

BIDHANNAGAR COLLEGE
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 (2019-20)

Class: B.A. in History under CBCS.

Semester: I, III & B.A. Part- III (old).

Name of the Teacher: Dr. Ratan Kumar Biswas.

Subject: History

Paper: CC-1, CC-2, GE-1, GE-3, CC-5, CC-6, CC-7, Paper V, VII & VIII.

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. Paper V: The Drain of Wealth and deindustrialisation. 9. Paper VII: The world after 1945: Origins of the Cold War and the division of Europe, The emergence of the American and the Soviet spheres of influence. 10. Paper VIII: The nature of Chinese Traditional Society.
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. Paper V: Commercialization of agriculture. 9. Paper VII: The system of military and economic alliances, The decline of European imperialism: Decolonisation – national improvements of Asia and Africa – 10. Paper VIII: The Chinese Social Structure: The Peasantry and the Gentry class.
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. Paper V: Peasants and landless labour. 9.Paper VII: The emergence of the Third World – alternatives of the cold war and the Non aligned movement. 10. Paper VIII: The Chinese Government and Bureaucracy.
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 Sivaji. 8. Paper V: Tribal Dimension. 9. Paper VII:Regional theatres of the cold war: Korea, Vietnam, Cuba and Middle-East. 10. Paper VIII: The Central Control on the Chinese Administration.
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. Paper V: Ideologies of the British Raj. 9. Paper VII: Tensions within the Soviet Bloc: Hungary, Czechoslovakia, Poland. Bipolar World and the regional conflicts. 10. Paper VIII: China's Pre-modern Economy.
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 (2019-20)

Class: B.A. in History under CBCS.

Semester: I, III & B.A. Part- III (old).

Name of the Teacher: Smt. Sumati Majumdar.

Subject: History

Paper: CC-1, CC-2, GE-1, GE-3, Paper V, VI, VII.

S. No	Practical Syllabus to be	Syllabus

	covered	
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 : Military reforms under the Khiljis & the Tughlaqs. 8. Paper V: Communal Politics and Partition. 9. Paper VI: The Vienna Congress. 10. Paper VII: The Communist Revolution and Emergence of China in world politics – Sino-Soviet and Sino-American relations.
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. Paper V: Hindu Fundamentalism and Muslim Separatism. 9. Paper VI: Metternich and Conservative Order in Europe. 10. Paper VII: From Bi-polarism to Uni-polarism: Politics of détente – end of the Cold War.
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. Paper V: Demand For Pakistan and Responses. 9. Paper VI: Liberalism and Nationalism. 10. Paper VII: Rise of terrorism and the challenge to international security – 9/11 and its impact.
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. Paper V: British Policy, Partition and Independence. 9. Paper VI: The Revolution of 1848 AD. 10. Paper VII: India and her neighbours: Indo-China relations – Indo-

		Myanmar relations.
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. Paper V: Partision, Migration and Rehabilitation. 9. Paper VI: Collapse of the Revolution of 1848 AD. 10. Paper VII: Indo-Bangladesh relations – Indo-Pakistan relations.
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 (2019-20)

Class: B.A. in History under CBCS.

Semester: I, III & B.A. Part- III (old).

Name of the Teacher: Dr. Eeshita Chatterjee.

Subject: History

Paper: CC-1, CC-2, GE-1, GE-3, CC-5, CC-6, CC-7, Paper V, VIII.

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. Paper V: Background of the Revolt of 1857 AD. 9. Paper VIII: Japan: Pre-Restoration Period.
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. Paper V: The Revolt of 1857 AD.: Causes. 9. Paper VIII: The Shogunate, the Feudal Society and government. .
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. Paper V: Revolt of 1857 AD.: Course. 9. Paper VIII: The Perry Mission.
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. Paper V: Revolt of 1857 AD.: Nature. 9. Paper VIII: The Meiji Restoration.
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. Paper V: Revolt of 1857 AD.: Consequences. 9. Paper VIII: Meiji-Its Nature and Character.
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 (2019-20)

Class: B.A. in History under CBCS.

Semester: I, III & B.A. Part- III (old).

Name of the Teacher: Smt. Swati Sen.

Subject: History

Paper: CC-1, CC-2, GE-1, CC-5, CC-6, CC-7, Paper V, VIII.

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. Paper V: Emergence of Gandhi. 9. Paper VI: The Idea of Europe and 18 th Century Society. 10. Paper VII: Peace settlements of 1919: its long-term consequences.
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. Paper V: Rowlatt Act and Rowlatt Satyagraha. 9. Paper VI: 18 th Century-Economy and politics. 10. Paper VII: the establishment of the Weimar Republic.
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. Paper V: Khilaphat and Non-Cooperation Movement. 9. Paper VI: The Age Enlightenment. 10. Paper VII: Europe in the inter-war period: Consolidation and development of the power of the Soviet state.
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 : Jahangir and Shah Jahan 8. Paper V: Simon Commission. 9. Paper VI: The Role of Philosophers. 10. Paper VII: Rise of Fascism in Italy – League of Nations – The Economic Depression.
Week 13 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. Paper V: Nehru Report and Round Table Conference. 9. Paper VI: The Trends in French Revolution: Aristocratic Revolt Bourgeoisie and Peasants, Constituent Assembly. 10. Paper VII: The rise of the Nazi power–Germany’s aggressive foreign policy – the outbreak of the World War II and historians.
Week 18	Revision, Practise	Revision

BIDHANNAGARCOLLEGE
GOVERNMENT OF WEST BENGAL,
SALT LAKE, KOLKATA
Teaching Plan for Even Semester,
UG course (CBCS & Old B.A. 1+1+1)
Department of History
Session (2019-20)

Class: B.A. in History under CBCS.

Semester: II, IV & B.A. Part- III (old).

Name of the Teacher: Dr. Ratan Kumar Biswas.

Subject: History

Paper: CC-3, CC-4, GE-2, CC-8, CC-9, CC-10, Paper V, VIII.

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. Paper V: Historiography of Indian nationalism. 8. Paper VIII: Colonial penetration and Chinese response: the tribute system, the canton system and their collapse- the opium wars and the treaty system – Rebellion

		in China and the White Lotus Society as a prototype – the Taiping rebellion – the Boxer rebellion.
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 succession; 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. Paper V: The founding of the Indian National Congress. 8. Paper VIII: Reform Movement of 1898–Dynastic reform and the Republican Revolution of 1911.
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. Paper V: The early Congress; the rise of Extremism; Partition of Bengal and the Swadeshi movement. 8. Paper VIII: The rise of the Kuomintang – Warlordism – the May Fourth Movement – the Rise of the Communist Party – the Kuomintang-Communist conflict – the People's Republic of China and the establishment of the new order.
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, Rayatwari and Mahalwari Commercialization of agriculture. 6. HISHGEC04T: The Rise of the British Power in Bengal. 7. Paper V: Trends in Muslim politics: Aligarh movement. 8. Paper VIII: Economic development and industrialization.
Week 13 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. Paper V: Muslim League, Separate electorates and Lucknow pact. 8. Paper VIII: Growth and change of China's foreign trade-compradors and Chinese capital-early industrialization
Week 18	Revision, Practise	Revision

BIDHANNAGAR COLLEGE
GOVERNMENT OF WEST BENGAL,
SALT LAKE, KOLKATA
Teaching Plan for Even Semester,
UG course (CBCS & Old B.A. 1+1+1)
Department of History
Session (2019-20)

Class: B.A. in History under CBCS.

Semester: II, IV & B.A. Part- III (old).

Name of the Teacher: Smt. Sumati Majumdar.

Subject: History

Paper: CC-3, CC-4, GE-2, CC-8, CC-9, CC-10, Paper V, VIII.

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. Paper V: Framing of the Indian constitution and establishment of parliamentary democracy. 7. Paper VI: Unification of Italy and Germany. 8. Paper VII: From Bi-polarism to Uni-polarism: Politics of détente – end of the Cold War.
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. Paper V: Making of Indian foreign policy: Non-alignment and the Third World. 7. Paper VI: Industrialisation of Europe: Difference in the industrialisation process between England and the continent 8. Paper VII: German Reunification – Globalization and its impact.
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. Paper V: The model of planned economy. Social and political movements. 7. Paper VI: Europe in 1871: the Third Republic. 8. Paper VII: American Uni-polarism and its significance for international

		politics.
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. Paper V: Beginning of the Green revolution. 7. Paper VI: European imperialism. 8. Paper VII: Rise of terrorism and the challenge to international security.
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. Paper V: (b) Fragmentation of Indian Politics–rise of regional parties (c) India’s role in the Bangladesh Crisis 7. Paper VI: The impact of the War on old order. 8. Paper VII: India and her neighbours: Indo-China relations–Indo-Myanmar relations–Indo- Bangladesh relations–Indo-Pakistan relation
Week 18	Revision, Practise	Revision

BIDHANNAGARCOLLEGE

GOVERNMENT OF WEST BENGAL,

SALT LAKE, KOLKATA

Teaching Plan for Even Semester,
UG course (CBCS & Old B.A. 1+1+1)

Department of History

Session (2019-20)

Class: B.A. in History under CBCS.

Semester: II, IV & B.A. Part- III (old).

Name of the Teacher: Dr. Eeshita Chatterjee.

Subject: History

Paper: CC-3, CC-4, GE-2, CC-8, CC-10, Paper V, VIII.

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. Paper V: Revolutionaries and left movements. 8. Paper VIII: Abolition of feudalism and economic growth.
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. Paper V: Trade union and Kisan Sabha agitations. 8. Paper VIII: Social and military reforms land settlement pattern of economic growth.
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. Paper V: Subhas Chandra Bose, INA trials and RIN mutiny. 8. Paper VIII: The role of state and private entrepreneurs.
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 18 th century. 5. HISACOR010T: Educational Reforms initiated by the Company. 6. HISHGECO4T: Uprising of 1857: Aftermath. 7. Paper V: Working of the provincial ministries. 8. Paper VIII: Foreign policy after Restoration – The Sino-Japanese War – Anglo-Japanese alliance.
Week 13 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. Paper V: Cripps Mission, Wavell Plan and Cabinet Mission. 8. Paper VIII: the Russo-Japanese War–Japan in the Pacific–the rise of militarism in the 1930s and 1940s–Japan in the Second World War.
Week 18	Revision, Practise	Revision

BIDHANNAGAR COLLEGE
GOVERNMENT OF WEST BENGAL,
SALT LAKE, KOLKATA
Teaching Plan for Even Semester,
UG course (CBCS & Old B.A. 1+1+1)

Department of History
Session (2019-20)

Class: B.A. in History under CBCS.

Semester: II, IV & B.A. Part- III (old).

Name of the Teacher: Smt. Swati Sen.

Subject: History

Paper: CC-3, CC-4, GE-2, CC-8, CC-9, CC-10, Paper V, VIII.

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. Paper V: Civil Disobedience movement. 7. Paper VI: Girondins and Jacobins – the Reign of Terror. 8. Paper-VII: Peace settlements of 1919: its long-term consequences – the establishment of the Weimar Republic.
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. Paper V: Quit India movement. 7. Paper VI: the rise and fall of the Jacobin Republic – the Thermidorian reaction and the Dictatory – Interpreting the French Revolution – Creation of a new political culture. 8. Paper-VII: Europe in the inter-war period: Consolidation and development of the power of the Soviet state – Rise of Fascism in Italy – League of Nations
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. Paper V: Role of social groups and classes. 7. Paper VI: Napoleon Bonaparte: the revolutionary legacy – the reorganization of France and the new elite – Napoleonic Empire and Europe. 8. Paper-VII: The Economic Depression – the rise of the Nazi power.

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. Paper V: Impact of Quit India Movement. 7. Paper VI: Fall of Bonaparte – conflicting estimation of Napoleon's character and achievements. 8. Paper-VII: Germany's aggressive foreign policy.
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. Paper V: Ideological trends in the Congress. 7. Paper VI: The impact of the War on old order. 8. Paper-VII: The outbreak of the World War II and historians.
Week 18	Revision, Practise	Revision

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

Teaching Plan for Odd Semester, UG course

Department of Political Science

Session (2019-20)

Class: B.A

Semester 1, 3 & Part- III Name of the Teacher: Dr. Shahid Jamal Siddiqi (SJS)

Subject: Political Science

Paper: CC1, CC 2, GE 1, CC6, CC7, SEC1 (CBCS) Paper-VII (1+1+1 System) (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 - VII: Indian Political Thought (Unit-1)
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 - VII: Indian Political Thought (Unit-1)....Contd.
Week 9 to Week 12	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 - VII: Indian Political Thought (Unit-2)
Week 13 to Week 14	Internal Examination
Week 15 to Week 17	Paper-SEC1(PLSSSEC01M): Democratic Awareness with Legal Literacy (Unit -2) Contd. Paper - VII: Indian Political Thought (Unit-2)....Contd.
Week 18	Revision

BIDHANNAGARCOLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, UG course

Department of Political Science

Session (2019-20)

Class: B.A

Semester 1, 3 & Part- III

Name of the Teacher: Saibal Gupta (SG)

Subject: Political Science

Paper: CC1, CC 2, GE 1, CC5, CC7, GE3, SEC1 (CBCS) & Paper-VI (1+1+1 System) (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 - VI: Western Political Thought (Unit-1)
Week 5 to week 8	Paper-CC1(PLSACOR01T): Understanding Political Theory Module 3. Models of Studying Political Theory Paper-GE1(PLSHGEC01T)Introduction to Political Theory Module 3. Debates in Political Theory Paper - VI: Western Political Thought (Unit-1) Contd.
Week 9 to Week12	Paper-CC7(PLSACOR07T): Perspectives on International Relations and World History Module - 3. An Overview of Twentieth-Century IR History Paper-SEC1(PLSSSEC01M): Democratic Awareness with Legal Literacy (Unit -3) Paper - VI: Western Political Thought (Unit-2)
Week 13 to Week 14	Internal Examination
Week 15 to 17	Paper - VI: Western Political Thought (Unit-2) ...Contd.
Week 18	Revision

BIDHANNAGARCOLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, UGcourse

Department of Political Science

Session (2019-20)

Class:B.A

Semester 1, 3 & Part-III Name of the Teacher: Tathagata Chakrabarti(TC)

Subject: Political Science

Paper:CC 2, CC5, CC6, CC7, GE3 (CBCS)& Paper-V (1+1+1 System) (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 - V: International Relations and World Politics (Unit-1)
Week 5 to week 8	Paper-CC6 (PLSACOR06T): Perspectives on Public Administration Module-2. Theoretical Perspectives Paper-GE3 (PLSHGEC03T): Comparative Government and Politics Module 3. Themes for comparative analysis Paper - V: International Relations and World Politics (Unit-1) Contd.
Week 9 to Week12	Paper-CC7(PLSACOR07T): Perspectives on International Relations and World History Module-2. Theoretical Perspectives Paper - V: International Relations and World Politics (Unit-2)
Week 13 to Week 14	Internal Examination
Week 15 to Week 17	Paper - V: International Relations and World Politics (Unit-2) Contd.
Week 18	Revision

Teaching Plan for Odd Semester, UG course

Department of Political Science

Session (2019-20)

Class: B.A

Semester 1, 3& Part- III Name of the Teacher: Deeplekha Sengupta Dasgupta(DS)

Subject: Political Science

Paper:CC1, GE 1, CC6, CC7, SEC1 ,GE3 (CBCS), Paper- VIII (1+1+1 System) (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: VIII: Public Administration & Management (Unit-1)
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: VIII: Public Administration & Management (Unit-1) Contd.
Week 9 to Week 12	Paper-SEC1(PLSSSEC01M): Democratic Awareness with Legal Literacy (Unit -1) Paper: VIII: Public Administration & Management (Unit-2)
Week 13 to Week 14	Internal Examination
Week 15 to 17	Paper: VIII: Public Administration & Management (Unit-3)
Week 18	Revision

Teaching Plan for Even Semester, UG course

Department of Political Science

Session (2019-20)

Class:B.A

Semester 2, 4 & Part- III

Name of the Teacher: Dr.Shahid Jamal Siddiqi (SJS)

Subject: Political Science

Paper: CC3, GE2 (CBCS) Paper-III& VII (1+1+1 System) (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-GE2-(PLSHGEC02T): Indian Government and Politics Module-2. Constitution of India (Article Wise) Paper- CC9(PLSACOR09T): Public Policy and Administration in India Module I. Public Policy Paper-GE4(PLSHGEC04T): Introduction to International Relations Module-1. Studying International Relations Paper - VII: Indian Political Thought (Unit-3)
Week 5 to week 8	Paper-CC3 (PLSACOR03T): Political Theory-Concepts and Debates Module – 1. Core political concepts.....Contd. Paper-GE2-(PLSHGEC02T): Indian Government and Politics Module-2. Constitution of India (Article Wise).....Contd. Paper- CC9(PLSACOR09T): Public Policy and Administration in India Module-2. Paper - VII: Indian Political Thought (Unit-3).....Contd.
Week 9 to Week 12	Paper- CC9(PLSACOR09T): Public Policy and Administration in India Module -3. Budget Paper - VII: Indian Political Thought (Unit-4)
Week 13 to Week 14	Internal Examination
Week 15 to Week 17	Paper - VII: Indian Political Thought (Unit-5)
Week 18	Revision

Teaching Plan for Even Semester, UG course

Department of Political Science

Session (2019-20)

Class: B.A

Semester 2, 4 & Part- III

Name of the Teacher: Saibal Gupta (SG)

Subject: Political Science

Paper: CC3, CC 4, GE 2, CC10, GE 4(CBCS)&Paper- VI (1+1+1 System) (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 - VI: Western Political Political Thought (Unit-3)
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 - VI: Western Political Political Thought (Unit-3) ...Contd.
Week 9 to Week 12	Paper-CC10(PLSACOR10T): Global Politics Module-3. Global Shifts: Power and Governance Paper - VI: Western Political Political Thought (Unit-4)
Week 13 to Week 14	Internal Examination
Week 15 to Week 17	Paper - VI: Western Political Political Thought (Unit-5)
Week 18	Revision

Teaching Plan for Even Semester, UG course

Department of Political Science

Session (2019-20)

Class: B.A

Semester 2, 4 & Part- III

Name of the Teacher: Tathagata Chakrabarti (TC)

Subject: Political Science

Paper: CC3, CC 4, CC8, GE 2(CBCS) & Paper- V (1+1+1 System) (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 - V: International Relations and World Politics (Unit-3)
Week 5 to week 8	Paper-CC3 (PLSACOR03T): Political Theory-Concepts and Debates Module – 3. Theories of State 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 - V: International Relations and World Politics (Unit-3)....Contd.
Week 9 to Week 12	Paper -CC8(PLSACOR08T): Political Processes and Institutions in Comparative Perspective (Module -3) Paper - V: International Relations and World Politics (Unit-4)
Week 13 to Week 14	Internal Examination
Week 15 to Week 17	Paper - V: International Relations and World Politics (Unit-5)
Week 18	Revision

Teaching Plan for Even Semester, UG course

Department of Political Science

Session (2019-20)

Class: B.A

Semester 2, 4 & Part- III Name of the Teacher: Deeplekha Sengupta Dasgupta (DS)

Subject: Political Science

Paper: CC4, SEC2, GE4 (CBCS) & Paper- VIII (1+1+1 System) (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: VIII: Public Administration & Management (Unit-3)... Contd.
Week 5 to week 8	Paper CC4 (PLSACOR04T)- Political Process in India Module 2. Issues in contemporary politics Contd. Paper-SEC2(PLSSEC02M): Public Opinion and Survey Research Module-1. Introduction to the course Paper: VIII: Public Administration & Management (Unit-4)
Week 9 to Week 12	Paper-SEC2(PLSSEC02M): Public Opinion and Survey Research Module-2. Measuring Public Opinion with Surveys: Representation and Sampling Paper: VIII: Public Administration & Management (Unit-4) Contd.
Week 13 to Week 14	Internal Examination
Week 15 to Week 17	Paper-SEC2(PLSSEC02M): Public Opinion and Survey Research Module-3. Quantitative Data Analysis Paper: VIII: Public Administration & Management (Unit-5)
Week 18	Revision

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

Teaching Plan for Odd Semester, UG course

Department of ENGLISH.....

Session (2019-2020)

Class:B.A

Semester I, III, PART III OLD

Name of the Teacher: TAPOMOY DAS

Subject: ENGLISH

Paper : CC1,CC2,CC5, PAPER V (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 (15+3) CC5 : Anne Bradstreet-'The Prologue PAPER V: 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
Week 5 to week 8	NA	CC2: Sophocles, 'Oedipus the King' in The Three Theban Plays ed. Fagles. CC5: Toni Morrison—Beloved PAPER V: Keats
Week 9 to Week 12	NA	PAPER V: Coleridge
Week 13	NA	Revision and Tutorial
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 (2019-2020)

Class:B.A

Semester I, III & PART III OLD

Name of the Teacher: SIDHARTHA DEY

Subject: ENGLISH

Paper : CC1,CC2,CC5,CC6,CC7, PAPER V (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) PAPER V: Background to 20th cC. Poetry
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 PAPER V: Eliot
Week 9 to Week 12	NA	CC2: Homer, The Illiad, Bk I & II, trans. E.V. Rieu. CC5: Tennessee Williams- A Street Car Named Desire PAPER V: Owen
Week 13	NA	CC2: Homer, The Illiad, Bk I & II, trans. E.V. Rieu. CC6: Herge-Tintin in Tibet PAPER V: Shelley, Byron
Week13 to week 14		Internal Exam
Week 15 to 17	NA	PAPER V: E. Bronte, Browning
Week 18	NA	Revision

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

Teaching Plan for ODD Semester, UG course

Department of ...ENGLISH.....

Session (2019-2020)

Class:B.A

Semester I, III & PART III OLD

Name of the Teacher: ANIRUDDHA PAL

Subject: ENGLISH

Paper : CC1,CC2,CC5,CC6,CC7, PAPER VI, VIII (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' PAPER VI: Major Barbara
Week 5 to Week 8	NA	CC1: Banabhatta, Kadambari (Chp I & II) CC5: F. Scott Fitzgerald- 'The Crack-up' PAPER VI: The Birthday Party
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) PAPER VIII: Death of a Salesman, The Great Gatsby
Week 13	NA	CC2: Ovid, Selections from Metamorphoses, 'Bacchus' (BK III) CC6: Lewis Carroll—Through the Looking Glass PAPER VIII: The Great Gatsby
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 (2019-2020)

Class:B.A

Semester I, III AND PART III OLD

Name of the Teacher: KETAKI DUTTA

Subject: ENGLISH

Paper : CC1,CC2,CC5,CC6, PAPER V, VI (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, trans. Chandra Rajan. CC5: Alexie Sherman Alexie-'Crow Testament'; 'Evolution' Paper VI: Background to Modern Theatre
Week 5 to Week 8	NA	CC1: Kalidasa, 'Abhijnana Shakuntalam' in The Loom of Time, trans. Chandra Rajan. (CONTD) CC5: William Faulkner 'Dry September' PAPER V: Auden
Week 9 to Week 12	NA	PAPER V: AUDEN
Week 13	NA	CC2: Plautus, Pot of Gold, trans. E.F.Watling. (CONTD.) CC6: J.K. Rowling--The Philosopher's Stone PAPER V: Dylan Thomas
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 (2019-2020)

Class:B.A

Semester II, IV & PART III

Name of the Teacher: TAPOMOY DAS

Subject: ENGLISH

Paper : CC3,CC4,CC8,CC9,CC10, PAPER VII (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' PAPER VII: Heart of Darkness
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' from Selected Essays as edited by Geoffrey Keynes (London: Nonsuch Press, 1930). CC10: Arnold --'Modern Elements in Literature' PAPER VII: Heart of Darkness
Week 9 to Week 12	NA	CC3: Ruskin Bond- 'Tiger, Tiger, Burning Bright' CC8: William Congreve, The Way of the World PAPER VII: Heart of Darkness
Week 13	NA	Revision
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 (2019-2020)

Class:B.A

Semester II, IV & PART III OLD

Name of the Teacher: SIDDHARTHA DEY

Subject: ENGLISH

Paper : CC3,CC4,CC8,CC9,CC10, PAPER VI,VII (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 PAPER VI: Riders to the Sea
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 PAPER VI: Riders to the Sea
Week 9 to Week 12	NA	CC3: Salman Rushdie- 'The Free Radio' CC9: Horace Walpole-The Castle of Otranto PAPER VII: A Portrait of the Artist as a Young Man
Week 13	NA	PAPER VII: A Portrait of the Artist as a Young Man Revision
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 EVEN Semester, UG course

Department of ...ENGLISH.....

Session (2019-2020)

Class:B.A

Semester II, IV & PART III OLD

Name of the Teacher: ANIRUDDHA PAL

Subject: ENGLISH

Paper : CC3,CC4,CC8,CC9,CC10, PAPER VI, VII, VIII (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' in Literature and Social Order in Eighteenth-Century England, ed Stephen Copley (London, 1984); Samuel Johnson, Essay 156 in The Rambler from Selected Writings: Samuel Johnson, ed Peter Martin (Cambridge, Mass, 2009: 194-97). CC10: Jane Austen - Pride and Prejudice PAPER VIII: The Great Gatsby
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) PAPER VII: Short stories : Mansfield
Week 9 to Week 12	NA	CC3: Girish Karnad- Tughlaq CC10: Tennyson-'Ulysses'; 'The Lady of Shallot' PAPER VII: Short stories : Greene
Week 13	NA	PAPER VI: The Birthday Party
Week 13 to week 14		Internal Exam
Week 15 to 17	NA	PAPER VI: The Birthday Party (Contd)
Week 18	NA	Revision

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

Teaching Plan for ODD Semester, UG course

Department of ENGLISH.....

Session (2019-2020)

Class:B.A

Semester II, IV & PART III OLD

Name of the Teacher: KETAKI DUTTA

Subject: ENGLISH

Paper : CC3,CC4,CC8,CC9,CC10, PAPER VII, VIII (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 PAPER VII: Woolf, Forster
Week 5 to week 8	NA	CC3: Sashi Deshpande—'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 PAPER VIII: Hawthorne, O. Henry,
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	PAPER VIII: Poe, Chopin
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 Education

Session (2019-2020)

Class: B.A.

Semester I, III (Under CBCS)

Subject: Education

Paper: CC-1, CC-2, GE-1, CC-5

Name of the Teacher: Shoumyasree Sen

(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 <i>Unit 2: Indian philosophical thoughts and their influence on education- Sankhya, Yoga</i> SEM I: Educational Psychology/ EDCACOR02T <i>Unit 4: Psychology of learning- concept and scope, Factors influencing learning – attention, maturation</i> SEM I: Philosophical Foundation of Education/GE-1 <i>Unit 4: R. N. Tagore</i> SEM III: Education in pre-independence India/ EDCACOR05T <i>Unit 3: Wood's Despatch (1854), Hunter Commission (1882-83)</i>
Week 4 to week 8	Paper A: Paper B: NONE Paper C:	SEM I: Educational Philosophy/ EDCACOR01T <i>Unit 2: Indian philosophical thoughts and their influence on education- Yoga, Jainism</i> SEM I: Educational Psychology/ EDCACOR02T <i>Unit 4: Factors influencing learning – motivation and emotion, Theories of learning: Pavlov, Skinner</i> SEM I: Philosophical Foundation of Education/GE-1 <i>Unit 4: R. N. Tagore</i> SEM III: Education in pre-independence India/ EDCACOR05T <i>Unit 3: Hunter Commission (1882-83) Curzon's Policy (1902)</i>
Week 8 to Week 12	Paper A: Paper B: NONE Paper C:	SEM I: Educational Philosophy/ EDCACOR01T <i>Unit 2: Indian philosophical thoughts and their influence on education- Jainism, Buddhism</i> SEM I: Educational Psychology/ EDCACOR02T <i>Unit 4: Theories of learning: Bandura and Vygotsky</i> SEM I: Philosophical Foundation of Education/GE-1 <i>Unit 4: F. W. A. Froebel</i> SEM III: Education in pre-independence India/ EDCACOR05T <i>Unit 4: Calcutta University Commission (1917-1919)</i>
Week 13	Paper A: Paper B: NONE Paper C:	SEM I: Educational Philosophy/ EDCACOR01T <i>Unit 2: Indian philosophical thoughts and their influence on education- Buddhism and Islamic</i> SEM I: Educational Psychology/ EDCACOR02T <i>Unit 4: Theories of learning: Vygotsky</i> SEM I: Philosophical Foundation of Education/GE-1 <i>Unit 4: F. W. A. Froebel</i> SEM III: Education in pre-independence India/ EDCACOR05T <i>Unit 4: Basic Education Policy</i>
Week 13 to week 14		Internal Exam
Week 15 to Week 17	Paper A: Paper B: NONE Paper C:	SEM I: Educational Philosophy/ EDCACOR01T <i>Unit 2: Indian philosophical thoughts and their influence on education- Islamic</i> SEM I: Educational Psychology/ EDCACOR02T

		Unit 4: Theories of learning: Vygotsky SEM I: Philosophical Foundation of Education/GE-1 Unit 4: F. W. A. Froebel SEM III: Education in pre-independence India/ EDCACOR05T Unit 4: 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 (2019-2020)

Class: B.A.

Semester: II & IV (Under CBCS)

Subject: Education

Paper: CC-3, CC-4, CC- 8

Name of the Teacher: Shoumyasree Sen

(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: Educational Sociology/ EDCACOR03T Unit 2: Culture – concept, interrelationship between education and culture, importance of folk culture in education Integration SEM II: Pedagogy/ EDCACOR04T Unit 1: Pedagogy – concept, scope; relationship between learning and teaching, Bases of pedagogy – philosophical SEM IV: Educational Management/ EDCACOR08T Unit1: Educational Management– concept, nature, need, scope, Types of educational management – centralized, decentralized, authoritarian, democratic, dynamic and laissez faire
Week 4 to week 8	Paper A: Paper B: NONE Paper C:	SEM II: Educational Sociology/ EDCACOR03T Unit 2: The concept of “Unity in diversity”, cultural lag, cultural conflict SEM II: Pedagogy/ EDCACOR04T Unit 1: Bases of pedagogy –sociological, psychological, Pedagogy vs Andragogy SEM IV: Educational Management/ EDCACOR08T Unit 1: Supervision and inspection – concept, scope, difference between supervision and inspection Unit 2: Leadership in management – concept, scope, significance, characteristics of an effective leader in education, Total Quality in educational management
Week 8 to Week 12	Paper A: Paper B: NONE Paper C:	SEM II: Educational Sociology/ EDCACOR03T Unit 2: Acculturation, National Integration SEM II: Pedagogy/ EDCACOR04T Unit 4: Teaching – learning of principles and concepts, Teaching – learning of problem-solving SEM IV: Educational Management/ EDCACOR08T Unit 4: Planning – concept, need, types, Resource management in educational institutions – concept and aspects of resource management
Week 13	Paper A: Paper B: NONE Paper C:	SEM II: Educational Sociology/ EDCACOR03T Unit 2: International Understanding SEM II: Pedagogy/ EDCACOR04T Unit 4: Teaching – learning of knowledge construction SEM IV: Educational Management/ EDCACOR08T Unit 4: Management Information System (MIS)

Week 13 to week 14		Internal Exam
Week 15 to Week 17	Paper A: Paper B: NONE Paper C:	SEM II: Educational Sociology/ EDCACOR03T <i>Unit 2: International Understanding</i> SEM II: Pedagogy/ EDCACOR04T <i>Unit 4: Teaching – learning of knowledge construction</i> SEM IV: Educational Management/ EDCACOR08T <i>Unit 4: Management Information System (MIS)</i>
Week 18	Revision, Practise	Revision

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

Teaching Plan for Old System, UG course

Department of Education

Session (2019-2020)

Class: B.A.

Year 3 (Under Old Syllabus 1+1+1)

Subject: Education

Paper: Paper-5, Group B, Paper-6, Group B

Name of the Teacher: Shoumyasree Sen

(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)
July-Oct	Paper A: Paper B: NONE Paper C:	Paper: Paper-5, Group B: Curriculum Studies <i>Unit 1: Introduction of Curriculum- [Concept, Meaning, Nature, Scope, Functions, Types, Basic Sources, Syllabus & Content]</i> <i>Unit 2: Aims & Objectives of Curriculum [Needs, Areas, Bloom's Taxonomy]</i> Paper-6, Group B: Special Education <i>Unit 1: Introduction to Special Education- Education [Meaning, Definition, Nature, Objectives, Characteristics, Provisions of Alternative Programmes, Inclusive Education]</i> <i>Unit 2: Development & Organization of Special Education in pre & post independent India</i>
Nov-Feb	Paper A: Paper B: NONE Paper C:	Paper: Paper-5, Group B: Curriculum Studies <i>Unit 3: Development of Curriculum-Principles, Stages, Factors, Concept & Development of Text Book, SIM, UGC Model / CBCS]</i> <i>Unit 4: Curriculum Evaluation [Meaning, Purposes, Approaches, Strategies, Quantitative & Qualitative Model]</i> Paper-6, Group B: Special Education <i>Unit 3: Gifted & Slow Learners [Definition, Classification, Identification, Needs, Problems, Educational Support]</i> <i>Unit 4: Visual & Auditory Impairment, Mental Retardation & Autism, Juvenile Delinquents</i>
	Mid Term Exam	
Mar-April	Revision, Practise	Revision
		Test Exam

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

Teaching Plan for Odd Semester, PG course

Department of Education

Session (2019-2020)

Class: M.A.

Semester I (Under CBCS)

Subject: Education

Paper: Departmental: 1, 2, AECC

Name of the Teacher: Shoumyasree Sen

(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/ EDCPCORO1T <i>Unit- 1: Concept, nature & scope of Education and Philosophy, Concept, nature & scope of Educational Philosophy, Relationship between Education and Philosophy</i> SEM I: Psychological Foundations of Education/ EDCPCORO2T <i>Unit 4: Personality – Concept, Nature, Importance, Development & Importance.</i> SEM I: Communication Skill/ EDCPAEC01M <i>Unit 1: 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</i>
Week 4 to week 8	Paper A: Paper B: NONE Paper C:	SEM I: Philosophical Foundations of Education/ EDCPCORO1T <i>Unit 1: Concept of Educational Philosophy and Philosophy of Education.</i> <i>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.</i> SEM I: Psychological Foundations of Education/ EDCPCORO2T <i>Unit 4: Personality-Theories and their educational implications – Freud, Allport</i> SEM I: Communication Skill/ EDCPAEC01M <i>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</i>
Week 8 to Week 12	Paper A: Paper B: NONE Paper C:	SEM I: Philosophical Foundations of Education/ EDCPCORO1T <i>Unit 4: Jiddu Krishnamurti & Savitribai Phule, Wollstonecraft</i> SEM I: Psychological Foundations of Education/ EDCPCORO2T <i>Unit-4: Personality -Theories and their educational implications – Max Wertheimer, Kurt Koffka</i> SEM I: Communication Skill/ EDCPAEC01M <i>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</i>
Week 13	Paper A: Paper B: NONE Paper C:	SEM I: Philosophical Foundations of Education/ EDCPCORO1T <i>Unit– 4: Nel Noddings</i> Paper: Psychological Foundations of Education/ EDCPCORO2T <i>Unit-4: Measurement of Personality</i> SEM I: Communication Skill/ EDCPAEC01M <i>Unit-2: Preparing a CV</i>
Week 13 to week 14		Internal Exam
Week 15 to Week 17	Paper A: Paper B: NONE Paper C:	SEM I: Philosophical Foundations of Education/ EDCPCORO1T <i>Unit– 4: Nel Noddings</i> SEM I: Psychological Foundations of Education/ EDCPCORO2T

		<i>Unit-4: Measurement of Personality</i> SEM I: Communication Skill/ EDCPAEC01M <i>Unit-2: Presentation Skill: Preparing a power point presentation, presenting a paper, group discussion, preparing for facing a job interview</i>
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 (2019-2020)

Class: M.A.

Semester II (Under CBCS)

Subject: Education

Paper: Departmental: 6,7,8, 10 & SEC

Name of the Teacher: Shoumyasree Sen

(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 II: Communication Skill/ EDCPSEC01P <i>Unit-1: Enhancement of Reading Skill Unit</i>	SEM II: Sociological Foundations of Education/ EDCPCOR06T <i>Unit-2: Culture – Concept, Nature, Types, Determinants</i> SEM II: Pedagogical Studies / EDCPCOR07T <i>Unit-3: Feedback Devices – Meaning, types, criteria</i> SEM II: Contemporary Issues and Trends in Education /EDCPCOR08T <i>Unit-3: Globalization and Education</i> SEM II: Psychology of Learner & Learning Process / EDCPCOR10T <i>Unit-2: Motivation - Concept, Nature & Educational Importance</i>
Week 4 to week 8	SEM II: Communication Skill/ EDCPSEC01P <i>Unit-1: Enhancement of Reading Skill Unit</i>	SEM II: Sociological Foundations of Education/ EDCPCOR06T <i>Unit-2: Culture –Agencies of Socialization – Family, Peer-group, Community, Educational Institutions, Mass-Media</i> SEM II: Pedagogical Studies / EDCPCOR07T <i>Unit-3: Meaning, nature & perspectives of assessment (Assessment for Learning and assessment of Learning)</i> SEM II: Contemporary Issues and Trends in Education /EDCPCOR08T <i>Unit-3: Privatization in Education.</i> SEM II: Psychology of Learner & Learning Process / EDCPCOR10T <i>Unit-2: Theories of Motivation – Maslow’s Theory of Motivation & Mc Clelland’s Theory of Motivation – Concept & Educational Importance</i>
Week 8 to Week 12	SEM II: Communication Skill/ EDCPSEC01P <i>Unit-1: Enhancement of Reading Skill Unit</i> <i>Unit-2: Enhancement of Writing Skill</i>	SEM II: Sociological Foundations of Education/ EDCPCOR06T <i>Unit-2: Social Process – Co-operation, Competition, Conflict’ Integrity – Concept, Nature, Educational Importance</i> SEM II: Pedagogical Studies / EDCPCOR07T <i>Unit-3: Guidance as a Feedback Devices – Assessment of Portfolios, Reflective Journal, Field engagement using Rubrics</i> SEM II: Contemporary Issues and Trends in Education /EDCPCOR08T <i>Unit-3: ICT in Education</i> SEM II: Psychology of Learner & Learning Process / EDCPCOR10T <i>Unit-2: Role of Motivation in Learning.</i>
Week 13	SEM II: Communication Skill/ EDCPSEC01P <i>Unit-2: Enhancement of Writing Skill</i>	SEM II: Sociological Foundations of Education/ EDCPCOR06T <i>Unit-2: Concept & Development of Self, Self -Esteem, and Social Feelings</i> SEM II: Pedagogical Studies / EDCPCOR07T <i>Unit-3: Assessment of teacher prepared ICT Resources</i> SEM II: Contemporary Issues and Trends in Education /EDCPCOR08T <i>Unit-3: Education & Employment</i>

		SEM II: Psychology of Learner & Learning Process / EDCPCOR10T <i>Unit-2: Learning & Teaching – Role of Teacher, Students & their Inter Relationship</i>
Week 13 to week 14		Internal Exam
Week 15 to Week 17	Paper: Communication Skill/ EDCPSEC01P <i>Unit-2: Enhancement of Writing Skill</i>	SEM II: Sociological Foundations of Education/ EDCPCOR06T <i>Unit-2: Concept & Development of Self, Self-Esteem, and Social Feelings</i> SEM II: Pedagogical Studies / EDCPCOR07T <i>Unit-3: Assessment of teacher prepared ICT Resources.</i> SEM II: Contemporary Issues and Trends in Education /EDCPCOR08T <i>Unit-3: Education & Employment</i> SEM II: Psychology of Learner & Learning Process / EDCPCOR10T <i>Unit-2: Learning & Teaching – Role of Teacher, Students & their Inter Relationship</i>
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 (2019-2020)

Class: B.A.

Semester I, III (Under CBCS)

Subject: Education

Paper: CC-1, CC-2, GE-1, CC-5

Name of the Teacher: Purnendu Acharya

(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 SEM I: Educational Psychology/ EDCACOR02T Unit 1: Introduction to educational psychology, relation between education and psychology SEM I: Philosophical Foundation of Education /GE-I Unit 1: Concept nature and scope of Education; b. Factors of Education Unit-2: Forms of Education – Informal, Formal and Non-formal & Open Education SEM III: Education in pre-independence India/ EDCACOR05T Unit 1: Salient features of Brahmanic, Buddhist and Islamic education w.r.t: a. Aims of education b. Curriculum and method of teaching c. Centres of learning: Nabadwip, Nalanda, Agra
Week 4 to week 8	Paper A: Paper B: NIL Paper C:	SEM I: Educational Philosophy/ EDCACOR01T Unit 1: child centricism, Concept of different forms of education – informal, formal, non-formal and open education SEM I: Educational Psychology/ EDCACOR02T Unit 1: Introduction to neuro-physiological bases of human behavior, structure and function of human brain SEM I: Philosophical Foundation of Education /GE-I Unit-2: Aims of Education – Individualistic, Socialistic & Democratic view of Education SEM III: Education in pre-independence India/ EDCACOR05T Unit-2: Charter Act of 1813 b. Macaulay Minute c. Bengal renaissance – nature, characteristics d. Contributions of Rammohan, Vidyasagar

Week 8 to Week 12	Paper A: Paper B: NIL Paper C:	SEM I: Educational Philosophy/ EDCACOR01T Unit 1: Functions of education – individual and social development SEM I: Educational Psychology/ EDCACOR02T Unit 1: Neuron, synaptic transmission, endocrinal glands SEM I: Philosophical Foundation of Education /GE-I Unit 3: Value-Definition, characteristics, types, Relation between values and education SEM III: Education in pre-independence India/ EDCACOR05T Unit 3: Contributions of Derozio
Week 13	Paper A: Paper B: NIL Paper C:	SEM I: Educational Philosophy/ EDCACOR01T Unit 1: Human Resource Development. SEM I: Educational Psychology/ EDCACOR02T Unit 1: sensation SEM I: Philosophical Foundation of Education /GE-I Unit 3: Importance of values in education SEM III: Education in pre-independence India/ EDCACOR05T Unit 3: Wood's Despatch (1854)
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 1: Human Resource Development SEM I: Educational Psychology/ EDCACOR02T Unit 1: perception SEM I: Philosophical Foundation of Education /GE-I Unit 3: Importance of values in education SEM III: Education in pre-independence India/ EDCACOR05T Unit 3: Hunter Commission (1882), Curzon's Policy (1902)
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 (2019-2020)

Class: B.A.

Semester: II & IV (Under CBCS)

Subject: Education

Paper: CC-3, CC-8

Name of the Teacher: Purnendu Acharya

(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 4: Social issues and education SEM IV: Educational Management / EDCACOR8T Unit 3: Ministry of Human Resource Development
Week 4 to week 8	Paper A: Paper B: NIL Paper C:	SEM II: Educational Sociology/ EDCACOR03T Unit 4: Education for poverty eradication SEM IV: Educational Management / Educational EDCACOR8T Unit 3: UGC
Week 8 to Week 12	Paper A: Paper B: NIL Paper C:	SEM II: Educational Sociology/ EDCACOR03T Unit 4: Inclusive education SEM IV: / EDCACOR8T Unit 3: NCERT

Week 13	Paper A: Paper B: NIL Paper C:	SEM I: Educational Sociology/ EDCACOR03T Unit 4: Child rights and abuses SEM IV: Educational Management / EDCACOR8T Unit 3: SCERT
Week 13 to week 14		Internal Exam
Week 15 to Week 17	Paper A: Paper B: NIL Paper C:	SEM I: Educational Sociology/ EDCACOR03T Unit 4: Child rights and abuses SEM IV: Educational Management / EDCACOR8T Unit 3: WBSCH
Week 18	Revision, Practise	Revision

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

Teaching Plan for Old System, UG course

Department of Education

Session (2019-2020)

Class: B.A.

Year 3 (Under Old Syllabus 1+1+1)

Subject: Education

Paper: Paper-6, Group A

Name of the Teacher: Purnendu Acharya

(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)
July-Oct		Paper-6, Group A: Educational Guidance & Counselling Unit 1, Guidance & Counselling – Basic Concept [Meaning, Definition, Scope, Need, Importance, Types, Stages & Approaches Unit 2, Adjustment & Maladjustment [Concept, Definition, Need, Scope, Types, Characteristics, Identification, Defence Mechanism, Problem Behaviour & Mental Disorder & Support Services]
Nov-Feb		Paper-6, Group A: Educational Guidance & Counselling Unit 3, Testing & Diagnosis Unit 4, Special Areas & Skills in Counselling
		Mid Term Exam
Mar-April	Revision, Practise	Revision
		Test Exam

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

Teaching Plan for Odd Semester, PG course

Department of Education

Session (2019-2020)

Class: M.A.

Semester I (Under CBCS)

Subject: Education

Paper allotment: None

Name of the Teacher: Purnendu Acharya

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

Teaching Plan for Even Semester, PG course

Department of Education

Session (2019-2020)

Class: M.A.

Semester II (Under CBCS)

Subject: Education

Paper: Departmental: 6,7,8, 10

Name of the Teacher: Purnendu Acharya

(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: Sociological Foundations of Education/ EDCPCOR06T Unit-4: Discriminatory issues-Caste & Gender SEM-II: Pedagogical Studies / EDCPCOR07T Unit-4: Interaction analysis – Flanders Interaction Analysis SEM-II: Contemporary Issues and Trends in Education /EDCPCOR08T Unit-4: NCTE and Teachers Education SEM-II: Psychology of Learner & Learning Process / EDCPCOR10T Unit-4: Social Learning - Concept, Nature & Scope
Week 4 to week 8	Paper A: Paper B: Nil Paper C:	SEM-II: Sociological Foundations of Education/ EDCPCOR06T Unit-4: Drug Abuse & Drug Addiction SEM-II: Pedagogical Studies / EDCPCOR07T Unit-4: Galloway's System of Interaction Analysis SEM-II: Contemporary Issues and Trends in Education /EDCPCOR08T Unit-4: AICTE and Technical Education SEM-II: Psychology of Learner & Learning Process / EDCPCOR10T Unit-4: Factors of Social Learning
Week 8 to Week 12	Paper A: Paper B: Nil Paper C:	SEM-II: Sociological Foundations of Education/ EDCPCOR06T Unit-4: Child Labour & Child Abuse SEM-II: Pedagogical Studies / EDCPCOR07T Unit-4: Criteria for Teacher Evaluation – Product, Process and Presage criteria SEM-II: Contemporary Issues and Trends in Education /EDCPCOR08T Unit-4: MCI and Medical Education SEM-II: Psychology of Learner & Learning Process / EDCPCOR10T Unit-4: Social Learning, Social Cognition & Social Competence
Week 13	Paper A: Paper B: Nil Paper C:	SEM-II: Sociological Foundations of Education/ EDCPCOR06T Unit-4: Terrorism SEM-II: Pedagogical Studies / EDCPCOR07T Unit-4: Rubrics for Self and Peer Evaluation – Concept and Steps of construction. SEM-II: Contemporary Issues and Trends in Education /EDCPCOR08T Unit-4: RCI and Special Education. SEM-II: Psychology of Learner & Learning Process / EDCPCOR10T Unit-4: Role of Social Learning in Understanding Social Relationship & Socialization
Week 13 to week 14		Internal Exam
Week 15 to Week 17	Paper A: Paper B: Nil Paper C:	SEM-II: Sociological Foundations of Education/ EDCPCOR06T Unit-4: Terrorism SEM-II: Pedagogical Studies / EDCPCOR07T Unit-4: Rubrics for Self and Peer Evaluation – Concept and Steps of construction. SEM-II: Contemporary Issues and Trends in Education /EDCPCOR08T

		Unit-4: RCI and Special Education. SEM-II: Psychology of Learner & Learning Process / EDCPCOR10T Unit-4: Role of Social Learning in Understanding Social Relationship & Socialization
Week 18	Revision, Practise	Revision

Teaching Plan for Odd Semester, UG course

Department of Education

Session (2019-2020)

Class: B.A.

Semester I, III (Under CBCS)

Subject: Education

Paper: CC-1, CC-2, CC-6, SEC-I,

Name of the Teacher: Priyanka Datta

(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 2: Idealism, Naturalism SEM I: Educational Psychology/ EDCACOR02T Unit 3: Intelligence and creativity 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/ EDCSSEC01M Unit-1: Meaning and nature of Social Awareness, Social Backwardness and Social Advancement, Need for development of Social Awareness, types of social awareness programme
Week 4 to week 8	Paper A: Paper B: NIL Paper C:	SEM I: Educational Philosophy/ EDCACOR01T Unit 2: Pragmatism, Existentialism SEM I: Educational Psychology/ EDCACOR02T Unit 3: Theories of intelligence – Gardener, Sternberg SEM III: Education in post-independence India/ EDCACOR06T Unit 2: Indian Education Commission (1964-66), National Policy on Education, 1968 SEM III: Skill development for social awareness/ EDCSSEC01M Unit-2: Planning and execution of a Social Awareness Programme, Relationship among I.Q., E.Q. and social awareness
Week 8 to Week 12	Paper A: Paper B: NIL Paper C:	SEM I: Educational Philosophy/ EDCACOR01T Unit 4: Bertrand Russell P SEM I: Educational Psychology/ EDCACOR02T Unit 3: Creativity – concept, scope and characteristics of creative person SEM III: Education in post-independence India/ EDCACOR06T Unit 3: National Policy on Education, 1986, Programme of Action, 1992 SEM III: Skill development for social awareness/ EDCSSEC01M Unit-3: Organization and Participation in a Social Awareness Programme conducted by NCC, NSS or by the College- HIV/AIDS Awareness Programme
Week 13	Paper A: Paper B: NIL Paper C:	SEM I: Educational Philosophy/ EDCACOR01T Unit 4: Bertrand Russell SEM I: Educational Psychology/ EDCACOR02T Unit 3: Relationship between intelligence and creativity SEM III: Education in post-independence India/ EDCACOR06T Unit 4: Sarva Shiksha Mission SEM III: Skill development for social awareness/ EDCSSEC01M

		Unit-3: Organization and Participation in a Social Awareness Programme conducted by NCC, NSS or by the College- HIV/AIDS Awareness Programme
Week13 to week 14		Internal Exam
Week 15 to Week 17	Paper A: Paper B: NIL Paper C:	SEM I: Educational Philosophy/ EDCACOR01T Unit 4: Bertrand Russell SEM I: Educational Psychology/ EDCACOR02T Unit 3: Relationship between intelligence 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/ EDCSSEC01M Unit-3: Organization and Participation in a Social Awareness Programme conducted by NCC, NSS or by the College- HIV/AIDS Awareness Programme
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 (2019-2020)

Class: B.A.

Semester: II & IV (Under CBCS)

Subject: Education

Paper: CC-3, CC-4, GE-2, CC- 10T, 10P & SEC-2

Name of the Teacher: Priyanka Datta

(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 Practical / 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 3: Social development in India – Sanskritization, Modernisation SEM II: Pedagogy/ EDCACOR04T Unit 2: Teaching – concept, scope, principles and functions SEM II: Psychological Foundation of Education /GE-2 Unit 4: Personality-concept SEM IV: Statistics in Education / EDCACOR10T Unit 1: Statistics – concept, scope, uses of statistics in psychology and education, Organization and tabulation of data, Graphical representation of data – bar graph, frequency polygon, histogram, pie chart, ogive – drawing, uses SEM IV: Development of observational skills/ EDCSSEC02M Unit-1: Meaning, nature and characteristics of Observation, Classification of Observation
Week 4 to week 8	SEM IV: Statistics Practical / EDCACOR10P Unit 2: Data Analyses by any excel/ software and manual both. Determination of Central Tendency & Variability (Range, SD, QD)	SEM II: Educational Sociology/ EDCACOR03T Unit 3: Social development in India – Modernisation, Globalisation, SEM II: Pedagogy/ EDCACOR04T Unit 2: Teaching as a process – input, process and output SEM II: Psychological Foundation of Education /GE-2 Unit 4: Personality- characteristics SEM IV: Statistics in Education / EDCACOR10T Unit 2: Measures of central tendency – concept, properties, uses, calculation, Measures of variability – concept, types (concept), uses, calculation of SD SEM IV: Development of observational skills/ EDCSSEC02M Unit-1: Advantages and Disadvantages of Observation.

Week 8 to Week 12	SEM IV: Statistics Practical / EDCACOR10P Unit 2: Data Analyses by any excel/ software and manual both Graphical Representation of Data: Frequency Polygon, Ogive, Comparison between two sets of data: Correlation (only software calculation) – Rank difference and product moment.	SEM II: Educational Sociology/ EDCACOR03T Unit 3: Education for sustainable development – concept & need, Report of the Brundtland Commission SEM II: Pedagogy/ EDCACOR04T Unit 2: Levels of teaching – autonomous, memory SEM II: Psychological Foundation of Education /GE-2 Unit 4: Personality- types SEM IV: Statistics in Education / EDCACOR10T Unit 2: Concept, types (concept), uses, calculation of QD, variance, Normal Probability Curve – concept, characteristics, uses; skewness and kurtosis Unit 3: PP, PR – concept, calculation, uses SEM IV: Development of observational skills/ EDCSSEC02M Unit-2: Planning and execution of observation, Recording and interpretation of observed data
Week 13	SEM IV: Statistics Practical / EDCACOR10P Unit 2: Report writing of statistical practical	SEM II: Educational Sociology/ EDCACOR03T Unit 3: Report of the Brundtland Commission SEM II: Pedagogy/ EDCACOR04T Unit 2: Levels of teaching - understanding SEM II: Psychological Foundation of Education /GE-2 Unit 4: Psychoanalytic theory by Freud SEM IV: Statistics in Education / EDCACOR10T Unit 3: Rank difference, product moment method SEM IV: Development of observational skills/ EDCSSEC02M Unit-3: Direct visit to a socio-cultural event (Book Fair)
Week 13 to week 14		Internal Exam
Week 15 to Week 17	SEM IV: Statistics Practical / EDCACOR10P Unit 2: Report writing of statistical practical	SEM II: Educational Sociology/ EDCACOR03T Unit 3: Report of the Brundtland Commission SEM II: Pedagogy/ EDCACOR04T Unit 2: understanding, reflective SEM II: Psychological Foundation of Education /GE-2 Unit 4: Psychoanalytic theory by Freud SEM IV: Statistics in Education / EDCACOR10T Unit 3: Rank difference, product moment method SEM IV: Development of observational skills/ EDCSSEC02M Unit-3: Writing a Report on the Visit
Week 18	Revision, Practise	Revision

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

Teaching Plan for Old System, UG course

Department of Education

Session (2019-2020)

Class: B.A.

Year 3 (Under Old Syllabus 1+1+1)

Subject: Education

Paper: Paper-7, Group B, Paper-8, Group A & B

Name of the Teacher: Priyanka Datta

(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)

July-Oct	Paper-8, Practical, Group A Part 1- ICT Based Statistics Practical Part 1I- Statistics Practical	Paper-7, Group B: Statistics in Education Unit 1: Statistics – Basic Concept Unit 2: Measures of Central tendency, Variability, Normal Probability Curve. Graphical Representation of Data Unit 3: PP, PR, Correlation, Ogive, Chi Square Unit 4: Derived Scores-Concept, Types, Calculation & Uses [Standard Scores, Z Scores]
Nov-Feb	Paper-8, Practical, Group A Part 1I- Statistics Practical Paper-8, Practical, Group B Part 2- Oral Presentation with PPT	Paper-7, Group B: Statistics in Education Unit 1: Statistics – Basic Concept Unit 2: Measures of Central tendency, Variability, Normal Probability Curve. Graphical Representation of Data Unit 3: PP, PR, Correlation, Ogive, Chi Square Unit 4: Derived Scores-Concept, Types, Calculation & Uses [Standard Scores, Z Scores]
Mid Term Exam		
Mar-April	Revision, Practise	Revision Test Exam

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

Teaching Plan for Even Semester, PG Course Department of Education

Session (July 2019-December 2019)

Class: M.A. (CBCS)

Semester: 1, 3

Name of the Teacher: Dr. Priyanka Dutta

Subject: Education

Paper: EDCPCOR01T, EDCPCOR02T, EDCPCOR04T, EDCACOR05P (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	EDCPCOR05P : Evaluation of listening and Speaking Skill	EDCPCOR01T: Contribution of Educational thinkers – Bertrand Russell, Paulo Freire
Week 5 to Week 8	EDCPCOR05P: Evaluation of listening and Speaking Skill	EDCPCOR02T: Unit 2 - Major schools of psychology
Week 9 to Week 12	EDCPCOR05P: Evaluation of listening and Speaking Skill	EDCPCOR04T: Quantitative Data, Qualitative Data
Week 13	EDCPCOR05P: Evaluation of listening and Speaking Skill	EDCPCOR04T: Inferential Statistics
Week 14 Internal Exam		

Week 15 to Week 18	EDCPCOR05P: Evaluation of listening and Speaking Skill	EDCPCOR04T: Inferential Statistics

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

Teaching Plan for Even Semester, PG Course Department of Education

Session (January 2020-June 2020)

Class: M.A. (CBCS)

Semester: 2, 4

Name of the Teacher: Dr. Priyanka Dutta

Subject: Education

Paper: EDCPCOR08T, EDCPCOR16T, EDCPCOR09P (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	EDCPCOR09P: M.S - Word	EDCPCOR08T – Trends in Education EDCPCOR16T – Concept and Evaluation
Week 5 to Week 8	EDCPCOR09P: M.S - Excel	EDCPCOR08T – Trends in Education EDCPCOR16T – Types of Diverse learners
Week 9 to Week 12	EDCPCOR09P: P.P. T	EDCPCOR16T: Planning and Management
Week 13	EDCPCOR09P: P.P.T	EDCPCOR16T: Planning and Management
Week 14 Internal Exam		
Week 15 to Week 18	Revision	EDCPCOR16T: Barriers and facilities in Inclusive Education

Teaching Plan for Odd Semester, UG course

Department of Education

Session (July 2019-December 2019)

Name of the Teacher: Shikha Roy

Class: B.A

Semester 1,3 (CBCS), 3rd year (old)

Subject: Education

Paper:CC1, CC2, CC7 T& P, SEC1,Paper-3, Group A,B; Paper-5, Group A, Paper-7, Group A, Paper-8,Group B, Part 1 (Practical) (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 to week4	Paper: EDCACOR07P/Core07P: Field Tour and Report Writing Paper: SEC I/ EDCSSEC01M: Skill development for social awareness Paper: Paper-8, Practical, Group B, Part 1- Field Study	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 Paper-5, Group A: Comparative Education Unit 1, Concept, Scope, Importance, Functions & Factors of Comparative Education, Introduction about SAARC Countries Paper-7, Group A: Evaluation with Basic Research Concept Unit 1, Evaluation & Measurement
Week4 to week8	Paper: EDCACOR07P/Core07P: Field Tour and Report Writing Paper: SEC I/ EDCSSEC01M: Skill development for social awareness Paper: Paper-8, Practical, Group B, Part 1- Field Study	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 Paper-5, Group A: Comparative Education Unit 1, Concept, Scope, Importance, Functions & Factors of Comparative Education, Introduction about SAARC Countries Paper-7, Group A: Evaluation with Basic Research Concept Unit 1, Evaluation & Measurement
Week8 to Week12	Paper: EDCACOR07P/Core07P: Field Tour and Report Writing Paper: SEC I/ EDCSSEC01M: Skill development for social awareness Paper: Paper-8, Practical, Group B, Part 1- Field Study	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 Paper-5, Group A: Comparative Education Unit 2, Salient Comparative Features of Indian Education with special reference to Bangladesh & Nepal [Primary, Secondary, Higher Education] Paper-7, Group A: Evaluation with Basic Research Concept Unit 2, Tools of Evaluation
Week13	Paper: EDCACOR07P/Core07P: Field Tour and Report Writing Paper: SEC I/ EDCSSEC01M: Skill development for social awareness Paper: Paper-8, Practical, Group B,	Paper: EDCACOR01T / Core 01T: Educational Philosophy Unit 3: Educational provisions in the Indian constitution Paper: EDCACOR02T /Core 02T: Educational Psychology Unit 2: Moral development

	Part 1- Field Study	EDCACOR07T/Core 07T: Contemporary issues Unit 3 Educational issues Paper-7, Group A: Evaluation with Basic Research Concept Unit 2, Tools of Evaluation
Week13to week14		Internal Exam
Week15 to 17	Paper: EDCACOR07P/Core07P: Field Tour and Report Writing Paper: SEC I/ EDCSSEC01M: Skill development for social awareness Paper: Paper-8, Practical, Group B, Part 1- Field Study	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 Paper-5, Group A: Comparative Education Unit 2, Salient Comparative Features of Indian Education with special reference to Bangladesh & Nepal [Primary, Secondary, Higher Education] Paper-7, Group A: Evaluation with Basic Research Concept Unit 2, Tools of Evaluation
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 2019-December 2019)

Name of the Teacher: Shikha Roy

Class: M.A

Semester:1

Subject: Education

Paper: EDCPCORO1T, EDCPCORO2T, EDCPCORO3T, EDCPCORO4T (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 to week4		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		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		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,
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.
Week13to week14		Internal Exam
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.
Week18	Revision, Practise	Revision

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

Teaching Plan for even Semester, UG course

Department of Education

Session (January 2020-June 2020)

Name of the Teacher: Shikha Roy

Class: B.A

Semester: 2, 4 (CBCS), 3rd year (old)

Subject: Education

Paper: CC3, CC4, GE2, CC9, SECII, Paper-5, Group A, Paper-7, Group A (Theory and Practical)

S.No	Practical works to be covered (Paper code to be mentioned)	Theory topic to be covered (Paper code to be mentioned)
Week1 to week4	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 Paper-5, Group A: Comparative Education Unit 3, Salient Comparative Features of Indian Education with special reference to Bangladesh & Nepal [Educational Administration, Examination & Evaluation System] Paper-7, Group A: Evaluation with Basic Research Concept Unit 3, Standardization of a Test
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 Paper-5, Group A: Comparative Education Unit 3, Salient Comparative Features of Indian Education with special reference to Bangladesh & Nepal [Educational Administration, Examination & Evaluation System] Paper-7, Group A: Evaluation with Basic Research Concept Unit 3, Standardization of a Test
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 Paper-5, Group A: Comparative Education Unit 4, Salient Comparative Features of Indian Education with special reference to SAARC Countries [Vocational & Technical Education, Universal Elementary Education]

		Paper-7, Group A: Evaluation with Basic Research Concept Unit 4, Preliminary Concepts of Research Methodology
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 Paper-5, Group A: Comparative Education Unit 4, Salient Comparative Features of Indian Education with special reference to SAARC Countries [Vocational & Technical Education, Universal Elementary Education]
Week13to 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 Paper-5, Group A: Comparative Education Unit 4, Salient Comparative Features of Indian Education with special reference to SAARC Countries [Vocational & Technical Education, Universal Elementary Education] Paper-7, Group A: Evaluation with Basic Research Concept Unit 4, Preliminary Concepts of Research Methodology
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 2020-June 2020)

Name of the Teacher: Shikha Roy

Class: M.A

Semester: 2

Subject: Education

Paper: EDCPCORO6T, EDCPCORO7T, EDCPCORO8T, EDCPCORO10T (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	Paper A: Paper B : Paper C etc:	Departmental-6 Sociological Foundations of Education Unit – 4: Education and Social Problems Discriminatory issues Departmental-7 Pedagogical Studies Unit- 1: Pedagogic al 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
Week 4 to week 8	Paper A: Paper B : Paper C etc:	Departmental-6 Sociological Foundations of Education Unit – 4: Education and Social Problems Drug Abuse & Drug Addiction Departmental-7 Pedagogical Studies Unit- 1: Pedagogic al 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
Week 8 to Week 12	Paper A: Paper B : Paper C etc:	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
Week 13	Paper A: Paper B : Paper C etc:	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 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
Week13 to week 14		Internal Exam
Week 15 to 17	Paper A: Paper B : Paper C etc:	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 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 (2019-2020)

Class: B.Sc.

Semester 1, Part II, Part III

Name of the Teacher: Dr. Anup Sengupta

Subject: Mathematics Core

Paper: MTMACOR02T, MTMACOR06T , Paper V,

S. No.	Theory syllabus to be covered	
Week 1 to Week 4	Sem 1	MTMACOR02T: System of Linear Equations and Properties.
	Sem III	MTMACOR06T : Symmetries of a square, Dihedral groups, definition and examples of groups including permutation groups and quaternion groups (through matrices)
	Part III	Paper V: Real Analysis II
Week 5 to Week 8	Sem 1	MTMACOR02T: System of Linear Equations and Properties.
	Sem III	MTMACOR06T : Elementary properties of groups, Subgroups and examples of subgroups, centralizer, normalizer, center of a group, product of two subgroups
	Part III	Paper V: Real Analysis II
Week 9 to Week 12	Sem 1	MTMACOR02T: Matrix, inverse of a matrix, characterizations of invertible matrices. Rank of a matrix, Eigen values, Eigen Vectors and Characteristic Equation of a matrix.
	Sem III	MTMACOR06T: Properties of cyclic groups, classification of subgroups of cyclic groups, 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.
	Part III	Paper V: Real Analysis II
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.
	Sem III	MTMACOR06T: External direct product of a finite number of groups, normal subgroups, factor groups, Cauchy's theorem for finite abelian groups, Group homomorphisms, properties of homomorphisms, Cayley's theorem, properties of isomorphisms, First, Second and Third isomorphism theorems
	Part III	Paper V: Metric Space
Week 18	Sem 1	MTMACOR02T: Revision and practice.
	Sem III	MTMACOR06T: Revision and practice

	Part III	Paper V: Revision and Practice.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2019-2020)

Class: B.Sc.

Semester 2, Sem IV, Part III

Name of the Teacher: Dr. Anup Sengupta

Subject: Mathematics Core

Paper: MTMACOR03T, MTMACOR08T, MTMACOR10T, PAPER V, Paper VIIIA.

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.
	Sem IV	MTMACOR08T : Riemann Integration, Darboux Integration Etc. MTMACOR10T: Definition, Examples And Properties Of Rings, Integral Domains, Fields.
	Part III	Paper V: Complex Analysis
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
	Sem IV	MTMACOR08T: Riemann Integrability of Functions and Properties of Riemann Integral Etc. MTMACOR10T: Ring Homomorphisms and Etc.
	Part III	Paper VIIIA: Algebra III (Linear, Modern and Boolean)
Week 9 to Week 12	Sem 2	MTMACOR03T: Sequences, Bounded sequence, Convergent sequence, Limit of a sequence, $\liminf$, $\limsup$. Limit Theorems. Monotone Sequences, Monotone Convergence Theorem.
	Sem IV	MTMACOR08T: Pointwise and Uniform Convergence Of Sequence Of Functions Etc. MTMACOR10T: Algebra of Vector Spaces Etc.
	Part III	Paper VIIIA: Differential Equation III
Week 13 to 14		Internal examination
Week 15 to Week 17	Sem 2	MTMACOR03T: Subsequences, Divergence Criteria. Monotone Subsequence Theorem (statement only), Bolzano Weierstrass Theorem for Sequences. Cauchy sequence, Cauchy's Convergence Criterion. 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, Integral test. Alternating series, Leibniz test. Absolute and Conditional convergence.

	Sem IV	MTMACOR08T: Series of Functions Etc. MTMACOR10T: Introduction To Linear Transformations, Isomorphisms Etc.
	Part III	Paper VIIIA: Tensor Algebra and Calculus
Week 18	Sem 2	MTMACOR03T: Revision and practice.
	Sem IV	MTMACOR08T, MTMACOR10T: Revision and practice
	Part III	Paper V, Paper VIIIA: Revision and Practice.

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

Teaching Plan for Odd Semester, UG course

Department of Mathematics

Session (2019-2020)

Class: B.Sc.

Semester 1, 3, Part III

Name of the Teacher: Prof. Narayan Chandra Basak

Subject: Mathematics Core

Paper: MTMACOR01T, MTMACOR05T, Paper VI (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 ($\epsilon - \delta$ approach),
	Part III	Paper VI: Random experiments. Simple and compound events. Event space. Classical and frequency definitions of probability and their drawbacks. Axioms of Probability. Statistical regularity. Multiplication rule of probabilities. Bayes' theorem. Independent events. Independent random experiments. Independent trials. Bernoulli trials and binomial law. Poisson trials. Random variables. Probability distribution. Distribution function. Discrete and continuous distributions. Binomial, Poisson, Gamma, Uniform and Normal distribution. Poisson Process (only definition).
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
	Part III	Paper VI: Transformation of random variables. Two dimensional probability distributions. Discrete and continuous distributions in two dimensions. Uniform distribution and two dimensional normal distribution, conditional distributions. Transformation of random variables in two dimensions. Mathematical expectation. Mean, variance, moments, central moments. Measures of location, dispersion, skewness and kurtosis. Median, mode, quartiles. Moment-generating function
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
	Part III	Paper VI: Characteristic function. Two-dimensional expectation. Covariance, Correlation co-efficient, Joint characteristic function. Multiplication rule for expectations. Conditional expectation. Regression curves, least square regression lines and parabolas. Chi-square and t -distributions and their important properties (Statements only) Tchebycheff's inequality. Convergence in probability. Statements of : Bernoulli's limit theorem, Law of large numbers, Poisson's approximation to binomial distribution and normal approximation to binomial distribution.
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
	Part III	Paper VI: Concepts of asymptotically normal distribution. Statement of central limit theorem in the case of equal components and of limit theorem

		for characteristic functions (Stress should be more on the distribution function theory than on combinatorial problems. Difficult combinatorial problems should be avoided).
Week 18	Sem 1	MTMACOR01T: Revision and practice.
	Sem 3	MTMACOR05T: Revision and Practice.
	Part III	Paper VI: Revision and Practice.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2019-2020)

Class: B.Sc.

Semester 2, 4, Part III

Name of the Teacher: Prof. Narayan Chandra Basak

Subject: Mathematics Core

Paper: MTMACOR04T, MTMACOR08T, Paper VI (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.
	Part III	Paper VI: Random sample. Concept of sampling and various types of sampling. Sample and population. Collection, tabulation and graphical representation. Grouping of data, Sample characteristic and their computation.
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
	Part III	Paper VI: Sampling distribution of a statistic. Estimates of a population characteristic or parameter. Unbiased and consistent estimates. Sample characteristics as estimates of the corresponding population characteristics. Sampling distributions of the sample mean and variance. Exact sampling distributions for the normal populations.
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.
	Part III	Paper VI: Bivariate samples. Scatter diagram. Sample correlation coefficient. Least square regression lines and parabolas. Estimation of parameters. Method of maximum likelihood. Applications to binomial, Poisson and normal population
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
	Part III	Paper VI: Confidence intervals. Interval estimation for parameters of normal population. Statistical hypothesis. Simple and composite hypothesis. Best critical region of a test. Neyman-Pearson theorem (Statement only) and its application to normal population. Likelihood ratio testing and its application to normal population. Simple applications of hypothesis testing (for practical).
Week 18	Sem 2	MTMACOR04T: Revision and practice.
	Sem 4	MTMACOR08T: Revision and Practice.
	Part III	Paper VI: Revision and Practice.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2019-2020)

Class: B.Sc.

Semester 1, 3, Part III

Name of the Teacher: Dr. Syamali Bhadra

Subject: Mathematics Core

Paper: MTMACOR01T, MTMACOR07T, MTMSSEC01M, Paper VI, Paper VII (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.
	Part III	Paper VI: What is Numerical Analysis? Errors in Numerical computation: Gross error, Round off error, Truncation error. Approximate numbers. Significant figures. Absolute, relative and percentage error. Operators : $\Delta, \nabla, E, \mu, \delta$ (Definitions and simple relations among them) Interpolation : Problems of interpolation, Weierstrass' approximation theorem (only statement). Polynomial interpolation. Equispaced arguments. Difference table. Deduction of Newton's forward and backward interpolation formulae. Statements of Stirling's and Bessel's interpolation formulae. Error terms. General interpolation formulae : Deduction of Lagrange's interpolation formula. Divided difference. Newton's General Interpolation formula (only statement). Inverse interpolation. Interpolation formulae using the values of both $f(x)$ and its derivative $f(x)$: Idea of Hermite interpolation formula (only the basic concepts). Numerical Differentiation based on Newton's forward & backward and Lagrange's formulae.
	Sem 1	MTMACOR01T: Parametrizing a curve, arc length, arc length of parametric curves, area of surface of revolution. Techniques of sketching conics.

Week 5 to Week 8	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
	Part III	Paper VI: Numerical Integration : Integration of Newton's interpolation formula. Newton - Cote's formula. Basic Trapezoidal and Simpson's 1/3 rd. formulae. Their composite forms. Weddle's rule (only statement). Statement of the error terms associated with these formulae. Degree of precision (only definition). Numerical solution of non-linear equations : Location of a real root by tabular method. Bisection method. Secant/Regula-Falsi and Newton-Raphson methods, their geometrical significance. Fixed point iteration method.
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.
	Part III	Paper VI: Numerical solution of a system of linear equations: Gauss elimination method. Iterative method - Gauss-Seidel method. Matrix inversion by Gauss elimination method (only problems - up to 3x3 order). Eigenvalue Problems : Power method for numerically extreme eigenvalues. Numerical solution of Ordinary Differential Equation : Basic ideas, nature of the problem. Picard, Euler and Runge-Kutta (4th order) methods (emphasis on the problems only).
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.
	Part III	Paper VI: <i>Fundamentals of Computer Science and Computer Programming</i> : Computer fundamentals : Historical evolution, computer generations, functional description, operating systems, hardware & software. Positional number systems : binary, octal, decimal, hexadecimal systems. Binary arithmetic. Storing of data in a computer : BIT, BYTE, Word. Coding of data - ASCII, EBCDIC, etc. Algorithm and Flow Chart : Important features. Ideas about the complexities of algorithm. Application in simple problems. Programming languages : General concepts, Machine language, Assembly Language, High Level Languages. Compiler and Interpreter. Object and Source Program. Ideas about some major HLL.
Week 18	Sem 1	MTMACOR01T: Revision and practice.
	Sem 3	MTMACOR07T: Revision and Practice.
		MTMSSEC01M: Revision and Practice.
	Part III	Paper VI: Revision and Practice.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2019-2020)

Class: B.Sc.

Semester 2, 4, Part III

Name of the Teacher: Dr. Syamali Bhadra

Subject: Mathematics Core

Paper: MTMACOR04T, MTMACOR08T, MTMSSEC02M, MTMACOR09T, Part III (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.
	Part III	Paper VII: Laws of Friction, Angle of friction, Cone of friction. To find the positions of equilibrium of a particle lying on a (i) rough plane curve, (ii) rough surface under the action of any given forces. General formula for the determination of C.G. Determination of position of C. G. of any arc, area of solid of known shape by method of integration.
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,
	Part III	Paper VII: Astatic Equilibrium, Astatic Centre. Positions of equilibrium of a particle lying on a smooth plane curve under action of given force. Action at a joint in a frame work. Virtual work : Principle of virtual work for a single particle. Deduction of the conditions of equilibrium of a particle under coplanar forces from the principle of virtual work. The principle of virtual work for a rigid body. Forces which do not appear in the equation of virtual work. Forces which appear in the equation of virtual work. The principle of virtual work for any system of coplanar forces acting on a rigid body. Converse of the principle of virtual work.
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.
	Part III	Paper VII: Stable and Unstable equilibrium. Co-ordinates of a body and of a system of bodies. Field of forces. Conservative field. Potential energy of a system. The energy test of stability. Condition of stability of equilibrium of a perfectly rough heavy body lying on fixed body. Rocking stones. Forces in three dimensions. Moment of a force about a line. Axis of a couple. Resultant of any two couples acting on a body. Resultant of any number of couples acting on a rigid body. Reduction of a system of

		forces acting on a rigid body. Resultant force is an invariant of the system but the resultant couple is not an invariant.
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
	Part III	Paper VII: Conditions of equilibrium of a system of forces acting on a body. Deductions of the conditions of equilibrium of a system of forces acting on a rigid body from the principle of virtual work. Poinso't's central axis. A given system of forces can have only one central axis. Wrench, Pitch, Intensity and Screw. Condition that a given system of forces may have a single resultant. Invariants of a given system of forces. Equation of the central axis of a given system of forces.
Week 18	Sem 2	MTMACOR04T: Revision and practice.
	Sem 4	MTMACOR08T, MTMACOR09T& MTMSSEC02M : Revision and Practice.
	Part III	Paper VII: Revision and practice.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2019-2020)

Class: B.Sc.

Semester 1, 3, Part III

Name of the Teacher: Dr. Shib Sankar Giri

Subject: Mathematics Core and Mathematics General

Paper: MTMACOR01T, MTMACOR02T, MTMGCOR01T, MTMACOR05T, Paper VIIIA, Paper VII, Paper V (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.
		MTMGCOR01T: Tangents and normals, Curvature, Asymptotes, Singular points, Tracing of curves.
	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.
	Part III	Paper VIIIA: Laplace Transform and its application in ordinary differential equations: Laplace Transform and Inverse Laplace Transform. Statement of Existence theorem. Elementary properties of Laplace Transform and its Inverse. Laplace Transform of derivatives. Laplace transform of integrals. Convolution theorem (Statement only). Application to the solution of ordinary differential equations of second order with constant coefficients.
Week 5 to Week 8	Sem 1	MTMACOR01T: 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: Parametric representation of curves and tracing of parametric curves, Polar coordinates and tracing of curves in polar coordinates, Rolle's theorem, Mean Value theorems.
	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.
	Part III	Paper VIIIA: Series solution at an ordinary point : Power Series solution of ordinary differential equations, Simple problems only.
		Paper VII: Momental ellipsoid. Equipomental system. Principal axis. D'Alembert's principle. D'Alembert's equations of motion. Principles of moments. Principles of conservations of linear and angular momentum. Independence of the motion of centre of inertia and the motion relative to the centre of inertia. Principle of energy. Principle of conservation of energy.
Week 9 to Week 12	Sem 1	MTMACOR02T: Well-ordering property of positive integers, Division algorithm, Divisibility and Euclidean algorithm. Congruence relation between integers.
		MTMGCOR01T: Taylor's theorem with Lagrange's and Cauchy's forms of remainder, Taylor's series, Maclaurin's series of $\sin x$, $\cos x$, e^x , $\log(1+x)$, $(1+x)^n$

	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.
	Part III	Paper VII: Principle of energy. Principle of conservation of energy. Equation of motion of a rigid body about a fixed axis. Expression for kinetic energy and moment of momentum of a rigid body moving about a fixed axis.
Week 13 to 14		Internal examination
Week 15 to Week 17	Sem 1	MTMACOR02T: Principles of Mathematical Induction, statement of Fundamental Theorem of Arithmetic. MTMGCOR01T: Maxima and Minima, Indeterminate forms
	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.
	Part III	Paper VII: Compound pendulum. Interchangeability of the points of a suspension and centre of oscillation. Minimum time of oscillation. Reaction of axis of rotation.
Week 18	Sem 1	MTMACOR01T and MTMACOR02T: Revision and practice. MTMGCOR01T: Revision and practice.
	Sem 3	MTMACOR05T: Revision and Practice.
	Part III	

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2019-2020)

Class: B.Sc.

Year: Part III

Name of the Teacher: Dr. Shib Sankar Giri

Subject: Mathematics Core

Paper: Paper VIIIB (Practical)

S. No.	Practical syllabus to be covered	
Week 9 to 12	Part III	Solution of transcendental and algebraic equations by Bisection method b. Newton Raphson method. Numerical Integration Simpson's one third rule, Solution of ordinary differential equations Runge Kutta method

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, UG course
Department of Mathematics
Session (2019-2020)

Class: B.Sc.

Semester 2, 4, Part III

Name of the Teacher: Dr. Shib Sankar Giri

Subject: Mathematics Core and Mathematics General

Paper: MTMACOR04T, MTMACOR09T, Paper VIIIA, Paper VII, Paper V (Theory)

S. No.	Theory syllabus to be covered	
Week 1 to Week 4	Sem 2	MTMACOR04T: Equilibrium points, Interpretation of the phase plane, MTMGCOR02T: Methods for solving higher-order differential equations. Basic theory of linear differential equations, Wronskian, and its properties. Solving a differential equation by reducing its order
	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.
	Part III	Paper VII: Equations of motion of a rigid body moving in two dimensions. Expression for kinetic energy and angular momentum about the origin of rigid body moving in two dimensions. Two dimensional motion of a solid of revolution down a rough inclined plane. Necessary and sufficient condition for pure rolling. Two dimensional motion of a solid of revolution moving on a rough horizontal plane.
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: Linear homogenous equations with constant coefficients, Linear non-homogenous equations, The method of variation of parameters, The Cauchy-Euler equation, Simultaneous differential equations, Total differential equations
	Sem 4	MTMACOR09T: 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.
	Part III	Paper VII: Equations of motion under impulsive forces. Equation of motion about a fixed axis under impulsive forces. Centre of percussion. To show that (i) if there is a definite straight line such that the sum of the moments of the external impulses acting on a system of particles about it vanishes, then the total angular momentum of the system about that line remains unaltered, (ii) the change of K. E. of a system of particles moving in any manner under the application of impulsive forces is equal to the work done by the impulsive forces. Impulsive forces applied to a rigid body moving in two dimensions.
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: Order and degree of partial differential equations, Concept of linear and non-linear partial differential equations, Formation of first order partial differential equations, Linear partial differential equation of first order.
	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.

	Part III	Paper V: Complex numbers as ordered pairs. Geometric representation of complex numbers. Stereographic projection. Complex functions: Continuity and differentiability of complex functions.
Week 13 to 14		Internal examination
Week 15 to Week 17	Sem 2	MTMACOR03T: Integral test. Alternating series, Leibniz test. Absolute and Conditional convergence.
		MTMGCOR02T: Lagrange's method, Charpit's method. Classification of second order partial differential equations into elliptic, parabolic and hyperbolic through illustrations only.
	Sem 4	MTMACOR09T: Change of variables in double integrals and triple integrals.
	Part III	Paper V: Analytic functions. Cauchy-Riemann Equations. Statement of Milne's Method, Harmonic functions.
Week 18	Sem 2	MTMACOR04T: Revision and practice.
		MTMGCOR02T: Revision and practice.
	Sem 4	MTMACOR09T: Revision and Practice.
	Part III	Paper V, Paper VII, Paper VIII A: Revision and Practice.

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALLAKE, KOLKATA

Teaching Plan for Odd Semester, UG course, Department of BOTANY, Session (2019 - 2020)

Class: B.Sc (Honours) & B.Sc (General)
Name of the Teacher: BENUDHAR MANDAL

Semester I, III
Subject: Botany

Paper: Core Course I. Phycology and Microbiology , Course Code: BOTACOR01T & BOTACOR01P, . Economic Botany(BOTACOR06T,) ,
 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 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 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 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 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 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 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 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 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 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 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
SALLAKE, KOLKATA

Teaching Plan for EVEN Semester, UG course, Department of BOTANY, Session (2019 - 2020)

Class: B.Sc (Honours) & B.Sc (General)
Name of the Teacher: BENUDHAR MANDAL

Semester II& IV
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

**BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA**

Teaching Plan for Odd Semester, UG course, Department of BOTANY, Session (2019- 2020)

Class: B. Sc (Honours)

Semester I

Name of the Teacher: Dr. Bharati Mukhopadhyay

Subject: Botany

Paper: Core Course I: Phycology and Microbiology. BOTACOR01T and BOTACOR01P,

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 I: Phycology and Microbiology (BOTACOR01T) unit 4
Week 5 to Week 8	Core Course I: Phycology and Microbiology (BOTACOR01P), Topic 1, Continuous assessment	Core Course I: Phycology and Microbiology (BOTACOR01T) unit 5
Week 9 to Week 12	Core Course I: Phycology and Microbiology (BOTACOR01P), Topic 2, Continuous assessment	Core Course I: Phycology and Microbiology (BOTACOR01T) unit 6
Week 13	Core Course I: Phycology and Microbiology (BOTACOR01P), Topic 2, Continuous assessment	Core Course I: Phycology and Microbiology (BOTACOR01T) unit 7
Week 14	Internal Examination	
Week 15 to week 17	Core Course I: Phycology and Microbiology (BOTACOR01P), Practical Mock Test, Continuous assessment	Core Course I: Phycology and Microbiology (BOTACOR01T) Revision, Tutorials
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA

Teaching Plan for Even Semester, UG course, Department of BOTANY, Session (2019- 2020)

Class: B. Sc (General)

Semester IV G

Name of the Teacher: Dr. Bharati Mukhopadhyay

Subject: Botany (General)

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	Plant Physiology and Metabolism Course Code: BOTHGEC04P Topic 1, Topic 2, Continuous assessment	Plant Physiology and Metabolism Course Code: BOTHGEC04T Unit 1: Plant-water relations, Unit 2: Mineral nutrition, Class Test
Week 5 to Week 8	Plant Physiology and Metabolism Course Code: BOTHGEC04P Topic 3, Continuous assessment Topic 1- demonstration	Plant Physiology and Metabolism Course Code: BOTHGEC04T Unit 3: Translocation in phloem, Unit 4: Photosynthesis, Class Test
Week 9 to Week 12	Plant Physiology and Metabolism Course Code: BOTHGEC04P Topic 2- demonstration Continuous assessment	Plant Physiology and Metabolism Course Code: BOTHGEC04T Unit 5: Respiration, Class Test
Week 13	Plant Physiology and Metabolism Course Code: BOTHGEC04P Practical Mock Test, Continuous assessment	Plant Physiology and Metabolism Course Code: BOTHGEC04T Class Tests, Tutorials
Week 14 Internal Examination		
Week 15 to week 17	Plant Physiology and Metabolism Course Code: BOTHGEC04P Practical Mock Test, Continuous assessment	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(2019-2020)

Class: B.Sc. (Honours and General)

Semester I, III

Name of the Teacher: DR. KAJARI LAHIRI.

Subject: Botany

**Paper: Core Course II (BOTACOR02T, BOTACOR02P), 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 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
Week 5 to week 8	Core Course II: BOTACOR02P (Biomolecules and Cell Biology) Topic 3, 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
Week 9 to Week 12	Core Course II: BOTACOR02P (Biomolecules and Cell Biology) 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 7: Embryo and endosperm, Class Test
Week 13	Core Course II : BOTACOR02P(Biomolecules and Cell Biology) Practical Mock Test 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 , cryptochromes 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 II : BOTACOR02T(Biomolecules and Cell Biology) Mock Test on Unit 1(Biomolecules) Generic Elective: BOTHGEC03T (Plant anatomy and Embryology) Mock Test on Embryology units
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 (2019- 2020)

Class: B.Sc. (Honours and General)

Semester II, IV

Name of the Teacher: DR. KAJARI LAHIRI

Subject: Botany

Paper: Core Course IV (BOTACOR04T, BOTACOR04P), 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.
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	Course Code: BOTACOR04T- Archegoniate- Bryophytes- Unit 2, Class Test Generic Elective : BOTHGEC04T (Plant Physiology and metabolism)- Unit3 : Translocation in phloem, 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	Course Code: BOTACOR04T- Archegoniate-Bryophytes- Unit 3, Class Test Generic Elective : BOTHGEC04T (Plant Physiology and metabolism)- Unit 6: Enzymes, 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	Course Code: BOTACOR04T- Archegoniate- Bryophytes- Unit 4, Class Test Generic Elective : BOTHGEC04T (Plant Physiology and metabolism)- Unit 9: Plant response to light and temperature,
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	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
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 Odd Semester, UG course, Department of BOTANY, Session (2019 - 2020)

Class: B.Sc (Honours) & B.Sc (General)
Name of the Teacher: Dr. Santanu Saha

Semester I, III
Subject: Botany

Paper: Core Course V: Morphology and Anatomy(BOTACOR05T, BOTACOR05P), Skill Enhancement Course: Plant Diversity and Human Welfare (BOTSSEC01M)

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	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
Week 5 to Week 8	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05P Topic 1, 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
Week 9 to Week 12	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05T Topic 2, 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
Week 13	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05P, Topic 2, Continuous assessment	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
Week 14	Internal Examination	
Week 15 to week 17	Core Course V: Morphology and Anatomy of Angiosperms Course Code: BOTACOR05P, 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
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA

Teaching Plan for Even Semester, UG course, Department of BOTANY, Session (2019 - 2020)

Class: B.Sc (Honours) & B.Sc (General)
Name of the Teacher: Dr. Santanu Saha

Semester II, IV
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 Generic Electives Course (GE): Plant Ecology and Taxonomy (BOTHGEC02P) Topic 2 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 (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 IV: Archegoniate Course Code: BOTACOR04T) Topic: Unit 5, Class Test
	Core Course IX: Plant Ecology and Phytogeography (BOTACOR09P) Field visit, Mock Practical test	Core Course IX: Plant Ecology and Phytogeography (BOTACOR09T) Topic: Unit 9 Class Test
	Generic Electives Course (GE): Plant Ecology and Taxonomy (BOTHGEC02P) Field visit Practical mock 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 IV: Archegoniate Course Code: BOTACOR04T) Topic: Unit 6, Class Test
	Core Course IX: Plant Ecology and Phytogeography (BOTACOR09P) Topic: Unit 9,10 Continuous assessment, Practical Mock Test	Core Course IX: Plant Ecology and Phytogeography (BOTACOR09T) Topic: Unit 10 Class Test
	Generic Electives Course (GE): Plant Ecology and Taxonomy (BOTHGEC02P) Topic 4, Topic 5 Continuous assessment	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
SALLAKE, KOLKATA

Teaching Plan for Odd Semester, UG course, Department of BOTANY, Session (2019 - 2020)

Class: B.Sc (Honours) & B.Sc (General)
Name of the Teacher: Dr. Kausik Majumder

Semester I & III
Subject: Botany

Paper: Core Course II: Bio-molecules and Cell Biology, Course Code: BOTACOR02T & BOTACOR02P, Core Course VII: Genetics, Course Code: BOTACOR07T & BOTACOR07P, 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 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 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 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 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 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 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 VII: Genetics (BOTACOR07P) Topic 4, Continuous assessment Generic Electives Course (GE): Plant Anatomy and Embryology (BOTHGEC03P) Topic 11, Topic 12, Continuous assessment	Core Course II: Bio-molecules and Cell Biology (BOTACOR02T) Unit 2, Class Test Core Course VII: Genetics (BOTACOR07T) Unit 6, Class Test 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 VII: Genetics (BOTACOR07P) Practical Mock Test	Core Course II: Bio-molecules and Cell Biology (BOTACOR02T) Unit 4, Class Test Core Course VII: Genetics (BOTACOR07T) Unit 6, 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 (2019 - 2020)

Class: B.Sc (Honours) & B.Sc (General)
Name of the Teacher: Dr. Kausik Majumder

Semester II, IV
Subject: Botany

Paper: Nil

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA

Teaching Plan for ODD Semester, UG course, Department of BOTANY, Session (2019 - 2020)
Class: B.Sc (Honours) & B.Sc (General)
Name of the Teacher: MOUSUMI MUKHOPADHYAY

Semester I and III
Subject: Botany

Paper: 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/ 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 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 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 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. 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 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. Biodiversity (Microbes, Algae, Fungi and Archegoniate) Course Code: BOTHGEC01T: Unit 7: Gymnosperms, Mid-Term Examination
Week 13	Core Course VI: Practical Course Code: BOTACOR06P Remedial classes for unit 6 Practical Course Code: BOTHGEC01P: Mock Test unit 10, 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 unit 4 and 5 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 unit 7 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 Biodiversity (Microbes, Algae, Fungi and Archegoniate) Course Code: BOTHGEC01T: Tutorial unit 3
Week 18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA

Teaching Plan for EVEN Semester, UG course, Department of BOTANY, Session (2019 - 2020)

Class: B.Sc (Honours) & B.Sc (General)

Semester II and IV

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 Unit 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 Unit 11: Classification , Unit 12: Numerical taxonomy and cladistics, Mid Term Examination

Week 13	Core Course I. Mycology and Plant Pathology , Course Code: BOTACOR03P. Topic 3 and 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

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALLAKE, KOLKATA

Teaching Plan for Odd Semester, UG course, Department of BOTANY, Session (2019 - 2020)

Class: B.Sc. (Hons)

Name of the Teacher: Dr. Subhadipa Sengupta

Semester I, & III

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

**BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA**

Teaching Plan for Even Semester, UG course, Department of BOTANY, Session (2019 - 2020)

Class: B.Sc. (Hons)
Name of the Teacher: Dr. Subhadipa Sengupta

Semester II & IV
Subject: Botany

Paper: Core Course VIII: Molecular Biology, Course Code: BOTACOR08T & BOTACOR08P

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 VIII: Molecular Biology (BOTACOR08T) Unit 1, Class Test
Week 5 to Week 8	Core Course VIII: Molecular Biology (BOTACOR08P) Topic 2 & 3, Continuous assessment	Core Course VIII: Molecular Biology (BOTACOR08T) Unit 2 & 3, Class Test
Week 9 to Week 12	Core Course VIII: Molecular Biology (BOTACOR08P) Topic 4 & 5, Continuous assessment	Core Course VIII: Molecular Biology (BOTACOR08T) Unit 4 & 5, Class Test
Week 13	Core Course VIII: Molecular Biology (BOTACOR08P) Topic 6 & 7, Continuous assessment	Core Course VIII: Molecular Biology (BOTACOR08T) Unit 6, Class Test
Week 14	Internal Examination	
Week 15 to week 17	Core Course VIII: Molecular Biology (BOTACOR08P) Practical Mock Test	Core Course VIII: Molecular Biology (BOTACOR08T) Unit 7, revision, Class Test
Week 18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

**BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALLAKE, KOLKATA**

Teaching Plan for Odd Semester, PG course, Department of BOTANY, Session (2019 - 2020)

Class: PG

Semester I,

Name of the Teacher: BENUDHAR MANDAL

Subject: Botany

Paper: Core Course I. Plant Virus and Bacteria, (Departmental 4) BOTPCOR04T, BOTPCOR04P)

S. No	Practical syllabus to be covered (Paper code to be mentioned) BOTPCOR04P)	Theory syllabus to be covered (Paper code to be mentioned) BOTPCOR04T
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
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
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,, Topic1 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
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
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA

Teaching Plan for EVEN Semester, PG course, Department of BOTANY, Session (2019 - 2020)

Class: PG

Name of the Teacher: BENUDHAR MANDAL

Semester II,

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 2 Class 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
Week 18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

**BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALLAKE, KOLKATA**

Teaching Plan for Odd Semester, PG course, Department of BOTANY, Session (2019- 2020)

Class: M. Sc

Semester I

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,

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	Integrated Life Sciences (Departmental 1) BOTPCOR01T Topic 1, Class Test Diversity of Plant Life-Algae & Bryophytes (Departmental 2) BOTPCOR02T Industrial Phycology, Class Test
Week 5 to Week 8	Laboratory Course Diversity of Plant Life-Algae & Bryophytes BOTPCOR05P Topic 1, Continuous Assessment	Diversity of Plant Life-Algae & Bryophytes (Departmental 2) BOTPCOR02T Algal Biotechnology, Class Test
Week 9 to Week 12	Laboratory Course Diversity of Plant Life-Algae & Bryophytes BOTPCOR05P Practical Mock Test	Diversity of Plant Life-Algae & Bryophytes (Departmental 2) BOTPCOR02T Mid Term Examination
Week13 to Week 18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

**BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA**

Teaching Plan for Even Semester, PG course, Department of BOTANY, Session (2019- 2020)

Class: M. Sc

Semester II

Name of the Teacher: Dr. Bharati Mukhopadhyay

Subject: Botany

Paper: Core Course: Diversity of Plant Life - Pteridophytes, Gymnosperms, Paleobotany & Palynology
(Departmental 9) **BOTPCOR09T**

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		
Week 5 to Week 8		Diversity of Plant Life - Pteridophytes, Gymnosperms, Paleobotany & Palynology (Departmental 9) BOTPCOR09T Genetics and reproductive biology of ferns
Week 9 to Week 12		Diversity of Plant Life - Pteridophytes, Gymnosperms, Paleobotany & Palynology (Departmental 9) BOTPCOR09T Mid Term Examination
Week13 to Week 18		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(2019-2020)

Class: M.Sc.

Semester I

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

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	COURSE CODE: BOTPCOR05P (Departmental 5)- Bryophytes- Continuous assessment.	COURSE CODE: BOTPCOR01T (Departmental 1) INTEGRATED LIFE SCIENCES, Unit-2: Membrane structure and function, Class Test
Week 5 to week 8	COURSE CODE: BOTPCOR05P (Departmental 5)- Unit -3 Bryophytes- Continuous assessment.	COURSE CODE: BOTPCOR02T (Departmental 2)- DIVERSITY OF PLANT LIFE-ALGAE & BRYOPHYTES Bryophytes-Unit 5- Anisospory and sexual dimorphism. Cytogenetics of bryophytes. Expression of genes under stress conditions. Class test
Week 9 to Week 12	COURSE CODE: BOTPCOR05P (Departmental 5)- Unit -3 Bryophytes- Continuous assessment.	COURSE CODE: BOTPCOR02T (Departmental 2)- DIVERSITY OF PLANT LIFE-ALGAE & BRYOPHYTES Bryophytes-Unit 6- Hormonal regulation of gametophyte development in bryophytes. Class Test
Week 13	COURSE CODE: BOTPCOR05P (Departmental 5)- Unit -3 , Bryophytes- Continuous assessment.	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
Week14 Internal Examination		
Week 15 to 17	COURSE CODE: BOTPCOR05P (Departmental 5)- Mock test on Unit -3 Bryophytes	COURSE CODE: BOTPCOR01T (Departmental 1) INTEGRATED LIFE SCIENCES Mock Test on Unit-2: Membrane structure and function COURSE CODE: BOTPCOR02T (Departmental 2)- Mock Test on Unit-2 on Unit-5,6,8
Week 18	Revision, End Term Examination	Revision and solving 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 (2019- 2020)

Class: M.Sc.

Semester II

Name of the Teacher: DR. KAJARI LAHIRI

Subject: Botany

**Paper: COURSE CODE: BOTPCOR08T (Departmental 8) PLANT PATHOLOGY & CROP PROTECTION
, COURSE CODE: BOTPCOR010P (Departmental 10)- LABORATORY COURSE**

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: BOTPCOR010P (Departmental 10)-Nil	COURSE CODE: BOTPCOR08T (Departmental 8) PLANT PATHOLOGY & CROP PROTECTION Plant pathology- Unit-2- Mechanism of disease resistance, Class test.
Week 5 to week 8	COURSE CODE: BOTPCOR010P (Departmental 10)-Nil	COURSE CODE: BOTPCOR08T (Departmental 8) PLANT PATHOLOGY & CROP PROTECTION Plant pathology- Unit-3- Gene for gene hypothesis, Class Test
Week 9 to Week 12	COURSE CODE: BOTPCOR010P (Departmental 10)-Nil	COURSE CODE: BOTPCOR08T (Departmental 8) PLANT PATHOLOGY & CROP PROTECTION Plant pathology- Unit-7- Host-pathogen interaction, Class Test
Week 13	COURSE CODE: BOTPCOR010P (Departmental 10)-Nil	COURSE CODE: BOTPCOR08T (Departmental 8) PLANT PATHOLOGY & CROP PROTECTION Plant pathology- Unit-7- Host-pathogen interaction, Class Test
Week 14 Internal Examination		
Week 15 to 17	COURSE CODE: BOTPCOR010P (Departmental 10)-Nil	COURSE CODE: BOTPCOR08T (Departmental 8) PLANT PATHOLOGY & CROP PROTECTION- Mock test of Plant Pathology units
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 WESTBENGAL
SALLAKE, KOLKATA

Teaching Plan for Odd Semester, PG course, Department of BOTANY, Session (2019 - 2020)

Class: M.Sc.

Name of the Teacher: Dr. Santanu Saha

Semester I, II

Subject: Botany

Paper: AECC 1: Understanding and Presenting Scientific Literature (BOTPAEC01M)

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	AECC 1: Understanding and Presenting Scientific Literature (BOTPAEC01M) Topic 1, Class Test 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	AECC 1: Understanding and Presenting Scientific Literature (BOTPAEC01M) Topic 2, Class Test 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	AECC 1: Understanding and Presenting Scientific Literature (BOTPAEC01M) Topic 3, Class Test 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	AECC 1: Understanding and Presenting Scientific Literature (BOTPAEC01M) Topic 4, Class Test 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	AECC 1: Understanding and Presenting Scientific Literature (BOTPAEC01M) Topic 5,6 Class Test 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
SALT LAKE, KOLKATA**

Teaching Plan for Odd Semester, PG course, Department of BOTANY, Session (2019 - 2020)

Class: M. Sc

Name of the Teacher: Dr. Kausik Majumder

Semester I

Subject: Botany

Paper: Integrated Life Sciences (Departmental 1) BOTPCOR01T, Plant Viruses & Bacteria (Departmental 4) BOTPCOR04T, Laboratory Course (Departmental 5)

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	Integrated Life Sciences (Departmental 1) BOTPCOR01T, Basic statistics, Class Test Plant Viruses & Bacteria (Departmental 4) BOTPCOR04T, Principles of Plant Viral Taxonomy, Class Test
Week 5 to Week 8	Laboratory Course (Departmental 5) BOTPCOR05P Topic 1, 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
Week 9 to Week 12	Laboratory Course (Departmental 5) BOTPCOR05P Topic 2, 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
Week 13	Laboratory Course (Departmental 5) BOTPCOR05P Topic 3, Continuous Assessment	Integrated Life Sciences (Departmental 1) BOTPCOR01T, Methods in Biology, Class Test Plant Viruses & Bacteria (Departmental 4) BOTPCOR04T, plant viral structure and genetics, 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 Plant Viruses & Bacteria (Departmental 4) BOTPCOR04T, Virus induced gene silencing (VIGS), Class Test
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 (2019 - 2020)

Class: M. Sc

Name of the Teacher: Dr. Kausik Majumder

Semester II

Subject: Botany

Paper: Nil

**BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA**

Teaching Plan for ODD Semester, PG course, Department of BOTANY, Session (2019 - 2020)

Class: MSc

Semester I

Name of the Teacher: MOUSUMI MUKHOPADHYAY

Subject: Botany

Core course: Fungal & Oomycete Biology (Departmental 3) BOTPCOR03T/ Laboratory Course (Departmental 5) BOTPCOR05P

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	Fungal & Oomycete Biology (Departmental 3) BOTPCOR03T: Topic 1, Class Test
Week 5 to Week 8	Laboratory Course (Departmental 5) BOTPCOR05P: Fungi & Oomycete: Topic 1, Continuous Assessment	Fungal & Oomycete Biology (Departmental 3) BOTPCOR03T: Topic 2, Topic 3, Class Test
Week 9 to Week 12	Laboratory Course (Departmental 5) BOTPCOR05P: Fungi & Oomycete: Practical Mock Test	Fungal & Oomycete Biology (Departmental 3) BOTPCOR03T: Topic 8, Mid Term Examination
Week 13	Laboratory Course (Departmental 5) BOTPCOR05P: Fungi & Oomycete: Revision of Experiments, End Term Examination	Fungal & Oomycete Biology (Departmental 3) BOTPCOR03T: Revision, Problems analyses.
Week 14	Internal Examination	
Week 15 to 17	Laboratory Course (Departmental 5) BOTPCOR05P: Fungi & Oomycete: Practical Mock Test on Topic 1 Remedial hands on training	Fungal & Oomycete Biology (Departmental 3) BOTPCOR03T: Revision, Problems analyses, Tutorial
Week 18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

**BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA**

Teaching Plan for ODD Semester, PG course, Department of BOTANY, Session (2019 - 2020)
Class: MSc
Name of the Teacher: MOUSUMI MUKHOPADHYAY
Semester II
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 Cronquist, 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, Tutorial
Week 14	Internal Examination	
Week 15 to 17	Laboratory Course (Departmental 10) BOTPCOR10P : Revision of Experiments, Mock Test	Angiosperm Systematics (Departmental 6) BOTPCOR06T: Revision, Problems analyses, End Term Examination
Week 18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

**BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALLAKE, KOLKATA**

Teaching Plan for Odd Semester, PG course, Department of BOTANY, Session (2019 - 2020)

Class: M.Sc.
Name of the Teacher: Dr. Subhadipa Sengupta

Semester I
Subject: Botany

Paper: Core Course: Integrated Life Sciences (Departmental 1), Course Code: BOTPCOR01T

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 (BOTPCOR01T) Genomic DNA isolation Continuous assessment	Departmental 1: Integrated Life Sciences (BOTPCOR01T) Methods in Biology, Class Test
Week 5 to Week 8	Departmental 1: Integrated Life Sciences (BOTPCOR01T) Plasmid DNA isolation Continuous assessment	Departmental 1: Integrated Life Sciences (BOTPCOR01T) Methods in Biology, Class Test
Week 9 to Week 12	Departmental 1: Integrated Life Sciences (BOTPCOR01T) Molecular techniques Continuous assessment	Departmental 1: Integrated Life Sciences (BOTPCOR01T) Methods in Biology, Class Test
Week 13	Departmental 1: Integrated Life Sciences (BOTPCOR01T) Molecular techniques Continuous assessment	Departmental 1: Integrated Life Sciences (BOTPCOR01T) Methods in Biology, different problem analysis on the topics, Class Test
Week 14 Internal Examination		
Week 15 to week 17	Departmental 1: Integrated Life Sciences (BOTPCOR01T) Revision, Viva preparation Continuous assessment	Departmental 1: Integrated Life Sciences (BOTPCOR01T) Methods in Biology, different problem analysis on the topics, Class Test
Week18	Revision of Experiments, End Term Examination	Revision, Question-Answer Analyses, End Term Examination

**BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA**

Teaching Plan for Even Semester, PG course, Department of BOTANY, Session (2019 - 2020)

**Class: M.Sc.
Name of the Teacher: Dr. Subhadipa Sengupta**

**Semester II
Subject: Botany**

No assignment in Sem II

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		
Week 5 to Week 8		
Week 9 to Week 12		
Week 13		
Week 14	Internal Examination	
Week 15 to week 17		
Week 18		

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal
Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2019-2020

Name of the Teacher : Dr. Arun Kumar Jana

PART - III

Topic [Paper-V] (100 Marks)	Jul - Sep	Oct - Dec	Jan -Mar	Apr- Jun
Unit VA : Group-B, Group-C, Unit VB : Group D	Special Theory of Relativity	Statistical Mechanics	Operators in Quantum Mechanics	Schrodinger Equation and applications of Quantum Mechanics

Topic [Paper-VI] (100 Marks)	Jul - Sep	Oct - Dec	Jan -Mar	Apr- Jun
Unit VI A : Group A	Nuclear Structure	Nuclear Structure	Nuclear Reactions	Nuclear Reactions+ Discussion+ Revision

Topic [Paper-VIIA] (50 Marks)	Jul - Sep	Oct - Dec	Jan -Mar	Apr- Jun
Practical	Whole Syllabus will be covered by different Groups	Whole Syllabus will be covered by different Groups	Whole Syllabus will be covered by different Groups	Revision

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal
Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2019-2020

Class: B.Sc : **ODD SEMESTERS – I, III** 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: PHSACOR05P: PHSHGEC03P: Whole syllabus will be covered by different groups	PHSACOR02T: Non-Inertial system& STR PHSACOR06T: 0 th & 1 st law of Thermodynamics: PHSHGEC03T: 0 th & 1 st law of Thermodynamics
Week 5to week 8	PHSACOR01P: PHSACOR05P: PHSHGEC03P: Whole syllabus will be covered by different groups	PHSAOR02T: Special Theory of Relativity- M M Expt., postulates, L transformations, simultaneity. PHSACOR06T: 2 nd law of Thermodynamics, Carnot's theorem & Heat Engine PHSHGEC03T: 2 nd law of Thermodynamics & Heat Engine and efficiency.
Week 9 to week 12	PHSACOR01P: 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, 3 rd law of Thermodynamics.
Week 13	PHSACOR01P: 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.
Week 13 to week 14 Internal Exam		
Week 15 to 17	PHSACOR01P: 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.
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 2019-2020

Class: B.Sc : **EVEN SEMESTERS –II, IV**

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
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.
Week 9 to week 12	PHSACOR03P: PHSACOR04P: PHSACOR09P: PHSHGEC02P: PHSHGE04P: : Whole syllabus will be covered by different groups	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, LC R and their combinations. PHSHGEC04T: Diffraction-Fraunhofer diffraction-Single slit, Double slit
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.

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal
Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2019-2020

Week 13 to week 14 Internal Exam		
Week 15 to 17	PHSACOR03P: PHSACOR04P: PHSACOR09P: PSHGEC02P: PSHGEC04P: 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. PSHGEC02T: Network Theorem-applications, Anderson's bridge. PSHGEC04T: Diffraction-Fresnel diffraction, theory of half perid zones, Zone plates.
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 2019-2020

Name of the Teacher : Dr. Bimal Kumar Mandal

PART - III

Topic [Paper-VIIA] (50 Marks)	Jul - Sep	Oct - Dec	Jan -Mar	Apr- Jun
Unit VIIA Electronics	Operational Amplifiers	Combinational Logic	Sequential Logic	Communication Principles

Topic [Paper-VIIIB] (50 Marks)-Practical	Jul- Sep	Oct- Dec	Jan -Mar	Apr- Jun
Practical	Whole Syllabus will be covered by different Groups.	Whole Syllabus will be covered by different Groups	Whole Syllabus will be covered by different Groups	Revision

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal
Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2019-2020

Class: B.Sc :**ODD SEMESTERS – I & III**

Name of the Teacher: **Dr. Bimal Kunmar Mandal**

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	PHSACOR02P: PHSACOR07P: Whole syllabus will be covered by different groups	PHSACOR1T: Vector Calculas PHSACOR02T : Oscillations-SHM PHSACOR07T: Introduction to fundamentals of Electronics.
Week 5to week 8	PHSACOR02P: PHSACOR07P: Whole syllabus will be covered bydifferent groups	PHSACOR01T: Vector Calculas PHSACOR02T : Oscillations-Forced Vibration PHSACOR07T: Integrated Circuits
Week 9 to week 12	PHSACOR02P: PHSACOR07P: Whole syllabus will be covered by different groups	PHSACOR01T: Orthogonal Curvilinear co-ordinates PHSACOR02T : Resonane PHSACOR07T: Integrated Circuits
Week 13	PHSACOR02P: PHSACOR07P: Whole syllabus will be covered by different groups	PHSACOR01T: Orthogonal Curvilinear co-ordinates PHSACOR02T : Numerical on Oscillations PHSACOR07T: Digital Electronics
Week 13 to week 14 Internal Exam		
Week 15 to 17	PHSACOR02P: PHSACOR07P: Whole syllabus will be covered by different groups	PHSACOR02T: Tutorials PHSACORT : Sharpness and Quality factor PHSACOR07T: Digital Eletronics.
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 2019-2020

Class: B.Sc :**EVEN SEMESTERS –II**

Name of the Teacher : Dr. Bimal Kumar Mandal

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

Sl. No.	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	PHSACOR03P: Whole syllabus will be covered by different groups	PHSACOR3T: Electric Circuits
Week 5to week 8	PHSACOR03P: Whole syllabus will be covered by different groups	PHSACOR3T: Electric Circuits
Week 9 to week 12	PHSACOR03P: Whole syllabus will be covered by different groups	PHSACOR3T: Network Theorem
Week 13	PHSACOR03P: Whole syllabus will be covered by different groups	PHSACOR3T: Numerical on Network analysis
Week 13 to week 14 Internal Exam		
Week 15 to 17	PHSACOR03P: Whole syllabus will be covered by different groups	PHSACOR3T: Network theorem and tutorials
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 2019-2020

Name of the Teacher : Nirmal Kumar Maity

PART - III

Topic [Paper-VIIA] (50 Marks)	Jul - Sep	Oct - Dec	Jan -Mar	Apr- Jun
Unit VIIA Electronics	Field Effect Transistor	Feedback in Amplifiers	Multistage Amplifiers	Oscillators+ Revision

Topic [Paper-VIIIB] (50 Marks)-Practical	Jul- Sep	Oct- Dec	Jan -Mar	Apr- Jun
Practical	Whole Syllabus will be covered by different Groups.	Whole Syllabus will be covered by different Groups	Whole Syllabus will be covered by different Groups	Revision

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal

Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2019-2020

Class: B.Sc :**ODD SEMESTERS – I, III**

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
Week 5 to 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
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
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
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
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 2019-2020

Class: B.Sc :EVEN SEMESTERS –II, IV

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: PHSHGEC02P: Whole syllabus will be covered by different groups	PHSACOR3T: Magnetic Field PHSHGEC02T: Maxwell's equations PHSACOR010T: Semiconductor diodes
Week 5 to week 8	PHSACOR03P: PHSACOR10P: PHSHGEC02P: Whole syllabus will be covered by different groups	PHSACOR3T: Magnetic Properties of matter PHSHGEC02T: Maxwell's equations and numerical PHSACOR010T: Two terminal devices and their applications.
Week 9 to week 12	PHSACOR03P: PHSACOR10P: PHSHGEC02P: Whole syllabus will be covered by different groups	PHSACOR3T: Electromagnetic Induction PHSHGEC02T: Electromagnetic wave propagation. PHSACOR010T: Bipolar Junction Transistor, Field effect Transistor
Week 13	PHSACOR03P: PHSACOR10P: PHSHGEC02P: Whole syllabus will be covered by different groups	PHSACOR3T: Numerical on Magnetic field PHSHGEC02T: em wave propagation PHSACOR010T: Field effect transistor.
Week 13 to week 14 Internal Exam		
Week 15 to 17	PHSACOR03P: PHSACOR10P: PHSHGEC02P: Whole syllabus will be covered by different groups	PHSACOR3T: Electromagnetic Induction PHSHGEC02T: Electromagnetic wave propagation. PHSACOR010T: Amplifiers and their applications.
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 2019-2020

Name of the teacher :Dr. Subhasis Chakrabarti

PART - III

Topic [Paper-V] (100 Marks)	Jul - Sep	Oct - Dec	Jan -Mar	Apr- Jun
PAPER-V, GROUP-A	Generalised coordinates, D'Alembert's Principle	Lagrange's equation and it's application	Conservation principle, canonical transformation	Hamilton's formulation , Small oscillatio

Topic [Paper-VI] (100 Marks)	Jul - Sep	Oct - Dec	Jan -Mar	Apr- Jun
GROUP C	Crystal structure	Structure of solids	Dielectric properties of solids	Magnetic Properties of solids.

Topic [Paper-VIIIA] (50 Marks)-Practical	Jul - Sep	Oct - Dec	Jan -Mar	Apr- Jun
Practical	Whole syllabus will be covered by different groups	Whole syllabus will be covered by different groups	Whole syllabus will be covered by different groups	Revision

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal

Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2019-2020

B.Sc. Odd Semester (I, III)

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, PSHHGEC01P, PHSACOR06P, PHSACOR07P, PSHHGEC03P :Whole syllabus will be covered by different groups	PHSACOR01T: Calculus (Recapitulation) Approximation: Taylor and binomial series (statements only). PHSSSEC01M: CRO PHSACOR05T: Fourier Series
Week 4 to week 8	PHSACOR02P, PSHHGEC01P, PHSACOR06P, PHSACOR07P, PSHHGEC03P :Whole syllabus will be covered by different groups	PHSACOR01T: Calculus (1st Order and 2 nd order) PHSSSEC01M: Signal Generators and analysis Instruments PHSACOR05T: Some Special Integrals
Week 8 to week 12	PHSACOR02P, PSHHGEC01P, PHSACOR06P, PHSACOR07P, PSHHGEC03P :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
Week 13	PHSACOR02P, PSHHGEC01P, PHSACOR06P, PHSACOR07P, PSHHGEC03P :Whole syllabus will be covered by different groups	PHSACOR01T: Calculus (Calculus of functions of more than one variable) PHSSSEC01M: Digital Instruments PHSACOR05T: Analytical Dynamics
Week 13 to week 14		Internal Exam
Week 15 to 17	PHSACOR02P, PSHHGEC01P, PHSACOR06P, PHSACOR07P, PSHHGEC03P :Whole syllabus will be covered by different groups	PHSACOR01T: Conclusion PHSSSEC01M: Conclusion PHSACOR05T: 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 2019-2020

B.Sc. Even Semester (II, IV)

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, PSHHGEC02P, PHSACOR09P, PSHHGEC04P :Whole syllabus will be distributed to different student groups	PHSACOR04T: Superposition of Collinear Harmonic oscillations PHSHGEC02T: Vector Analysis PHSACOR8T: Integrals Transforms (Fourier Transforms)
Week 4 to week 8	PHSACOR03P, PSHHGEC02P, PHSACOR09P, PSHHGEC04P: Whole syllabus will be distributed to different student groups	PHSACOR04T;Wave Motion PHSHGEC02T: Vector Analysis PHSACOR8T: Integrals Transforms (Fourier Transforms)
Week 8 to week 12	PHSACOR03P, PSHHGEC02P, PHSACOR09P, PSHHGEC04P: Whole syllabus will be distributed to different student groups	PHSACOR04T: Velocity of Waves PHSHGEC02T: Vector Analysis PHSACOR08T: Matrices
Week 13	PHSACOR03P, PSHHGEC02P, PHSACOR09P, PSHHGEC04P: Whole syllabus will be distributed to different student groups	PHSACOR04T: Velocity of Waves PHSHGEC02TVector Analysis PHSACOR08T: Eigen-values and Eigenvectors
Week 13 to week 14		Internal Exam
Week 15 to 17	PHSACOR03P, PSHHGEC02P, PHSACOR09P, PSHHGEC04P Whole syllabus will be distributed to different student groups	PHSACOR04T: Conclusion PHSHGEC02T: Conclusion PHSACOR08T: Conclusion
Week 18	Revision & Practice	Revision

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal
Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2019-2020

Name of the teacher: Dr. Supriya Chatterjee

PART - III

Topic [Paper-V] (100 Marks)	Jul - Sep	Oct - Dec	Jan -Mar	Apr- Jun
Atomic Spectra	Atomic Spectra			

Topic [Paper-VI] (100 Marks)	Jul - Sep	Oct - Dec	Jan -Mar	Apr- Jun
Nuclear Physics		Gross Properties of nuclei, Nuclear Structure	Unstable Nuclei	Nuclear Reaction

Topic [Paper-VIIIA] (50 Marks)-Practical	Jul - Sep	Oct - Dec	Jan -Mar	Apr- Jun
Practical	Whole syllabus will be distributed to different student groups	Whole syllabus will be distributed to different student groups	Whole syllabus will be distributed to different student groups	Revision

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal

Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2019-2020

Class: B.Sc Odd Semester 1,3

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, PSHHGEC01P, PHSACOR05P, PSHHGEC03P, :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
Week 5 to week 8	PHSACOR01P, PSHHGEC01P, PHSACOR05P, PSHHGEC03P, :Whole syllabus will be covered by different groups	PHSACOR01T: Vector Calculus (Vector Differentiation) PHSACOR06T: Kinetic Theory of Gases (Molecular Collisions) PHSHGEC03T: Laws of Thermodynamics
Week 9 to week 12	PHSACOR01P, PSHHGEC01P, PHSACOR05P, PSHHGEC03P, :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
Week 13	PHSACOR01P, PSHHGEC01P, PHSACOR05P, PSHHGEC03P, :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
Week 13 to week 14 Internal Exam		
Week 15 to 17	PHSACOR01P, PSHHGEC01P, PHSACOR05P, PSHHGEC03P, :Whole syllabus will be covered by different groups	PHSACOR01T: Conclusion + Tutorial PHSHGEC01T: Conclusion + Tutorial PHSACOR06T: Conclusion + Tutorial PHSHGEC03T: Conclusion + Tutorial
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 2019-2020

Class: B.Sc Semester 2,4

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, PSHHGEC02P, PHSACOR08P, PSHHGEC04P, :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)
Week 5 to week 8	PHSACOR04P, PSHHGEC02P, PHSACOR08P, PSHHGEC04P, :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
Week 9 to week 12	PHSACOR04P, PSHHGEC02P, PHSACOR08P, PSHHGEC04P, :Whole syllabus will be covered by different groups	PHSACOR04T: Interferometer PHSACOR09T: Nuclear Physics (Radioactivity) PHSSSEC02M: Control Statements PHSHGEC04T: Interference, Michelson's Interferometer
Week 13	PHSACOR04P, PSHHGEC02P, PHSACOR08P, PSHHGEC04P, :Whole syllabus will be covered by different groups	PHSACOR04T: Holography PHSACOR09T: Nuclear Physics (Fission and fusion) PHSSSEC02M: Control Statements
Week 13 to week 14 Internal Exam		
Week 15 to 17	PHSACOR04P, PSHHGEC02P, PHSACOR08P, PSHHGEC04P, :Whole syllabus will be covered by different groups	PHSACOR04T: Conclusion + Tutorial PHSHGEC02T: Conclusion + Tutorial PHSACOR09T: Conclusion + Tutorial PHSHGEC04T: Conclusion + Tutorial
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 2019-2020

Name of the Teacher: Dr. Soumyabrata Mondal

PART - III

Topic [Paper-V] (100 Marks)	Jul - Sep	Oct - Dec	Jan -Mar	Apr- Jun
STATISTICAL PHYSICS	Introduction to Statistical Mechanics	Classical Statistics	Quantum Statistics	Tutorials on Problems and discussions
MOLECULAR SPECTRA	Basic ideas	Rotational and vibrational energy levels	Raman effect and its application	Revision

Topic [Paper-VI] (100 Marks)	Jul - Sep	Oct - Dec	Jan -Mar	Apr- Jun
Elementary Particles	Introduction	Basic interactions	Quantum numbers & Quark	Tutorials on Problems and discussions

Topic [Paper-VIIB] (50 Marks)-Practical	Jul - Sep	Oct - Dec	Jan -Mar	Apr- Jun
Computer Programming	Sorting, Statistical calculations	Roots, Integration	Curve fit, Matrix	Revision

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal

Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2019-2020

B.Sc. Odd Semester (I, III)

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, PSHHGEC01P, PHSACOR06P, PHSACOR07P, PSHHGEC03P : Whole syllabus will be covered by different groups	HSACOR02T: Gravitation and Central Force Motion PHSHGEC01T: Gravitation PHSACOR05T: Partial Differential Equations PHSHGEC03T: Statistical Mechanics
Week 4 to week 8	PHSACOR02P, PSHHGEC01P, PHSACOR06P, PHSACOR07P, PSHHGEC03P : 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
Week 8 to week 12	PHSACOR02P, PSHHGEC01P, PHSACOR06P, PHSACOR07P, PSHHGEC03P : Whole syllabus will be covered by different groups	PHSACOR02T: Fluid Motion PHSHGEC01T: Elasticity PHSACOR05T: Frobenius Method and Special Functions (Bessel Polynomials) PHSHGEC03T: Statistical Mechanics
Week 13	PHSACOR02P, PSHHGEC01P, PHSACOR06P, PHSACOR07P, PSHHGEC03P : Whole syllabus will be covered by different groups	PHSACOR02T: Fluid Motion PHSHGEC01T: Elasticity PHSACOR05T: Frobenius Method and Special Functions PHSHGEC03T: Statistical Mechanics
Week 13 to week 14		Internal Exam
Week 15 to 17	PHSACOR02P, PSHHGEC01P, PHSACOR06P, PHSACOR07P, PSHHGEC03P : Revision	PHSACOR02T: Conclusion PHSHGEC01T: Conclusion PHSACOR05T: Conclusion PHSHGEC03T: Conclusion
Week 18	Revision & Practice	Revision

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal

Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2019-2020

B.Sc. Even Semester (II, IV)

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, PSHHGEC02P, PHSACOR09P, PHSACOR10P, PSHHGEC04P: Whole syllabus will be distributed to different student groups	PHSACOR03T: Electric Field and Electric Potential PHSHGEC02T: Electrostatics PHSACOR08T: Complex Analysis PHSSSEC02M: Introduction PHSHGEC04T: Fluids
Week 4 to week 8	PHSACOR03P, PSHHGEC02P, PHSACOR09P, PHSACOR10P, PSHHGEC04P: 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
Week 8 to week 12	PHSACOR03P, PSHHGEC02P, PHSACOR09P, PHSACOR10P, PSHHGEC04P: 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
Week 13	PHSACOR03P, PSHHGEC02P, PHSACOR09P, PHSACOR10P, PSHHGEC04P: Whole syllabus will be distributed to different student groups	PHSACOR03T: Dielectric Properties of Matter PHSHGEC02T: Linear Network PHSACOR08T: Boundary Value Problems PHSHGEC04T: Tutorial
Week 13 to week 14		Internal Exam
Week 15 to 17	PHSACOR03P, PSHHGEC02P, PHSACOR09P, PHSACOR10P, PSHHGEC04P: Whole syllabus will be covered by different groups	PHSACOR03T: Conclusion PHSHGEC02T: Conclusion PHSACOR08T: Conclusion PHSHGEC04T: Conclusion
Week 18	Revision & Practice	Revision

Department of Physics
BIDHANNAGAR COLLEGE
Government of West Bengal

Curriculum Plan for B. Sc (Honour) Course for the Academic Session of 2019-2020

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, PSHHGEC02P, PHSACOR09P, PHSACOR10P, PSHHGEC04P, PHSACOR013P: Whole syllabus will be distributed to different student groups	PHSACOR03T: Electrical Circuits PHSHGEC02T: Magnetism PHSACOR10T: Introduction to Electronics PHSACOR013T: Maxwell Equations PHSADSE05T: Astronomical Scales, Astronomical techniques
Week 4 to week 8	PHSACOR03P, PSHHGEC02P, PHSACOR09P, PHSACOR10P, PSHHGEC04P, PHSACOR013P: Whole syllabus will be distributed to different student groups	PHSACOR03T: Electromagnetic Induction PHSHGEC02T: Electromagnetic Induction PHSACOR10T: Two-terminal Devices and their Applications PHSACOR013T: Optical Fibres PHSADSE05T: Physical principles
Week 8 to week 12	PHSACOR03P, PSHHGEC02P, PHSACOR09P, PHSACOR10P, PSHHGEC04P, PHSACOR013P: Whole syllabus will be distributed to different student groups	PHSACOR03T: Network theorems PHSHGEC02T: Maxwell's Equations and Electromagnetic Wave Propagation PHSACOR10T: FET PHSACOR013T: Optical Fibres PHSADSE05T: The milky way
Week 13	PHSACOR03P, PSHHGEC02P, PHSACOR09P, PHSACOR10P, PSHHGEC04P, PHSACOR013P: Whole syllabus will be distributed to different student groups	PHSACOR03T: Network theorems PHSHGEC02T: Maxwell's Equations and Electromagnetic Wave Propagation PHSACOR10T: OpAmp & its applications PHSACOR013T: Wave Guides PHSADSE05T: Galaxies, Large scale structure & expanding universe
Week 13 to week 14		Internal Exam
Week 15 to 17	PHSACOR03P, PSHHGEC02P, PHSACOR09P, PHSACOR10P, PSHHGEC04P, PHSACOR013P: Whole syllabus will be covered by different groups	PHSACOR03T: Conclusion PHSHGEC02T: Conclusion PHSACOR10T: Conclusion PHSACOR13T: Conclusion PHSADSE05T: Tutorial
Week 18	Revision & Practice	Revision

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE,
KOLKATA
TEACHING PLAN FOR ODD SEMESTER, UG COURSE
DEPARTMENT OF GEOGRAPHY
SESSION: 2019-20

CLASS: B.A/BSC.

SEMESTER: 1, 3, 4 and Part-III

SUBJECT: GEOGRAPHY

NAME OF THE TEACHER: D.C.DAS.

	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	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	CC02T : 1. Maps: Classification and types. Components of a map. CC07T : 1. Importance and significance of statistics in Geography. GEC03T : Map Projections: Criteria for choice of projections SSEC01M: 1. Principles of Remote Sensing (RS): Classification of RS satellites and sensors. CC09T: 1 .Tertiary activity transport, trade, service. PART- III Paper –V : Group B : Regional geography 2) a. Physiographic regions of India, with special reference to Kashmir Himalaya.
Week 5 to week 8	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	CC02T : 4. Coordinate systems: Polar and rectangular CC07T : 2. Discrete and continuous data, population and samples, scales of measurement (nominal, ordinal, interval and ratio). 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. CC09T: 2. Agricultural system case studies of tea plantation in India and mixed farming in Europe. PART- III

		Paper –V : Group B : Regional geography b. Agricultural region of India with special reference to Punjab Haryana.
Week 9 to week 12	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.	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. CC09T : 3. Transnational sea routes, railway and highways with reference to India. 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 : 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.	CC02T : 6. Grids: angular and linear systems of measurement CC07T : 4. Collection of data and formation of statistical tables. 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. CC09T: 1. Agricultural system case studies of tea plantation in India and mixed farming in Europe. PART- III Paper –V : Group B : Regional geography c. Industrial region of India with special reference to Mumbai , Pune industrial belt .
Week 14	Internal Examination	Internal Examination

Week 15 to week 17	. CC04P : 1. traverse survey using prismatic compass ,profile survey using dumpy level CC14P : preparation of project report on disaster management.	CC02T : 7. Map projections: Classification, properties and uses CC07T : 5. Sampling: Need, types, and significance and methods of random sampling. 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. CC09T: 2. Agricultural system case studies of tea plantation in India and mixed farming in Europe. PART- III Paper –V : Group B : Regional geography 3) Regional disparities in India :causes and implications.
Week 18	PRACTICE	REVISIONS

NAME OF THE TEACHER: H.K.DATTA

SUBJECT: GEOGRAPHY

	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 To Week 4	CC02P: Delineation of drainage basin. GEC03P: 1. Graphical Construction of scales: Plain.	CC01T: GEOMORPHOLOGY: Weathering, mass wasting and resultant landforms. DSE01T: SOIL GEOGRAPHY: 1. FACTORS OF SOIL FORMATION –Man as an active agent of soil transformation. 2. Soil profile. Origin and profile characteristics of lateritic, Podzol and Chernozem soil. GEC01T: 1.Physical Geography – Definition and Scope, Components of Earth System. CC06T : GEOGRAPHY OF WEST BENGAL- 9. Physical perspectives- Physiographic divisions, forest and water resources GEC03T: 1.Concept of map Scale- Types and Application. Reading distance on a map. 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. PART-III PAPER: PAPER IV: APPLIED GEOGRAPHY GROUP-A: SECTION-I: Land use and Settlement Geography 4. Rural settlements: evolution, nature and physical environment.

Week 5 To Week 8	CC014P: Disaster Management CC02P: Delineation of drainage basin. GEC03P: 1. Graphical Construction of scales: Plain.	CC01T: GEOMORPHOLOGY- 1. Development of river network and landforms on uniclinal and folded structures. DSE01T: SOIL GEOGRAPHY: 3. Soil properties: texture, structure and moisture, 4. PH, organic matter, and NPK GEC01T: 1. Internal structure of earth based on seismic evidence, Plate tectonics. CC06T : GEOGRAPHY WEST BENGAL- 4. Development of on granites, basalts and limestone's. GEC03T: 1. Concept of map Scale- Types and Application. Reading distance on a map. CC10T : Environmental Geography – 3. Ecosystem: Concept, structure and functions. PART-III PAPER: PAPER IV: APPLIED GEOGRAPHY GROUP-A: SECTION-I: Land use and Settlement Geography 5. Urban settlements: definition, morphology and function.
Week 9 To Week 12	CC014P: Disaster Management CC02P: Stream Ordering. GEC03P: 1. Graphical construction of scales: comparative.	CC01T: GEOMORPHOLOGY 3. Coastal processes and landforms DSE01T: SOIL AND BIO GEOGRAPHY: 2. Soil erosion and degradation: Factors, Processes and mitigation measures. GEC01T: 3. Influence of rock on topography: Limestone and granite. CC06T : GEOGRAPHY WEST BENGAL- 4. Development of on granites, basalts and limestone's. GEC03T: 1. Concept of map Scale- Types and Application. Reading distance on a map 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). CC10T : Environmental Geography – 3. Ecosystem: Concept, structure and functions. GEC04T: Concept of holistic environment and system approach. PART-III PAPER: PAPER IV: APPLIED GEOGRAPHY

		GROUP-A: SECTION-I: Land use and Settlement Geography 5. Urban settlements: definition, morphology and function
Week 13	CC04P: Profile Survey using Dumpy Level. CC014P: Disaster Management CC02P: Stream Ordering. GEC03P: 1. Graphical construction of scales: comparative PART II: PAPER-III: Applied Geographical Techniques GROUP-A: CARTOGRAPHY GROUP- B : MAP INTERPRETATION	CC01T: GEOMORPHOLOGY- 2. Glacial and Glacio - Fluvial processes and landform. DSE01T: SOIL GEOGRAPHY : 5. Soil erosion and degradation: Factors, Processes and mitigation measures. 6. Soil classification: Genetic and USDA, Land capability and its classification. OF CC06T : GEOGRAPHY WEST BENGAL- 11. Population: Growth, Distribution and human development. GEC03T: 3.Survey of India topographical maps: Reference scheme of old and open series. Information on the margin maps. CC09T: UNIT-II: PRIMARY ACTIVITIES: Agriculture, Forestry, Fishing and mining. CC010T: ECOSYSTEM: Concept, Structure and Functions.
Week 14	INTERNAL EXAMINATION	INTERNAL EXAMINATION
Week 15 To Week 17	CC014P: Disaster Management CC02P: Stream Ordering. GEC03P: 1. Graphical construction of scales: comparative	CC01T: GEOMORPHOLOGY- 5.Glacial and Glacio- fluvial processes and landform. DSE01T: SOIL ANND BIO GEOGRAPHY: 7. Concept of biosphere, ecosystem, biome, ecotone, community, niche, succession and ecology. 8. Concept of trophic structure, food chain and food web. GEC01T: 4. Evolution of landforms under fluvial process, Normal Cycle of Erosion of Davis. CC06T : GEOGRAPHY WEST BENGAL- 11. Population: Growth, Distribution and human development. 12. Regional Issues: Darjeeling Hills and Sundarban. GEC03T : Revision CC09T: UNIT-II: SECONDARY ACTIVITIES: Manufacturing (cotton textile, iron and steel), concept of manufacturing regions, special economic zones and technology parks.

Week 18	CC014P: Disaster Management- Revision CC02P: Stream Ordering- Revision GEC03P: 1. Graphical construction of scales: comparative - Revision	CC01T: GEOMORPHOLOGY- Revision DSE01T: SOIL GEOGRAPHY- Revision GEC01T: 1.Physical Geography- Revision GEC01T: Internal structure of earth based on seismic evidence, Plate tectonics- Revision GEC01T: 3.Influence of rock on topography: Limestone and granite- Revision CC06T : GEOGRAPHY WEST BENGAL- Revision CC08T: UNIT-II: THEORIES AND MODELS OF REGIONAL DEVELOPMENT – Revision CC09T: UNIT-II: CONCEPT AND CLASSIFICATION OF ECONOMIC ACTIVITIES – Revisions CC10T : Environmental Geography – Revision GEC04T: ENVIRONMENTAL GEOGRAPHY: Revision PART-III PAPER: PAPER IV: APPLIED GEOGRAPHY GROUP-A: SECTION-I: Land use and Settlement Geography- Revision.

TEACHING PLAN FOR EVEN SEMESTER 1 & 3 and PART III, UG COURSE
DEPARTMENT OF GEOGRAPHY, SESSION – 2019-20

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 Samples CC07P: Construction of Data Matrix, Drawing of Histogram, Frequency Polygon & Curve Paper VIII: Identification of Dominant and Distinctive Function	CC05T: Nature, Composition and Layering of Atmosphere CC07T: Frequency Distribution, Measures of Central Tendency Paper V: Concept & Components of Culture, Language, Religion and Ethnicity of India GEC01T: Insolation and Heat Budget
Week 5 to Week 8	CC01P: Identification of Mineral Samples CC07P: Calculation of Central Tendency and Dispersion Paper VIII: Rank-size Rule	CC05T: Insolation and Heat Budget CC07T: Measures of Central Tendency and Dispersion Paper V: Caste Structure, Social Stratification, Santhal & Lepcha Tribe GEC01T: Vertical Distribution of Temperature
Week 9 to Week 12	CC01P: Identification of Rock Samples CC07P: Drawing of Scatter Diagram & Linear Regression Line Paper VIII: Lorenz Curve	CC05T: Vertical Distribution of Temperature CC07T: Linear & Non-linear Regression, Rank & Product Moment & Correlation Paper V: Social Ecology, Social Space; Form, Site and Situation of Rural Settlement GEC01T: Temperature Inversion
Week 13	CC01P: Identification of Rock Samples CC07P: Drawing and Interpretation of Residual Map Paper VIII: Preparation of Schedule/Questionnaire	CC05T: Horizontal Temperature Distribution, Green House Effect CC07T: Time Series Analysis Paper V: Hierarchy of Urban Settlement GEC01T: Horizontal Distribution of Temperature
Week 14	Internal Examination and Mid-term Test	
Week 15 to Week 17	CC01P: Practice CC07P: Practice Paper VIII: Preparation of Schedule/Questionnaire	CC05T: Importance of Ozone Layer, Green House Effect CC07T: Revision Paper V: Morphology of Urban Settlement GEC01T: Horizontal Distribution of Pressure

Week 18	CC01P: Practice CC07P: Practice Paper VIII: Preparation of Schedule/Questionnaire	CC05T: Revision CC07T: Revision Paper V: Morphology of Urban Settlement GEC01T: Revision

NAME OF TEACHER: RITUPARNA KHAN

WEEK	PRACTICAL TOPICS	THEORETICAL TOPICS
1 TO 4	Sem1: none Sem 3: none PART III Satellite imagery and map making	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 PART III Concept of remote sensing
5 TO 8	Sem1: none Sem 3: none PART III Satellite imagery and map making	Sem 1: GEOACOR02T Cartographic techniques: Grids. Angular, linear systems of measurement (cont.) Sem 3: GEOACOR06T Geography of India: population, tribes of India, agricultural regions PART III Concept of GIS (cont.)
9 TO 12	Sem1: none Sem 3: none PART III Aerial photo interpretation	Sem 1: GEOACOR02T Cartographic techniques: Grids. Angular, linear systems of measurement Sem 3: GEOACOR06T Geography of India: mineral and power resources, industrial development PART III Applications of GIS
13	Sem1: none Sem 3: none PART III Thematic map making using Q GIS	Sem 1: GEOACOR02T Cartographic techniques: Grids. Angular, linear systems of measurement Sem 3: GEOACOR06T Geography of India: regionalisation PART III Thematic mapping
14	Sem1: none Sem 3: none PART III Practice	Revision Revision Revision
15 TO 17	Sem1: none Sem 3: none PART III Practice	Revision Revision Revision
18	Sem1: none Sem 3: none PART III Practice	Class tests Class tests Class tests

Semester: I, III, 3rd Year

Name of the Teacher: Dr Shewli Shabnam

Paper: GEOACOR1T, GEOACOR2T & 2P, GEOACO 5T & 5P, GEOACOR7T & 7P,
GEOHGE01T, Part-3(Old) Paper-V, VI & VIII

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	GEOACOR5P: Interpretation of daily weather map: Monsoon and post-monsoon
	3 rd Year, Part-3	Paper-V, Group-A: Concept of political geography and geo-politics, concept of frontier and boundary Paper-VI, Group-A: Definition and nature of geography, Contributions of Humboldt	Paper-VII: Interpretation of weather maps- Monsoon
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-latitude cyclone GEOACOR7T: Importance and significance of statistics in geography, Sources of geographical data for statistical analysis	GEOACOR5P: Interpretation of daily weather map: Monsoon and post-monsoon
	3 rd Year, Part-3	Paper-V, Group-A: Concept of cold war, bi-polarisation and unipolarisation Paper-VI, Group-A: Contributions of Vidal de la Blache, Carl Sauer	Paper-VII: Interpretation of weather maps- Monsoon
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	GEOACOR7P: From the data matrix a sample set (20%) would be drawn

		significance and methods of random sampling	using random, systematic and stratified methods of sampling and locate the samples on a map with a short note on methods used
	3 rd Year, Part-3	Paper-VI, Group-A: Contributions of David Harvey, Determinism, Possibilism	Paper-VII: Interpretation of weather maps- Monsoon
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	GEOACOR5P: Construction and interpretation of wind rose
	3 rd Year, Part-3	Paper-VI, Group-A: Regional differentiation	Paper-VIII: Preparation and interpretation of climatic chart
Week 14		Internal Examination	
Week 15 to Week 17	I	GEOACOR1T: Plate tectonics GEOACOR2T: Coordinate systems: Polar and Rectangular GEOHGE01T: Climatic classification of Koppen	GEOACOR2P: Revision
	III	GEOACOR5T: Condensation: Processes and forms, mechanism and forms of precipitation	GEOACOR5P: Hythergraph and Climograph
	3 rd Year, Part-3	Paper-VI, Group-B: Problems of third world – Poverty, population explosion	Paper-VIII: Preparation and interpretation of Taylor's Climograph and Hythergraph
Week 18	I	Revision	Revision
	III	Revision	Revision
	3 rd Year, Part-3	Revision	Revision

TEACHING PLAN FOR EVEN SEMESTER 2 & 4 and PART III, UG COURSE
DEPARTMENT OF GEOGRAPHY, SESSION – 2019-20

Name of the teacher: Dr Somdatta Das

	Practical Syllabus To Be Covered	Theory Syllabus To Be Covered
Week 1 to Week 4	CC04P: Preparation of Choropleth Map CC10P: Preparation of Schedule/Questionnaire Paper VIII: Computation of Human Development Index	CC03T: Concept and Classification of Race CC04T: Choropleth and Isopleth Maps, Data Presentation By Proportional Circle CC08T: Concept, Types, Objective and Principles of Regional Planning SSEC02M: Rank and Product Moment Correlation Paper VI: Indicators of Economic, Human & Gender Development GEC02T: Race
Week 5 to Week 8	CC04P: Proportional Pie Diagram Preparation CC10P: Preparation of Schedule/Questionnaire Paper VIII: computation of Gender Development Index	CC04T: Line Graph, Bar Graph, Preparation and Interpretation of Landuse Maps CC03T: Concept of Ethnicity and Cultural Region, Cultural Region Based on Language CC08T: Need for Regional Planning and Multilevel Planning in India SSEC02M: Linear and Simple Curvilinear Regression

	Practical Syllabus To Be Covered	Theory Syllabus To Be Covered
		Paper VI: Concept of Third World, Development and Under-Development GEC02T: Religion, Language, Cultural Region
Week 9 to Week 12	CC04P: Dots and Sphere Diagram Preparation CC10P: Preparation of Schedule/Questionnaire Paper VIII: Preparation for Fieldwork and Fieldwork	CC04T: Dots and Sphere, Preparation of Socio-economic Maps CC03T: Morphology of Urban Settlement CC08T: Concept of Growth and Development; Economic, Social and Environmental Indicators of Development SSEC02M: Introduction to Multivariable Analysis, Components of Time Series

		Paper VI: Globalisation and Sustainable Development GEC02T: Trend and Pattern of Urbanisation
Week 13	CC04P: Practice CC10P: Practice Paper VIII: Fieldwork	CC03T: Morphology of Urban Settlement CC04T: Revision CC08T: Concept and Measurement of Human Development SSEC02M: Time Series Analysis Paper VI: Problem of Urbanisation GEC01T: Poverty and Illiteracy
Week 14	Internal Examination and Sent-up Test	

	Practical Syllabus To Be Covered	Theory Syllabus To Be Covered
Week 15 to Week 17	CC04P: Practice CC10P: Practice Paper VIII: Preparation of Field Report	CC04T: Revision CC07T: Revision CC08T: Revision SSEC02M: Revision Paper VI: Revision GEC02T: Revision
Week 18	CC04P: Practice CC10P: Practice Paper VIII: Preparation of Field 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 Planning: 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 Sem6: Disaster Management project	Revision Revision
15 TO 17	Sem2: none Sem 4: none Sem6: Disaster Management project	Revision Revision Revision
18	Sem2: none Sem 4: none Sem6: Disaster Management project signing	Class tests Class tests Class tests

Name of the Teacher: Dr Shewli Shabnam
Paper: GEOACOR3T, GEOACOR4T & 4P, GEOACOR8T, GEOACOR10T & 10P,
GEOHGE02T, Part-3 (Old) Paper-V, VI & VIII

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 GEOHGE02T: 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	GEOACOR10P: Interpretation of air quality using CPCB/ WBPCB data
	3 rd Year, Part-3	Paper-V, Group-A: Administrative settings of India, problem of border states, partition and its geo-political implications Paper-VI, Group-A: Location, time and space	Paper-VII: Interpretation of weather maps- Post-Monsoon
Week 5 to Week 8	II	GEOACOR3T: Population composition GEOACOR4T: Basic concept of surveying and prismatic compass GEOHGE02T: 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	GEOACOR10P: Interpretation of air quality using CPCB/ WBPCB data
	3 rd Year, Part-3	Paper-VI, Group-A: Positivism, Quantitative Revolution Paper-VI, Group-B: Food security and hunger, malnutrition	Paper-VII: Interpretation of weather maps- Post-Monsoon
Week 9 to Week 12	II	GEOACOR3T: Population composition GEOACOR4T: Basic concept of dumpy level GEOHGE02T: World population composition: Age, gender, literacy	GEOACOR4P: Traverse survey using prismatic compass
	IV	GEOACOR8T: Regional development in India: Disparity and diversity	GEOACOR10P: Preparation of check-list for EIA
	3 rd Year, Part-3	Paper-VI, Group-A: Welfare- behavioural approach Paper-VI, Group-B: Unemployment, child labour	Paper-VIII: Preparation of station models

Week 13	II	GEOACOR3T: Demographic transition GEOACOR4T: Basic concept of theodolite GEOHGEC02T: Revision	GEOACOR4P: Traverse survey using prismatic compass
	IV	GEOACOR10T: Urban waste management	GEOACOR10P: Preparation of check-list for EIA
	3 rd Year, Part-3	Paper-VI, Group-A: Revision Paper-VI, Group-B: Revision	Paper-VIII: Preparation and interpretation of rating curves
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	GEOACOR10P: Preparation of check-list for EIA
	3 rd Year, Part-3	Paper-VI, Group-A: Structural and radical approach Paper-VI, Group-B: Globalisation & sustainable development	Paper-VIII: Preparation and interpretation of hydrographs and unit hydrographs
Week 18	II	GEOACOR3T & GEOACOR4T: Revision	GEOACOR4P: Revision
	IV	GEOACOR8T & GEOACOR10T: Revision	GEOACOR10P: Revision
	3 rd Year, Part-3	GEOACOR13T & GEOADSE06T: Revision	Revision

Teaching Plan for Odd Semester, UG course Department of Anthropology

Session (2019-2020)

Class: B.Sc.

Semester 1,3 and old 3rd year

Name of the Teacher: Dr Sankha Priya Guha

Subject: Anthropology

Paper: ANTACOE01T, 04T, Paper VI (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 Paper VI: 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)
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		Old 3rd year Paper VI: Tribal Displacement and Rehabilitation Problem, Role of Anthropologists in tribal welfare. ANTACOR05T: UNIT 2: Tribes and wider world i. The history of tribal administration a. Traditional political organization of the Santals, the Garos, the Todas, the Chenchus
Week13 to week 14		Internal Exam
Week 15 to 17		
Week 18	Revision, Practise	Revision

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

Teaching Plan for Odd Semester, UG course Department of Anthropology

Session (2019-20)

Class: B.Sc.

Semester 1,3, and old 3rd semester Name of the Teacher: Dr. Bandana Chakraborti

Subject: Anthropology

Paper : ANTACOR03T, 5T, old 3rd Year (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: Methods of study - site survey and excavation, Different methods of exploration/site survey; Different stages of excavation - pre-excavation stage, actual stages of digging up of archaeological site, trial trench, horizontal and vertical excavation; Differences between excavation and exploration. Old 3rd Year: Paper V, Group B, Development of Post Pleistocene culture
Week 4 to week 8		ANTACOR03T Unit – III: Paleo-environment: 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. ANTACOR05T, Unit III: Concept of Race; Conventional classification of major human races of the world; Racial classification of Indian population on the basis of different racial elements by Risley, Guha, and Sarkar (broad groups only), UNESCO statement on Race;
Week 8 to Week 12		ANTACOR03T Unit – V: World prehistory: Africa: The earliest Paleolithic assemblages of Africa - Oldowan, Acheulian; Middle Stone Age, Later Stone Age; Europe: Acheulian, Levalloisean, Middle and Upper Paleolithic Culture, Mesolithic Culture, Neolithic Culture. Prehistoric art (home and cave art). Old 3rd Year: Paper V, Group B, Development of Post Pleistocene culture
Week 13		ANTACOR03T Unit – V: World prehistory: India: The earliest Paleolithic assemblages, Acheulian, Middle Paleolithic Culture, Upper Paleolithic, Micro-blade assemblages, Late Stone Age and Neolithic Culture, Megaliths.
Week13 to week 14		Internal Exam
Week 15 to 17		Old 3rd Year: Paper V, Group B, Development of Post Pleistocene culture
Week 18		Revision

Teaching Plan for Odd Semester, UG course Department of**Anthropology****Session 2019-2020****Class: B.Sc.****Semester 1, 3 and old 3rd yr. Name of the Teacher: Dr Sudesna Chanda****Subject: Anthropology****Paper: ANTACOR01T, ANTACOR06T, 07T, 6P (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) i) Linear: ii) Indices: Cranial Determination ABO and Rh(D) blood groups of ten subjects by direct slide method. Dermatoglyphics Paper 7/ Practical	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, Gradualism, Punctuated equilibrium, Irreversibility, Parallelism and Convergence, Adaptive Radiation, Extinction. ANTACOR06T: HUMAN ECOLOGY: BIOLOGICAL & CULTURAL DIMENSIONS 3rd Year: Paper V: Human Genetics
Week 5 to week 9	ANTACOR01P Unit – I: Identification of Human cranium – it's different normas - <i>norma verticalis</i> ; <i>norma lateralis</i> ; <i>norma occipitalis</i> ; <i>norma basalis</i> ; <i>norma frontalis</i> ; Identification of Cranial bones: Frontal, Parietal, Temporal, Occipital, Maxilla, Zygomatic, Sphenoid, Mandible (anatomical position, side determination, where applicable).	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. Classification of living primates up to family level with example (Simpson); concepts of Strepsirrhini and haplorrhine. ANTACOR07T: Adaptation, Acclimatization 3rd Year: Paper V: Human 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: 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 3rd Year: Paper V: Human Genetics
Week 13	Paper 7/ Practical 1. Craniometric Measurements Linear: Maximum Cranial Length, Maximum Cranial Breadth, Morphological Facial Height,	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; Impacts of urbanization and industrialization on humans.
Week 13 to week 14		Internal Exam
Week 15 to 17	Laboratory Note-Book	ANTACOR07T/Unit IV: Modern concepts of population
Week 18	Revision	Revision

Teaching Plan for Odd Semester, UG course Department of

Anthropology

Session (2019-2020)

Class: B.Sc.

Semester 1, 3 and old 3rd year Name of the Teacher: Dr Krishnendu Polley

Paper: ANTACOR01T, 03T, 03P, Paper VI (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, 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 and Protohistory;
Week 5 to week 9	ANTACOR01P Unit – I: Typo-technological attributes, cultural ages, probable functions, method of hafting, identification of cortex,	ANTACOR03T Unit –II: Methods of Estimation of time in archaeology: 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. Old 2nd Year: Paper 2, group A: Field Archaeology
Week 8 to Week 12	ANTACOR01P Unit – II: Osteology	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. Old 3rd Year: Paper 2, group A: Field Archaeology
Week 13		ANTACOR06T, Unit VI: Ecological themes of state formation: i. Neolithic revolution, ii. Hydraulic theory; Agriculture and peasantry; Industrial civilization and growth of urban societies.
Week 13 to week 14		Internal Exam
Week 15 to 17	Laboratory Note-Book	Old 3rd Year: Paper 2, group A: Field Archaeology
Week 18	Revision	Revision

Teaching Plan for Odd Semester, UG course Department of Anthropology

Session (2019-2020)

Class: B.Sc.

Semester 1 ,3, old 3rd Year

Name of the Teacher: Kaushik Bhattacharya

Paper : ANTACOR02T, 5T, Paper VII (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 – I: 1. Fundamentals of Social-Cultural Anthropology: Definition, aim & scope, Distinctiveness - Holism, Cultural Relativism and Cross-Cultural Comparison, Fieldwork in Anthropology - Importance and Genesis. Old 3rd year paper VII: Tribal Displacement and Rehabilitation Problem, Role of Anthropologists in tribal welfare.
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.	ANTACOR02T Concepts of the major sub-fields: Economic Anthropology, Political Anthropology, Anthropology of Religion, Psychological Anthropology, Cognitive Anthropology, Medical Anthropology, Legal Anthropology, Visual Anthropology. Concept and brief overview of Linguistic Anthropology. 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. Old 3rd year Paper VII: Tribal Displacement and Rehabilitation Problem, Role of Anthropologists in tribal welfare.
Week 13		ANTACOR05T UNIT 2: Tribes and wider world The history of tribal administration b. Traditional political organization of the Santals, the Garos, the Todas, the Chenchus
Week13 to week 14		Internal Exam
Week 15 to 17	Laboratory Note-Book	Old 3rd year Paper VII: Tribal Displacement and Rehabilitation Problem, Role of Anthropologists in tribal welfare.
Week 18	Revision	Revision

Teaching Plan for Odd Semester, UG course Department of

Anthropology

Session (2019-2020)

Class: B.Sc.

Semester 1 ,3, old 3rd year

Name of the Teacher: Kartik Chakraborty

Paper : ANTACOR01T, ANTACOR02T, Paper VII (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.	ANTACOR02T Material Culture: Definition and importance, Types and functions of various forms of hunting, fishing, agricultural implements, dress, ornaments, house types in different environmental background 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 3rd Year: Paper VII: Anthropology and Rural Development, Political. Concept and brief overview of Linguistic Anthropology
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: Economic Anthropology, Political Anthropology, Anthropology of Religion, Psychological Anthropology, Cognitive Anthropology, Medical Anthropology, Legal Anthropology, Visual Anthropology. Concept and brief overview of Linguistic Anthropology. Relationship with Social Sciences: Economics, Geography, History, Political Science, Psychology, Sociology.
Week 9 to Week 12	ANTA02P: Household ritual (e.g. Pujas/ brotos, religious ritual and festival of other communities).	ANTACOR01T Unit III: Religion: Definition and Anthropological approach; Animism, Animatism, Manaism, Totemism; Magic and Religion.
Week 13	Paper 7/ Practical	ANTACOR05T UNIT 2: Tribes and wider world
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 3rd Year: Paper VII: Anthropology and Rural Development, Political. Concept and brief overview of Linguistic Anthropology
Week 18	Revision	Revision

Teaching Plan for Odd Semester, UG course Department of

Anthropology

Session (2019-2020)

Class: B.Sc.

Semester 1, 3 and old 3rd year

Paper : ANTACOR02T, 05T, PaerVII

Name of the Teacher: Soumita Biswas

(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. <i>Pujas/ brotos</i> , 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. Old 3rd Year, Paper VII: Political Anthropology
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; Kinship system - Hawaiian, Eskimo, Sudanese, Iroquois, Crow, Omaha, Bengali kinship system; Descent - Types & Functions; Unilateral, Bilateral & Double descent. Old 3rd Year, Paper VII: Political Anthropology
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. 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 13 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 (2019-2020)

Class B.Sc.

Semester 2 and 4 , old 3rd year

Guha

Name of the Teacher: Dr Sankha Priya

Paper : ANTACOR04T, 08T, old 3rd year (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.
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 Old 3rd Year, Paper VII: Ecological Anthropology
Week 9 to Week 12		Unit III: Religion: Definition and Anthropological approach; Animism, Animatism, Manaism, Totemism; Magic and Religion. Paper VII, Old 3rd year: social change, Unit V : Cultural theory
Week 13		ANTACOR03T /Unit –II: Methods of Estimation of time in archaeology: ANTACOR04T , Dryopithecus, Sivapithecus, distribution, features and their phylogenetic relationships
Week13 to week 14		Internal Exam
Week 15 to 17	Laboratory Note-Book	ANTACOR08T UNIT I UNIT I: Century Evolutionism: E.B. Tylor and L.H. Morgan. Neo-Evolutionism: L White; Multilinear Evolution: Julian Steward. Old 3rd Year, Paper VII: Political Anthropology
Week 18	Revision	Revision

Teaching Plan for Even Semester, UG course Department of

Anthropology

Session (2019-2020)

Class: B.Sc.

Semester 2,4 , old 3rd year 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 3 rd 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: Importance 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 (2019-2020)

Class: B.Sc.

Semester 2,4 , old 3rd year

Name of the Teacher: Dr Sudesna Chanda

Paper : ANTACOR04T, ANTACOR034P, ANTACOR09,T 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. Unit – II: Oligocene Anthropoids: Parapithecus, Aegyptopithecus; Primate origin and radiation with special reference to Miocene hominoids -. Old 3rd Year: Paper V, methods of Human genetics, Chromosomal disorders, population genetics 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.
Week 5 to week 8	ANTACOR04P/ <i>H. Sapiens</i> <i>neanderthalensis</i> (La- Chapelle-aux-saints), <i>H. sapiens sapiens</i> (Cro- Magnon).	ANTACOR04T/ Unit V: La-Chapelle-Aux-saints, Tabun Man; Phylogenetic position. Archaic <i>Homo sapiens</i> : Anatomical features of Archaic <i>Homo sapiens</i> ; Phylogenetic position of Archaic <i>Homo sapiens</i> . Old 3rd Year: Paper V , Human Growth. Applied Biological Anthropology
Week 9 to Week 12	Old 3rd Year: Paper VII Anthropometry, Skinfold measurements, Dermatoglyphics. ANTACOR09P: HUMAN GROWTH AND DEVELOPMENT	Old 3rd Year: Paper V, methods of Human genetics, Chromosomal disorders, population genetics Old 3rd Year: Chromosomal aberrations 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).
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	Paper V Human Genetics
Week 18	Revision	Revision

Teaching Plan for Even Semester, UG course Department of

Anthropology

Session (2019-20120)

Class: B.Sc.

Semester 2,4, old 3rd year

Name of the Teacher: Dr Krishnendu Polley

Paper: ANTACOR03T, ANTACOR03P, 10T, 10P, Old 3rd Year Paper V (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 Archaeological Anthropology, 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
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,
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	Laborator y Note- Book	Revision

Teaching Plan for Even Semester, UG course

Department of Anthropology

Session (2019-2020)

Class: B.Sc.

Semester 2,4, old 3rd year

Name of the Teacher: Kaushik Bhattacharya

Paper: ANTACOR04T, 3T, ANTACOR03P, Old 3rd Year Paper VI (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. Old 3rd year: Paper VII, Importance of Field work
Week 5 to week 8		Unit – III: Australopithecines: Distribution and types, features and their phylogenetic relationships; Evolution & extinction of Australopithecines. Appearance of genus Homo (<i>Homo habilis</i>) morphological features and related finds; Phylogenetic status of <i>Homo habilis</i> . Old 3rd year: Paper VII, Village study, Culture study.
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 Old 3rd year: Paper VII, Importance of Field work
Week 13		Unit III: Importance of paleo-environmental study in paleoanthropology and prehistory ANTACOR10T Unit IV: Analysis and Writing Up 1. 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 2. Introduction of software for data analysis.
Week13 to week 14		Internal Exam
Week 15 to 17	Laboratory Note-Book	Revision
Week 18	Revision	Revision

Teaching Plan for Even Semester, UG course Department of

Anthropology

Session (2019-2020)

Class: B.Sc.

Semester 2, 4, old 3rd year

Name of the Teacher: Kartick Chakraborty

Paper: ANTACOR04P, ANTACOR03T, Olds 3rd Year Paper VII (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 <i>H. habilis</i> , <i>H. erectus</i> (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 and Protohistory; Unit – VI: Origin of modern humans (<i>Homo sapiens sapiens</i>): Anatomically modern <i>Homo sapiens</i> (AMHS) - Cro-Magnon, Grimaldi, Chancelade – Distribution, features and their phylogenetic position.
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, 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 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. Old 3 rd Year, Paper VII: Ecological 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
Week 18	Revision	Revision

Teaching Plan for Even Semester, UG course Department of

Anthropology

Session (2019-2020)

Class: B.Sc.

Semester 2,4, old 3rd year

Name of the Teacher: Soumita Biswas

Paper: ANTACOR03T, ANTACOR10T, Olds 3rd Year Paper VII (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, Old 3rd Semester: paper VI: Group A: Tribal movements, Anthropological Theories, Theories of field work
Week 5 to week 8		Unit – V: Acheulian, Levalloisian, Middle and Upper Paleolithic Culture, Mesolithic Culture, Neolithic Culture. Unit I: Research Design 1. Review of literature, conceptual framework, formulation of research problem, formulation of hypothesis, 2. Sampling, tools and techniques of data collection, data analysis and reporting, guiding ideals and critical evaluation of major approaches in research methods,
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 Old 3rd Year, Paper VII: Political Anthropology
Week13 to week 14		Internal Exam
Week 15 to 17		ANTACOR10T Unit I: Qualitative research and quantitative research, their relationship and uses in anthropology
Week 18	Revision	Revision

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

Teaching Plan for ~~Old~~ Semester, UG Course

Department of Philosophy

Session (2019-20)

Class: B.A.

Semester: 1, 3 and Part 3

Name of the Teacher: Mrinal Kanti Sarkar

Subject: Philosophy

Paper: CC 2, CC 7 and Paper 8 (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 1: Sem 3 : Part 3	PHIACOR02T : Propositional Logic PHIACOR07T: Concept of Critical Theory, PHISSEC01M- Media Ethics Paper 8: Concept of Applied Ethics
Week 5 to week 8	Sem 1: Sem 3 : Part 3	PHIACOR02T : The Method of Truth table and Truth Tree as decision procedures PHIACOR07T: Possibility of Metaphysics and Copernican Revolution, PHISSEC01M- Media Ethics Paper 8: Killing, Suicide and Euthanasia
Week 9 to Week 12	Sem 1: Sem 3 : Part 3	PHIACOR02T : Concept of Tautologous, Contradictory and Contingent PHIACOR07T: Distinction between Analytic and Synthetic Judgement Paper 8: Animal Killing and Feminist Ethics and Concept of Human Rights
Week 13	Sem 1: Sem 3 : Part 3	PHIACOR02T : Method of Deduction-Constuction of formal proof of validity by using 19 Rules PHIACOR07T: Possibility of Synthetic a priori Judgement Paper 8: Terrorism
Week 13 to week 14		Internal Exam
Week 15 to 17	Sem 1: Sem 3 : Part 3	PHIACOR02T : IP and CP PHIACOR07T: Space and Time, PHISSEC01M- Media Ethics Paper 8: Concept of Environmental Ethics
Week 18	Revision, Practise	Revision

BIDHANNAGARCOLLEGE, GOVERNMENT OF WEST BENGAL, SALLAKE, KOLKATA

Teaching Plan for Even Semester, UG Course

Department of Philosophy

Session (2019-20)

Class: B.A.

Semester: 2, 4 and Part 3

Subject: Philosophy

Paper: CC 4, CC 8 and Paper 8 (Theory)

Name of the Teacher: Mrinal Kanti Sarkar

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 : Part 3	PHIACOR04T : Need for Quantification Theory PHIACOR08T: Concept of Social Philosophy and Political Philosophy ,PHISSEC02M- Business Ethics Paper 8: Deep Ecology
Week 5 to week 8	Sem 2: Sem 4 : Part 3	PHIACOR04T : Quantifiers, Propositional Functions and Quantifier PHIACOR08T: Basic Concepts of Society, Community Association. PHISSEC02M- Business Ethics Paper 8: Concepts of Management Ethics
Week 9 to Week 12	Sem 2: Sem 4 :	PHIACOR04T : Individual Constant and Individual Variables PHIACOR08T: Caste and Cast ,Social groups
Week 13	Sem 2: Sem 4 :	PHIACOR02T : Quantification Rules and proving validity PHIACOR08T: Social Change-Marxist and Gandhian View
Week13 to week 14	Internal Exam	
Week 15 to 17	Sem 2: Sem 4 :	PHIACOR02T : Proving Validity and Invalidity PHIACOR08T: Family ,The Marxist interpretation of Family
Week 18	Revision, Practise	Revision

BIDHANNAGARCOLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, UG Course

Department of Philosophy

Session (2019-20)

Class: B.A.

Semester: 2, 4

Subject: Philosophy

Paper: CC 4, CC 9 (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 2: Sem 4 :	PHIACOR04T : Difference between Deduction and Induction PHIACOR09T: Relation between Philosophy of Mind ,Psychology and Philosophy of Psychology
Week 5 to week 8	Sem 2: Sem 4 :	PHIACOR04T : Mills Method and Copi's Criticism PHIACOR09T: Psychology as Science, Associationism-Perception and learning
Week 9 to Week 12	Sem 2: Sem 4 :	PHIACOR04T : Induction per simple enumeration, Analogical Inference PHIACOR09T: Gestalt Theory of Perception and learning
Week 13	Sem 2: Sem 4 :	PHIACOR04T : Concept of Hypothesis PHIACOR09T: Methods of psychology(Introspection, Extrospection)
Week13 to week 14		Internal Exam
Week 15 to 17	Sem 2: Sem 4 :	PHIACOR04T : Criteria of Scientific Hypothesis PHIACOR09T: Experimental method
Week 18	Revision, Practise	Revision

Bidhannagar College
Teaching Plan for Odd Semester & Annual system
Philosophy
Session 2019-2020

Name of the Teacher : Dr. Sankalita Ghosh

Week	Sem/Year	Paper	Subject
1-4	Sem 1	CC1	Basic Concepts: Introduction of Western Philosophy
		CC2	Logic: Basic Concepts: Proposition etc.
		GE	Logic: Basic Concepts: Proposition etc.
	Sem III	CC6	Samkhya (Duhkkha-traya, Satkaryavada as opposed to Asatkaryavada, argument in favour of Satkaryavada, Prakriti its constituents and evolutes, Arguments for the existence of prakriti, purusa Arguments for its existence, plurality of purusa, liberation), Yoga Citta, Cittabhumis
	3 rd Year	Paper V	Tarkasamgraha: Buddhi, Smrti, Anubhava
5-8	Sem 1	CC1	Descartes(Method of Doubt, Cogito, Different types of Ideas, Criterion of Truth)
		CC2	Argument And Argument Form etc.
		GE	Logic: Distribution of Terms, Conversion, Obversion etc
	Sem III	CC6	Yoga , Cittavrtti, Cittavrtti nirodha, Astangayoga concept of Isvara
	3 rd Year	Paper V	Tarkasamgraha: Yathartha, Ayathartha Anubhava, Karana, Karana
9-12	Sem 1	CC1	Descartes (Theory of Knowledge, Theory of Substance)
		CC2	Truth Table
		GE	Logic: Categorical Syllogism
	Sem III	CC6	Mimamsaka(Pramanas, Arthapatti)
	3 rd Year	Paper V	Tarkasamgraha: Anyathasiddhi, Pratyaksa
15-17	Sem 1	CC1	Spinoza(Substance, Attributes & Modes, Existence of God, Pantheism, Theory of Knowledge)
		CC2	Truth Tree
		GE	Logic: Venn Diagramme , Practice
	Sem III	CC6	Mimamsaka(Pramana- Anupalabdhi- Prabhakara and Bhatta View)
	3 rd Year	Paper V	Tarkasamgraha: Pratyaksa Contd....
18	Revision, Class Test etc.		

Bidhannagar College
Teaching Plan for Even Semester & Annual system
Philosophy
Session 2019-2020

Name of the teacher: Dr. Sankalita Ghosh

Week	Sem/Year	Paper	Subject
1-4	Sem II	CC3	Indian Philosophy: Introduction, Jaina Philosophy Jaina Philosophy (Concepts of Jiva, Ajiva, Dravya, Guna, Paryaya, Anekantavada, Syadvada)
	Sem IV	CC10	Tarkasamgraha: Karana, Karana, Anubhava
	3 rd Year	Paper V	Tarkasamgraha: Anumiti Pramana
5-8	Sem II	CC3	Nyaya Philosophy(Four Pramanas, Pratyaksa-Definition, Classification-Nirvikalpaka-Savikalpaka, Laukika-Aloukika), Pratyavijna
	Sem IV	CC10	Tarkasamgraha: Anumiti Pramana
	3 rd Year	Paper V	Tarkasamgraha: Anumiti Pramana , Upamiti, Sabda Pramana
9-12	Sem II	CC3	Nyaya Anumana- Definition, Paksa, Sadya, Hetu, Vyapti, Vyaptigrohopaya, Svarthanumana, Pararthanumana, Outlines of Upamana, Sabda, and Vaisesika Philosophy Dravya, Guna, Karma)
	Sem IV	CC10	Tarkasamgraha: Anumiti PramanaContd...
15-17	Sem II	CC3	Vaisesika Philosophy (Samanya, Vishesha, Samavaya, Abhava, Paramanuvada)
	Sem IV	CC10	Tarkasamgraha: Anumiti Pramana Contd...
18	Revision, Class Test etc.		

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE ,KOLKATA
Teaching Plan for odd Semester UG course
Department of Philosophy
Session(2019-2020)

Class: B.A

Semester 1,3,3rd year

Name of the Teacher :Tanima Chatterjee

Subject :Philosophy

Paper : CC1,CC5 CC7, ,Paper 4, Paper 6, Paper 7, GEC01T

Sl. No	WEEK	Theory Syllabus to be covered
1.	Week 1 to week 4	PHIACOR01T: Theory of knowledge and opinion PHIACOR07T : Introduction to Ethics-Definition ,Scope ,Presupposition, Basic concept of morality PHIACOR05T: Hume: Impression and Idea Paper 4 : Review of traditional laws of logic ,immediate inference ,syllogism Paper 6 :Nature of ethics and ethical problems , Origin of religion ,Anthropological theory Paper 7: Problem of Philosophy: Appearance and reality
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 Paper 4 : Venn diagram technique Paper 6 : Hedonism ,Religion: psychological theory Paper 7 : Knowledge by acquaintance and Knowledge by description.
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 Paper 4 : Causal connection to Method of Agreement Paper 6: Utilitarianism, Nature and scope of Philosophy of Religion, Magic and religion Paper 7 : Knowledge by acquaintance and Knowledge by description continued.
4.	Week 13	PHIACOR01T: Aristotle's refutation of Plato's theory of Idea PHIACOR07T: Deontologism, Teleologism PHIACOR05T: Causality Paper 4 : Joint method Paper 6 : Deontological theory :act and rule ,Sacred and profane, Ontological and cosmological argument. Paper 7: On Induction
5.	Week 13 to 14	Internal exam
6.	Week 15 to 17	PHIACOR01T :Aristotle: Form and Idea PHIACOR07T: Naturalism, Naturalistic Fallacy PHIACOR05T: Scepticism PHIACOR01T :Mediaeval Philosophy PHIACOR02T : Venn diagram PHIACOR01T : Inductive logic Paper 4 : Rest of Mill's method Paper 6 : Kant's moral theory, Teleological argument Paper 7 : On Induction continued
7.	Week 18	Revision

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

Teaching Plan for evenSemester UG course

Department of Philosophy

Session(2019-2020)

Class: B.A

Semester2 ,4 ,3rd year

Name of the Teacher:Tanima Chatterjee

Subject :Philosophy

Paper : CC4,CC9,Paper 6, paper7,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. Paper 6 : Naturalism, Teleological argument Paper 7: On Induction continued 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 Paper 6 : Emotivism, Religion: Moral argument and sociological theory, Comparative religion, meaning and scope Paper 7 : World of universals, PHIHGEC02T:Realism and Idealism
3.	Week 9 to week 12	PHIACOR04T: Analogical Inference PHIACOR09T:Associationism-Learning,Gestalt theory of learning Paper 6: Emotivism , Freudian theory, Hinduism , Islam and Christianity . Paper 7 : Value of Philosophy PHIHGEC02T: Substance
4.	Week 13	PHIACOR04T: Probability Practice PHIACOR09T:freud's theory-Conscious and unconscious ;Id, ego ,super ego; Behaviourism PHIHGEC02T: Causality
5.	Week 13to14	Internal exam
6.	Week 15 to17	PHIACOR04T:Criteria of scientific hypothesis PHIACOR09T:Relation between mind and body PHIHGEC02T: Relation betweenmind and body.
7.	Week 18	Revision

BIDHANNAGARCOLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Even Semester, UG Course

Department of Philosophy

Session (2019-20)

Class: B.A.

Semester: 2, 4

Name of the Teacher: PARAMITA BASU

Subject: Philosophy

Paper : CC 3, CC 10 (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	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR03T : Introduction, Basic Concepts in Indian Philosophy - <i>Rta, Rna, Yajna, Panca-kosha</i> Paper B : PHIACOR10T : Brief Overview of Tarkasamgraha, Different types of <i>Pramanas</i> , Importance of <i>Pratyaksha</i> among Different <i>Pramanas</i> and its definition
Week 5 to week 8	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR03T : <i>Atma, Brahman. jiva, Sreya, Preya, Moksha</i> Paper B: PHIACOR10T : Detailed explanation on <i>Pratyaksha lakshana, Laukika and Alaukika Pratyaksha</i> , Different kinds of <i>Laukika Sannikarsha</i>
Week 9 to Week 12	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR03T: <i>Bauddha – Introduction, Four Noble Truths, Pratityasamutpadavada</i> Paper B: PHIACOR10T: Different stages of <i>Pratyaksha - Nirvikalpaka and Savikalpaka Pratyaksha</i> , their <i>lakshana</i>
Week 13	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR03T: <i>Nairatmyavada</i> Paper B: PHIACOR10T : Difference between <i>Nirvikalpaka</i> and <i>Savikalpaka Pratyaksha</i>
Week 13 to week 14 Internal Exam		
Week 15 to 17	Paper A: Paper B : Paper C etc:	Paper A: PHIACOR03T: Continuation of <i>Nairatmyavada</i> , Basic Tenets of Four <i>Bauddha</i> Schools Paper B: PHIACOR10T : Justification for admitting <i>Nirvikalpaka pratyaksha, Upamana pramana</i>
Week 18	Revision, Practise	Revision

Teaching Plan for Odd Semester, UG course

Department of Statistics

Session 2019-20

Class: B.A/ B.Sc

Semester 1,3 & Part-III(1+1+1) system UG course

Name of the Teacher: Mr. Arup Kumar Hait

Subject: Statistics

Paper : STSACOR01, Part-III, Paper-V & Part-III, Paper-VI (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 - Problems based on measures of central tendency. Part-III, Paper-V - Simple linear regression. - Multiple regression. - Multiple Correlation - Partial Correlation	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. Measures of Central Tendency: mathematical and positional. Part-III, Paper-V Multivariate data – its graphical representation, multiple correlation and partial correlation and their properties, multiple regression and related results. , Partial Correlation. Part-III, Paper-VI Design of Experiments : Principles of Experimental Design : Randomization, Replication and Local Control, Uniformity trials, Shapes and Sizes of Plots and Blocks
Week 5 to week 8	STSACOR01P - Problems based on measures of dispersion. - Problems based on combined mean and variance and coefficient of variation. - Problems based on moments	STSACOR01T Measures of Dispersion: range, quartile deviation, mean deviation, standard deviation, coefficient of variation. Moments, absolute moments, factorial moments, Sheppard's corrections (without proof). Part-III, Paper-V Regression with binary data: Logistic regression and fitting by least square method. Part-III, Paper-VI Standard Designs and their Analyses : Completely Randomised Design (CRD), Randomised Block Design (RBD), Latin Square Design (LSD),

Week 9 to Week 12	STSACOR01P - Problems based on moments, skewness and kurtosis. - Box Plot - Karl Pearson correlation coefficient. - Correlation coefficient for a bivariate frequency distribution. - Lines of regression, angle between lines and estimated values of variables. Part-III, Paper-VI - Analysis of CRD - Analysis of an RBD - Analysis of an LSD	STSACOR01T Measures of skewness and kurtosis. Box Plot. Definition, scatter diagram, simple correlation, linear regression and principle of least squares, Part-III, Paper-V Random Vector : Probability mass and density functions, Distribution Function, Mean Vector and Dispersion matrix, Marginal and Conditional Distributions, Multiple Regression, Multiple Correlation Part-III, Paper-VI Split Plot Design, comparison of efficiencies. Applications of the techniques of Analysis of variance to the analysis of the designs.
Week 13 to week 14 Class Tests and Internal Exam		
Week 15 to 17	STSACOR01P - Fitting of polynomials, exponential curves. - Spearman rank correlation with and without ties. - Computation of correlation ratio. - Computation of intra class correlation coefficient. Part-III, Paper-VI - Analysis of 2^2 and 2^3 factorial in CRD and RBD - Analysis of 2^2 and 2^3 factorial in LSD	STSACOR01T Fitting of polynomials and exponential curves, Spearman rank correlation, correlation ratio, intra-class correlation. Part-III, Paper-VI Factorial Experiments : 2^n (2^3 and 2^2 only) experiments, Advantages,

Class: B.Sc. (Honours)

Semesters: 1, 3 (CBCS), Part III (1+1+1 System)

Name of the Teacher: Kiranmoy Chatterjee

Subject: Statistics

Paper : STSACOR01T, STSACOR02T, STSACOR05T (CBCS), Paper VI: ANOVA (1+1+1 System)

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	<u>Paper STSSSEC01M(CBCS) :</u> Statistical Data Analysis Using C-programming and Software Packages Minitab: Unit 1	<u>Paper STSACOR02T(CBCS) :</u> Vector spaces, subspaces, sum of subspaces, Span. Linear dependence and independence, basis and dimension, dimension theorem. <u>Paper STSACOR05T(CBCS) :</u> Unit 1: Two dimensional random variables: Discrete
Week 5 to week 8	Practical exercises related to Paper VI: ANOVA (3rd Year, 1+1+1 System) <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 VI: ANOVA (3rd Year, 1+1+1 System):</u> Introduction: Heterogeneity and Analysis of Variance and Covariance, Linear Hypothesis, Orthogonal splitting of total variance, Selection of Valid Error.
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. Practical exercises related to Paper VI: ANOVA (3rd Year, 1+1+1 System)	<u>Paper STSACOR02T (CBCS) :</u> 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 VI: ANOVA (3rd Year, 1+1+1 System):</u> One-way ANOVA Model, Applications of the ANOVA technique to one-way classified data.

	<u>Paper STSSSEC01M(CBCS) :</u> Statistical Data Analysis Using C-programming and Software Packages Minitab: Unit 3	
Week 13-14: Internal Exam (for CBCS) and Class Tests (for Part II & III in 1+1+1 system)		
Week 15 to 17	<u>Paper STSSSEC01M(CBCS) :</u> Statistical Data Analysis Using C-programming and Software Packages Minitab: Unit 4	<u>Paper STSACOR02T :</u> 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. <u>Paper STSACOR05T(CBCS) :</u> 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).

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. Practical exercises related to Paper V: Large Sample Theory (3 rd Year, 1+1+1 System)	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. <u>Paper V: Large Sample Theory (2nd Year, 1+1+1 System):</u> Convergence in Distribution, Normal approximation to the Poisson distribution, Statement of Central limit Theorem (i.i.d. case) & its application, Relation among different modes of convergence-----slutsky's theorem

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 Practical exercises related to Paper V: Large Sample Theory (3rd Year, 1+1+1 System)	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 χ^2 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 χ^2 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 <u>Paper V: Large Sample Theory (2nd Year, 1+1+1 System):</u> Derivation of large sample standard error of sample moments, standard deviation, coefficient of variation, b_1 and b_2 measures and correlation coefficient and their uses in large sample tests.
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. Practical exercises related to Paper V: Large Sample Theory (3rd Year, 1+1+1 System)	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 χ^2 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)

		<u>Paper V: Large Sample Theory (2nd Year, 1+1+1 System):</u> Transformations of Statistics to stabilize variance : derivation and use of $\sin^{-1}$, square root, logarithmic and z-transformations. Large sample tests for binomial proportions, Poisson means (single and two independent sample cases) and correlation coefficients.
Week13 to week 14		Internal Exam
Week 15 to 17	Practical exercises related to Paper V: Large Sample Theory (3 rd Year, 1+1+1 System)	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 <u>Paper V: Large Sample Theory (2nd Year, 1+1+1 System):</u> Large sample distribution of Pearsonian χ^2 -statistic and its uses, Goodness of fit. Yate's correction in a 2x2 contingency table.

Class:B.Sc

Semester 3 and Part III

Name of the Teacher: Soumyadeep Das

Subject: Statistics

Paper : STSACOR07T,STSACOR07P, STSHGECO3T, STSHGECO3P, Part III Paper V and VI (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	Paper V of Part III: Practical problems on Maximum Likelihood estimation. 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 and WOR and establish all properties relative to SRS. 3. For SRSWOR, estimate mean, standard error, the sample size Paper STSHGECO3P: 1. Estimators of population mean.	Paper V of Part III: Maximum Likelihood estimation. 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 these estimates, estimates of their variances and sample size determination. Paper STSHGECO3T: Estimation of population mean, confidence intervals for the parameters of a normal distribution (one sample and two sample problems).

	2. Confidence interval for the parameters of a normal distribution (one sample and two sample problems).	
Week 5 to week 8	Paper V of Part III: Practical problems on Minimum chi square estimators. 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 V of Part III: Minimum chi square estimators and their properties (excluding proofs of large sample properties). 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.
Week 9 to Week 12	Paper STSACOR07P: 6. Comparison of systematic with stratified sampling and SRS in the presence of a linear trend.	Paper VI of Part III: Introduction : Concepts of a Finite population and a sample, Need for Sampling, Complete Enumeration and Sample Surveys. General Ideas : Planning and execution of sample surveys, analysis of data and reporting, Biases and Errors. Judgement and probability sampling. Tables of random numbers and their uses. Paper STSACOR07T: Systematic Sampling, Technique, estimates of population mean and total, variances of these estimates ($N=n \times k$ 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.
Week 13	Paper VI of Part III: Practical problems on Simple random sampling. 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 VI of Part III: Basic sampling and Estimation Procedures : Simple random sampling with and without Replacement 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).
Week13 to week 14		Internal Exam

Week 15 to 17	Paper VI of Part III: Practical problems on Stratified random sampling, Linear and Circular Systematic Sampling, Cluster Sampling 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 VI of Part III: Stratified random sampling, Linear and Circular Systematic Sampling, Cluster Sampling 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.

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

Teaching Plan for Even Semester, UG course

Department of Statistics

Session 2019-20

Class:B.A/ B.Sc

Semester 2,4 & Part-III(1+1+1) system UGcourse

Name of the Teacher: Arup Kumar Hait

Subject: STATISTICS

Paper : STSACOR04,STSHGEC04, Part-III, Paper-V & Part-III, Paper-VI(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	STSHGEC04 - Measurement of trend: Fitting of linear & quadratic trend and plotting of trend values and comparing with given data graphically. Part-III, Paper-V - Multinomial Distribution Part-III, Paper-VI	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. 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.

	• Analysis of a completely confounded two level factorial design in 2 blocks • Analysis of a completely confounded two level factorial design in 4 blocks • Analysis of a partially confounded two level factorial design	Measurement of trend by method of free-hand curve, method of semi-averages. Method of least squares (linear & quadratic). Part-III, Paper-V Multivariate Distributions : Multinomial distributions and their properties. Part-III, Paper-VI Total and Partial Confounding, Analysis.
Week 5 to week 8	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. STSHGEC04 Measurement of exponential trend and modified exponential trend. Measurement of seasonal variations by method of ratio to trend.
Week 9 to Week 12	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. Part-III, Paper-V • Bivariate Normal Distribution, • Multivariate Normal Distribution Part-III, Paper-VI ANCOVA	STSACOR04T Characteristic roots and Characteristic vector, Properties of characteristic roots, Cayley Hamilton theorem, Quadratic forms: Classification and canonical reduction. Linear transformations. STSHGEC04 Index numbers: Definition, Criteria for a good index number, different types of index numbers. Part-III, Paper-V Multivariate Distributions : Multivariate Normal distributions and their properties. Part-III, Paper-VI Analysis of Covariance (ANCOVA) : Application of the ANCOVA technique to oneway classified data to two- way classified data with number of observations per cell, use in control of error in CRD, RBD .
Week13 to week 14		Tests and Internal Exam

Week 15 to 17	STSHGEC04 - Construction of wholesale price index number, fixed base index number and consumer price index number with interpretation Part-III, Paper-VI - Analysis of an RBD with one missing observation - Analysis of an LSD with one missing observation	STSACOR04T Applications of Linear Algebra in Statistics. STSHGEC04 Construction of index numbers of prices and quantities, consumer price index number. Uses and limitations of index numbers. Part-III, Paper-VI Missing Plot Technique : Analysis with one missing plot in a RBD

Class: B.Sc. (Honours)

Semesters: 2, 4 (CBCS), Part III (1+1+1 System)

Name of the Teacher: Kiranmoy Chatterjee

Subject: Statistics

Paper : STSACOR03T, STSACOR04T, STSHGEC04T, STSHGEC04P (CBCS), and Paper VI (1+1+1 System)

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	<u>Paper STSACOR09P(CBCS):</u> - Estimability in Gauss Markov Model. - Simple linear regression. - Multiple regression. <u>Paper STSADSE04P(CBCS):</u> - Computation of Mortality rate. - Preparation of Life Table.	<u>Paper STSACOR03T(CBCS):</u> Introduction, random experiments, sample space, events and algebra of events. Sigma algebra of events. Definitions of Probability – classical, statistical and axiomatic. <u>Paper STSACOR04T(CBCS) :</u> 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. <u>Paper STSACOR09T(CBCS) :</u> 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 <u>Paper STSHGEC04T(CBCS):</u> Unit 4: Demography Demographic Methods: Introduction, measurement of population, rates and ratios of vital events <u>Paper VI: ANOVA (3rd Year, 1+1+1 System):</u>

		Two-way classified data with one and some equal no. of observations per cell separately. Applications of the ANOVA technique to two-way classified data.
Week 5 to week 8	<u>Paper STSACOR03P(CBCS):</u> 1. Numerical sums using classical definition of Probability. 2. Numerical sums on conditional probability. <u>Paper STSACOR09P(CBCS):</u> 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. <u>Paper STSHGEC04P(CBCS):</u> 7. Computation of measures of mortality 8. Completion of life table. 9. Computation of measures of fertility and population growth	<u>Paper STSACOR03T(CBCS):</u> Theorem of compound probability, theorem of total probability, Conditional probability and independence of event. Bayes theorem and its applications. <u>Paper STSACOR04T(CBCS) :</u> Matrix equations $Ax=b$, solution sets of linear equations. Applications of linear equations, inverse of a matrix. Characteristic roots and Characteristic vector. <u>Paper STSACOR09T(CBCS) :</u> 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. <u>Paper STSHGEC04T(CBCS):</u> 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. <u>Paper VI: ANOVA (3rd Year, 1+1+1 System):</u> Testing simple regression coefficients, and linearity of simple regression, correlation ratio.
Week 9 to Week 12	<u>Paper STSACOR03P(CBCS):</u> 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.	<u>Paper STSACOR03T(CBCS):</u> Discrete random variables, p.m.f. and c.d.f., statement of properties of c.d.f: binomial, Poisson, geometric, negative binomial, hypergeometric, uniform. <u>Paper STSACOR04T(CBCS) :</u> Properties of characteristic roots, Cayley Hamilton theorem, Quadratic forms: Classification and canonical reduction. <u>Paper STSACOR09T(CBCS):</u> 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.

	<u>Paper STSACOR09P(CBCS):</u> 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. <u>Paper STSHGEC04P(CBCS):</u> 5. Construction and interpretation of X bar & R-chart. 6. Construction and interpretation p-chart (fixed sample size) and c-chart	<u>Paper STSHGEC04T(CBCS):</u> 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. <u>Paper VI: ANOVA (3rd Year, 1+1+1 System):</u> multiple correlation and partial correlation coefficients.
Week 13-14: Internal Exam (for CBCS) and Mid-Term Tests (for Part II & III in 1+1+1 system)		
Week 15 to 17	<u>Paper STSACOR09P(CBCS):</u> 9. Analysis of covariance of a two way classified data with one concomitant variable.	<u>Paper STSACOR04T(CBCS) :</u> Linear transformations. Applications of Linear Algebra in Statistics. Revision of all the topics. <u>Paper STSACOR09T(CBCS) :</u> 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

Subject: Statistics

Paper : STSACOR04T, STSACOR08T, STSACOR08P, STSACOR14T, STSACOR14P, STSSSEC02M

Name of the Teacher: Suryasish Chatterjee

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 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 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 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. <u>Paper V: Statistical Inference II (3rd Year, 1+1+1 System):</u> Point Estimation: Sufficiency, Completeness, Factorization Theorem, Exponential, Family of distributions, Properties of minimum variance unbiased estimators, consistent estimators and asymptotic efficiency, Cramer –Rao lower bound .Rao-Blackwell Theorem. Lehmann- Scheffe Theorem. Maximum Likelihood Minimum χ^2 estimators and their properties (excluding proofs of large sample properties).
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 STSSSECO2M: Generate automated reports giving detailed descriptive statistics, correlation and lines of regression. Practical exercises related to Paper V: Statistical Inference II (3rd Year, 1+1+1 System)	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: Method of moments, method of maximum likelihood estimation, method of minimum Chi square, basic idea of Bayes estimators <u>Paper V: Statistical Inference II (3rd Year, 1+1+1 System):</u> Theory of Hypothesis Testing : Most Powerful(MP), Uniformly Most Powerful (UMP) and Uniformly Most Powerful Unbiased (UMPU) tests, Randomized and nonrandomized Tests, Fundamental Neyman –Pearson Lemma (sufficiency part only), and its use in the construction of MP and UMP tests (single parameter with range independent of the parameter), Likelihood Ratio tests and its applications to tests for the equality of means and variances of several normal populations.
Week 9 to Week 12	Paper STSACOR08P: 9. Unbiased critical region. 10. Power curves. 11. Likelihood ratio tests for simple null hypothesis against simple	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

	alternative hypothesis. 12. Likelihood ratio tests for simple null hypothesis against composite alternative hypothesis Paper STSSECO2M: Random number generation and sampling procedures. Fitting of polynomials and exponential curves. Application Problems based on fitting of suitable distribution, Normal probability plot. Practical exercises related to Paper V: Statistical Inference II (3rd Year, 1+1+1 System)	matrix. Row space and column space of a matrix. Definition, properties and applications of determinants for 3rd 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). <u>Paper V: Statistical Inference II (3rd Year, 1+1+1 System):</u> Interval Estimation :Confidence intervals Confidence sets, Concepts of Uniformly Most Accurate (UMA) and Uniformly Most Accurate Unbiased (UMAU) confidence sets, relationship with tests of hypotheses, confidence intervals with Shortest Expected Length
Week 13 to week 14		Internal Exam & Class Tests
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 STSSECO2M: Simple analysis and create and manage statistical analysis projects, import data, code editing. Basics of statistical inference in order to understand hypothesis testing and compute p-values and confidence intervals. Practical exercises related to Paper V: Statistical Inference II (3rd Year, 1+1+1 System)	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: 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 <u>Paper V: Statistical Inference II (3rd Year, 1+1+1 System):</u> Nonparametric Methods : Sign test, Median test, Wilcoxon Signed-Rank test, Run test, Mann-Whitney U test.

Class: B.Sc

Semester 2, 4 and Part III

Subject: Statistics

Name of the Teacher: Soumyadeep Das

Paper : STSACOR03T, STSACOR03P, STSACOR10T, STSACOR10P, STSSSEC02M, Part III Paper VI (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	Paper VI of Part III: Practical problems on two-stage sampling. Paper STSACOR03P: 1. Numerical sums using classical definition of Probability. Paper STSSSEC02M: 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 VI of Part III: two-stage (with equal-sized first stage units) sampling with selection probabilities at each stage. Associated unbiased estimators of population total, mean and proportion, their variances and unbiased variance estimators. Determination of sample size in simple random sampling. 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.
Week 5 to week 8	Paper V of Part III: Practical problems on PPS sampling. 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 STSSSEC02M: Generate automated reports giving detailed descriptive statistics, correlation and lines of regression.	Paper VI of Part III: Probability Proportionate to Size Sampling with Replacement (PPSWR)—different methods of sample selection, Hansen Hurwitz Estimate of the Population total (without derivation), Allocation problem in stratified random sampling and optimum choice of sampling and sub-sampling fractions in two- stage sampling, Interpenetrating sub-sampling technique for unbiased variance estimation in systematic sampling. 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.
Week 9 to Week 12	Paper VI of Part III: Practical problems on Ratio and Regression methods of estimation. 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 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 VI of Part III: Ratio and Regression methods of estimation in simple random sampling. Double sampling for ratio and regression estimators. 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. p.d.f. and c.d.f., illustrations and properties, 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.
Week 13 to week 14		Internal Exam
Week 15 to 17	Paper VI of Part III: Practical problems on Warner's model, Practical problems on small area estimation. Paper STSACOR10P: 3. Calculation of process capability and comparison of 3-sigma control limits with specification limits.	Paper VI of Part III: Randomised Response Techniques : Warner's Model. Small area estimation---concept of small areas, domains, direct and composite estimators. Paper STSACOR03T: univariate transformations with illustrations. Derivation of moments. Probability Inequalities: Markov and Chebyshev. 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

	4. Use a case study to apply the concept of six sigma application in DMAIC: practical application. Paper STSSSECO2M: Simple analysis and create and manage statistical analysis projects import data, code editing. Basics of statistical inference in order to understand hypothesis testing and compute p-values and confidence intervals.	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.

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA**Teaching Plan for Odd Semester, UG and PG Courses****Department of Chemistry****Session (2019-20)****Class: B.Sc and M.Sc.****Semester: 1, 3, B. Sc. H Pt-III****Name of the Teacher: Dr. Nikhil Ranjan Pramanik****Subject: Chemistry****Paper: CEMACOR02T&P (UG SEM-I), CEMACOR05T&P (UG SEM-III), CEMAP 37-Pr and CEMAT 36-PA and PB (B. Sc Part-III H), CHEMCOR03 &04(PG SEM-I) and Paper XI and XIIC (PG SEM-III).**

SI 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-1 and 2 B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Discussion of principles of Physical experiments and Exp-1 and 2 CHEMCOR04: Physical Chemistry Practical –I: Discussion of principles of Physical experiments and Exp-1 and 2 Paper XIIC (Physical Practical): Discussion of principles of Physical experiments and Exp-1 and 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 CEMAT 36-PA: Statistical thermodynamics and third law: Introduction, Configurations. CHEMCOR03: Physical chemistry 1: Chemical Kinetics –I: Collision theory and activated complex theory. Paper- XI (Physical Theory): Enzyme catalysis and kinetics of fast reactions: Introduction: Enzyme catalysis.
Week 5 to week 8	CEMACOR02P: Physical Chemistry –I Lab: Physical experiments, Exp-2 and 3 CEMACOR05P: Physical Chemistry –II Lab: Physical experiments, Exp-3 and 4 B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Exp-3 and 4 CHEMCOR04 Physical Chemistry Practical –I: Physical experiments, Exp-3 and 4 Paper XIIC (Physical Practical): Physical experiments: Exp-3 and 4.	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. CEMAT 36-PA: Statistical thermodynamics and third law: Boltzmann distribution. CHEMCOR03: Physical chemistry 1: Chemical Kinetics –I: Reactions between ions in solution: Influence of dielectric constant, ionic strength and pressure on rate constant. Paper- XI (Physical Theory): Enzyme catalysis and kinetics of fast reactions: Characteristics and mechanism of enzyme catalysis.
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 B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Exp-5 and 6. CHEMCOR04: Physical Chemistry Practical –I: Physical experiments, Exp-5 and 6 Paper XIIC (Physical Practical): Physical experiments: Exp-5 and 6.	CEMACOR02T: Physical Chemistry I: Chemical Thermodynamics: Second Law CEMACOR05T: Physical Chemistry –II: Application of thermodynamics-I: Chemical equilibrium. CEMAT 36-PA: Statistical thermodynamics and third law: Partition function and its applications. CHEMCOR03: Physical chemistry 1: Chemical Kinetics –I: Unimolecular reactions: Lindemann- Hinshelwood and RRR mechanism Paper- XI (Physical Theory): Enzyme catalysis and kinetics of fast reactions: Surface reactions and kinetics.

Week 13	CEMACOR02P: Physical Chemistry –I Lab: Revision of physical Experiments CEMACOR05P: Physical Chemistry –II Lab: Revision of Physical Experiments B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Exp-7. CHEMCOR04: Physical Chemistry Practical –I: Revision of Physical experiments. Paper XIIC (Physical Practical): Physical experiments: Exp-7.	CEMACOR02T: Physical Chemistry I: Chemical Thermodynamics: Thermo dynamic relations. CEMACOR05T: Physical Chemistry –II: Transport processes: Viscosity CEMAT 36-PA: Statistical thermodynamics and third law: Third law of thermodynamics. CHEMCOR03: Physical chemistry 1: Chemical Kinetics –I: Chain reactions and its mechanism. Paper- XI (Physical Theory): Enzyme catalysis and kinetics of fast reactions: Micelles, micellar catalysis and its application.
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 B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Revisions of experiments. CHEMCOR04: Physical Chemistry Practical –I: Tutorial on principles and experiments of physical chemistry experiments Paper XIIC (Physical Practical): Revision of Physical experiments	CEMACOR02T: Physical Chemistry I: Chemical Chemical Kinetics: Theory of rate process. CEMACOR05T: Physical Chemistry –II: Tutorial on application of thermodynamics-I and viscosity. CEMAT 36-PA: Statistical thermodynamics and third law: Einstein's theory of heat capacity and its limitation. CHEMCOR03: Physical chemistry 1: Chemical Kinetics –I: Oscillatory reactions: Observation and mechanism. Autocatalytic reactions. Paper- XI (Physical Theory): Enzyme catalysis and kinetics of fast reactions: Kinetics of fast reactions.
Week 18	Class test	Problem solving

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

Teaching Plan for Odd Semester, UG and PG Courses

Department of Chemistry

Session (2019-20)

Class: B.Sc and M.Sc.

Semester: 1, 3, B. Sc. H Pt-III

Name of the Teacher: Dr. Sanat Kumar Saha

Subject: Chemistry

Paper: CEMACOR02T&P (UG SEM-I), CEMACOR05T&P (UG SEM-III), CEMAP 37-Pr & CEMAT 36- PA (B. Sc. H Pt-III), CHEMCOR03 and CHEMCOR04 (PG SEM-I) and Paper-XI and Paper XIIC (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-1 and 2 B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Discussion of principles of Physical experiments and Exp-1 and 2 CHEMCOR04: Physical Chemistry Practical –I: Discussion of principles of Physical experiments and Exp-1 and 2 Paper XIIC (Physical Practical): Discussion of principles of Physical experiments and Exp-1 and 2.	CEMACOR02T: Physical Chemistry –I: Kinetic theory and gaseous state. Kinetic theory of gases: Ideal gas Part 1. CEMACOR05T: Physical Chemistry –II: Foundation of Quantum Mechanics: Beginning of Quantum Mechanics, wave function, operators CEMAT 36- PA: Molecular Spectroscopy: Rotational spectroscopy of diatomic molecule: Rigid rotor model and characteristic features of spectral lines. CHEMCOR03: Physical chemistry 1: Quantum Mechanics-I: Part-1: Postulates, Barrier problems and Tunnelling. Paper XI (Physical Theory): Advanced Quantum Mechanics-3: Time independent formalism: Rayleigh-Ritz method, Secular determinant
Week 5 to week 8	CEMACOR02P: Physical Chemistry –I Lab: Physical experiments, Exp-2 and 3 CEMACOR05P: Physical Chemistry –II Lab: Physical experiments, Exp-3 and 4 B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Exp-3 and 4 CHEMCOR04 Physical Chemistry Practical –I:: Physical experiments, Exp-3 and 4 Paper XIIC (Physical Practical): Physical experiments: Exp-3 and 4.	CEMACOR02T: Physical Chemistry –I: Kinetic theory and gaseous state. Maxwell's distribution: Ideal gas Part 2. CEMACOR05T: Physical Chemistry –II: Foundation of Quantum Mechanics: Particle in a box, Simple harmonic oscillator CEMAT 36- PA: Molecular Spectroscopy: Rotational spectroscopy of diatomic molecules: Determination of bond length and effect of isotopic substitution. CHEMCOR03: Physical chemistry 1: Quantum Mechanics-I: Part-2: Angular momentum, Ehrenfest's theorem, Hydrogen atom problem Paper XI (Physical Theory): Advanced Quantum Mechanics-3: Perturbation treatment in He atom, Degenerate perturbation theory, Stark and Zeeman effects.
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 B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Exp-5 and 6. CHEMCOR04: Physical Chemistry Practical –I: Physical experiments, Exp-5 and 6 Paper XIIC (Physical Practical): Physical experiments: Exp-5 and 6.	CEMACOR02T: Physical Chemistry –I: Kinetic theory and gaseous state. Real gases. CEMACOR05T: Physical Chemistry –II: Foundation of Quantum Mechanics: Particle in a box, Simple harmonic oscillator CEMAT 36- PA: Molecular Spectroscopy: Vibrational spectroscopy of diatomic molecules: SHO model, anharmonicity CHEMCOR03: Physical chemistry 1: Electrochemistry I: Part-1: Ion-ion interaction: Debye Huckel theory of activity coefficient. Paper XI (Physical Theory): Advanced Quantum Mechanics-3: Time dependent formalism: Transition probability, Fermi Golden rule.

Week 13	CEMACOR02P: Physical Chemistry –I Lab: Revision of physical Experiments CEMACOR05P: Physical Chemistry –II Lab: Revision of Physical Experiments B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Exp-7. CHEMCOR04: Physical Chemistry Practical –I: Revision of Physical experiments. Paper XIIC (Physical Practical): Physical experiments: Exp-7.	CEMACOR02T: Physical Chemistry –I: Chemical Kinetics: Rate law, theory of reaction rate CEMACOR05T: Physical Chemistry –II: Transport processes: Conductance and transport number CEMAT 36- PA: Molecular Spectroscopy: Raman effect: characteristic features and illustration. CHEMCOR03: Physical chemistry 1: Electrochemistry I: Part-2:Electrode kinetics: Butler Volmer equation, Overpotential Paper XI (Physical Theory): Advanced Quantum Mechanics-3: Einstein transition probabilities.
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 B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Revisions of experiments. CHEMCOR04: Physical Chemistry Practical –I: Tutorial on principles and experiments of physical chemistry experiments Paper XIIC (Physical Practical): Revision of Physical experiments	CEMACOR02T: Physical Chemistry –I: Chemical Kinetics: homogeneous catalysis and autocatalysis CEMACOR05T: Physical Chemistry –II: Tutorial on Quantum Mechanics and conductance CEMAT 36- PA: Molecular Spectroscopy: Rotational and vibrational Raman spectra, Mutual exclusion principle. CHEMCOR03: Physical chemistry 1: Electrochemistry I: Part-2:Electrode kinetics: Overpotential Paper XI (Physical Theory): Advanced Quantum Mechanics-3: Spontaneous and induced emission.
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 (2019-20)

Class: B.Sc. and M.Sc.

Semester: 1, 3/ Part-III

Name of the Teacher: Anisur Rahaman Molla

Subject: Chemistry

Paper: CEMACOR01 (UG SEM-I), CEMACOR07 (UG SEM-III), CEMHGEC03 (UG SEM-III GE), CEMAT36OB&CEMAP 37-Pr(UG Part-III), CHEMCOR02&CHEMCOR05 (PG SEM-I) and Paper-X (PG SEM-III)

SI 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) CEMAP 37-Pr: Identification of amino acids by TLC CHEMCOR05: Systematic qualitative analysis of a liquid organic compound (known samples)	CEMACOR01: Basics of organic chemistry – MO theory CEMHGEC03: Alcohols CEMAT36OB: Structure of monosaccharides CHEMCOR02: Reaction mechanism: Types, thermodynamic & kinetic requirements, Hammond postulate, microscopic reversibility PAPER-X: 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) CEMAP 37-Pr: Identification of amino acids by paper CHEMCOR05: Systematic qualitative analysis of a liquid organic compound (2 unknown samples)	CEMACOR01: Basics of organic chemistry– FMO interactions CEMHGEC03: Phenols and ethers CEMAT36OB: Reactions of monosaccharides CHEMCOR02: Methods of determination of reaction mechanism: Study of intermediates PAPER-X: 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) CEMAP 37-Pr: Binary mixture separation (neutral + acid) and identification by TLC CHEMCOR05: Systematic qualitative analysis of a liquid organic compound (2 unknown samples)	CEMACOR01: Aromaticity CEMHGEC03: Aldehyde and ketone (preparation and reactivity) CEMAT36OB: Interconversion of aldose and ketose, Ring structure of monosaccharides CHEMCOR02: Methods of determination of reaction mechanism: Identification of products, Isotope labeling, isotope effects. PAPER-X: 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) CEMAP 37-Pr: Binary mixture separation (neutral + base) and identification by TLC CHEMCOR05: Systematic qualitative analysis of a liquid organic compound (1 unknown samples)	CEMACOR01: Mechanistic classification CEMHGEC03: Reactions of aldehydes & ketones-1 CEMAT36OB: Fischer's proof of configuration of (+)-glucose CHEMCOR02: Methods of determination of reaction mechanism: catalysis. PAPER-X: 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) CEMAP 37-Pr: Binary mixture separation (neutral + base) and identification by TLC CHEMCOR05: Systematic qualitative analysis of liquid organic compound (2 unknown samples)	CEMACOR01: Reactive intermediates CEMHGEC03: Reactions of aldehydes & ketones-2 CEMAT36OB: Anomeric effect, mutarotation, Disaccharides CHEMCOR02: Methods of determination of reaction mechanism: stereochemical course of the reaction. PAPER-X: Photo reduction of ketones
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 (2019-20)****Class: B.Sc. and M.Sc.****Semester: 1, 3/ Part-III****Name of the Teacher: Tirtha Pada Majhi****Subject: Chemistry**

Paper: CEMACOR01 (UG SEM-I), CEMACOR07 (UG SEM-III), CEMHGEC03 (UG SEM-III GE), CEMAT36OB & CEMAP 37-Pr (UG Part-III), CHEMCOR02 & CHEMCOR05 (PG SEM-I) and Paper-X (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) CEMAP 37-Pr: Identification of amino acids by TLC CHEMCOR05: Systematic qualitative analysis of a liquid organic compound (known samples)	CEMACOR01: Basics of organic chemistry – Valence Bond theory and orbital pictures of bonding CEMHGEC03: Benzene-preparations CEMAT36OB: Amino acids: types and properties PAPER-X: 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) CEMAP 37-Pr: Identification of amino acids by paper CHEMCOR05: 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. CEMHGEC03: Electrophilic substitution in benzene CEMAT36OB: Synthesis of α - amino acids PAPER-X: 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) CEMAP 37-Pr: Binary mixture separation (neutral + acid) and identification by TLC CHEMCOR05: 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. CEMHGEC03: Grignard reagent-preparation and reaction CEMAT36OB: Reactions of amino acids PAPER-X: 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) CEMAP 37-Pr: Binary mixture separation (neutral + base) and identification by TLC CHEMCOR05: Systematic qualitative analysis of a liquid organic compound (1 unknown samples)	CEMACOR01: Covalent & non-covalent intermolecular forces CEMHGEC03: Side chain oxidation of aromatic system CEMAT36OB: Peptide syntheses PAPER-X: 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) CEMAP 37-Pr: Binary mixture separation (neutral + base) and identification by TLC CHEMCOR05: Systematic qualitative analysis of liquid organic compound (2 unknown samples)	CEMACOR01: Dipole moments; relative stabilities of isomeric hydrocarbons CEMHGEC03: Aryl halides-preparation and reaction CEMAT36OB: Determination of amino acid sequence and structure of protein PAPER-X: C–C bond cleaving reactions via radical reactions PAPER-X: Radical rearrangement reactions
Week 18	Class test	Problem solving

Teaching Plan for Odd Semester, UG & PG course

Department of Chemistry

Session (2019-2020)

Class: B.Sc

Semester 1, 3 & UG-Part III;

Name of the Teacher: Dr. Shubhankar Samanta

Subject:

Paper: CEMACOR01P, CEMAP 37-P, CEMHGEC01P, CEMACOR07T, CEMAT 36-OA, 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 VII Course : CEMAP 37-P: Identification of amino acids by TLC Paper CEMHGEC01P: Qualitative Analysis of Single Solid Organic Compound(s) Experiment A: Detection of special elements (N, Cl, and S) in organic compounds.	Paper: Substitution on -COX; directed ortho metalation of arenes using organolithiums, conjugate addition by Gilman cuprates; Corey-House synthesis. Paper VI Courses: CEMAT 36-OA: Pericyclic reactions : Definition and classification, Electrocyclic reactions 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 VII Course : CEMAP 37-P: Identification of amino acids by TLC (In mixture) Paper CEMHGEC01P: Qualitative Analysis of Single Solid Organic Compound(s) Experiment A: Solubility and Classification (solvents: H₂O, dil. HCl, dil. NaOH)	Paper CEMACOR07T: Grignard reagent; Organolithiums; Gilman cuprates: preparation and reactions (mechanism with evidence); addition of Grignard and organolithium to carbonyl compounds; Paper VI Courses: CEMAT 36-OA: Pericyclic reactions : FMO approach, examples of electrocyclic reactions (thermal and photochemical) involving 4- and 6πelectrons 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 VII Course : CEMAP 37-P: Identification of amino acids by Paper (In mixture) Paper CEMHGEC01P: Qualitative Analysis of Single Solid Organic Compound(s): Detection of functional groups: Aromatic-NO₂, Aromatic -NH₂, -COOH	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. aper VI Courses : CEMAT 36-OA: Pericyclic reactions : Sigmatropic shifts and their order, [1,3] and [1,5] H shifts, 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 CEMACOR07T: Twelve (12) principles of green chemistry; planning of green synthesis; common organic reactions Paper VI Courses : CEMAT 36-OA: [3,3] shifts with references

	Paper VII Course : CEMAP 37-P: . Binary mixture separation (neutral + acid or base) Paper CEMHGEC01P: Qualitative Analysis of Single carbonyl (no distinction of –CHO and >C=O needed), -OH (phenolic) in solid organic compounds.	to Claisen and Cope rearrangements, PG Core -02: Organic Chemistry – 1: Application of ¹H NMR and ¹³C NMR for structure elucidation. Core -12: Organic Chemistry – 3: Hofmann-Löffler-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 VII Course : CEMAP 37-P: <u>Unknown</u> Binary mixture separation (neutral + acid or base) Paper CEMHGEC01P: Qualitative determination unknown solid compounds	Paper III CEMAT 23-OA: Organonitrogen compounds: synthetic applications Paper VI Courses : CEMAT 36-OA: Ene reaction 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.

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

Teaching Plan for Odd Semester, UG & PG course

Department of Chemistry

Session (2019-20)

Class: B.Sc. and M.Sc.

Semester: I, III/ Part- III

Name of the Teacher: Susanta Kumar Manna

Subject: Chemistry

**Paper: CEMACOR01 (UG SEM-I),CEMACOR07 (UG SEM-III),CEMGCOR01 (UG SEM-IGE),
CEMHGEC03 (UG SEM-III GE), CEMAT36OB & CEMAP 37-Pr (UG Part-III), CHEMCOR02 &
CHEMCOR05 (PG SEM-I) and Paper-X (PG SEM-III)**

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	CEMACOR01: Functional group detection aldehyde , ketone, acid, nitro (known samples) CHEMGEC03: Identification of pure organic compound (known solid) CHEMCOR05: Purification and drying of organic solvents CHCl ₃	PAPER-II: Pericyclic reaction: features, Woodward-Homann selection rules CEMACOR07: Aromatic electrophilic substitution: Orientation and reactivity, nitration, Mechanism CEMGCOR01: Aliphatic hydrocarbon, alkane, alkene, alkyne
Week 5 to week 8	CEMACOR01: Functional group detection aldehyde , ketone, acid, nitro (known samples) CHEMGEC03: Identification of pure organic compound (unknown solid) CHEMCOR05: DCM	CEMGCOR01: Aliphatic hydrocarbon, alkane: structure, synthesis and reactivity CEMACOR07: Sulphonation, halogenation Paper-II: Electrocyclic reaction with F.M.O approach
Week 9 to Week 12	CEMACOR01: Functional group detection CHEMGEC03: Identification of pure organic compound (known liquid) CHEMCOR05: Toluene	CEMGCOR01: Alkene: structure, synthesis and reactivity Paper-II: Cycloaddition, reverse cycloaddition CEMACOR07: Ipso substitution
Week 13	CEMACOR01: Functional group detection CHEMGEC03: Identification of pure organic compound (unknown liquid) CHEMCOR05: THF	CEMGCOR01: Alkyne : structure, synthesis and reactivity CEMACOR07: Nucleophilic substitution Paper-II: Sigmatropic rearrangement 1,3H, 1,5H suprafacial shift.
Week 14	Internal Exam	
Week 15 to 17	CEMACOR01: Functional group detection (unknown sample) CHEMGEC03: Identification of pure organic compound (unknown liquid) CHEMCOR05: Et ₃ N	CEMGCOR01: SN1, SN2, E1,E2 CEMACOR07: benzyne PAPER-II: Cope &Claisen rearrangements
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 (2018-19)

Class: B.Sc. and M.Sc.

Old Part –III

Semester: 1, 3, 5

Subject: Chemistry

Name of the Teacher: Arup Kumar Adak

Paper: CEMAT 35-AA (Old Part-III), CEMACOR06 (UG SEM-III), CEMACOR11 (UG SEM-V), CHEMCOR01 (PG SEM-I) and CHEMCOR11 (PG SEM-III)

SI No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	CHEMCOR01P: Spectrophotometric Determination of: Fe(III) by sulphosalicylic acid and thiocyanate method	CEMAT 35-AA: 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) CHEMCOR01T(PG): Basic principle, instrumentation, special futures of Polarography CHEMCOR11T:: Nuclear stability, terrestriall abundance, distribution, relativistic effect of <i>f- Block Elements</i>
Week 5 to week 8	CHEMCOR01P: Spectrophotometric Determination of: Mn(II) by periodate oxidation method	CEMAT 35-AA: Applications of 18-electron rule to metal carbonyls, nitrosyls, cyanides CHEMCOR01T: Group multiplication tables and the rearrangement theorem. CHEMCOR11T: Electronic configuration,oxidation states,aqueous-,redox-andcomplex-chemistry of <i>f- BlockElements</i>
Week 9 to Week 12	CHEMCOR01P: Synthesis of Reinicke's salt	CEMAT 35-AA: General methods of preparation of mono and binuclear carbonyls of 3d series.Structures of mononuclear and binuclear carbonyls. CHEMCOR01T(PG) : Special futures of Polarography and Ilkovic equation, half wave potential and its significance, CHEMCOR11T : Air pollution by CO, CO ₂ , NO _x , SO ₂ , H ₂ S, O ₃ , hydrocarbons (HC), PAN, PAH CFC'S.
Week 13	CHEMCOR01P: Synthesis of <i>bis</i> (biguanido) copper(II) sulphate.	CEMAT 35-AA: Pi-acceptor behaviour of CO, synergic effect and use of IR data to explain extent of back bonding CHEMCOR01T(PG): Electro-analytical method : Basic principle, instrumentation, special futures of ion selective electrode CHEMCOR11T: Electronicspectra and magnetic properties. Lanthanide and actinide contractions and their consequences, separationof lanthanidesandactinidesand theirapplications(examples) of of <i>f- BlockElements</i>
Week13 to week 14		Internal Exam
Week 15 to 17		CEMAT 35-AA: Reactions of organometallic complexes: substitution, oxidative addition, reductive elimination and insertion reactions CEMADSE02T: Determination of composition of metal complexes using Job's method of continuous variation and mole ratio method. CHEMCOR01T (PG) : Electroanalytical method : Basic principle, instrumentation, special futures of cyclic voltametry and special futures of ampherometric titration, CHEMCOR11T: General Comparison on magnetic properties of lanthanoids and actinoids.
Week 18	Revision and Practice	Problem solving

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA**Teaching Plan for Odd Semester, UG & PG course****Department of Chemistry****Session (2019-20)****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)**

SI 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, Fluorescence 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).	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.

	CHEMCOR01P: Synthesis of Reinicke's salt	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 $\lambda_{\max}$ 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 of 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 (2019-20)****Class: B.Sc. and M.Sc.****(1+1+1) system Part-III****Semester: 1, 3****Subject: Chemistry****Name of the Teacher: Rituparna Biswas****Paper: CEMAT 35-AA: (Part-III), CEMACOR06 (UG SEM-III), SEC-02T (UG SEM -III), CHEMCOR01 (PG SEM-I) and CHEMCOR11 (PG SEM-III)**

SI No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	CEMACOR06P: Estimation of Cu(II) CHEMCOR01P: Spectrophotometric Determination of: Fe(III) by sulphosalicylic acid and thiocyanate method	CEMAT 35-AA: Metal ion transport across biological membrane Na ⁺ -ion pump CEMACOR06T: radius ratio rule and its application and limitations. SEC-02T: Composition of soil, Concept of pH and pH measurement, Complexometric titrations, Chelation, Chelating agents, use of indicators 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 CHEMCOR01P: Spectrophotometric Determination of: Mn(II) by periodate oxidation method	CEMAT 35-AA: Biological functions of hemoglobin and myoglobin, cytochromes and ferredoxins CEMACOR06T: Born-Landé equation with derivation and importance of Kapustinskii expression for lattice energy. SEC-02T: Estimation of Calcium and Magnesium ions as Calcium carbonate by complexometric 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. CHEMCOR01P: Synthesis of Reinicke's salt	CEMAT 35-AA: Carbonate bicarbonate buffering system and carbonicanhydrase. CEMACOR06T: Madelung constant, Born-Haber cycle SEC-02T: Definition of pure water, sources responsible for contaminating water, water purification methods. 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 <i>bis</i> (biguanido) copper(II) sulphate.	CEMAT 35-AA: Biological nitrogen fixation, Photosynthesis: Photosystem-I and Photosystem-II CEMACOR06T: Born-Haber cycle and its application. SEC-02T: Determination of pH, acidity and alkalinity of a water sample. 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.	CEMAT 35-AA: Toxic metal ions and their effects, chelation therapy , Pt and Au complexes as drugs and metal dependent diseases. CEMACOR06T: Defects in solids, Solubility energetics of dissolution process. CEMADSE02T: Determination of dissolved oxygen (DO) of a water sample.

		CHEMCOR01T: reducible and irreducible representations, the “Great Orthogonality Theorem” CHEMCOR11T: Spectrophotometric and pH metric determination of binary formation constants.
Week 18	Practice	Revision and Problem solving

BIDHANNAGAR COLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA**Teaching Plan for Even Semester, UG and PG courses****Department of Chemistry****Session (2019-20)****Class: B.Sc. and M.Sc.****Semester: 2, 4, B. Sc. H Pt-III****Name of the Teacher: Dr. Nikhil Ranjan Pramanik****Subject: Chemistry****Paper: CEMACOR08T&P (UG SEM-IV), CEMAP 37-Pr and CEMAT 36-PA and PB (B. Sc Part-III H), CHEMCOR08 and, CHEMCOR10 (PG SEM-II) and Paper XVI, XVII and XIV (PG SEM-IV).**

SI 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. B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Exp-8 and 9. CHEMCOR10: Practical -4: Physical Chemistry Practical II: Discussion of principles of Physical experiments and Exp-1. Paper XVI (Physical Special Practical): Discussion of principles of experiments. Exp-1 and 2.	CEMACOR08T: Physical Chemistry –III: Application of Thermodynamics- II: Colligative properties. CEMAT 36-PB: Phase equilibria and colligative properties: Introduction, definition of phase, component and degrees of freedom. CHEMCOR08: Physical Chemistry -2: Chemical Kinetics. Introduction: Enzyme catalysis. Paper XIV (Physical Special –1): Nanomaterials: Definition, classification and properties.
Week 5 to week 8	CEMACOR08P: Physical Chemistry –III Lab: Physical experiments: Exp-3 and 4. B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Exp-10 and 11. CHEMCOR10: Practical -4: Physical Chemistry Practical II: Physical experiments: Exp 2 and Exp-3. Paper XVI (Physical Special Practical): Physical experiments: Exp-3 and 4	CEMACOR08T: Physical Chemistry –III: Application of Thermodynamics- II: Phase rule-Part 1.. CEMAT 36-PB: Phase equilibria and colligative properties: Phase rule and its derivation, phase diagram. CHEMCOR08: Physical Chemistry -2: Chemical Kinetics: Characteristics and mechanism of enzyme catalysis. Paper XIV (Physical Special –1): Relevance to dependency on size and shape.
Week 9 to Week 12	CEMACOR08P: Physical Chemistry –III Lab: Physical experiments: Exp-5 and 6. B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Exp-12 and 13 CHEMCOR10: Practical -4: Physical Chemistry Practical II: Physical experiments: Exp 4. Paper XVI (Physical Special Practical): Physical experiments: Exp-5,6 and 7.	CEMACOR08T: Physical Chemistry –III: Application of Thermodynamics- II: Phase rule-Part 2. CEMAT 36-PB: Phase equilibria and colligative properties: Phase equilibria for one component system and first order phase transition. CHEMCOR08: Physical Chemistry -2: Chemical Kinetics: Surface reactions and kinetics Paper XIV (Physical Special –1): Synthetic methodologies – both physical and chemical methods
Week 13	CEMACOR08P: Physical Chemistry –III Lab: Revision of Physical experiments. B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Exp-14. CHEMCOR10: Revision Physical Experiments. Paper XVII (Physical Project):	CEMACOR08T: Physical Chemistry –III: Application of Thermodynamics- II: Binary solutions. CEMAT 36-PB: Phase equilibria and colligative properties: Thermodynamic derivation of colligative properties and their inter-relationships. CHEMCOR08: Physical Chemistry -2: Chemical Kinetics: Micelles, micellar catalysis and its application. Paper XIV (Physical Special –1): Carbon nanotubes, fullerene

	Physical Project.	,graphene
Week13 to week 14 Internal Exam		
Week 15 to 17	CEMACOR08P: Physical Chemistry –III Lab: Tutorial on Principles and experiments of Physical chemistry. B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Revisions of experiments.. CHEMCOR10: Practical -4: Physical Chemistry Practical II: Tutorial on Principles and experiments of Physical Chemistry Experiments. Paper XVII (Physical Project): Physical Project	CEMACOR08T: Physical Chemistry –III: Application of Thermodynamics- II: Tutorial on Application of thermodynamics. CEMAT 36-PB: Phase equilibria and colligative properties: Tutorial on phase equilibria and colligative properties. CHEMCOR08: Physical Chemistry -2: Chemical Kinetics: Kinetics of fast reactions. Paper XIV (Physical Special –1): Applications of nanomaterials and nanotechnology.
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 (2019-20)

Class: B.Sc. and M.Sc.

Semester: 2, 4, B. Sc. H Pt-III

Name of the Teacher: Dr. Sanat Kumar Saha

Subject: Chemistry

Paper: CEMACOR08T&P (UG SEM-IV), CEMAT 36 PB &CEMAP 37-Pr (B. Sc. H.Pt-III) , CHEMCOR08 and CHEMCOR10 (PG SEM-II), Paper-XV, Paper-XVI & Paper-XVII (PG SEM-IV)

SI 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. B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Exp-8 and 9. CHEMCOR10: Practical -4: Physical Chemistry Practical II: Discussion of principles of Physical experiments and Exp-1. Paper XVI (Physical Special Practical): Discussion of principles of experiments. Exp-1 and 2.	CEMACOR08T: Physical Chemistry –III: Electrical properties of molecules: Ionic equilibria, Electromotive force CEMAT 36 PB: Properties of Solid, Interface and Dielectrics: Crystallography: Principle, classification and analysis. CHEMCOR08: Physical Chemistry -2: Statistical Thermodynamics I: Introduction, Ensembles, Maxwell Boltzman distribution. Paper-XV (Physical Special -2): 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. B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Exp-10 and 11. CHEMCOR10: Practical -4: Physical Chemistry Practical II: Physical experiments: Exp 2 and Exp-3. Paper XVI (Physical Special Practical): Physical experiments: Exp-3 and 4	CEMACOR08T: Physical Chemistry –III: Electrical properties of molecules: Dipole moment and polarizability CEMAT 36 PB: Properties of Solid, Interface and Dielectrics: Crystallography: Crystal structure of NaCl and KCl, Liquid crystal, Surface dynamics CHEMCOR08: Physical Chemistry -2: Statistical Thermodynamics I: The molecular partition function and thermodynamic properties. Paper-XV (Physical Special -2): 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. B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Exp-12 and 13 CHEMCOR10: Practical -4: Physical Chemistry Practical II: Physical experiments: Exp 4. Paper XVI (Physical Special Practical): Physical experiments: Exp-5,6 and 7.	CEMACOR08T: Physical Chemistry –III: Quantum chemistry: Angular momentum, Hydrogen and Hydrogen-like atom CEMAT 36 PB: Properties of Solid, Interface and Dielectrics: Adsorption, Heterogeneous catalysis CHEMCOR08: Physical Chemistry -2: Statistical Thermodynamics I: Factorisation of molecular partition function. Paper-XV (Physical Special -2): Non- equilibrium Thermodynamics: Phenomenological equations, equivalent systems. Derivation of Onsager Reciprocity Relation
Week 13	CEMACOR08P: Physical Chemistry –III Lab: Revision of Physical experiments. B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Exp-14. CHEMCOR10: Practical -4: Physical Chemistry Practical II: Revision of Physical Experiments. Paper XVII (Physical Project):	CEMACOR08T: Physical Chemistry –III: Quantum chemistry: LCAO and HF-SCF method CEMAT 36 PB: Properties of Solid, Interface and Dielectrics: Electrical properties of molecules: Polarizability and dipole moments. CHEMCOR08: Physical Chemistry -2: Statistical Thermodynamics I : Thermodynamic properties of ideal gases. Paper-XV (Physical Special -2): Non- equilibrium

	Physical Project.	Thermodynamics: Onsager Reciprocity Relation: Examples and illustrations illustrations
Week13 to week 14		Internal Exam
Week 15 to 17	CEMACOR08P: Physical Chemistry –III Lab: Tutorial on Principles and experiments of Physical chemistry. B. Sc Part-III(H): CEMAP 37-Pr: Physical Experiments: Revisions of experiments.. CHEMCOR10: Practical -4: Physical Chemistry Practical II: Tutorial on Principles and experiments of Physical Chemistry Experiments. Paper XVII (Physical Project): Physical Project	CEMACOR08T: Physical Chemistry –III: Tutorial on electrical properties of molecules and Quantum chemistry. CEMAT 36 PB: Properties of Solid, Interface and Dielectrics: Tutorial on crystallography, adsorption and polarizability. CHEMCOR08: Physical Chemistry -2: Statistical Thermodynamics I : Calculation of equilibrium constant of gaseous reaction in terms of partition function. Paper-XV (Physical Special -2): 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 (2019-20)****Class: B.Sc. and M.Sc.****Semester: 2,4/ Part-III****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), CEMAT35AA& CEMAT-38Pr (UG Part-III),CHEMCOR07&CHEMCOR10 (PG SEM-II) and Paper-XIIB, Paper-XIV, Paper-XV & Paper-XVII (PG SEM-IV)

SI No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	CEMACOR04: Organic Preparations (1-3) CEMAP 38-Pr: Organic Preparation-Nitration& condensation CHEMCOR10: Separation, purification and identification of organic compounds in binary mixtures (Known samples) Paper-XIIB: Organic synthesis	CEMACOR10: Rearrangement to electron-deficient carbon CEMSSEC002: Carbohydrate CEMHGEC04: Solutions (1 st part) CEMAT35AA: Structure of proteins, enzymes & co-enzymes CHEMCOR07: Heterocyclic Chemistry: Hantzsch-Widman nomenclature Paper-XIV: Proteins
Week 5 to week 8	CEMACOR04: Organic Preparations (4-6) CEMAP 38-Pr: Organic Preparation-Hydrolysis & Oxidation CHEMCOR10: Separation, purification and identification of organic compounds in binary mixtures (2 unknown samples) Paper-XIIB: Organic synthesis	CEMACOR10: Rearrangement to electron-deficient nitrogen CEMSSEC002: Protein CEMHGEC04: Solutions (2 nd part) CEMAT35AA: nucleic acids: structure of nucleosides and nucleotides, DNA, RNA CHEMCOR07: Pyrrole-Synthesis & Reactivity Paper-XIV: Carbohydrates
Week 9 to Week 12	CEMACOR04: Organic Preparations (7-9) CEMAP 38-Pr: Organic Preparation-Halogenation & acetylation CHEMCOR10: Separation, purification and identification of organic compounds in binary mixtures (2 unknown samples) Paper-XVII: Project work	CEMACOR10: Aromatic rearrangements CEMSSEC002: Enzyme CEMHGEC04: Phase rule CEMAT35AA: Complementary base pairings, elementary idea of double helical structure of DNA CHEMCOR07: Furan--Synthesis & Reactivity Paper-XV: Bioorganic Chemistry- mechanism of enzyme action & enzyme catalysed reactions
Week 13	CEMACOR04: Organic Preparations (10) CEMAP 38-Pr: Organic Preparation-Crystallization and M.P. determination CHEMCOR10: Separation, purification and identification of organic compounds in binary mixtures (1 unknown samples) Paper-XVII: Project work	CEMACOR10: Rearrangement to electron-deficient oxygen CEMSSEC002: Biocatalysis CEMHGEC04: Phase diagram (one component system) CEMAT35AA: Naturation and denaturation of protein CHEMCOR07: Thiophene-Synthesis & Reactivity Paper-XV: Mechanism of reactions catalysed by cofactors-coenzyme A
Week13 to week 14 Internal Exam		
Week 15 to 17	CEMACOR04: Organic Preparations (11) CEMAP 38-Pr: Organic Preparation-Crystallization and M.P. determination CHEMCOR10: Separation, purification and identification of organic compounds in binary mixtures (1 unknown samples) Paper-XVII: Project work	CEMACOR10: Rearrangement reactions by green approach CEMSSEC002: Biochemistry of disease CEMHGEC04: Phase diagram (two component system) CEMAT35AA: Revision and question paper solving CHEMCOR07: heterocycles in organic synthesis-Masked functionalities Paper-XV: Mechanism of reactions catalysed by cofactors-coenzyme A, NAD ⁺ , NADH. FAD and thiamine pyrophosphate.
Week 18	Class test	Problem solving

Teaching Plan for Even Semester, UG & PG course

Department of Chemistry

Session (2019-20)

Class: B.Sc. and M.Sc.

Semester: 2,4/ Part-III

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), CEMAT35AA & CEMAT-38Pr (UG Part-III), CHEMCOR07 & CHEMCOR10 (PG SEM-II) and Paper-XIIB, Paper-XIV, Paper-XV & Paper-XVII (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) CEMAP 38-Pr: Organic Preparation- Nitration & condensation CHEMCOR10: Separation and identification of organic compounds in binary mixtures (Known samples) Paper-XIIB: Organic synthesis	CEMACOR04: Chirality due to stereo-axis CEMACOR10: Nitro compounds: aliphatic & aromatic CEMSSEC002: Lipids CEMHGEC04: Conductance, cell constant, specific conductance: variation with dilution CHEMCOR07: Reduction using boron compounds Paper-XIV: Bacterial and animal cells, mode of action of antibacterial agents, Sulfonamides
Week 5 to week 8	CEMACOR04: Organic Preparations (4-6) CEMAP 38-Pr: Organic Preparation- Hydrolysis & Oxidation CHEMCOR10: Separation and identification of organic compounds in binary mixtures (2 unknown samples) Paper-XIIB: Organic synthesis	CEMACOR04: Concept of pro-stereoisomerism CEMACOR10: Amines: Aliphatic CEMSSEC002: Lipoprotein CEMHGEC04: Conductance at infinite dilution and their determination for strong and weak electrolytes CHEMCOR07: Hydroboration and its application Paper-XIV: β -lactum antibiotics
Week 9 to Week 12	CEMACOR04: Organic Preparations (7-9) CEMAP 38-Pr: Organic Preparation- Halogenation & acetylation CHEMCOR10: Separation, identification of organic compounds in binary mixtures (2 unknown samples) Paper-XVII: Project work	CEMACOR04: Conformational: nomenclature, energy barrier, stability CEMACOR10: Amines: Aromatic EMSSEC002: Structure and biological role of DNA and RNA CEMHGEC04: Application of conductance measurement CHEMCOR07: Organoborane compds Paper-XIV: 2 nd generation antibiotics
Week 13	CEMACOR04: Organic Preparations (10) CEMAP 38-Pr: Organic Preparation- Crystallization and M.P. determination CHEMCOR10: Separation and identification of organic compounds in binary mixtures (1 unknown samples) Paper-XVII: Project work	CEMACOR04: Strains in molecules CEMACOR10: Alkyl nitrile and isonitrile CEMSSEC002: Replication, Transcription and Translation CEMHGEC04: Transport Number CHEMCOR07: Unsaturated hydrocarbon synthesis Paper-XIV: Anti-AIDS drugs
Week 13 to week 14 Internal Exam		
Week 15 to 17	CEMACOR04: Organic Preparations (11) CEMAP 38-Pr: Organic Preparation- Crystallization and M.P. determination CHEMCOR10: Separation and identification of organic compounds in binary mixtures (1 unknown samples) Paper-XVII: Project work	CEMACOR04: Conformational analysis of selected alkanes and haloalkanes CEMACOR10: Diazonium salts and their related compounds CEMSSEC002: Introduction to Gene therapy CEMHGEC04: Electromotive force CHEMCOR07: Rearrangements of organoboranes Paper-XIV: Omeprazole, Prostaglandins- structure and synthesis
Week 18	Class test	Problem solving

Teaching Plan for even Semester, UG & PG course

Department of Chemistry

Session (2018-2019)

Class: B.A/ B.Sc

Semester 2, 4 & UG Part III

Name of the Teacher: Dr. Shubhankar Samanta

Subject:

Paper : CEMACOR04P, CEMAP 37-P, CEMACOR04T, CEMACOR10T, CEMAT 36-OA, Core -05, Core-07, PG-4-

DSE, 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	Paper VII Course : CEMAP 37-P: <u>Unknown</u> Binary mixture separation (neutral + acid or base) CEMACOR04P: Estimation of glycine by Sørensen's formol method 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) Paper VI Courses : CEMAT 36-OA: Pericyclic reaction: Interesting Problems and Solution 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	Paper VII Course : CEMAP 37-P: <u>Unknown</u> Binary mixture separation (neutral + acid or base) CEMACOR04P: Estimation of glucose by titration using Fehling's solution Estimation of vitamin-C (reduced) 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: 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. Paper VI Courses : CEMAT 36-OA: Pericyclic reaction: Interesting Problems and Solution Core -07: Organic Chemistry – 2, PG2: Organosulphur: Sulphonium salts, Sulphonium and sulfoxonium ylides PG4-DSE: Advanced NMR spectroscopy. Application of TOCSY, NOESY
Week 9 to Week 12	Paper VII Course : CEMAP 37-P: <u>Unknown</u> Binary mixture separation (neutral + acid or base) CEMACOR04P: Estimation of formaldehyde (Formalin) Estimation of acetic acid in commercial vinegar Core -05: Practical – 2: Solvent Distillation DSE – 03 – Laboratory Experiment & Research Project: Project Work &	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. Paper VI Courses : CEMAT 36-OA: Pericyclic reaction: Interesting Problems and Solution Core -07: Organic Chemistry – 2, PG2: Organosilicon Compounds

	Separation, purification and identification of organic compounds in binary mixtures	PG4-DSE: Advanced NMR spectroscopy. Application of HMBC, HSQC
Week 13	Paper VII Course : CEMAP 37-P: <u>Unknown</u> Binary mixture separation (neutral + acid or base) CEMACOR04P: Estimation of Aniline Estimation of Phenol Core -05: Practical – 2: Solvent Distillation DSE – 03 – Laboratory Experiment & Research Project: Project Work & Separation, purification and identification of organic compounds in binary mixtures CEMGP 23A, 23B: Qualitative Analysis of Single Organic Compound (Solid) Test for Unknown solid	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. Paper VI Courses : CEMAT 36-OA: Pericyclic reaction: Interesting Problems and Solution 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	Paper VII Course : CEMAP 37-P: <u>Unknown</u> Binary mixture separation (neutral + acid or base) CEMACOR04P: Estimation of Unknown sample solution Core -05: Practical – 2: Solvent Distillation DSE – 03 – Laboratory Experiment & Research Project: Project Work & Separation, purification and identification of organic compounds in binary mixtures CEMGP 23A, 23B: Qualitative Analysis of Single Organic Compound (Solid) Test for Unknown solid	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. Paper VI Courses : CEMAT 36-OA: Pericyclic reaction: Interesting Problems and Solution 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 Even Semester, UG & PG course****Department of Chemistry****Session (2019-20)****Class: B.Sc. and M.Sc.****Semester: II, IV/Part III****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), CEMAT35AA & CEMAT-38Pr (UG Part-III), CHEMCOR07 & CHEMCOR10 (PG SEM-II) and Paper-XIIB, Paper-XIV, Paper-XV & Paper-XVII (PG SEM-IV)

Sl No	Practical syllabus to be covered	Theory syllabus to be covered
Week 1 to week 4	CEMGP 23A: Qualitative analysis of solid single organic compound (known samples) CEMACOR10: Estimation(2)	CEMACOR04: Elimination reaction, Subs Vs elimination CEMAT 35AB: Biorganic chemistry, Primary structure of protein Paper-XIV: Advanced pericyclic reaction, PMO theory
Week 5 to week 8	CEMGP 23A: Qualitative analysis of solid single organic compound (known samples) CEMACOR10: Estimation (2)	CEMACOR04: E1, E2, E1CB CEMAT 35AB: Biorganic chemistry, Secondary, tertiary, quaternary structure of protein Paper-XIV: Correlation diagram
Week 9 to Week 12	CEMGP 23A: Qualitative analysis of solid single organic compound (unknown samples) Paper-XVII: Project work CEMACOR10: Estimation (2)	CEMACOR04: Ei, mechanism , CEMAT 35AB: Biorganic chemistry, Secondary, tertiary, Paper-XIV: cycloaddition 3 component, 4 component
Week 13	CEMGP 23A: Qualitative analysis of solid single organic compound (unknown samples) Paper-XVII: Project work CEMACOR10: Estimation (2)	CEMACOR04: Hoffmann and Saytzeff CEMAT 35AB: quaternary structure of protein, example, Nucleoside, nucleotide Paper-XIV: Sigmatropic [1,3]H, [1,5]H shift
Week 13 to week 14 Internal Exam		
Week 15 to 17	CEMGP 23A: Qualitative analysis of liquid single organic compound (unknown samples) Paper-XVII: Project work CEMACOR10: Estimation (2)	CEMACOR04: question answer discussion, bedt's rule CEMAT 35AB: DNA, RNA, Watson crick model Paper-XIV: [3,3], [5,5], [2,3] sigmatropic rearrangement
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 (2019-20)

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)**

SI 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+}, $\text{Mn}^{2+}/\text{Mn}^{4+}$ 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, NO_x 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 $\text{K}_2\text{Cr}_2\text{O}_7$ solution. CEMACOR09P: Zn(II) in a Zn(II) and Cu(II) mixture. CHEMCOR13P: Qualitative semimicro analysis of mixtures containing four radicals: Fe^{3+}, $\text{Co}^{2+}/\text{Co}^{3+}$, Ni^{2+}, Cu^{2+}, Zn^{2+}, Pb^{2+}, Cd^{2+}, Bi^{3+}, $\text{Sn}^{2+}/\text{Sn}^{4+}$, $\text{As}^{3+}/\text{As}^{5+}$, $\text{Sb}^{3+}/\text{Sb}^{5+}$, NH_4^+, Mg^{2+}. CEMGEP2: Inorganic Chemistry-LAB Qualitative semimicro analysis of mixtures containing three radicals.	CEMACOR03T: Slater's rules, atomic radii, ionic radii (Pauling's univalent), covalent radii, lanthanide contraction. Ionization potential, electron affinity CEMACOR09T: preparation and properties of XeF_2, XeF_4 and XeF_6 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.

	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. 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-}, $Cr_2O_7^{2-}$, $[Fe(CN)_6^{4-}]$, $[Fe(CN)_6^{3-}]$.	CHEMCOR06 (PG SEM-II): application to homo- and hetero- nuclear diatomic molecules/ ions of second period 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 their role 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	CEMACOR03T: group electronegativities. Group trends and periodic trends in these properties in respect of s-, p- and d-block elements CEMACOR09T: MO treatment for XeF_2 and XeF_4). 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 :

	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).	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 $\text{K}_2\text{Cr}_2\text{O}_7$. CEMACOR09P: Preparation of $[\text{Mn}(\text{acac})_3]$ and $[\text{Fe}(\text{acac})_3]$ (acac= acetylacetonate) CEMACOR13P: Qualitative semimicro analysis of mixtures containing four radicals: Insoluble Materials: $\text{Al}_2\text{O}_3(\text{ig})$, $\text{Fe}_2\text{O}_3(\text{ig})$, $\text{Cr}_2\text{O}_3(\text{ig})$, 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).	CEMACOR03T: Secondary periodicity, Relativistic Effect, Inert pair effect. CEMACOR09T: Molecular shapes of noble gas compounds (VSEPR theory). CEMACOR13T: Reactions of organometallic complexes: insertion reactions. 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

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

Teaching Plan for Odd Semester, UG & PG course

Department of Chemistry

Session (2019-20)

Class: B.Sc and M.Sc.

Semester: 2,4

Name of the Teacher: Rituparna Biswas

Subject: Chemistry

Paper: CEMACOR03 (UG SEM-II), CEMACOR09 (UG SEM-IV), CHEMCOR06 (PG SEM-II) and CHEMCOR15 (PG SEM-IV)

SI 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 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 $\text{K}_2\text{Cr}_2\text{O}_7$ 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, 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 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 $\text{K}_2\text{Cr}_2\text{O}_7$. CEMACOR09P: Hardness of water. CHEMCOR15P: Determination of the rates of consecutive aquation of the complex, $\text{H}[\text{Co(III)(DMGH)}_2\text{Cl}_2]$, by conductance method	CEMACOR03T: Redox potential diagram (Latimer and Frost diagrams) CEMACOR09T: Isomerism in coordination compounds, constitutional and stereo isomerism 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 $\text{K}_2\text{Cr}_2\text{O}_7$. CEMACOR09P: Preparation of $[\text{Mn}(\text{acac})_3]$ and $[\text{Fe}(\text{acac})_3]$ (acac=	CEMACOR03T: Disproportionation and comproportionation reactions. CEMACOR09T: Geometrical and optical isomerism in square planar and octahedral complexes. CHEMCOR06T: oxo compounds of Ru and Os,

	acetylacetonate)	CHEMCOR15T: Quenching of magnetic moments, low spin-high spin crosser. Magnetic behaviour of Lanthanides and actinides.
Week 18	Practice	Revision and Problem solving

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

Teaching Plan for Odd Semester, UG & PG course

Department of Microbiology: Session (2019-20)

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. Part III (UG): Paper –V: Microbial culture selection by screening method with reference to the Antibiotic and Enzyme production. 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 (<i>Penicillium notatum</i> , <i>Aspergillus niger</i>)	UG 1 (CBCS): Paper – MCBCOR01T: Difference between prokaryotic and eukaryotic microorganisms UG 3 (CBCS): Paper – MCBCOR 05T: Hydrogen oxidation (definition and reaction) Part III (UG): Paper –V: Strain improvement, 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 (<i>Allium cepa</i> 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) Part III (UG): Paper –V: equipment and instrumentation fermenters-General description 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 (<i>Allium cepa</i> 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 Part III (UG): Paper –V: General method of preservation of industrially important culture strains 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 Part III (UG): Paper :V: Packed-bed Bioreactor 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 (2019-20)

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 Part III (UG): Paper :V: Stirred Tank Fermentor 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 MCBACOR 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,. Part III (UG): PaperV: , Bubble column fermenter 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 – MCBACOR04T: 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,. Part III (UG): Paper - V: Air Lift Fermentor PG Sem 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 – MCBACOR04T: 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. Part III (UG): Paper - V: Industrial Microbiology Revision PG Sem II: Paper 10: enzymes and their biotechnological applications in: (i) biopulping, (ii) biobleaching, (iii) textiles (iv) biofuels, (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 – MCBACOR04T: Solid Waste management: Revision UG 4 (CBCS): MCBACOR10T: Revision Part III (UG): Paper - V: Industrial Microbiology 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 \(2019-20 \)](#)

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

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: MCBCOR05T: Fermentative pathways: homo-lactate, hetero-lactate fermentation Part III (UG): Paper –V: Transposons & its mechanism, TN family 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, O ₂ & CO ₂ concentration etc. UG III: MCBCOR05T: Mixed acid & Alcohol fermentation pathways 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: 6. one-tail t-test 7. chi square test 8. concept of probability, degrees of freedom 9. Analysis of variance (ANOVA)	UG 1 (CBCS): Paper – MCBCOR02T: Chemical factors of growth: Acid, alkali, salt, detergent, alcohol, heavy metals etc. UG III: MCBCOR05T: Fermentative pathways: Revision Part III (UG): Paper –V: RDT: types & mechanism of vectors 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 <i>Saccharomyces cerevisiae</i>	UG 1 (CBCS): Paper – MCBCOR02T: Batch & continuous culture: Chemostat & turbidostat UG III: MCBCOR05T: Fermentative pathways: Question-answer discussion of previous University exams 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
Week 13 to week 14		Internal Exam
Week 15 to 17	Mock Viva-voce from the practical	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 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

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

Teaching Plan for even Semester, UG/PG course

Department of Microbiology [Session \(2019-20\)](#)

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 (Blended mode: Offline +online)

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: Demonstration of 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 Part III (UG): Paper :V: RDT: Southern, Northern & Western blot 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): Paper MCBCOR03T: Numerical problems: pH ,buffers UG 4 (CBCS): Paper MCBSEC: Water microbiology: MPN test, presumptive, confirmed & completed test Part III (UG): PaperV: Applications of RDT: RFLP, RAPD, fingerprint 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 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, isoelectric 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 & PG courses

Department of Microbiology

Session (2019-2020)

Class: B.Sc/M.Sc.

UG Semester 1,3, Part 3, PG1 and PG3 (CBCS) Name of the Teacher: Dr. Rini Roy

Subject: Microbiology

Paper : cc1, cc5, Paper 6 and paper 7, PG paper 1 and Paper 11 (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	UG3 (CBCS) Paper MCBACOR05P: Microbial Physiology and Metabolism 1. Effect of temperature on growth of <i>E. coli</i> 2. Effect of pH on growth of <i>E. coli</i> 3. Effect of carbon and nitrogen sources on the growth of <i>E. coli</i> Part 3 (UG) Paper 7: 1. Separation of Amino Acids and monosaccharides by paper chromatography and by TLC. 2. Standard curve of: a) reducing sugars b) para nitrophenol c) protein (Bradford and Lowry) d) Ammonia (Nessler method)	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 UG3 (CBCS) Paper MCBACOR05T: Microbial Physiology and Metabolism: EMP, ED, Pentose phosphate pathway TCA cycle 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. Part 3 (UG), Paper VI, Group B: Overview of Immune system, cells and organs of the immune system 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 <i>E. coli</i> 5. Demonstration of alcoholic fermentation Part 3 (UG) Paper 7: Determination of K_m V_{max} and pH optima of Alkaline phosphatase, Progress curve of Alkaline phosphatase	UG1 (CBCS) Paper MCBACOR01T: 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 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	Part 3 (UG) Paper 7: Determination of K_m V_{max} and pH optima of urease.	Part 3 (UG), Paper 6, Group B: Overview of Immune System, complement, Antibody antigen interaction 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	Part 3 (UG) Paper 7: Determination of Km Vmax and pH optima of alpha-amylase.	Part 3 (UG), Paper 6, Group B: Overview of Immune System, Hypersensitivity PG1: Paper 1: Biomolecules & Enzymology: Allosteric Enzymes and Feedback Inhibition
Week13 to week 14		Internal Exam
Week 15 to 17	Industry Visit and copy checking	PG1: Paper 1: Biomolecules & Enzymology: Isozymes, Abzymes. Regulation of enzymes. Industrial application of several enzymes. Ribozymes
Week 18	Revision, Practise	Revision

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

Teaching Plan for Even Semester, UG & PG courses

Department of Microbiology

Session (2019-2020)

Class: B.Sc/ M.Sc.

Semester 2, 4, (UG) and PG2 and PG 4

Name of the Teacher: Dr. Rini Roy

Subject: Microbiology

Paper : cc3, Sec02 (UG), PG Paper 6 and Paper 16 (Theory and Practical)

Blended mode: Offline+online

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: Unit 2 Carbohydrates: 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 4 (CBCS) Paper MCBSEEC02M: 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 V_{max} , K_m , K_{cat} values	UG 2 (CBCS) Paper MCBACOR03T: Unit 2 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 Unit 4 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 MCBSEEC02M: 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 PG 2: Paper 6: Metabolism & Bioenergetics: Glycogenolysis and glycogen synthesis. TCA cycle, Entner-Doudoroff pathway, 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 of glycine	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 MCBSEEC02M: Microbiological analysis of air and water: Unit 3 Control Measures: Fate of bioaerosols, inactivation mechanisms – UV light, HEPA filters, desiccation, Incineration PG 4: Paper 16: Medical Microbiology: Human diseases: <i>Staphylococcus</i>, <i>Streptococcus</i>, Gastritis (<i>Helicobacter pylori</i>), <i>Clostridium</i>, Chlamydia
Week 13	Copy writing	UG 2 (CBCS) Paper MCBACOR03T: Unit 5. Enzymes: Significance of hyperbolic, double reciprocal plots of enzyme activity, K_m, and Definitions of terms – enzyme unit, specific activity and turnover number,
Week 13 to week 14		Internal Exam
Week 15 to 17	Copy checking	UG 2 (CBCS) Paper MCBACOR03T: Unit 5. Enzymes: allosteric mechanism, Multienzyme complex: pyruvate dehydrogenase; isozyme: lactate dehydrogenase, Effect of pH and temperature on enzyme activity. Enzyme inhibition: competitive- sulfa drugs; non-competitive-heavy metal salts PG 2: Paper 6: Nucleotide Metabolism: Biosynthesis of purine & pyrimidine (de novo & salvage pathways); degradation of purine & pyrimidine.
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 \(2019-20 \)](#)

Class: B.Sc/M.Sc.

Semester 1,3 (UG), 3rd year(UG) & 1,3 (PG) Name of the Teacher: Dr. Upal Das Ghosh

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	PG Sem III: Paper 15: Bioinformatics: Basic concept, Sequence alignment	UG 1 (CBCS): Paper – MCBCOR02T: Staining UG III: MCBCOR07T: DNA structure, Denaturation, Renaturation, topology Part III (UG): Paper :VI: Virology: General concept, Paper V: Genetics: Transformation 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 preparation	UG 1 (CBCS): Paper – MCBCOR02T: physical factors affecting growth: pH, temperature, pressure, O ₂ & CO ₂ concentration etc. UG III: MCBCOR07T: DNA Replication Part III (UG): Paper :VI: Virology: Lambda, T ₄ ; Paper V: Genetics: Conjugation 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 Part III (UG): Paper :VI: Virology: Oncogenic virus; Paper V: Genetics: Transduction PG Sem I: Paper 1: Gene mapping haploid system

		PG Sem III: paper 12- Genetics: DNA repair
Week 13		UG III: MCBCOR07T: RNA processing Part III (UG): Paper - V: Genetics: Structure of prokaryotic genome 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	Mock Viva-voce from the practical	UG III: MCBCOR07T: Revision Part III (UG): Paper – V & VI: Genetics: Revision PG Sem I: Paper 1: Revision PG Sem III: paper 12- Genetics: Transposon
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 (2019-20)

Class: B.Sc/M.Sc.

Semester 2,4 (UG),3rd year (UG) & 2,4 (PG) **Name of the Teacher: Dr. Upal Das Ghosh**

Subject: Microbiology

Paper : UG & PG Theory and Practical (Blended mode: Offline +online)

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	Part III (UG): Paper VIII: RDT Plasmid Isolation, Transformation, Conjugation	UG 4 (CBCS): Paper MCBCOR09T: Virology general concept 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 4 (CBCS): Paper MCBCOR09T: Lambda, T4 phage genetics PG Sem II: Paper 8: Replication PG Sem IV: Paper18:Virology: Viral vectors
Week 9 to Week 12	PG Sem II: Paper 9: Molecular Biology Practical: Cloning, RE Digestion	UG 4 (CBCS): Paper MCBCOR08T: Transformation, Transduction PG Sem II: Paper 8: Transcription PG Sem IV: Paper18:Virology: Cancer
Week 13	Mock Viva-voce from the practical	UG 4 (CBCS): Paper MCBCOR08T: Plasmid, conjugation PG Sem II: Paper 8: RNA processing PG Sem IV: Paper18:Virology: Cancer
Week 13 to week 14		Internal Exam
Week 15 to 17		UG 4 (CBCS): Paper MCBCOR08T: Revision PG Sem II: Paper 8: Protein Synthesis PG Sem IV: Paper18:Virology: Revision
Week 18	Revision, Practice	Revision

Teaching Plan for Odd Semester, UG & PG course

Department of Microbiology: Session (2019-20)

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

	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
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: MCBCOR05T: Fermentative pathways: homo-lactate, hetero-lactate fermentation Part III (UG): Paper –V: Transposons & its mechanism, TN family PG Sem I: Paper 2: Bacterial growth, phases of growth, kinetics & Numerical problems PG Sem III: paper 13- RDT: restriction & modification enzymes
to	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, O ₂ & CO ₂ concentration etc. UG III: MCBCOR05T: Mixed acid & Alcohol fermentation pathways 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
to	PG Sem III: Paper 15: Biostatistics: 6. one-tail t-test 7. chi square test 8. concept of probability, degrees of freedom 9. Analysis of variance (ANOVA)	UG 1 (CBCS): Paper – MCBCOR02T: Chemical factors of growth: Acid, alkali, salt, detergent, alcohol, heavy metals etc. UG III: MCBCOR05T: Fermentative pathways: Revision Part III (UG): Paper –V: RDT: types & mechanism of vectors PG Sem I: Paper 2: Chemical factors affecting on microbial growth PG Sem III: paper 13: enzymes: TdT, Taq pol., pfu Pol, S1 nuclease
3	UG III: MCBCOR05P: Demonstration of Alcohol fermentation using <i>Saccharomyces cerevisiae</i>	UG 1 (CBCS): Paper – MCBCOR02T: Batch & continuous culture: Chemostat & turbidostat UG III: MCBCOR05T: Fermentative pathways: Question-answer discussion of previous University exams 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
13 to week 14		Internal Exam
5	Mock Viva-voce from the practical	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 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
3	Revision, Practice	Revision

Teaching Plan for Odd Semester, UG & PG course

Department of Microbiology: Session (2019-20)

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

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, Archaeobacteria. Part II (UG): Paper –V: Oxidative phosphorylation, Thermodynamics Part III (UG): Paper –V: Transposons & its mechanism, TN family PG Sem I: Paper 2: Bacterial morphology, Quorum 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 analysis of proteins	UG 1 (CBCS): Paper – MCBCOR02T: physical factors affecting growth: pH, temperature, pressure, O ₂ & CO ₂ concentration etc. Part II (UG): Paper – VI: Cell signalling, 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 spectroscopy, 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

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

Teaching Plan for even Semester, UG/PG course

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 (Blended mode: Offline +online)**

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 MCB03DSE06P: 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, 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 MCBT203: RDT: Revision PG Sem IV: Paper17: Probiotics, SCP, mushroom production
Week 18	Revision, Practice	Revision

Department of Microbiology
Session (2019-2020)

Class: B.Sc/M.Sc.

UG Semester 1,3, Part 3, PG1 and PG3 (CBCS)

Name of the Teacher: Dr. Sandip Misra

Subject: Microbiology

Paper : cc1, cc6, Paper 6 and paper 7, PG paper 1 and Paper 11 (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	UG1 (CBCS) Paper MCBACOR01P : study the principal of important laboratory instrument.	UG 1 (CBCS) Paper MCBACOR01T: Unit -2 - microscopy UG3 (CBCS) Paper MCBACOR06T: Unit 2 – Nucleus Unit -5 – cell cycle regulation PART 3 Paper VI- group B cell and organ of immunity, types of immunity.
Week 5 to week 8	UG1 (CBCS) Paper MCBACOR02P : bacterial staining (gram, endospore), estimation of CFU by spread and pour plate method.	UG3 (CBCS) Paper MCBACOR06T: Unit 2 – Nucleus Unit -5 – cell cycle regulation PART 3 Paper VI- Group B –Antigen and Antibody PG1: 1: Biomolecules & Enzymology: Protein structure PG 3: Paper 11: Immunology: Antibody diversity
Week 9 to Week 12	Part 3 (UG)- Immunoelectrophoresis Part 3 (UG)- Agglutination, Ouchterlony	Immunology Unit 7- Generation of immune response PART III Paper VI- Group B –ANTIGEN ANTIBODY INTERACTION , COMPLEMENT PG 3: Paper 11: Immunology: B cell development and T cell development, activation, positive and negative selection
Week 13		PART III Paper VI- Group B – HYPERSENSITIVITY 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	Part 3 (UG)- Radial immunodiffusion	PART III Paper VI- Group B –VACCINE, HYPERSENSITIVITY 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	Revision

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

Teaching Plan for Even Semester, UG & PG courses

Department of Microbiology

Session (2019-2020)

Class:B.Sc/ M.Sc.

Semester 2, 4, (UG) and PG2 and PG 4

Name of the Teacher: Dr. Sandip Misra

Subject: Microbiology

Paper : cc3,cc9PG Paper 6 (Theory and Practical)

Blended mode: Offline+online

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. 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 PG 2: Paper 6: Metabolism & Bioenergetics: Catabolism of amino acid
Week 9 to Week 12	UG 2 (CBCS) Paper MCBACOR04P: Isolation of microbes from phyllosphere	UG 2 (CBCS) Paper MCBACOR03T: Unit 4- proteins structure UG 4 (CBCS) Paper MCBACOR09T: Unit 3- Viral nucleic, viral transmission and replication PG 4: Paper 16: Medical Microbiology: Human diseases: <i>Staphylococcus</i> , <i>Streptococcus</i> , Gastritis (<i>Helicobacter pylori</i>), <i>clostridium</i> , Chlamydia
Week 13		UG 2 (CBCS) Paper MCBACOR03T: Unit 4- proteins structure
Week13 to week 14 Internal Exam		
Week 15 to 17	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. PG 2: Paper 6: Metabolism & Bioenergetics: Catabolism of amino acid
Week 18	PG2- Paper 9- immunology practical	Revision

Teaching Plan for Odd Semester, UG, PG course

Department of Microbiology

Session (2019-20)

Class: B.A/ B.Sc

Semester: Sem1,3(CBCS), Part III, 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 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 Part III Paper VI : Group A: Virology and Medical Microbiology: Normal Microbial Flora, Mechanism of Bacterial Pathogenicity, Production of Toxins PG Sem I Paper2 :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 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 Part III Paper VI : Group A: Virology and Medical Microbiology: Normal Microbial Flora, Mechanism of Bacterial Pathogenicity, Production of Toxins PG Sem I Paper2 :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):Core Paper :MCBACOR02P, Bacteriology: Bacterial Staining PG Sem I: Paper 5: Microbiology and Molecular Biology	UG Sem I (CBCS) Core Paper :MCBACOR02T, Important archeal and eubacterial groups: Firmicutes UG Sem III (CBCS) Core Paper :MCBACOR05T, Phototrophic Metabolism UG Part III Paper VI : Group A: Virology and Medical Microbiology: Normal Microbial Flora, Mechanism of Bacterial Pathogenicity, Production of Toxins PG Sem I: PG Sem I Paper2 :Diversity of Prokaryotic and Eukaryotic Microbes: Bacteria with special features PG Sem III: GEC Paper: Microbes in sustainable development
Week 13	UG Sem I(CBCS):Core Paper : MCBACOR02P, Bacteriology: Pure Culture Techniques PG Sem I: Paper 5: Microbiology and Molecular Biology	UG Sem I (CBCS) Core Paper :MCBACOR02T, Important archeal and eubacterial groups: Actinobacteria UG Sem III (CBCS):SEC Paper:MCBSSEC001, Probiotics Paper VI: Group A: Virology and Medical Microbiology: Normal Microbial Flora, Mechanism of Bacterial Pathogenicity, Production of Toxins

		PG Sem I AECC Paper : 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	UG Sem I(CBCS):CorePaper : MCBACOR02P, Bacteriology: Pure Culture Techniques PG Sem I: Paper 5: Microbiology and Molecular Biology	UG Sem I(CBCS) Core Paper :MCBACOR02T, Important archeal and eubacterial groups: Cyanobacteria UG Sem III(CBCS) SEC Paper : MCBSEEC001, Probiotics UG Part III Paper VI: Group A: Virology and Medical Microbiology: Protozoan Diseases 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

Department of Microbiology

Session (2019-20)

Class: B.Sc./M.Sc

Semester: Sem2,4(CBCS), Part III, PG2,4

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 II (CBCS) :Core Paper :MCBACOR04P, Environmental Microbiology: Water Microbiology UG Sem IV (CBCS) Core Paper : MCBACOR10P, Food and Dairy Microbiology	UG Sem II (CBCS) Core Paper :Core Paper: MCBACOR04T, Water Potability UG Sem IV(CBCS) Core Paper: MCBACOR10T, Food borne diseases UG Part III Paper VI : Group A: Virology and Medical Microbiology: Normal Microbial Flora, Mechanism of Bacterial Pathogenicity, Production of Toxins 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 II (CBCS) Core Paper : Core Paper: MCBACOR04T, Water Potability UG Sem IV(CBCS) Core Paper: MCBACOR10T, Food borne diseases UG Part III Paper VI : Group A: Virology and Medical Microbiology: Normal Microbial Flora, Mechanism of Bacterial Pathogenicity, Production of Toxins 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 II (CBCS) Core Paper : Core Paper: MCBACOR04T, Microbial Interactions UG Sem IV(CBCS) Core Paper: MCBACOR10T, Food borne diseases UG Part III Paper VI : Question answer discussion from University papers 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 Microbiology: Soil Microbiology UG Sem IV (CBCS) Core Paper : MCBACOR10P, Food and Dairy Microbiology	UG Sem II (CBCS) Core Paper : Core Paper: MCBACOR04T, Microbial Interactions UG Sem IV(CBCS) Core Paper: MCBACOR10T, Food borne diseases UG Part III Paper VI :Question answer discussion from University papers 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
Week13 to week 14		Internal Exam
Week 15 to 17	UG Sem II (CBCS) :Core Paper :MCBACOR04P, Environmental Microbiology: Soil Microbiology UG Sem IV (CBCS) Core Paper : MCBACOR10P, Food and Dairy Microbiology	UG Sem II (CBCS) Core Paper : Core Paper: MCBACOR04T, Microbial Interactions UG Sem IV(CBCS) Core Paper: MCBACOR10T, Food borne diseases UG Part III Paper VI : Group A: Question answer discussion from University papers 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 (2019-20)**

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

S. No	Practical syllabus to be covered (Paper code to be mentioned)	Theory syllabus to be covered (Paper code to be mentioned)
Week 1	UG sem I: Instrumentation in Microbiology Autoclave, laminar air flow, pH	UG 1 (CBCS): Paper – MCBCOR02T: Bacterial morphology, UG III: MCBCOR05T: Membrane transport, Part III (UG): Paper –V: Mendelian genetics PG Sem I: Paper 1: Lipid, Bacterial cell wall PG Sem III: paper 13- RDT: Southern blotting
Week 5 to week 8	PG Sem III: Paper 15: Biochemistry: Lowry assay to quantify unknown protein sample.	UG 1 (CBCS): Paper – MCBCOR02T: physical factors affecting growth: pH, temperature, pressure, O ₂ & CO ₂ concentration etc.

		UG III: MCBCOR05T: Mixed acid & Alcohol fermentation pathways Part III (UG): Paper –V: RDT: Expressional vectors, various plasmids PG Sem I: Paper 2: Archaeal cell wall, adaptation PG Sem III: Paper 13: Northern blotting
Week 9 to Week 12	PG Sem III: Paper 15: Biochemistry: Bradford assay to quantify unknown protein sample.	UG 1 (CBCS): Paper – MCBCOR02T: Chemical factors of growth: Acid, alkali, salt, detergent, alcohol, heavy metals etc. UG III: MCBCOR05T: Fermentative pathways: Revision Part III (UG): Paper –V: RDT: types & mechanism of vectors PG Sem I: Paper 2: Chemical factors affecting on microbial growth PG Sem III: paper 13: Protein purification for western blotting
Week 13	UGIII: DNA quantification using spectrophotometer	UG 1 (CBCS): Paper – MCBCOR01T: Characteristics of protozoa UG III: MCBCOR05T: various cell organelles of eukaryotic cell Part III (UG): Paper –V: RDT: mechanism & types of PCR PG Sem I: Paper 2: Active and passive transport, medical relevance PG Sem III: paper 13: Western blotting, RT PCR, Microarray
Week13 to week 14		Internal Exam
Week 15	Mock Viva-voce from the practical	UG 1 (CBCS): Paper – MCBCOR01T: Characteristics of protozoa UG III: MCBCOR05T: Translation, Post transcriptional modification 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: RADP, RFLP,
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 (2019-20)

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 (Blended mode: Offline +online)

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 MCBCOR02P: Gram staining, pure culture,	UG 2 (CBCS): Paper MCBCOR03T: Lipid UG 4 (CBCS): Paper MCBCOR 9T: Cancer, Part III (UG): Paper :V: RDT: Southern blotting PG Sem II: Paper 9: Osmosis, diffusion PG Sem IV: Paper 16: Antimicrobial therapy, antibiotics
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: <i>Vibrio cholerae</i>
Week 9 to		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, isoelectric 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 WESTBENGAL
SALLAKE, KOLKATA

Teaching Plan for Odd Semester, Part-III UG course Department of Zoology

Session (2019-2020)

Class: B.Sc.

Semester: 1, 3 and Part-III

Name of the Teacher: Dr Ranajit Karmakar

Subject: Zoology

Paper: ZOOACOR01, ZOOACOR05, ZOOACOR06, ZOOACOR07, Paper-VII, Paper VIII, Paper IX (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 <i>Obelia</i> , <i>Physalia</i> , <i>Millepora</i> , <i>Aurelia</i> , <i>Tubipora</i> , <i>Corallium</i> , <i>Alcyonium</i> , <i>Gorgonia</i> , <i>Metridium</i> , <i>Pennatula</i> , <i>Fungia</i> , <i>Meandrina</i> , <i>Madrepora</i> 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 Module 701: Transport across cell surface membrane, Donnan membrane equilibrium Functions of mammalian blood: Oxygen transport and CO ₂ transport Neurophysiology: Generation of action potential and propagation of nerve impulse in myelinated and non-myelinated nerve fibers. Synaptic and neuro-muscular junctions : structure and functions
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.	ZOOACOR05T, Unit 8: Aves General characteristics and classification up to Sub-Classes Exoskeleton and migration in Birds Principles and aerodynamics of flight Module 702: Classification of vertebrate hormones based on chemical nature and mechanism of action (names and examples only). Hormone delivery systems: Endocrine, neuroendocrine, paracrine, neurocrine, autocrine (Definitions and examples only)
Week 9 to Week 12	ZOOACOR07P: Study of the enzymatic activity of Trypsin and Lipase.	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	Microtomy: Paraffin section cutting and mounting, H&E staining of histological tissues and identifying the stained slide (name, identifying characters only). [fixation and paraffin embedding procedure should be demonstrated in the class]	ZOOACOR07T Unit 2: Carbohydrates Structure and Biological importance: Monosaccharides, Disaccharides, Polysaccharides; Derivatives of Monosaccharides Carbohydrate metabolism: Glycolysis, Citric acid cycle, Pentose phosphate pathway, Gluconeogenesis Module 703: Basic tissue types: epithelial, connective, cardiac and nervous tissue (typical structure of neuron and types of neuron, glial cells etc) Membrane specializations of epithelia. (Intercellular surface [cell junctions], luminal surfaces and basal surfaces.).
Week 13 to week 14		Internal Exam
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, Part-III UG course Department of Zoology

Session (2019-2020)

Class: B.Sc.

Semester: 1, 3 and Part-III.

Name of the Teacher: Dr Saurabh Chakraborti

Subject: Zoology

Paper: ZOOACOR05, ZOOACOR07, Paper-VII, Paper VIII, Paper IX (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		Module 801: Origin of germ cells, Structural features of sperms and eggs in sea urchins and in mammals, Gametogenesis in mammals, Fertilization: external fertilization in sea urchins, internal fertilization in mammals (in depth molecular details not required) Cleavage : Types of cleavage found in animals and animal groups that exhibit a type, outlines of cleavage process in <i>C. elegans</i> , Zebra fish and <i>Xenopus</i> and chick
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	Module 703: Exocrine glands: Types and discharge of secretory products (merocrine, apocrine, holocrine). Principles of tissue fixation, staining. Histology of: stomach, pancreas, testis, ovary, thyroid, lymph node. (Outline of structures). Histological structure of mammalian nephron and functions of each regions.
Week 9 to Week 12		Module 805: Common ticks and mites in human surroundings and diseases caused by them
Week 13		ZOOACOR07T Unit 2: Carbohydrates Structure and Biological importance: Monosaccharides, Disaccharides, Polysaccharides; Derivatives of Monosaccharides 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

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, Part-III UG course Department of Zoology

Session (2019-2020)

Class: B.Sc.

Semester: 1, 3 and Part-III.

Name of the Teacher: Dr Somnath Mandal

Subject: Zoology

Paper: ZOOACOR01, ZOOACOR02, ZOOACOR05, ZOOACOR06, ZOOACOR07, Paper-VII, Paper VIII, Paper IX (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 <i>Ascaris lumbricoides</i> 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: Nematelminthes General characteristics and Classification-Life cycle, and pathogenicity of <i>Ascaris lumbricoides</i> , <i>Ancylostoma duodenale</i> and <i>Wuchereria bancrofti</i> Parasitic adaptations in helminths Origin and evolution of parasitic helminths 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.
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
Week 13		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

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, Part-III UG course Department of Zoology

Session (2019-2020)

Class: B.Sc.

Semester: 1, 3 and Part-III.

Name of the Teacher: Dr Suman Mukherjee

Subject: Zoology

Paper: ZOOACOR01, ZOOACOR02, ZOOACOR05, ZOOACOR06, ZOOACOR07, Paper-VII, Paper VIII, Paper IX (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 <i>Fasciola hepatica</i> , <i>Taenia solium</i> 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 <i>Fasciola hepatica</i> and <i>Taenia solium</i> 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 terpenoids. Lipid metabolism: β -oxidation of fatty acids; Fatty acid biosynthesis
Week 13	ZOOACOR07P 3. Quantitative estimation by Lowry Method Group A: Physiology: Blood slide preparations (from goat/rat) to identify and study the characteristic features of different types of WBC, total count of WBC. Determination of haemoglobin content of goat/rat blood by Sahli's haemoglobinometer. Human B.P. and pulse measurements etc.	Module 805: Mosquito-borne diseases: Malaria and Filaria- causative agents, their life cycle, modes of infections in man, major modes of treatments, major vector species in India, their ecology and life cycles, control measures Module 801: Gastrulation: generalized patterns, brief outlines of the process in <i>C. elegans</i> , Zebra fish, <i>Xenopus</i> and chick Organogenesis : development of brain in chicken Conceptual outlines (very brief) of – Cell potency and Stem Cells, Sex determination in <i>Drosophila</i> and Man, Environmental sex determination in reptiles. HOX genes in development
Week 13 to week 14		Internal Exam
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALLAKE, KOLKATA

Teaching Plan for Odd Semester, Part-III UG course Department of Zoology

Session (2019-2020)

Class: B.Sc.

Semester: 1, 3 and Part-III.

Name of the Teacher: Mrs Urmi Mitra

Subject: Zoology

Paper: ZOOACOR01, ZOOACOR05, ZOOACOR07, Paper-VII, Paper VIII, Paper IX (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 <i>Euglena</i> , <i>Amoeba</i> and <i>Paramoecium</i> , Binary fission and Conjugation in <i>Paramoecium</i> 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 <i>Chelone</i> , <i>Trionyx</i> , <i>Hemidactylus</i> , <i>Varanus</i> , <i>Uromastix</i> , <i>Chamaeleon</i> , <i>Ophirosaurus</i> , <i>Draco</i> , <i>Bungarus</i> , <i>Vipera</i> , <i>Naja</i> , <i>Hydrophis</i> , <i>Zamenis</i> , <i>Crocodylus</i> Key for Identification of poisonous and non poisonous snakes	ZOOACOR01T, Unit 1: General characteristics and Classification up to classes Life cycle and pathogenicity of <i>Giardia intestinalis</i> , <i>Leishmania donovani</i> , <i>Entamoeba histolytica</i> and <i>Plasmodium vivax</i> Locomotion and Reproduction in Protista ZOOACOR05T, Unit 7: Reptilia General characteristics and classification up to living Orders Poison apparatus and Biting mechanism in Snake
Week 5 to Week 8		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		Module 805: Mosquito-borne diseases: Dengue and DHF, Chikungunya- causative virus, symptoms and treatments Visceral Leishmaniasis (Kala-azar)- causative species and vectors in West Bengal
Week 13		Module 801: Outlines of historical concepts and experiments in the emergence of developmental biology- Induction, Fate map, Spemann and Mangold's organizer transplant experiments, von Baer's laws. Germ layers and its contributions to the development of different tissues in vertebrates.
Week 13 to week 14		Internal Exam
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA
Teaching Plan for Odd Semester, Part-III UG course Department of Zoology

Session (2019-2020)

Class: B.Sc.

Semester: 1, 3 and Part-III.

Name of the Teacher: Dr Suman Bej

Subject: Zoology

Paper: ZOOACOR01, ZOOACOR05, ZOOACOR06, ZOOACOR07, Paper-VII, Paper VIII, Paper IX (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.), <i>Hyalonema</i> , <i>Euplectella</i> , <i>Spongilla</i> 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
Week 5 to Week 8	ZOOACOR05P: Agnatha <i>Petromyzon</i> , <i>Myxine</i> Fishes- <i>Scoliodon</i> , <i>Sphyrna</i> , <i>Pristis</i> , <i>Torpedo</i> , <i>Chimaera</i> , <i>Mystus</i> , <i>Heteropneustes</i> , <i>Labeo</i> , <i>Exocoetus</i> , <i>Echeneis</i> , <i>Anguilla</i> , <i>Hippocampus</i> , <i>Tetraodon</i> , <i>Anabas</i> , 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 <i>Mystus</i> 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 Module 701: Respiration: gill respirations in fishes, respiration in air-breathing fishes, respiration in avian lungs General architecture of skeletal (striated) muscle and smooth muscle; Ultrastructure of skeletal muscle sarcomere, molecular structure of actin and myosin, Muscle contraction: sliding filament theory
Week 13	ZOOACOR05P : Dissection of Fowl head (Dissections and mounts subject to permission)	Module 802: Environmental pollutions (nature and sources of pollutants, impacts on ecosystems and humans, remedies): water, soil, air and sound pollutions Environmental laws: major ones applicable in West Bengal Toxicology: including its significance as a branch of Science
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
SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, Part-III UG course Department of Zoology

Session (2019-2020)

Class: B.Sc.

Semester: 1, 3 and Part-III.

Name of the Teacher: Dr Biswatosh Ghosh

Subject: Zoology

Paper: ZOOACOR01, ZOOACOR02, ZOOACOR05, ZOOACOR07, Paper-VII, Paper VIII, Paper IX (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 <i>Sorex</i> , Bat (Insectivorous and Frugivorous), <i>Funambulus</i> , <i>Loris</i> , <i>Herpestes</i> , <i>Erinaceus</i> .	ZOOACOR01T, Unit 1: Protista, Parazoa and Metazoa Study of <i>Euglena</i> , <i>Amoeba</i> and <i>Paramoecium</i> 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
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.	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
Week 9 to Week 12	ZOOACOR07P: 2. Paper chromatography of amino acids.	ZOOACOR07T: Unit 7: Oxidative Phosphorylation Redox systems; Review of mitochondrial respiratory chain, Inhibitors and un-couplers of Electron Transport System Module 701: Swim bladder and its functions in teleost fishes Water and osmotic regulations : problems in marine cyclostomes, elasmobranchs and teleosts,
Week 13		Module 701: Freshwater teleosts, in hot desert environments (camel) and examples of significant adaptations solving it by different animal groups
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
SALLAKE, KOLKATA

Teaching Plan for Even Semester, Part-III UG course Department of Zoology

Session (2019-2020)

Class: B.Sc.

Semester: 2, 4 and Part-III.

Name of the Teacher: Dr Ranajit Karmakar

Subject: Zoology

Paper: ZOOACOR03, ZOOACOR04, ZOOACOR08, ZOOACOR09, ZOOACOR10, Paper-VII, Paper VIII, Paper IX (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
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		Module 701: Urine formation in human kidney
Week 13 to week 14		Internal Exam
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALLAKE, KOLKATA

Teaching Plan for Odd Semester, Part-III UG course Department of Zoology

Session (2019-2020)

Class: B.Sc.

Semester: 2, 4 and Part-III.

Name of the Teacher: Dr Saurabh Chakraborti

Subject: Zoology

Paper: ZOOACOR03, ZOOACOR04, ZOOACOR08, ZOOACOR09, ZOOACOR10, Paper-VII, Paper VIII, Paper IX (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		Module 702: Hormonal control of mammalian ovarian cycle, differences between estrous and menstrual cycle. Mechanism of hormone actions (outlines only): cytoplasmic receptor, nuclear receptor, membrane receptor, HRE, HSP, cAMP, cGMP, IP3—DAG, tyrosine kinase, calcium-calmodulin Endocrine disorders (<i>symptoms and causes only</i>): Diabetes insipidus; IDDM & NIDDM, Hypothyroidism and hyperthyroidism, Conn's and Cushing's syndrome.
Week 5 to Week 8		Module 802: Dose-response relationships In vivo and In vitro toxicity tests Introduction to the concepts of detoxication mechanisms
Week 9 to Week 12		Module 806: Lac culture: Lac and lac insects, host plants and lac cultivation, scopes and problems Poultry birds: different breeds, their advantages and disadvantages, importance of indigenous breeds
Week 13		Module 701: Bioluminescence: occurrence, mechanism of production
Week 13 to week 14		Internal Exam
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALLAKE, KOLKATA

Teaching Plan for Even Semester, Part-III UG course Department of Zoology

Session (2019-2020)

Class: B.Sc.

Semester: 2, 4 and Part-III.

Name of the Teacher: Dr Somnath Mandal

Subject: Zoology

Paper: ZOOACOR03, ZOOACOR04, ZOOACOR08, ZOOACOR09, ZOOACOR10, Paper-VII, Paper VIII, Paper IX (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)*
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, Chemiosmotic hypothesis Peroxisomes
Week 9 to Week 12	Group A: Determination of soil and water pH (With pH meter); Quantification of free CO ₂ and dissolved O ₂ (Winkler's Method) in water sample	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
Week 13		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
Week 13 to week 14		Internal Exam
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALLAKE, KOLKATA

Teaching Plan for Even Semester, Part-III UG course Department of Zoology

Session (2019-2020)

Class: B.Sc.

Semester: 2, 4 and Part-III.

Name of the Teacher: Dr Suman Mukherjee

Subject: Zoology

Paper: ZOOACOR03, ZOOACOR04, ZOOACOR08, ZOOACOR09, ZOOACOR10, Paper-VII, Paper VIII, Paper IX (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.	Module 702: Feed back control of hormone secretion: negative and positive. Hormone biosynthesis (including sites of synthesis, outlines only): Thyroid hormones (T ₃ , T ₄), testosterone, estrogen, progesterone, adreno-cortical hormones, Insulin, Adrenal catecholamines.
Week 13 to week 14		Internal Exam
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALT LAKE, KOLKATA

Teaching Plan for Even Semester, Part-III UG course Department of Zoology

Session (2019-2020)

Class: B.Sc.

Semester: 2, 4 and Part-III.

Name of the Teacher: Mrs Urmi Mitra

Subject: Zoology

Paper: ZOOACOR03, ZOOACOR04, ZOOACOR08, ZOOACOR09, ZOOACOR10, Paper-VII, Paper VIII, Paper IX (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 Guinea pig 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)
Week 9 to Week 12	ZOOACOR08P : 4. Identification of mammalian skulls: One herbivorous (Guinea pig) 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	Group B: Medical entomology: Identifications of <i>Culex</i> , <i>Aedes</i> and <i>Anopheles</i> mosquitoes from whole mount dry specimens. Identification of <i>Plasmodium</i> , <i>Entamoeba</i> , <i>Giardia</i> , <i>Fasciola</i> , <i>Ascaris</i> , <i>Wuchereria</i>	ZOOACOR10T, Unit 10: Vaccines 4 Various types of vaccines. Active & passive immunization (Artificial and natural). Module 702: Feed back control of hormone secretion: negative and positive. Hormone biosynthesis (including sites of synthesis, outlines only): Thyroid hormones (T ₃ , T ₄), testosterone, estrogen, progesterone, adreno-cortical hormones, Insulin, Adrenal catecholamines.
Week 13 to week 14		Internal Exam
Week 15 to 17	Revision	Revision
Week 18	Field work Report	Revision

BIDHANNAGAR COLLEGE
GOVERNMENT OF WESTBENGAL
SALLAKE, KOLKATA

Teaching Plan for Even Semester, Part-III UG course Department of Zoology

Session (2019-2020)

Class: B.Sc.

Semester: 2, 4 and Part-III.

Name of the Teacher: Dr Suman Bej

Subject: Zoology

Paper: ZOOACOR04, ZOOACOR08, ZOOACOR09, ZOOACOR10, Paper-VII, Paper VIII, Paper IX (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 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
Week 5 to Week 8	ZOOACOR08P: 1. Study of placoid, cycloid and ctenoid scales through permanent slides/photographs	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
Week 9 to Week 12	Group B: Developmental Biology: Identification of chick's embryonic stages (at 24, 48 & 96 hrs. of incubation. Identification of fry stages of a carp fish (any cultivated carp species)	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		Module 806: Fishes and fishery: diversity of indigenous freshwater, estuarine, marine fishes and shell fishes in West Bengal. Invasive and exotic species of fishes in West Bengal. Techniques of modern pisciculture and prawn culture. Problems related to wild prawn seed collections in Sunderbans, fish productivities in India and West Bengal, ecology and degradation of freshwater fish habitats and decrease in wild fish stocks (very brief idea)
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
SALLAKE, KOLKATA

Teaching Plan for Even Semester, Part-III UG course Department of Zoology

Session (2019-2020)

Class: B.Sc.

Semester: 2, 4 and Part-III.

Name of the Teacher: Dr Biswatosh Ghosh

Subject: Zoology

Paper: ZOOACOR03, ZOOACOR04, ZOOACOR08, ZOOACOR10, Paper-VII, Paper VIII, Paper IX (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	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
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	ZOOACOR10T, Unit 4: Immunoglobulins Structure and functions of different classes of immunoglobulins, Antigen- antibody interactions, Immunoassays (ELISA and RIA), Hybridoma technology, Monoclonal antibody production.
Week 13	Group B: Morpho-metric studies: mouth parts and fins of fishes (any major Carp, <i>Mystus</i> , Tilapia), different aspects of shells of <i>Acatina</i> , <i>Pila</i> , <i>Bellamyia</i> , Ants (Total length, Head length, Trunk and Petiole length, Gaster length of any big sized easily available ant like <i>Camponotus</i> , <i>Oecophila</i> , <i>Tetraponera</i>)	Module 806: Sericulture: silks and silk worms, sericulture practices- methods, scopes and problems Apiculture: Honey bees and their behaviours in relation to bee-keeping, popular methods of bee keeping, scopes and problems Cattle, goats and lambs: different breeds, their advantages and disadvantages, importance of indigenous breeds
Week 13 to week 14		Internal Exam
Week 15 to 17	Laboratory Note Book	Revision
Week 18	Field work Report	Revision

BIDHANNAGARCOLLEGE, GOVERNMENT OF WEST BENGAL, SALT LAKE, KOLKATA

Teaching Plan for Odd Semester, UGcourse

Department of Economics

Session (2019-20)

Class: B.A/ B.Sc

Semester 1, Sem 3, Part III Name of the Teacher: Amit Kumar Roy Choudhury

Subject: Economics

Paper : CC1, CC5, Paper VII (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
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 1. Market Structure: Perfect Competition PAPER-VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II GROUP-B: MATHEMATICAL ECONOMICS- II
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 1. Imperfect Market Structure : Monopoly i) Monopoly and Anti-trust policy ii) Equilibrium with single plant PAPER-VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II GROUP-B: MATHEMATICAL ECONOMICS- II 3. Input – output analysis A two sector Leontief static open model, Assumptions, Output solutions
Week 13	Core Course 1 : ECOACOR01T Introductory Microeconomics 2. The Households Core Course 5 : ECOACOR05T Intermediate Microeconomics 1 1. Imperfect Market Structure : Monopoly iii) Price Discrimination iv) Monopsony PAPER-VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II GROUP-B: MATHEMATICAL ECONOMICS- II 3. Input – output analysis Hawkins –Simon conditions and its economic interpretations, Linear programming interpretation

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 PAPER-VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II GROUP-B: MATHEMATICAL ECONOMICS- II 3. Input – output analysis Consumption possibility Locus, Price system in LSOM.
Week 18	Revision

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

Teaching Plan for Odd Semester, UG course

Department of Economics

Session (2019-20)

Class: B.A/ B.Sc

Semester 1, Semester 3, Part III

Name of the Teacher: Tapas Kumar Pal

Subject: Economics

Paper : CC 6, Paper V, Paper VIII(Theory), Paper VIII(Aii, B) (Practical)

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 PAPER-V: INTERNATIONAL ECONOMICS & PUBLIC FINANCE GROUP-A: INTERNATIONAL ECONOMICS: Group – I: Pure Theory of International Trade: 1. The Theory of comparative Advantage and gains from Trade:- 2. Comparative Advantage in the Heckscher-Ohlin Trade model: PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A: (ii) COMPUTER APPLICATION GROUP-B: PROJECT WORK
Week 5 to week 8	Core Course 6 : ECOACOR06T Intermediate Macroeconomics-1 2. The Complete Keynesian model PAPER-V: INTERNATIONAL ECONOMICS & PUBLIC FINANCE

	GROUP-A: INTERNATIONAL ECONOMICS: Group – I: Pure Theory of International Trade: 3. Commodity and Factor prices under trade – Factor price Equalisation: PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A: (ii) COMPUTER APPLICATION GROUP-B: PROJECT WORK
Week 9 to Week 12	Core Course 6 : ECOACOR06T Intermediate Macroeconomics-1 3. Inflation, Unemployment and Expectations i) Phillip’s Curve PAPER-V: INTERNATIONAL ECONOMICS & PUBLIC FINANCE GROUP-A: INTERNATIONAL ECONOMICS: Group – II Trade Policy 4. Instruments of Restrictive trade 5. Tariff under optimal market conditions Group – III - The Balance of Payments and International Economic Policy 6. The Balance of payment: (BOP) PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A: (ii) COMPUTER APPLICATION GROUP-B: PROJECT WORK
Week 13	Core Course 6 : ECOACOR06T Intermediate Macroeconomics-1 3. Inflation, Unemployment and Expectations ii) Aggregate supply and Phillip’s curve PAPER-V: INTERNATIONAL ECONOMICS & PUBLIC FINANCE GROUP-A: INTERNATIONAL ECONOMICS: Group – III - The Balance of Payments and International Economic Policy 6. The Balance of payment: (BOP)(continued) PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A: (ii) COMPUTER APPLICATION GROUP-B: PROJECT WORK
Week 15 to 17	Core Course 6 : ECOACOR06T Intermediate Macroeconomics-1 4. Open economy Models PAPER-V: INTERNATIONAL ECONOMICS & PUBLIC FINANCE GROUP-A: INTERNATIONAL ECONOMICS: Group – I: Pure Theory of International Trade: 7. The determination of national income in an open economy - Foreign trade multiplier (with and without repercussion effect) 8. Theory of Exchange Rate, Devaluation and Trade Balance PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A: (ii) COMPUTER APPLICATION GROUP-B: PROJECT WORK
Week 18	Revision

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

Teaching Plan for odd Semester, UG course

Department of Economics

Session (2019-20)

Class: B.A/ B.Sc

Semester 1, Semester 3, Part III

Name of the Teacher: Santosh Kumar Dutta

Subject: Economics

Paper : SEC1, 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 SEC Course-1: ECOSSEC001 Survey methodology 1. Introduction, Inference and Error in Surveys PAPER-VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II GROUP-A: STATISTICS – II: Group A: STATISTICS - II 1. PROBABILITY THEORY AND DISTRIBUTION: (i) Elements of Probability Theory: Sample space & events, Meaning of probability, Classical definition, Addition rule, Multiplication rule
Week 5 to week 8	GE-3 Development Economics ECOHGEC03T SEC Course-1: ECOSSEC001 Survey methodology 1. Sampling in Survey Research PAPER-VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II GROUP-A: STATISTICS – II: Group A: STATISTICS - II 1. PROBABILITY THEORY AND DISTRIBUTION: Theorems of total probability – Mutually and non-mutually exclusive events, Conditional and statistical independence, Limitations of the classical definition, An axiomatic approach, Bayes' formula, Random variables, Probability mass and density functions, Marginal and conditional distributions, Expectations and variances of random variables (for random sampling with or without replacements)
Week 9 to Week 12	GE-3 Development Economics ECOHGEC03T SEC Course-1: ECOSSEC001 Survey methodology 3. Mode of Data Collection PAPER-VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II GROUP-A: STATISTICS – II: Group A: STATISTICS - II

	2. ELEMENTARY SAMPLING THEORY: Populations and sample, Parameter and statistic, Random sampling, Practical methods of drawing random samples, Random sampling measures, Sampling distribution of expectation and standard error.
Week 13	GE-3 Development Economics ECOHGEC03T SEC Course-1: ECOSSEC001 Survey methodology 2. Nonresponse PAPER-VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II GROUP-A: STATISTICS – II: 3. CLASSICAL STATISTICAL INFERENCE: Basic concepts of Estimation, desirable properties of estimators GROUP-B: MATHEMATICAL ECONOMICS- II: 4. Linear Programming (LP): The LP problem, Duality and economic interpretation.
Week 15 to 17	GE-3 Development Economics ECOHGEC03T 1. Gender Related Issues SEC Course-1: ECOSSEC001 Survey methodology 3. Post-Survey Processing; Estimation (Lepkowski) PAPER-VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II GROUP-A: STATISTICS – II: 3. CLASSICAL STATISTICAL INFERENCE: Unbiasedness, Minimum variance, Simple methods of point estimation, Confidence interval, Testing of hypothesis, P-value, Type 1 and Type 2 errors, Simple application of tests for mean and variance of a Univariate normal population
Week 18	Revision

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

Teaching Plan for odd Semester, UG course

Department of Economics

Session (2019-20)

Class:B.A/ B.Sc

Semester 1,Semester 3, Part III

Name of the Teacher: Sudip Kumar Ghosh

Subject: Economics

Paper : GE 3, CC7, Paper VI, Paper VIII(Theory)

S. No	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	GE-3 Development Economics ECOHGEC03T PAPER-VI: INDIAN ECONOMIC PROBLEMS & PLANNING 1. Structure of Indian Economy: Changes in the pattern of inter sectoral distribution of national income, changes in the pattern of occupational structure. 2. Agriculture: Farm size and productivity- controversial Indian experience, Marketable Surplus and Marketed Surplus of food grains, prices and acreage elasticity of Marketed Surplus (B). Different aspects of New Agricultural Strategy(Green Revolution)-output, employment and distribution of income & wealth(C).Land Reforms. Food security and government intervention in food grains.Problems of Institutional Credit in Indian agriculture. Impact of globalization inIndian agriculture.(D) PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A: (i) INDIAN ECONOMIC HISTORY Impact of British rules with special reference to (i) De-industrialization (ii) Commercialization of agriculture. GROUP-B: PROJECT WORK
Week 5 to week 8	GE-3 Development Economics ECOHGEC03T PAPER-VI: INDIAN ECONOMIC PROBLEMS & PLANNING 3. Growth and Stagnation in Indian Industries.(E). State initiative in industrialization. Evaluation of Industrial policies including Licensing Policies, Role, Performances and Weaknesses of Public Sector Industries. New Industrial policy in the post- globalization era. Disinvestment Policy.(F) 4. Unemployment and Poverty: Nature and types of unemployment in India. Problems related to the measurement of Unemployment in India (G). Problems related to female and child labour in India (H). Poverty in India-Different estimates of poverty (I). Evaluation of different policies and programmes aiming at eradication of poverty.(J) PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A: (i) INDIAN ECONOMIC HISTORY Impact of British rules with special reference to (ii)Commercialization of agriculture (continued) (iii) Economic drain. GROUP-B: PROJECT WORK
Week 9 to Week 12	GE-3 Development Economics ECOHGEC03T PAPER-VI: INDIAN ECONOMIC PROBLEMS & PLANNING 5. Money and Capital Market: Reserve Bank of India and Indian Money market. 1Monetary policies in recent years. Relation between Money Market and Capital Market in India. Nationalization of commercial Banks and problems associated with Nationalized Banking Sector. Reforms in Monetary Sector and Capital

	Market in India.(K) 6. Indian Public Finance: Trends problems and Reforms. Central-State allocation of Financial Resources- Controversies, Recommendation of different committees in resolving this controversy (L). PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A: (i) INDIAN ECONOMIC HISTORY Aspect of British Imperial policy: i) Land policy GROUP-B: PROJECT WORK
Week 13	GE-3 Development Economics ECOHGEC03T PAPER-VI: INDIAN ECONOMIC PROBLEMS & PLANNING 7. External Sector- Composition, Direction, and Trend in Foreign Trade. Problems related to the Balance of Payments. PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A: (i) INDIAN ECONOMIC HISTORY: Aspect of British Imperial policy: ii) Railways & irrigation GROUP-B: PROJECT WORK
Week 15 to 17	GE-3 Development Economics ECOHGEC03T Core Course-7 (ECOACOR07T): MATHEMATICAL METHODS FOR ECONOMICS-II 5. Dynamical Methods: algebraic and geometric exposition and application PAPER-VI: INDIAN ECONOMIC PROBLEMS & PLANNING 7. External Sector- EXIM Policies and other recent measures (such as convertibility of rupee) to improve BOP (M). 8. Rationale of Planning and Mixed Economy. Five Year Plans- Objective, achievement and failure. Financing of Five Year Plans (N): Special focus on 2nd, 7th and 9th plans. PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A: (i) INDIAN ECONOMIC HISTORY: Aspect of British Imperial policy: iii) Policy of discriminating protection GROUP-B: PROJECT WORK
Week 18	Revision

Teaching Plan for Odd Semester, UG course

Department of Economics

Session (2019-20)

Class: B.A/ B.Sc

Semester 1, Semester 3, Part III Name of the Teacher: Tina Barma

Subject: Economics

Paper : CC2, Paper III, Paper IV, Paper V, Paper VII (Theory); Paper VIII (Practical)

S. No	Theory topics to be covered (Paper code to be mentioned)
Week 1 to week 4	Core Course-2 ECOACOR02T Mathematical 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 PAPER-V: INTERNATIONAL ECONOMICS & PUBLIC FINANCE GROUP-B: PUBLIC FINANCE 1. Economic Role of the State: Public goods and market failure, Distinction between private goods and public goods, Samuelson's solution for the optimal provision of public goods, Lindahl's Equilibrium for optimal tax sharing, Free rider problem, Justification of Government expenditure in defense, education, health, infrastructure. PAPER-VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II GROUP-B: MATHEMATICAL ECONOMICS- II: 1. Static equilibrium analysis and comparative statics: Meaning of partial and general equilibrium, Comparative static analysis using Cramer's rule. Applications: Simple Keynesian and IS-LM models, Rybczynski theorem and Stolper– Samuelson theorem (Liner Model) PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A ii) COMPUTER APPLICATION GROUP-B: PROJECT WORK
Week 5 to week 8	Core Course-2 ECOACOR02T Mathematical Methods for Economics-I 1. Brief Review of Differential and Integral Calculus and their application Core Course- 7 ECOACOR07T Mathematical Methods for Economics-II 1. Classical Optimization: Kuhn Tucker and lagrangean methods and conditions 3. Linear Programming and Duality PAPER-IV: DEVELOPMENT ECONOMICS & ISSUES ON ECONOMIC DEVELOPMENT GROUP-B: ISSUES ON ECONOMIC DEVELOPMENT 1. Trade and Development:- (c) Terms of Trade and Economics Development – various terms of trade (net

	barter and income terms of trade) – Prebisch-Singer thesis and terms of trade debate (d) Alternative Industrialisation Strategy for developing nations – Import Substitution and Export promotion (e) Multinational Corporations and Foreign Direct Investment – FOI and FPI; Two main forms of FDI (Greenfield investment & merger or acquisition); MNCs – main features, implications for the host nations; Foreign aid (concept only) PAPER-V: INTERNATIONAL ECONOMICS & PUBLIC FINANCE GROUP-B: PUBLIC FINANCE 2. Principles of Taxation: Ability to pay and benefit approaches, Horizontal and vertical equity. PAPER-VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II GROUP-B: MATHEMATICAL ECONOMICS- II: 2. Integration and dynamic analysis: a. Techniques of integration (definite and indefinite integral) Applications: from marginal function to total function, consumer's surplus, producer's surplus, investment and capital formation, present value PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A ii) COMPUTER APPLICATION GROUP-B: PROJECT WORK
Week 9 to Week 12	Core Course-2 ECOACOR02T Mathematical Methods for Economics-I 5. Single variable optimisation Core Course- 7 ECOACOR07T Mathematical Methods for Economics-II 3. Linear Programming and Duality PAPER-IV: DEVELOPMENT ECONOMICS & ISSUES ON ECONOMIC DEVELOPMENT GROUP-B: ISSUES ON ECONOMIC DEVELOPMENT (2) Development and Underdevelopment as a historical process (a) Dependency theory of Baran and Frank (b) The concept of unequal exchange (3) Planning for Development:- Rationale for planning, The instances of market failure and the role of state; Govt. failure and Resurgent preference for markets over planning PAPER-V: INTERNATIONAL ECONOMICS & PUBLIC FINANCE GROUP-B: PUBLIC FINANCE 3. Direct and indirect Taxation: Effect of Income tax on work effort, Saving and risk bearing, Incidence of sales and excise tax – excess burden of indirect taxation, value added tax. PAPER-VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II GROUP-B: MATHEMATICAL ECONOMICS- II: 3. Input – output analysis: A two sector Leontief static open model, Assumptions, Output solutions, Hawkins –Simon conditions and its economic interpretations, Linear programming interpretation, Consumption possibility Locus, Price system in LSOM.

	PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A ii) COMPUTER APPLICATION GROUP-B: PROJECT WORK
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 PAPER-IV: DEVELOPMENT ECONOMICS & ISSUES ON ECONOMIC DEVELOPMENT GROUP-B: ISSUES ON ECONOMIC DEVELOPMENT (3) Planning for Development:- Decentralisation (concept only) PAPER-V: INTERNATIONAL ECONOMICS & PUBLIC FINANCE GROUP-B: PUBLIC FINANCE 4. Public debt: Internal and external burden PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A ii) COMPUTER APPLICATION GROUP-B: PROJECT WORK
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 PAPER-IV: DEVELOPMENT ECONOMICS & ISSUES ON ECONOMIC DEVELOPMENT GROUP-B: ISSUES ON ECONOMIC DEVELOPMENT (4) Evolution of the International Economy:- The origin, objectives and functions of IMF and World Bank; The Third World Debt crisis and the structural adjustment policies adopted by IMF; The new International Economic Order PAPER-V: INTERNATIONAL ECONOMICS & PUBLIC FINANCE GROUP-B: PUBLIC FINANCE 4. Public debt- Different concepts of deficit in Government's budget – Burden of internal public debt, Burden of public debt on future generation, External public debt, comparison of internal and external public debt. PAPER-VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II GROUP-B: MATHEMATICAL ECONOMICS- II: 4. Linear Programming (LP): Simplex method, complementary slackness relationship of primal and dual. Application: Diet problem, Transportation problem 5. Game Theory – Structure of Game, Pay off matrix, Two person zero sum

	game, saddle point, Pure strategy, Mixed strategy. PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK: GROUP-A ii) COMPUTER APPLICATION GROUP-B: PROJECT WORK
Week 18	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			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 1 : বাংলা সাহিত্যের ইতিহাস (অষ্টম – পঞ্চদশ শতক – নির্বাচিত অংশ)
			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 ধারারফোর্ট উইলিয়াম কলেজ থেকে প্রমথ চৌধুরী পর্যন্ত
			UNIT 3 বাংলা 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)
		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)
		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
	৩ 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

	পাঠ-		UNIT 4 : বিনয় মজুমদারের কবিতা
	পুনর্বিবেচনা ও অনুশীলন		
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)
		CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
	৬	SEC 2	UNIT 2 : কম্পুটারে বাংলা লিখন
		DSE 4	UNIT 1: সন্মার্গ সপর্যা – শঙ্কু 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)
		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)
		8	CC 8
	8	DSE 4	UNIT 1: সন্মার্গ সপর্যা – শঙ্কু 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
	৩	CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
		SEC 1	UNIT 1 : সিনেমার অআকর্ষ – 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)
		CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
	৬	SEC 2	UNIT 2 : কম্পিউটারে বাংলা লিখন
		DSE 4	UNIT 1: সন্মার্গ সপর্যা - শঙ্কু 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)
		CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
	৬	SEC 2	UNIT 2 : কম্পিউটারে বাংলা লিখন
		DSE 4	UNIT 1: সন্মার্গ সপর্যা - শঙ্কু 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)
		CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
	৬	DSE 4	UNIT 1: সন্মার্গ সপর্যা - শঙ্কু মিত্র (নির্বাচিত)
		DSE 6	UNIT 1: রবীন্দ্র জীবনকথা - প্রভাতকুমার মুখোপাধ্যায় UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
		DSE 4	UNIT 1: সন্মার্গ সপর্যা - শঙ্কু 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 সংগ্ৰহ – নির্বাচিত অংশ
	৬	SEC 2	UNIT 2 : কম্পিউটারে বাংলা লিখন
		DSE 4	UNIT 1: সন্মার্গ সপর্যা – শঙ্কু 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)
		CC 5	UNIT 3 : বাংলা ছন্দ পরিচয়
	৩	CC 5	UNIT 4 : ছন্দলিপি প্রণয়ন
		SEC 1	UNIT 1 : সিনেমার অআকর্ষ – 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 : সিনেমারঅআকথ – 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 : সিনেমারঅআকথ – 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 : সিনেমারঅআকথ – 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)
		CC 8	UNIT 4 : একালের কবিতা সঞ্চয়ন - নির্বাচিত অংশ
	৪	SEC 2	UNIT 2 : কম্পিউটারে বাংলা লিখন
		DSE 4	UNIT 1: সন্মার্গ সপর্যা – শঙ্কু 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
	৬	SEC 2	UNIT 2 : কম্পুটারে বাংলা লিখন
		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

শিক্ষকের নাম – ড. উদয় শঙ্কর বর্মা

সপ্তাহ	সেমিস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	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 : চলচ্চিত্রের অ আ ক খ – ধীমান দাশগুপ্ত
		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 ৫ – ৮	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 : সিনেমার অআকখ – 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 ৯ – ১২	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 : সিনেমার অআকখ – ধীমানদাশগুপ্ত
		DSE 3	UNIT 1: কবিতার কথা – জীবনানন্দ দাশ
	৫	DSE 3	UNIT 2 : আধুনিকতা ও রবীন্দ্রনাথ এবং পথের শেষ কোথায় – আবু সয়ীদ আইয়ুব
		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 : সিনেমার অআকর্ষ – 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 – 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 : কম্পিউটারে বাংলা লিখন
	৬	DSE 4	UNIT 1: সন্মার্গ সপর্য্য - শঙ্খু 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 সপর্য্য - শঙ্খু 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 সপর্য্য - শঙ্খু মিত্র (নির্বাচিত)
	৬	DSE 6	UNIT 1: রবীন্দ্র জীবনকথা - প্রভাতকুমার মুখোপাধ্যায় UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
		DSE 4	UNIT 1: সন্মার্গ সপর্য্য - শঙ্খু 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 সপর্য্য - শঙ্খু মিত্র (নির্বাচিত)
		DSE 6	UNIT 1: রবীন্দ্র জীবনকথা - প্রভাতকুমার মুখোপাধ্যায় UNIT 3 : রবীন্দ্রনাথের কর্ম পরিকল্পনা
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপত্রিকল্পনা : দ্বিতীয় বর্ষ, তৃতীয় বর্ষ
বিজোড় সেমেস্টার (জুলাই - জুন)
২০১৮-২০১৯ শিক্ষাবর্ষ
শিক্ষকেরনাম - অধ্যাপক জয়ন্ত মিত্র

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
পাঠপত্রিকল্পনা : জোড়সেমেস্টার (জানুয়ারি - জুন)
২০১৮-২০১৯ শিক্ষাবর্ষ
শিক্ষকেরনাম - অধ্যাপক জয়ন্ত মিত্র

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

পাঠপত্রিকল্পনা : বিজোড় সেমেস্টার (জানুয়ারি - জুন)

২০১৯-২০২০ শিক্ষাবর্ষ

শিক্ষকেরনাম - অধ্যাপক জয়ন্ত মিস্ত্রি

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)
		CC 7	UNIT 1: সাম্য -রবীন্দ্রনাথ ঠাকুর
	৩		
সপ্তাহ ১৮			

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপত্রিকল্পনা : জোড় সেমেস্টার (জানুয়ারি - জুন)

২০১৯-২০২০ শিক্ষাবর্ষ

শিক্ষকেরনাম - অধ্যাপক জয়ন্ত মিস্ত্রি

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
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
	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			
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
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

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

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
	৫	CC 7	UNIT 1: সাম্য –রবীন্দ্রনাথ ঠাকুর
			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
	৩	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	৩		(অনুবাদ সাহিত্যের অংশবিশেষ)
		CC 6	UNIT 2 শাক্তপদাবলি UNIT 3 রাজা-রবীন্দ্রনাথ ঠাকুর
	৫		
		CC 7	UNIT 1: সাম্য –রবীন্দ্রনাথ ঠাকুর
			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 মিত্র

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 4	UNIT 1 : বাংলা নাট্যসাহিত্যের ধারা UNIT 3 : বাংলাকাব্যকবিতার 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 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

			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 সংগ্রহ - নির্বাচিত অংশ
			UNIT 1 : মেঘনাদবধকাব্য
	৬	CC 9	UNIT 4: রাশিয়ার চিঠি- রবীন্দ্রনাথ ঠাকুর
		CC 10	UNIT 2: প্রবন্ধ সাহিত্যের প্রকারভেদ
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বাংলাবিভাগ
পাঠপরিদর্শন :বিজোড়সেমিস্টার (জানুয়ারি – জুন)
২০২১-২০২২ শিক্ষাবর্ষ
শিক্ষকেরনাম – অধ্যাপক জয়ন্ত মিত্র

সপ্তাহ	সেমিস্টার	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)
			UNIT 2 শাক্তপদাবলি UNIT 3 রাজা-রবীন্দ্রনাথ ঠাকুর
	৩	CC 6	
		CC 7	UNIT 1: সাম্য -রবীন্দ্রনাথ ঠাকুর
	৫		UNIT 3 : প্রবন্ধ সংগ্রহ-প্রমথ চৌধুরী
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিদর্শন : জোড় সেমেস্টার (জানুয়ারি - জুন)

২০২১-২০২২ শিক্ষাবর্ষ

শিক্ষকেরনাম - অধ্যাপক জয়ন্ত মিত্র

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

পাঠপত্রিকল্পনা : দ্বিতীয় বর্ষ, তৃতীয় বর্ষ

বিজোড় সেমেস্টার (জুলাই - জুন)
২০১৮-২০১৯ শিক্ষাবর্ষ
শিক্ষকেরনাম - অধ্যাপক লিপিকা সাহা

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			
সপ্তাহ ১৫-১৭	১	CC 1	UNIT 2 : বাংলামঙ্গলকাব্যেরধারা
		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
		CC 4	UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
সপ্তাহ ১৫-১৭			
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিদর্শন : বিজোড় সেমিস্টার (জানুয়ারি - জুন)

২০১৯-২০২০ শিক্ষাবর্ষ

শিক্ষকেরনাম - অধ্যাপক লিপিকা সাহা

সপ্তাহ	সেমিস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ - ৪	১	CC 1	UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
			UNIT 3 চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1 অলঙ্কার সঙ্গার
			UNIT 2 অলঙ্কার নির্ণয়
সপ্তাহ ৫ - ৮	১	CC 1	UNIT 2 : বাংলা মঙ্গল কাব্যের ধারা
			UNIT 3 চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1 অলঙ্কার সঙ্গার
			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 3 চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1 অলঙ্কার সঙ্গার্ত
			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 1 অলঙ্কার সঙ্গার্ত
	৩		
			UNIT 2 অলঙ্কার নির্ণয়
		CC 6	UNIT 2: কৃষ্ণকুমারীনাটক
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিদর্শন : 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 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
		CC 8	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
	৪	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 কাবসংকলনের 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 কাবসংকলনের 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
		CC 8	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
	৪	CC 10	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
		CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যাণ্ডে বঙ্গমহিলা
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপত্রিকল্পনা : 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 3 চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1 অলঙ্কার 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 3 চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1 অলঙ্কার 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 3 চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1 অলঙ্কার 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 1 অলঙ্কার পরিচয়
			UNIT 2 অলঙ্কার নির্ণয়
		CC 6	UNIT 2: কৃষ্ণকুমারীনাটক
	৫	CC 7	UNIT 1 : সাম্য

সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপত্রিকল্পনা : 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 কাবসংকলনের অংশবিশেষ
		CC 9	UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
	৬	CC 10	UNIT-নাটকের রূপভেদ
		CC 13	UNIT-4 হিন্দি, সাহিত্যের ইতিহাস
সপ্তাহ ৫ – ৮	২	CC 14	UNIT 1: ইংল্যাণ্ডে বঙ্গমহিলা
	৪	CC 4	UNIT 4 : বাংলা শব্দ ভাণ্ডার UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
		CC 8	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
	৬		UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
		CC 9	UNIT-নাটকের রূপভেদ
	৬	CC 10	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
		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 কাবসংকলনের অংশবিশেষ
		CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যাণ্ডে 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 কাবসংকলনের অংশবিশেষ
	৬		UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
		CC 9	UNIT-নাটকের রূপভেদ
		CC 10	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
		CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যাণ্ডে বঙ্গমহিলা
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিদর্শন : 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 3 চণ্ডীমঙ্গল
	৩	CC 5	UNIT 1 অলঙ্কার সম্ভার

			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	
		CC 5	UNIT 1অলঙ্কার সঙ্গার্থ	
	৩			UNIT 2অলঙ্কার নির্ণয়
			CC 6	UNIT 2: কৃষ্ণকুমারীনাটক
		৫	CC 7	UNIT 1 : সাম্য
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন			

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপত্রিকল্পনা : 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 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
	৪	CC 8	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
		CC 9	UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
	৬	CC 10	UNIT-নাটকের রূপভেদ
সপ্তাহ ৫ - ৮	২	CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যাণ্ডে বঙ্গমহিলা
	৪	CC 4	UNIT 4 : বাংলা শব্দ ভাণ্ডার UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
		CC 8	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
	৬		UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
সপ্তাহ ৯ - ১২	২	CC 9	UNIT-নাটকের রূপভেদ
		CC 10	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
	৪	CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যাণ্ডে বঙ্গমহিলা
	৬	CC 4	UNIT 4 : বাংলা শব্দ ভাণ্ডার UNIT 4 বাংলা কথাসাহিত্যের উদ্ভব ও বিকাশ
		CC 8	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
সপ্তাহ ১৩ - ১৬	৮		UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর

	৬	CC 9	UNIT-নাটকের রূপভেদ
		CC 10	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
		CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যাণ্ডে 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 কাবসংকলনের অংশবিশেষ UNIT 1 : ঘরেবাইরে উপন্যাস-রবীন্দ্রনাথ ঠাকুর
	৬	CC 9	UNIT-নাটকের রূপভেদ
		CC 10	UNIT 2 সঞ্চয়িতা কাবসংকলনের অংশবিশেষ
		CC 13	UNIT-4 হিন্দি সাহিত্যের ইতিহাস
		CC 14	UNIT 1: ইংল্যাণ্ডে বঙ্গমহিলা
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপরিদর্শন :বিজোড়সেমিস্টার (জুলাই - ডিসেম্বর)

২০২২-২৩ শিক্ষাবর্ষ

শিক্ষকেরনাম - ড. দীপঙ্কর ভট্টাচার্য

সপ্তাহ	সেমিস্টার	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			
	১	CC 1	UNIT 2 : বাংলা মঙ্গলকাব্যের ধারা - শিবায়ন, অন্নদা
সপ্তাহ ১৫-১৭	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		



বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপত্রিকল্পনা : জোড়সেমিস্টার (জানুয়ারি - জুন)

২০২২-২৩ শিক্ষাবর্ষ

শিক্ষকেরনাম - ড. দীপঙ্কর ভট্টাচার্য

সপ্তাহ	সেমিস্টার	পত্রসংখ্যা	বিষয়	
সপ্তাহ ১ – ৪	২	CC 4	UNIT 1 : বাংলা গদ্য ও প্রবন্ধসাহিত্যের ধারা এবং সাময়িক পত্রের ইতিহাস	
		AECC	সহজ পাঠ - রবীন্দ্রনাথ ঠাকুর	
	৪	CC 9	UNIT 1 : ঘরে বাইরে - রবীন্দ্রনাথ ঠাকুর	
		CC 10	UNIT 2 : বাংলা কথাসাহিত্যের রূপভেদ	
	৬	CC 14	UNIT 2: যুরোপ 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	
	৪	CC 9	UNIT 1 : ঘরে বাইরে - রবীন্দ্রনাথ ঠাকুর	
		CC 10	UNIT 2 : বাংলা কথাসাহিত্যের রূপভেদ	
	৬	CC 14	UNIT 2: যুরোপ 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	
	৪	CC 9	UNIT 1 : ঘরে বাইরে - রবীন্দ্রনাথ ঠাকুর	
		CC 10	UNIT 2 : বাংলা কথাসাহিত্যের রূপভেদ	
	৬	CC 14	UNIT 2: যুরোপ 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	
৪		CC 9	UNIT 1 : ঘরে বাইরে - রবীন্দ্রনাথ ঠাকুর	
		CC 10	UNIT 2 : বাংলা কথাসাহিত্যের রূপভেদ	
৬		CC 14	UNIT 2: যুরোপ প্রবাসীর পত্র - রবীন্দ্রনাথ ঠাকুর	
		CC 14	UNIT 4: হে পূর্ণ তব চরণের কাছে - নবনীতা দেবসেন	

সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন

বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপত্রিকল্পনা :বিজোড়সেমিস্টার (জুলাই – ডিসেম্বর)

২০২২-২৩ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপকদেবপ্রিয়ভট্টাচার্য

সপ্তাহ	সেমিস্টার	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
সপ্তাহ ৫ – 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 (পরিচ্ছেদ ৯-১১)
	৫	CC 12	UNIT 1: ছোটগল্প – রবীন্দ্রনাথঠাকুর (নির্বাচিত ৩টি)
		DSE 2	UNIT 1 : মুচিরামগুড়েরজীবনচরিত – বঙ্কিমচন্দ্রচট্টোপাধ্যায়
সপ্তাহ ৯ – ১২	১	CC 1	UNIT 4 :বাংলাসাহিত্যেরইতিহাস : চৈতন্যজীবনী
		CC 2	UNIT 2 : শাক্তপদাবলি
		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)
		CC 12	UNIT 1: ছোটগল্প – রবীন্দ্রনাথঠাকুর (নির্বাচিত২টি)
	৫	DSE 2	UNIT 1 : মুচিরামগুড়েরজীবনচরিত – বঙ্কিমচন্দ্রচট্টোপাধ্যায়
		পাঠ-পুনর্বিবেচনা ও অনুশীলন	



বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপত্রিকল্পনা : জোড়সেমিস্টার (জানুয়ারি - জুন)

২০২২-২৩ শিক্ষাবর্ষ

শিক্ষকেরনাম - অধ্যাপকদেবপ্রিয়ভট্টাচার্য

সপ্তাহ	সেমিস্টার	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, বর্ণীকরণ
		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 :বিজোড়সেমিস্টার (জুলাই - ডিসেম্বর)

২০২২-২৩ শিক্ষাবর্ষ

শিক্ষকেরনাম - অধ্যাপক অমরেশ মণ্ডল

সপ্তাহ	সেমিস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ - ৪	১	CC 2	UNIT 2 : প্রাগাধুনিক বাংলা সাহিত্য , চণ্ডীমঙ্গল কাব্য, আখ্যটিক খণ্ড
	৩	CC 7	UNIT 3 : প্রমথ চৌধুরী, প্রবন্ধসংগ্রহ ,নির্বাচিত অংশ
	৫	CC 11	UNIT 2: শ্রুচন্দ্রের পথের দাবী
		CC 12	UNIT 4 : স্বাধীনতা পরবর্তী ছোট গল্প(১০টি)
		DSE 3 :	UNIT 3 : শক্তি চট্টোপাধ্যায়ের নির্বাচিত কবিতা

সপ্তাহ ৫ - ৮	১	CC 2	UNIT 2 : প্রাগাধুনিক বাংলা সাহিত্য , চণ্ডীমঙ্গল কাব্য, আখ্যটিক খণ্ড
	৩	CC 7	UNIT 3 : প্রমথ চৌধুরী, প্রবন্ধসংগ্রহ ,নির্বাচিত অংশ
	৫	CC 11	UNIT 2: শ্রুচন্দ্রের পথের দাবী
		CC 12	UNIT 4 : স্বাধীনতা পরবর্তী ছোট গল্প(১০টি)
		DSE 3 :	UNIT 3 : শক্তি চট্টোপাধ্যায়ের নির্বাচিত কবিতা
সপ্তাহ ৯ - ১২	১	CC 2	UNIT 2 : প্রাগাধুনিক বাংলা সাহিত্য , চণ্ডীমঙ্গল কাব্য, আখ্যটিক খণ্ড
	৩	CC 7	UNIT 3 : প্রমথ চৌধুরী, প্রবন্ধসংগ্রহ ,নির্বাচিত অংশ
	৫	CC 11	UNIT 2: শ্রুচন্দ্রের 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, আখ্যটিক খণ্ড
	৩	CC 7	UNIT 3 : প্রমথ চৌধুরী, প্রবন্ধসংগ্রহ ,নির্বাচিত অংশ
	৫	CC 11	UNIT 2: শ্রুচন্দ্রের পথের দাবী
		CC 12	UNIT 4 : স্বাধীনতা পরবর্তী ছোট গল্প(১০টি)
সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন		

সপ্তাহ	সেমিস্টার	পত্রসংখ্যা	বিষয়
3	১	CC 2	UNIT 2 : প্রাগাধুনিক বাংলা সাহিত্য , চণ্ডীমঙ্গল কাব্য, আখ্যটিক খণ্ড
	৩	CC 7	UNIT 3 : প্রমথ চৌধুরী, প্রবন্ধসংগ্রহ ,নির্বাচিত অংশ
	৫	CC 11	UNIT 2: শ্রুচন্দ্রের পথের দাবী
		CC 12	UNIT 4 : স্বাধীনতা পরবর্তী ছোট গল্প(১০টি)

		DSE 3 :	UNIT 3 : শক্তি চট্টোপাধ্যায়ের নির্বাচিত কবিতা
সপ্তাহ ৫ - 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
সপ্তাহ ৯ - 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(গ্রন্থলোক, ভুলোক)
		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
	DSE 2		UNIT 1 : মুচিরামগুড়েরজীবনচরিত - বঙ্কিমচন্দ্রচট্টোপাধ্যায়
	সপ্তাহ ১৮	পাঠ-পুনর্বিবেচনা ও অনুশীলন	



বিধাননগরকলেজ

বাংলাবিভাগ

পাঠপত্রিকল্পনা : জোড়সেমিস্টার (জানুয়ারি – জুন)

২০২২-২৩ শিক্ষাবর্ষ

শিক্ষকেরনাম – অধ্যাপক অমরেশ মণ্ডল

সপ্তাহ	সেমিস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	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: কৃষ্ণভামিনী দেবী, ইংল্যান্ডে বঙ্গমহিলা
		DSE 4	UNIT 4: ফুল্লকেতুর পালা নাটক
সপ্তাহ ৫ – ৮	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: কৃষ্ণভামিনী 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: কৃষ্ণভামিনী দেবী, ইংল্যাণ্ডে বঙ্গমহিলা
		DSE 4	UNIT 4: ফুল্লকেতুর পালা নাটক
সপ্তাহ ১৩ – ১৪ : অভ্যন্তরীণমূল্যায়ন			
	২	CC 4	UNIT 2 : বাংলা নাট্য সাহিত্যের উদ্ভব ও বিকাশের ইতিহাস
		CC 8	UNIT 1 : মেঘনাদবধ কাব্য ১-৬ সর্গ
সপ্তাহ ১৫-১৭		CC 9	UNIT 4 : রবীন্দ্রনাথের ‘রাশিয়ার চিঠি’
	৬	CC 14	UNIT 1: কৃষ্ণভামিনী 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. তপস্রী 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
		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. তপস্রী চট্টপাধ্যায়

সপ্তাহ	সেমেস্টার	পত্রসংখ্যা	বিষয়
সপ্তাহ ১ – ৪	২	CC 3	UNIT 1 : ভারতীয় আর্থভাষার 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 আর্থভাষার 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 আর্থভাষার 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 আর্থভাষার বিবর্তনের ইতিহাস UNIT 2 : বাংলা ভাষার উপভাষা
		CC 10	UNIT 3 : কাব্যজিজ্ঞাসা UNIT 4 : সাহিত্য – রবীন্দ্রনাথ ঠাকুর

	৬	CC 13 DSE 4	UNIT 2: ইংরিজি সাহিত্যের ইতিহাস UNIT 2 : চন্দ্রগুপ্ত



বিধাননগর কলেজ

বাংলা বিভাগ

পাঠ পরিকল্পনা : বিজোড় সেমেস্টার (জুলাই - ডিসেম্বর)

২০২১ - ২২ শিক্ষাবর্ষ

শিক্ষকের নাম - ড. তপস্বী 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 আর্থভাষার 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 আর্থভাষার 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 আর্থভাষার 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 আর্থভাষার বিবর্তনের ইতিহাস UNIT 2 : বাংলা ভাষার উপভাষা
		CC 10	UNIT 3 : কাব্যজিজ্ঞাসা UNIT 4 : সাহিত্য - রবীন্দ্রনাথ ঠাকুর
	৬	CC 13 DSE 4	UNIT 2: ইংরিজি সাহিত্যের ইতিহাস UNIT 2 : চন্দ্রগুপ্ত



বিধাননগর কলেজ

বাংলা বিভাগ

পাঠ পরিকল্পনা : বিজোড় সেমেস্টার (জুলাই - ডিসেম্বর)

২০২২ - ২৩ শিক্ষাবর্ষ

শিক্ষকের নাম - ড. তপস্রী 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
		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 আর্থভাষার বিবর্তনের ইতিহাস UNIT 2 : বাংলা ভাষার উপভাষা
	৪	CC 10	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 আর্থভাষার বিবর্তনের ইতিহাস UNIT 2 : বাংলা ভাষার উপভাষা
	৪	CC 10	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 আর্থভাষার বিবর্তনের ইতিহাস UNIT 2 : বাংলা ভাষার উপভাষা
	৪	CC 10	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 আর্থভাষার বিবর্তনের ইতিহাস UNIT 2 : বাংলা ভাষার উপভাষা
		CC 10	UNIT 4 : সাহিত্য - রবীন্দ্রনাথ ঠাকুর
	৬	CC 13 DSE 4	UNIT 2: ইংরিজি সাহিত্যের ইতিহাস UNIT 2 : চন্দ্রগুপ্ত

পাঠপত্রিকল্পনা :দ্বিতীয়বর্ষ, তৃতীয়বর্ষ (পুরাতন বার্ষিক পাঠ্যক্রম)
(জুলাই - জুন)
২০১৮-২০১৯ শিক্ষাবর্ষ
শিক্ষকেরনাম - অধ্যাপকজয়ন্তমিস্ত্রি

সপ্তাহ	বর্ষ	বিষয়
সপ্তাহ ১ - ৪	২য় বর্ষসাম্মানিক	শাক্তপদাবলি
	৩য় বর্ষসাম্মানিক	সন্ধিতা, অরণ্যেরঅধিকার
	২য় বর্ষসাধারণ	মেঘনাদবধকাব্য, পল্লীসমাজ
সপ্তাহ ৫ - ৮	২য়বর্ষসাম্মানিক	শাক্তপদাবলি
	৩য় বর্ষসাম্মানিক	সন্ধিতা, অরণ্যেরঅধিকার
	২য় বর্ষসাধারণ	মেঘনাদবধকাব্য, পল্লীসমাজ
সপ্তাহ ৯ - ১২	২য়বর্ষসাম্মানিক	মুক্তধারা, টিনেরতলোয়ার
	৩য় বর্ষসাম্মানিক	সন্ধিতা, অরণ্যেরঅধিকার
	২য় বর্ষসাধারণ	মেঘনাদবধকাব্য, পল্লীসমাজ
সপ্তাহ ১৩	২য় বর্ষসাম্মানিক	মুক্তধারা, টিনেরতলোয়ার
	৩য় বর্ষসাম্মানিক	সন্ধিতা, অরণ্যেরঅধিকার
	২য় বর্ষসাধারণ	মেঘনাদবধকাব্য, পল্লীসমাজ
সপ্তাহ ১৪- ১৫	২য় বর্ষসাম্মানিক	মুক্তধারা, টিনেরতলোয়ার
	৩য় বর্ষসাম্মানিক	সন্ধিতা, অরণ্যেরঅধিকার
	২য় বর্ষসাধারণ	মেঘনাদবধকাব্য, পল্লীসমাজ
সপ্তাহ ১৬-১৭	২য়বর্ষসাম্মানিক	মুক্তধারা, টিনেরতলোয়ার
	৩য় বর্ষসাম্মানিক	সন্ধিতা, অরণ্যেরঅধিকার
	২য় বর্ষসাধারণ	মেঘনাদবধকাব্য, পল্লীসমাজ
পুনরালোচনা		

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপত্রিকল্পনা :তৃতীয়বর্ষ

(জুলাই – জুন)
২০১৯-২০২০ শিক্ষাবর্ষ
শিক্ষকেরনাম – অধ্যাপকজয়ন্তমিস্ত্রি

সপ্তাহ	বর্ষ	বিষয়
সপ্তাহ ১ – ৪		
	৩য় বর্ষসাম্মানিক	সঞ্চিতা, অরণ্যের অধিকার
সপ্তাহ ৫ – ৮		
	৩য় বর্ষসাম্মানিক	সঞ্চিতা, অরণ্যের অধিকার
সপ্তাহ ৯ – ১২		
	৩য় বর্ষসাম্মানিক	অরণ্যের অধিকার, প্রবন্ধনবন্ধের রূপভেদ
সপ্তাহ ১৩		
	৩য় বর্ষসাম্মানিক	প্রবন্ধনবন্ধের রূপভেদ, অহমীয়া সাহিত্যের ইতিহাস
সপ্তাহ ১৪ – ১৫		
	৩য় বর্ষসাম্মানিক	প্রবন্ধনবন্ধের রূপভেদ, অহমীয়া সাহিত্যের ইতিহাস
সপ্তাহ ১৬ – ১৭		
	৩য় বর্ষসাম্মানিক	প্রবন্ধনবন্ধের রূপভেদ, অহমীয়া সাহিত্যের ইতিহাস
পুনরালোচনা		

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপত্রিকল্পনা : দ্বিতীয়বর্ষ, তৃতীয়বর্ষ
(জুলাই – জুন)
২০১৮-২০১৯ শিক্ষাবর্ষ
শিক্ষকেরনাম – অধ্যাপক উদয়শঙ্কর বর্মা

সপ্তাহ	বর্ষ	বিষয়
সপ্তাহ ১ – ৪	২য় বর্ষসাম্মানিক	ছন্দের পরিচয় ও ছন্দনির্ণয়
	৩য় বর্ষসাম্মানিক	একালের কবিতা সঞ্চয়ন, সংস্কৃত সাহিত্যের ইতিহাস
	২য় বর্ষসাধারণ	ছন্দের পরিচয় ও ছন্দনির্ণয়

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

পাঠপত্রিকল্পনা :তৃতীয়বর্ষ

(জুলাই - জুন)

২০১৯-২০২০ শিক্ষাবর্ষ,

শিক্ষকেরনাম - অধ্যাপকঅধ্যাপকউদয়শঙ্করবর্মা

সপ্তাহ	বর্ষ	বিষয়
সপ্তাহ ১ - ৪		একালেরকবিতাসঞ্চয়ন, একালেরসমালোচনাসঞ্চয়ন
সপ্তাহ ৫ -৮		একালেরকবিতাসঞ্চয়ন,একালেরসমালোচনাসঞ্চয়ন
সপ্তাহ ৯ -১২		একালেরকবিতাসঞ্চয়ন,,একালেরসমালোচনাসঞ্চয়ন,
সপ্তাহ ১৩		সংস্কৃতসাহিত্যেরইতিহাস, একালেরপ্রবন্ধসঞ্চয়ন

সপ্তাহ ১৪- ১৫		সংস্কৃতসাহিত্যেরইতিহাসএকালেরপ্রবন্ধসঞ্চয়ন
সপ্তাহ ১৬-১৭		সংস্কৃতসাহিত্যেরইতিহাসএকালেরপ্রবন্ধসঞ্চয়ন
পুনরালোচনা		

বিধাননগরকলেজ,
 বাংলাবিভাগ
 পাঠপত্রিকল্পনা :দ্বিতীয়বর্ষ, তৃতীয়বর্ষ
 (জুলাই - জুন)
 ২০১৮-২০১৯ শিক্ষাবর্ষ
 শিক্ষকেরনাম - অধ্যাপকলিপিকাসাহা

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-প্রাকস্বাধীনতাযুগ, স্বাধীনতা-উত্তরযুগ, হিন্দিসাহিত্যেরইতিহাস
	২য় বর্ষসাধারণ	একালেরছোটগল্প, পুনশ্চ-রবীন্দ্রনাথঠাকুর
সপ্তাহ ১৪- ১৫	২য় বর্ষসাম্মানিক	অলঙ্কার, নাটকেরূপভেদ
	৩য় বর্ষসাম্মানিক	একালেরগল্পসঞ্চয়ন-প্রাকস্বাধীনতাযুগ, স্বাধীনতা-উত্তরযুগ, হিন্দিসাহিত্যেরইতিহাস
	২য় বর্ষসাধারণ	একালেরছোটগল্প, পুনশ্চ-রবীন্দ্রনাথঠাকুর
সপ্তাহ ১৬-১৭	২য় বর্ষসাম্মানিক	অলঙ্কার, নাটকেরূপভেদ
	৩য় বর্ষসাম্মানিক	একালেরগল্পসঞ্চয়ন-প্রাকস্বাধীনতাযুগ, স্বাধীনতা-উত্তরযুগ

	২য় বর্ষসাধারণ	একালেরছোটগল্প, পুনশ্চ-রবীন্দ্রনাথঠাকুর
পুনরালোচনা		

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপত্রিকল্পনা :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-প্রাকস্বাধীনতায়ুগ, স্বাধীনতা-উত্তরযুগ, হিন্দিসাহিত্যেরইতিহাস
সপ্তাহ ১৪- ১৫		একালেরগল্পসঞ্চয়ন-প্রাকস্বাধীনতায়ুগ, স্বাধীনতা-উত্তরযুগ, হিন্দিসাহিত্যেরইতিহাস
সপ্তাহ ১৬-১৭		একালেরগল্পসঞ্চয়ন-প্রাকস্বাধীনতায়ুগ, স্বাধীনতা-উত্তরযুগ, হিন্দিসাহিত্যেরইতিহাস
পুনরালোচনা		

বিধাননগরকলেজ
বাংলাবিভাগ
পাঠপত্রিকল্পনা :দ্বিতীয়বর্ষ, তৃতীয়বর্ষ
(জুলাই - জুন)
২০১৮-২০১৯ শিক্ষাবর্ষ
শিক্ষকেরনাম - অধ্যাপকতপশ্রীচট্টোপাধ্যায়

সপ্তাহ	বর্ষ	বিষয়
সপ্তাহ ১ - ৪	২য় বর্ষসাম্মানিক	বৈষ্ণবপদাবলি, শেষেরকবিতা
	৩য় বর্ষসাম্মানিক	বীরঙ্গনা, গল্পগুচ্ছ
	২য় বর্ষসাধারণ	বৈষ্ণবপদাবলি, রাজা ও রাণী

সপ্তাহ ৫ -৮	২য়বর্ষসাম্মানিক	বৈষ্ণবপদাবলি, শেষেরকবিতা
	৩য় বর্ষসাম্মানিক	বীরাজনা, গল্পগুচ্ছ
	২য় বর্ষসাধারণ	বৈষ্ণবপদাবলি, রাজাওরাণী
সপ্তাহ ৯ -১২	২য়বর্ষসাম্মানিক	বৈষ্ণবপদাবলি, শেষেরকবিতা
	৩য় বর্ষসাম্মানিক	বীরাজনা, 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		

বিধাননগরকলেজ
 বাংলাবিভাগ
 পাঠপত্রিকল্পনা :তৃতীয়বর্ষ
 (জুলাই - জুন)
 ২০১৯-২০২০ শিক্ষাবর্ষ
 শিক্ষকেরনাম - অধ্যাপকতপশ্রীচট্টোপাধ্যায়

সপ্তাহ	বর্ষ	বিষয়
সপ্তাহ ১ - ৪		বীরাজনা, গল্পগুচ্ছ
সপ্তাহ ৫ -৮		বীরাজনা, গল্পগুচ্ছ
সপ্তাহ ৯ -১২		বীরাজনা, গল্পগুচ্ছ

সপ্তাহ ১৩		সোনারতরী, ইংরেজিসাহিত্যেরইতিহাস
সপ্তাহ ১৪- ১৫		সোনারতরী, ইংরেজিসাহিত্যেরইতিহাস
সপ্তাহ ১৬-১৭		সোনারতরী, ইংরেজিসাহিত্যেরইতিহাস
পুনরালোচনা		