙ্গমহিলা
		DSE 4	UNIT 4: ফুল্লকেতুর পালা নাটক
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	২	CC 4	UNIT 2 : বাংলা নাট্য সাহিত্যের উদ্ভব ও বিকাশের ইতিহাস
		CC 8	UNIT 1 : মেঘনাদবধ কাব্য ১-৬ সর্গ
		CC 9	UNIT 4 : রবীন্দ্রনাথের 'রাশিয়ার চিঠি'
	৬	CC 14	UNIT 1: কৃষ্ণভামিণী দেবী, ইংল্যাণ্ডে বঙ্গমহিলা
		DSE 4	UNIT 4: ফুল্লকেতুর পালা নাটক
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগর কলেজ

বাংলা বিভাগ

পাঠ পরিকল্পনা : বিজোড় সেমেস্টার (জুলাই – ডিসেম্বর)
২০২০ - ২১ শিক্ষাবর্ষ
শিক্ষকের নাম – ড. তপশ্রী চট্টোপাধ্যায়

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 4 : বৈষ্ণব পদাবলি, চৈতন্যজীবনী, নাথ সাহিত্য
	৩	CC 5	UNIT 2 : কৃষ্ণকুমারী
		CC 7	UNIT 4 : আপন কথা
	৫	CC 11	UNIT 1: রাজসিংহ UNIT 1: পদ্মানদীর মাঝি
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 4 : বৈষ্ণব পদাবলি, চৈতন্যজীবনী, নাথ সাহিত্য
	৩	CC 5	UNIT 2 : কৃষ্ণকুমারী
		CC 7	UNIT 4 : আপন কথা
	৫	CC 11	UNIT 1: রাজসিংহ UNIT 1: পদ্মানদীর মাঝি
সপ্তাহ ৯ – ১২	১	CC 1	UNIT 4 : বৈষ্ণব পদাবলি, চৈতন্যজীবনী, নাথ সাহিত্য
	৩	CC 5	UNIT 2 : কৃষ্ণকুমারী
		CC 7	UNIT 4 : আপন কথা
	৫	CC 11	UNIT 1: রাজসিংহ UNIT 1: পদ্মানদীর মাঝি
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 4 : বৈষ্ণব পদাবলি, চৈতন্যজীবনী, নাথ সাহিত্য
		CC 5	UNIT 2 : কৃষ্ণকুমারী
	৩	CC 7	UNIT 4 : আপন কথা
	৫	CC 11	UNIT 1: রাজসিংহ UNIT 1: পদ্মানদীর মাঝি
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগর কলেজ
বাংলা বিভাগ
পাঠ পরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি – জুন)
২০২০ - ২১ শিক্ষাবর্ষ
শিক্ষকের নাম – ড. তপশ্রী চট্টপাধ্যায়

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 3	UNIT 1 : ভারতীয় আর্যভাষার বিবর্তনের ইতিহাস UNIT 2 : বাংলা ভাষার উপভাষা
	৪	CC 10	UNIT 3 : কাব্যজিজ্ঞাসা UNIT 4 : সাহিত্য – রবীন্দ্রনাথ ঠাকুর
	৬	CC 13 DSE 4	UNIT 2: ইংরিজি সাহিত্যের ইতিহাস UNIT 2 : চন্দ্রগুপ্ত
সপ্তাহ ৫ – ৮	২	CC 3	UNIT 1 : ভারতীয় আর্যভাষার বিবর্তনের ইতিহাস UNIT 2 : বাংলা ভাষার উপভাষা
	৪	CC 10	UNIT 3 : কাব্যজিজ্ঞাসা UNIT 4 : সাহিত্য – রবীন্দ্রনাথ ঠাকুর
	৬	CC 13 DSE 4	UNIT 2: ইংরিজি সাহিত্যের ইতিহাস UNIT 2 : চন্দ্রগুপ্ত
সপ্তাহ ৯ – ১২	২	CC 3	UNIT 1 : ভারতীয় আর্যভাষার বিবর্তনের ইতিহাস UNIT 2 : বাংলা ভাষার উপভাষা
	৪	CC 10	UNIT 3 : কাব্যজিজ্ঞাসা UNIT 4 : সাহিত্য – রবীন্দ্রনাথ ঠাকুর
	৬	CC 13 DSE 4	UNIT 2: ইংরিজি সাহিত্যের ইতিহাস UNIT 2 : চন্দ্রগুপ্ত
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণ মূল্যায়ন			
		CC 3	UNIT 1 : ভারতীয় আর্যভাষার বিবর্তনের ইতিহাস UNIT 2 : বাংলা ভাষার উপভাষা
		CC 10	UNIT 3 : কাব্যজিজ্ঞাসা UNIT 4 : সাহিত্য – রবীন্দ্রনাথ ঠাকুর

| | ৬ | CC 13 | UNIT 2: ইংরিজি সাহিত্যের ইতিহাস |
| | | DSE 4 | UNIT 2 : চন্দ্রগুপ্ত |

বিধাননগর কলেজ
বাংলা বিভাগ
পাঠ পরিকল্পনা : বিজোড় সেমেস্টার (জুলাই – ডিসেম্বর)

২০২১ - ২২ শিক্ষাবর্ষ

শিক্ষকের নাম – ড. তপশ্রী চট্টপাধ্যায়

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 4 : বৈষ্ণব পদাবলি, চৈতন্যজীবনী, নাথ সাহিত্য
	৩	CC 5	UNIT 2 : কৃষ্ণকুমারী
		CC 7	UNIT 4 : আপন কথা
	৫	CC 11	UNIT 1: রাজসিংহ UNIT 1: পদ্মানদীর মাঝি
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 4 : বৈষ্ণব পদাবলি, চৈতন্যজীবনী, নাথ সাহিত্য
	৩	CC 5	UNIT 2 : কৃষ্ণকুমারী
		CC 7	UNIT 4 : আপন কথা
	৫	CC 11	UNIT 1: রাজসিংহ UNIT 1: পদ্মানদীর মাঝি
সপ্তাহ ৯ – ১২	১	CC 1	UNIT 4 : বৈষ্ণব পদাবলি, চৈতন্যজীবনী, নাথ সাহিত্য
	৩	CC 5	UNIT 2 : কৃষ্ণকুমারী
		CC 7	UNIT 4 : আপন কথা
	৫	CC 11	UNIT 1: রাজসিংহ UNIT 1: পদ্মানদীর মাঝি
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
	১	CC 1	UNIT 4 : বৈষ্ণব পদাবলি, চৈতন্যজীবনী, নাথ সাহিত্য
		CC 5	UNIT 2 : কৃষ্ণকুমারী

সপ্তাহ ১৫-১৭	৩	CC 7	UNIT 4 : আপন কথা
	৫	CC 11	UNIT 1: রাজসিংহ
			UNIT 1: পদ্মানদীর মাঝি
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগর কলেজ
বাংলা বিভাগ
পাঠ পরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি – জুন)
২০২১ - ২২ শিক্ষাবর্ষ
শিক্ষকের নাম – ড. তপশ্রী চট্টপাধ্যায়

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 3	UNIT 1 : ভারতীয় আর্যভাষার বিবর্তনের ইতিহাস
			UNIT 2 : বাংলা ভাষার উপভাষা
	৪	CC 10	UNIT 3 : কাব্যজিজ্ঞাসা
			UNIT 4 : সাহিত্য – রবীন্দ্রনাথ ঠাকুর
	৬	CC 13	UNIT 2: ইংরিজি সাহিত্যের ইতিহাস
		DSE 4	UNIT 2 : চন্দ্রগুপ্ত
সপ্তাহ ৫ – ৮	২	CC 3	UNIT 1 : ভারতীয় আর্যভাষার বিবর্তনের ইতিহাস
			UNIT 2 : বাংলা ভাষার উপভাষা
	৪	CC 10	UNIT 3 : কাব্যজিজ্ঞাসা
			UNIT 4 : সাহিত্য – রবীন্দ্রনাথ ঠাকুর
	৬	CC 13	UNIT 2: ইংরিজি সাহিত্যের ইতিহাস
		DSE 4	UNIT 2 : চন্দ্রগুপ্ত
সপ্তাহ ৯ – ১২	২	CC 3	UNIT 1 : ভারতীয় আর্যভাষার বিবর্তনের ইতিহাস
			UNIT 2 : বাংলা ভাষার উপভাষা
	৪	CC 10	UNIT 3 : কাব্যজিজ্ঞাসা
			UNIT 4 : সাহিত্য – রবীন্দ্রনাথ ঠাকুর
	৬	CC 13	UNIT 2: ইংরিজি সাহিত্যের ইতিহাস

		DSE 4	UNIT 2 : চন্দ্রগুপ্ত
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণ মূল্যায়ন			
		CC 3	UNIT 1 : ভারতীয় আর্যভাষার বিবর্তনের ইতিহাস
			UNIT 2 : বাংলা ভাষার উপভাষা
		CC 10	UNIT 3 : কাব্যজিজ্ঞাসা
			UNIT 4 : সাহিত্য – রবীন্দ্রনাথ ঠাকুর
	৬	CC 13	UNIT 2: ইংরিজি সাহিত্যের ইতিহাস
		DSE 4	UNIT 2 : চন্দ্রগুপ্ত

বিধাননগর কলেজ
বাংলা বিভাগ
পাঠ পরিকল্পনা : বিজোড় সেমেস্টার (জুলাই – ডিসেম্বর)
২০২২ - ২৩ শিক্ষাবর্ষ
শিক্ষকের নাম – ড. তপশ্রী চট্টপাধ্যায়

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	১	CC 1	UNIT 4 : বৈষ্ণব পদাবলি, চৈতন্যজীবনী, নাথ সাহিত্য
	৩	CC 5	UNIT 2 : কৃষ্ণকুমারী
		CC 7	UNIT 4 : আপন কথা
	৫	CC 11	UNIT 1: রাজসিংহ
			UNIT 1: পদ্মানদীর মাঝি
সপ্তাহ ৫ – ৮	১	CC 1	UNIT 4 : বৈষ্ণব পদাবলি, চৈতন্যজীবনী, নাথ সাহিত্য
	৩	CC 5	UNIT 2 : কৃষ্ণকুমারী
		CC 7	UNIT 4 : আপন কথা
	৫	CC 11	UNIT 1: রাজসিংহ
			UNIT 1: পদ্মানদীর মাঝি
সপ্তাহ ৯ – ১২	১	CC 1	UNIT 4 : বৈষ্ণব পদাবলি, চৈতন্যজীবনী, নাথ সাহিত্য
	৩	CC 5	UNIT 2 : কৃষ্ণকুমারী

		CC 7	UNIT 4 : আপন কথা
	৫	CC 11	UNIT 1: রাজসিংহ
			UNIT 1: পদ্মানদীর মাঝি
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 4 : বৈষ্ণব পদাবলি, চৈতন্যজীবনী, নাথ সাহিত্য
		CC 5	UNIT 2 : কৃষ্ণকুমারী
	৩	CC 7	UNIT 4 : আপন কথা
	৫	CC 11	UNIT 1: রাজসিংহ
			UNIT 1: পদ্মানদীর মাঝি
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগর কলেজ
বাংলা বিভাগ
পাঠ পরিকল্পনা : জোড় সেমেস্টার (জানুয়ারি – জুন)
২০২২ - ২৩ শিক্ষাবর্ষ
শিক্ষকের নাম – ড. তপশ্রী চট্টপাধ্যায়

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 3	UNIT 1 : ভারতীয় আর্যভাষার বিবর্তনের ইতিহাস
			UNIT 2 : বাংলা ভাষার উপভাষা
	৪	CC 10	UNIT 4 : সাহিত্য – রবীন্দ্রনাথ ঠাকুর
	৬	CC 13	UNIT 2: ইংরিজি সাহিত্যের ইতিহাস
		DSE 4	UNIT 2 : চন্দ্রগুপ্ত
সপ্তাহ ৫ – ৮	২	CC 3	UNIT 1 : ভারতীয় আর্যভাষার বিবর্তনের ইতিহাস
			UNIT 2 : বাংলা ভাষার উপভাষা
	৪	CC 10	UNIT 4 : সাহিত্য – রবীন্দ্রনাথ ঠাকুর
	৬	CC 13	UNIT 2: ইংরিজি সাহিত্যের ইতিহাস
		DSE 4	UNIT 2 : চন্দ্রগুপ্ত

সপ্তাহ ৯ – ১২	২	CC 3	UNIT 1 : ভারতীয় আর্যভাষার বিবর্তনের ইতিহাস
			UNIT 2 : বাংলা ভাষার উপভাষা
	৪	CC 10	UNIT 4 – সাহিত্য – রবীন্দ্রনাথ ঠাকুর
	৬	CC 13	UNIT 2: ইংরিজি সাহিত্যের ইতিহাস
		DSE 4	UNIT 2 : চন্দ্রগুপ্ত
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণ মূল্যায়ন			
		CC 3	UNIT 1 : ভারতীয় আর্যভাষার বিবর্তনের ইতিহাস
			UNIT 2 : বাংলা ভাষার উপভাষা
		CC 10	UNIT 4 : সাহিত্য – রবীন্দ্রনাথ ঠাকুর
	৬	CC 13	UNIT 2: ইংরিজি সাহিত্যের ইতিহাস
		DSE 4	UNIT 2 : চন্দ্রগুপ্ত

বিধাননগরকলেজ
বাংলাবিভাগ

পাঠপরিকল্পনা :দ্বিতীয়বর্ষ, তৃতীয়বর্ষ (পুরাতন বার্ষিক পাঠ্যক্রম)

(জুলাই – জুন)

২০১৮-২০১৯ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপকজয়ন্তমিত্রি

সপ্তাহ	বর্ষ	বিষয়
সপ্তাহ ১ – ৪	২য় বর্ষসাম্মানিক	শাক্তপদাবলি
	৩য় বর্ষসাম্মানিক	সঞ্চিতা,অরণ্যেরঅধিকার
	২য় বর্ষসাধারণ	মেঘনাদবধকাব্য, পল্লীসমাজ
সপ্তাহ৫ –৮	২যবর্ষসাম্মানিক	শাক্তপদাবলি
	৩য় বর্ষসাম্মানিক	সঞ্চিতা, অরণ্যেরঅধিকার
	২য় বর্ষসাধারণ	মেঘনাদবধকাব্য, পল্লীসমাজ
সপ্তাহ৯ –১২	২যবর্ষসাম্মানিক	মুক্তধারা, টিনেরতলোয়ার
	৩য় বর্ষসাম্মানিক	সঞ্চিতা, অরণ্যেরঅধিকার
	২য় বর্ষসাধারণ	মেঘনাদবধকাব্য, পল্লীসমাজ
সপ্তাহ ১৩	২য় বর্ষসাম্মানিক	মুক্তধারা, টিনেরতলোয়ার
	৩য় বর্ষসাম্মানিক	সঞ্চিতা, অরণ্যেরঅধিকার
	২য় বর্ষসাধারণ	মেঘনাদবধকাব্য, পল্লীসমাজ
সপ্তাহ ১৪– ১৫	২য় বর্ষসাম্মানিক	মুক্তধারা, টিনেরতলোয়ার
	৩য় বর্ষসাম্মানিক	সঞ্চিতা, অরণ্যেরঅধিকার
	২য় বর্ষসাধারণ	মেঘনাদবধকাব্য, পল্লীসমাজ
সপ্তাহ ১৬-১৭	২যবর্ষসাম্মানিক	মুক্তধারা, টিনেরতলোয়ার
	৩য় বর্ষসাম্মানিক	সঞ্চিতা, অরণ্যেরঅধিকার
	২য় বর্ষসাধারণ	মেঘনাদবধকাব্য, পল্লীসমাজ
পুনরালোচনা		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিকল্পনা :তৃতীয়বর্ষ

শিক্ষকেরনাম – অধ্যাপকজয়ন্তমিস্ত্রি

সপ্তাহ	বর্ষ	বিষয়
সপ্তাহ ১ – ৪		
	৩য় বর্ষসাম্মানিক	সঞ্চিতা,অরণ্যেরঅধিকার
সপ্তাহ ৫ –৮		
	৩য় বর্ষসাম্মানিক	সঞ্চিতা,অরণ্যেরঅধিকার
সপ্তাহ ৯ –১২		
	৩য় বর্ষসাম্মানিক	অরণ্যেরঅধিকার, প্রবন্ধনবন্ধেররূপভেদ
সপ্তাহ ১৩		
	৩য় বর্ষসাম্মানিক	প্রবন্ধনিবন্ধেররূপভেদ, অহমীয়াসাহিত্যেরইতিহাস
সপ্তাহ ১৪– ১৫		
	৩য় বর্ষসাম্মানিক	প্রবন্ধনিবন্ধেররূপভেদ, অহমীয়াসাহিত্যেরইতিহাস
সপ্তাহ ১৬-১৭		
	৩য় বর্ষসাম্মানিক	প্রবন্ধনিবন্ধেররূপভেদ, অহমীয়াসাহিত্যেরইতিহাস
পুনরালোচনা		

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপরিকল্পনা :দ্বিতীয়বর্ষ, তৃতীয়বর্ষ
(জুলাই – জুন)
২০১৮-২০১৯ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপকউদয়শঙ্করবর্মা

সপ্তাহ	বর্ষ	বিষয়
সপ্তাহ ১ – ৪	২য় বর্ষসাম্মানিক	ছন্দেরপরিচয় ও ছন্দনির্ণয়
	৩য় বর্ষসাম্মানিক	একালেরকবিতাসঞ্চয়ন, সংস্কৃতসাহিত্যেরইতিহাস
	২য় বর্ষসাধারণ	ছন্দেরপরিচয়ওছন্দনির্ণয়

সপ্তাহ ৫ –৮	২য়বর্ষসাম্মানিক	ছন্দেরপরিচয়ওছন্দনির্ণয়
	৩য় বর্ষসাম্মানিক	একালেরকবিতাসঞ্চয়ন, সংস্কৃতসাহিত্যেরইতিহাস
	২য় বর্ষসাধারণ	ছন্দেরপরিচয়ওছন্দনির্ণয়
সপ্তাহ ৯ –১২	২য়বর্ষসাম্মানিক	ছন্দেরপরিচয়ওছন্দনির্ণয়
	৩য় বর্ষসাম্মানিক	একালেরকবিতাসঞ্চয়ন, সংস্কৃতসাহিত্যেরইতিহাস
	২য় বর্ষসাধারণ	একালেরকবিতাসঞ্চয়ন
সপ্তাহ ১৩	২য় বর্ষসাম্মানিক	ছন্দেরপরিচয়ওছন্দনির্ণয়
	৩য় বর্ষসাম্মানিক	একালেরপ্রবন্ধসঞ্চয়ন, একালেরসমালোচনাসঞ্চয়ন
	২য় বর্ষসাধারণ	একালেরকবিতাসঞ্চয়ন
সপ্তাহ ১৪– ১৫	২য় বর্ষসাম্মানিক	ছন্দেরপরিচয়ওছন্দনির্ণয়
	৩য় বর্ষসাম্মানিক	একালেরপ্রবন্ধসঞ্চয়ন, একালেরসমালোচনাসঞ্চয়ন
	২য় বর্ষসাধারণ	একালেরকবিতাসঞ্চয়ন
সপ্তাহ ১৬-১৭	২য় বর্ষসাম্মানিক	ছন্দেরপরিচয়ওছন্দনির্ণয়
	৩য় বর্ষসাম্মানিক	একালেরপ্রবন্ধসঞ্চয়ন, একালেরসমালোচনাসঞ্চয়ন
	২য় বর্ষসাধারণ	একালেরকবিতাসঞ্চয়ন
পুনরালোচনা		

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপরিকল্পনা :তৃতীয়বর্ষ
(জুলাই – জুন)
২০১৯-২০২০ শিক্ষাবর্ষ,
শিক্ষকেরনাম – অধ্যাপকঅধ্যাপকউদয়শঙ্করবর্মা

সপ্তাহ	বর্ষ	বিষয়
সপ্তাহ ১ – ৪		একালেরকবিতাসঞ্চয়ন, একালেরসমালোচনাসঞ্চয়ন
সপ্তাহ ৫ –৮		একালেরকবিতাসঞ্চয়,একালেরসমালোচনাসঞ্চয়ন
সপ্তাহ ৯ –১২		একালেরকবিতাসঞ্চয়ন,,একালেরসমালোচনাসঞ্চয়ন,
সপ্তাহ ১৩		সংস্কৃতসাহিত্যেরইতিহাস, একালেরপ্রবন্ধসঞ্চয়ন

সপ্তাহ ১৪– ১৫		সংস্কৃতসাহিত্যেরইতিহাসএকালেরপ্রবন্ধসঞ্চয়ন
সপ্তাহ ১৬-১৭		সংস্কৃতসাহিত্যেরইতিহাসএকালেরপ্রবন্ধসঞ্চয়ন
পুনরালোচনা		

বিধাননগরকলেজ,
বাংলাবিভাগ
পাঠপরিকল্পনা :দ্বিতীয়বর্ষ, তৃতীয়বর্ষ
(জুলাই – জুন)
২০১৮-২০১৯ শিক্ষাবর্ষ
শিক্ষকেরনাম – অধ্যাপককলিপিকাসাহা

সপ্তাহ	বর্ষ	বিষয়
সপ্তাহ ১ – ৪	২য় সাম্মানিক	অলঙ্কার, নাটকেরূপভেদ
	৩য় বর্ষসাম্মানিক	কাব্যেররূপভেদ, শৈলীবিচার
	২য় বর্ষসাধারণ	একালেরছোটগল্প, পুনশ্চ-রবীন্দ্রনাথঠাকুর
সপ্তাহ ৫ –৮	২য়বর্ষসাম্মানিক	অলঙ্কার, নাটকেরূপভেদ
	৩য় বর্ষসাম্মানিক	কাব্যেররূপভেদ, শৈলীবিচার
	২য় বর্ষসাধারণ	একালেরছোটগল্প, পুনশ্চ-রবীন্দ্রনাথঠাকুর
সপ্তাহ ৯ –১২	২য়বর্ষসাম্মানিক	অলঙ্কার, নাটকেরূপভেদ
	৩য় বর্ষসাম্মানিক	কাব্যেররূপভেদ, শৈলীবিচার
	২য় বর্ষসাধারণ	একালেরছোটগল্প, পুনশ্চ-রবীন্দ্রনাথঠাকুর
সপ্তাহ ১৩	২য় বর্ষসাম্মানিক	অলঙ্কার, নাটকেরূপভেদ
	৩য় বর্ষসাম্মানিক	একালেরগল্পসঞ্চয়ন-প্রাক্স্বাধীনতাযুগ, স্বাধীনতা-উত্তরযুগ, হিন্দিসাহিত্যেরইতিহাস
	২য় বর্ষসাধারণ	একালেরছোটগল্প, পুনশ্চ-রবীন্দ্রনাথঠাকুর
সপ্তাহ ১৪– ১৫	২য় বর্ষসাম্মানিক	অলঙ্কার, নাটকেরূপভেদ
	৩য় বর্ষসাম্মানিক	একালেরগল্পসঞ্চয়ন-প্রাক্স্বাধীনতাযুগ, স্বাধীনতা-উত্তরযুগ, হিন্দিসাহিত্যেরইতিহাস
	২য় বর্ষসাধারণ	একালেরছোটগল্প, পুনশ্চ-রবীন্দ্রনাথঠাকুর
সপ্তাহ ১৬-১৭	২য় বর্ষসাম্মানিক	অলঙ্কার, নাটকেরূপভেদ
	৩য় বর্ষসাম্মানিক	একালেরগল্পসঞ্চয়ন-প্রাক্স্বাধীনতাযুগ, স্বাধীনতা-উত্তরযুগ

	২য় বর্ষসাধারণ	একালেরছোটগল্প,পুনশ্চ-রবীন্দ্রনাথঠাকুর
পুনরালোচনা		

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপরিকল্পনা :তৃতীয়বর্ষ
(জুলাই – জুন)
২০১৯-২০২০ শিক্ষাবর্ষ
শিক্ষকেরনাম – অধ্যাপকলিপিকাসাহা

সপ্তাহ	বর্ষ	বিষয়
সপ্তাহ ১ – ৪		কাব্যেররূপভেদ, কাব্যেরশৈলীবিচার
সপ্তাহ ৫ –৮		কাব্যেররূপভেদ, কাব্যেরশৈলীবিচার
সপ্তাহ ৯ –১২		কাব্যেররূপভেদ, কাব্যেরশৈলীবিচার
সপ্তাহ ১৩		একালেরগল্পসঞ্চয়ন-প্রাকস্বাধীনতাযুগ, স্বাধীনতা-উত্তরযুগ, হিন্দিসাহিত্যেরইতিহাস
সপ্তাহ ১৪– ১৫		একালেরগল্পসঞ্চয়ন-প্রাকস্বাধীনতাযুগ, স্বাধীনতা-উত্তরযুগ, হিন্দিসাহিত্যেরইতিহাস
সপ্তাহ ১৬-১৭		একালেরগল্পসঞ্চয়ন-প্রাকস্বাধীনতাযুগ, স্বাধীনতা-উত্তরযুগ, হিন্দিসাহিত্যেরইতিহাস
পুনরালোচনা		

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপরিকল্পনা :দ্বিতীয়বর্ষ, তৃতীয়বর্ষ
(জুলাই – জুন)
২০১৮-২০১৯ শিক্ষাবর্ষ
শিক্ষকেরনাম – অধ্যাপকতপশ্রীচট্টোপাধ্যায়

সপ্তাহ	বর্ষ	বিষয়
সপ্তাহ ১ – ৪	২য় বর্ষসাম্মানিক	বৈষ্ণবপদাবলি, শেষেরকবিতা
	৩য় বর্ষসাম্মানিক	বীরাঙ্গনা,গল্পগুচ্ছ
	২য় বর্ষসাধারণ	বৈষ্ণবপদাবলি, রাজা ও রাণী

সপ্তাহ ৫ –৮	২য়বর্ষসাম্মানিক	বৈষ্ণবপদাবলি, শেষেরকবিতা
	৩য় বর্ষসাম্মানিক	বীরাঙ্গনা, গল্পগুচ্ছ
	২য় বর্ষসাধারণ	বৈষ্ণবপদাবলি, রাজাওরাণী
সপ্তাহ ৯ –১২	২য়বর্ষসাম্মানিক	বৈষ্ণবপদাবলি, শেষেরকবিতা
	৩য় বর্ষসাম্মানিক	বীরাঙ্গনা, গল্পগুচ্ছ
	২য় বর্ষসাধারণ	বৈষ্ণবপদাবলি, রাজাওরাণী
সপ্তাহ ১৩	২য় বর্ষসাম্মানিক	বৈষ্ণবপদাবলি,শেষেরকবিতা
	৩য় বর্ষসাম্মানিক	সোনারতরী, ইংরেজিসাহিত্যেরইতিহাস
	২য় বর্ষসাধারণ	বৈষ্ণবপদাবলি, রাজাওরাণী
সপ্তাহ ১৪- ১৫	২য় বর্ষসাম্মানিক	বৈষ্ণবপদাবলি, শেষেরকবিতা
	৩য় বর্ষসাম্মানিক	সোনারতরী, ইংরেজিসাহিত্যেরইতিহাস
	২য় বর্ষসাধারণ	বৈষ্ণবপদাবলি, রাজাওরাণী
সপ্তাহ ১৬-১৭	২য় বর্ষসাম্মানিক	বৈষ্ণবপদাবলি,শেষেরকবিতা
	৩য় বর্ষসাম্মানিক	সোনারতরী, ইংরেজিসাহিত্যেরইতিহাস
	২য় বর্ষসাধারণ	বৈষ্ণবপদাবলি, রাজাওরাণী
পুনরালোচনা		

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সপ্তাহ	বর্ষ	বিষয়
সপ্তাহ ১ – ৪		বীরাঙ্গনা, গল্পগুচ্ছ
সপ্তাহ ৫ –৮		বীরাঙ্গনা, গল্পগুচ্ছ
সপ্তাহ ৯ –১২		বীরাঙ্গনা, গল্পগুচ্ছ

সপ্তাহ ১৩		সোনারতরী, ইংরেজিসাহিত্যেরইতিহাস
সপ্তাহ ১৪– ১৫		সোনারতরী, ইংরেজিসাহিত্যেরইতিহাস
সপ্তাহ ১৬-১৭		সোনারতরী, ইংরেজিসাহিত্যেরইতিহাস
পুনরালোচনা		