MURALIDHAR GIRLS' COLLEGE

GEOGRAPHY DEPARTMENT

ACADEMIC CALENDAR

1ST YEAR HONOURS

Term -1

GEOTECTONICS

Module I

Unit -I

1.1 Origin of the earth with particular reference to Big Bang theory; Geological time scale and related topographic and structural evolution**.** (Bablu Samanta)

1.2 Isostasy: Airy and Pratt. (Bablu Samanta)

1.3 Folds and Faults - Origin types and their topographic expressions. (Bablu Samanta)

Unit-II

2.1 General de-gradational processes: Processes of rock weathering and their effects on landforms. (Satarupa Roy)

2.2 Fluvial processes and landforms. (Satarupa Roy)

Unit-III

3.1 Basic concepts of Geomorphology as postulated by Thornbury. (Kakali Das)

Unit -IV

4.1 Normal cycle of erosion by W. M. Davis. (Kakali Das)

4.2 Views of W. Penck on normal cycle of erosion. (Kakali Das)

Module II

Unit -I

1.1 Definition scope and content of Hydrology. (Kakali Das)

1.2 Global hydrological cycle: its physical and biological role. (Gouri Chakraborty)

1.3 Drainage basin as a hydrological unit. (Kakali Das)

Unit-II

2.1 Physical properties of ground water. (Gouri Chakraborty)

2.2 Chemical properties of ground water. (Gouri Chakraborty)

Unit - IV

4.1 Oceanic sediments: Origin and classification. (Aditi Matilal)

Module III

Unit -I

1.1 Concept and classification of resources economic and environmental approaches to resource utilization. (Atanu Sarkar)

1.2 Resource depletion and resource conservation; Forrester meadows Model on limit to growth; sustainable use of resources. (Atanu Sarkar)

Unit-II

2.1 Primary activities: Concepts, classification and importance. (Atanu Sarkar)

2.2 World view of primary activities, problems and trend of management with reference for forestry, fishing and livestock farming. (Atanu Sarkar)

Unit-III

3.1 Secondary activities: Concept, classification and importance. (Bablu Samanta)

3.2 Factors of industrial location and economic growth models: Weber, Losch and Gunnar Myrdal. (Bablu Samanta)

Unit-IV

4.1 Tertiary activities and service: concept, classification and importance. (Atanu Sarkar)

4.2 Trade: As an engine and hindrance to growth, determinants, trade Strategies - import substitution and export promotion. (Atanu Sarkar)

Module IV

Unit-I

1.1 a) Linear scale (Gouri Chakraborty)

b) Diagonal scale (Gouri Chakraborty)

1.2 a) Divided proportional circles (Gouri Chakraborty)

Term - II

Module I

Unit-I

1.4 Plate tectonic processes - Sea floor spreading, subduction, earthquake. (Bablu Samanta)

Unit-II

2.3 Glacial processes and landforms: fluvio-glacial landforms. (Satarupa Roy)

Unit-III

3.2 Landforms on granite and basalt. (Kakali Das)

Unit-IV

4.3 Cycle of pediplaination by L. C. King. (Satarupa Roy)

Module II

Unit-I

1 4 Run-off controlling factors - infiltration, evaporation and transpiration. Runoff cycle. (Gouri Chakraborty)

Unit-II

2.3 Components, factors and processes controlling storage movement of around water. (Kakali Das)

Module III

Unit -1

1.3 Land as resource; problems of land acquisition in developing countries; Development of EPZ and SEZ; Land reforms in India with special reference to West Bengal. (Atanu Sarkar)

Unit - II

2.3 Critical appreciation of agricultural systems; Intensive agriculture (Rice), Extensive agriculture (Wheat), Planta on farming (Tea) and Mixed farming (N.W. Europe) (Atanu Sarkar)

Unit-III

3.3 Industries - their resource base, distribution, potentials of growth and problems with reference to Iron and Steel (UK, Japan and India), Cotton textile (USA and India). (Bablu Samanta)

Unit-IV

4.3 International trade: Ricardian theory, International trade with reference to GATT and WHO. (Atanu Sarkar)

Module IV

1.2 b) Flow diagram (Gouri Chakraborty)
c) Bar diagram (Satarupa Roy)

1.3 Geological Maps. (Kakali Das)

1.4 Rocks and Minerals identification. (Gouri Chakraborty)

Term - III

Module I

Unit -1

1.4 Oogenesis, Vulcanicity. (Bablu Samanta)

Unit-II

2.4 Aeolian processes and landforms - Fluvio - Aeolian processes. (Satarupa Roy)

Unit - III

3.3 Landforms on Limestone. (Kakali Das)

3.4 Development of River network and landforms on uniclinal and folded structure. (Kakali Das)

Unit - IV

4.4 Dynamic equilibrium theory by J. T. Hack. (Satarupa Roy)

Module II

Unit-II

2.4 Types of aquifers and issues related to their over utilization. (Kakali Das)

Unit - III

3.1 Physical properties of ocean water. (Aditi Matilal)

3.2 Chemical properties of ocean water. (Aditi Matilal)

3.3 Concept of water mass, waves, tides and their influence.
(Aditi Matilal)

3.4 Ocean currents and their influence. (Aditi Matilal)

Unit - IV

4.2 Coral reefs and atolls: Types and factors, coral and volcanic islands. (Aditi Matilal)

4.3 Major features of the ocean floor, forma on explained by plate tectonics. (Aditi Matilal)

4.4 Resource potential of the oceans. (Aditi Matilal)

Module III

Unit -1

1.4 Global scenario of resource related problems and trend of management with reference to Iron ore, Bauxite, Coal, Petroleum and Nuclear power. (Atanu Sarkar)

Unit-II

2.4 Land use and agricultural models L.D. Stamp, Von Thunen and Weaver. (Atanu Sarkar)

Unit-III

3.4 Industrial associated, integration, infrastructure and problems with reference to Lake District, Kanto plains and Kolkata - Haldia. (Bablu Samanta)

Unit - IV

4.4 Transport: Concept of distance, accessibility and connectivity, relative cost advantage of different modes of transport. (Atanu Sarkar)

Module IV

1.1 c) Vernier Scale. (Gouri Chakraborty)

1.2 c) Bar Graphs.
(Gouri Chakraborty)

1.3 Geological Maps. (Kakali Das)

1.4 Rocks and Mineral identification. (Gouri Chakraborty)

Term - IV

Revision.

2ND YEAR HONOURS

Term - I

Module V

CLIMATOLOGY

Unit - I

1.1 Nature, composition and layered structure of the atmosphere. (Satarupa Roy)

1.2 Factors controlling insolation; heat budget of the atmosphere. (Satarupa Roy)

1.3 Horizontal and Vertical distribution of temperature. (Satarupa Roy)

Unit - II

2.1 Global atmospheric pressure belts and their oscillation. (Gouri Chakraborty)

2.2 General wind circulation. (Gouri Chakraborty)

Module VI

SOIL AND BIO-GEOGRAPHY

1.1 Definition and factors responsible for soil formation. (Kakali Das)

1.2 Concept of V. V. Dokuchaev -

a) Ektodynamomorphic and

b) Endodynamomoraphic soils. Concept of N. M. Sibirtzev-Zoral, Azonal and Intra zonal soils. (Kakali Das)

Unit-II

2.1 Soil erosion: Processes and controlling factors. (Kakali Das)

2.2 Various measures of soil conservation. (Kakali Das)

Unit - III

3.1 Scope and content of Bio-Geography: Nature of Bio-sphere. (Bablu Samanta)

3.2 Concepts of Ecology, Ecosystem and major natural eco systems: Terrestrial and marine Trophic structures, Food chain and Food web. (Bablu Samanta)

Module VII

SOCIAL, CULTURAL AND POLITICAL GEOGRAPHY

Unit - I

1.1 Definition, scope and content of social geography. (Gouri Chakraborty)

Unit - II

2.1 Region as a social unit. (Bablu Samanta)

Unit - III

3.1 Concept of culture in Geography: Definition, scope and content of cultural geography. (Aditi Matilal)

3.2 Cultural groups with reference to India, ethnic, linguistic and religious. (Aditi Matilal)

Unit - IV

4.1 Definition, Scope of Political Geography. (Aditi Matilal)

4.2 Approaches and schools of thought in political Geography. (Landscape school, Functional school and Morphological school) (Aditi Matilal)

Module VIII

PRACTICAL

Unit - I

1.1 Principles of topo sheet numbering as followed by Survey of India. (Satarupa Roy)

1.2 Morphometric techniques - Relative relief, Average slope, Drainage Density. (Satarupa Roy)

Unit-II

2.4 Closed traverse survey by prismatic compass. (Gouri Chakraborty)

Term - II

Module V

CLIMATOLOGY

Unit -I

1.4 Green house effect and importance of ozone layer. (Satarupa Roy)

Unit - II

2.3 Jet stream and Index cycle. (Gouri Chakraborty)

Unit - III

3.1 Processes and forms of condensation. (Atanu Sarkar)

3.2. Mechanism and forms of precipitation, Ice-crystal theory, collision - coalescence theory. (Atanu Sarkar)

Unit - IV

4.1 Tropical cyclone. (Atanu Sarkar)

4.2 Mid Latitude cyclone and anti-cyclone. (Atanu Sarkar)

Module VI

SOIL AND BIO-GEOGRAPHY

Unit - I

1.3 Profile characteristics of pedalfer group: laterite and podzol; profile, characteristic of pedocal group: Cher-nozem. (Kakali Das)

Unit - II

2.3 Principles of soil classification: Gene c soil and USDA, Principles of land classification: UK and USDA. (Kakali Das)

Unit - III

3.3 Laws of Thermodynamics. (Bablu Samanta)

Unit-IV

4.1 Bio-geo chemical cycles. (Bablu Samanta)

4.3 Causes and consequences of Deforestation. (Bablu Samanta)

Module VII

SOCIAL, CULTURAL AND POLITICAL GEOGRAPHY

Unit-I

.2 Evolution of Social Geography. Approaches - Possibilistic, Behavioural, Radical and Welfare. (Gouri Chakraborty)

Unit - II

2.2 Social elements: Class, caste and ethnicity with special

reference to India. (Bablu Samanta)

Unit - III

3.3 Culture regions, cultural areas and cultural landscape. (Aditi Matilal)

Unit - IV

4.3 Geo-strategic views of Mackinder and Spykeman. (Aditi Matilal)

Module VIII

PRACTICAL

Unit - I

1.2 Road Density. (Satarupa Roy)

1.3 Drawing and analysis of profiles and transect chart with interpretation. (Satarupa Roy)

Unit-II

2.3 Longitudinal / profile levelling by Dumpy level. (Gouri Chakraborty)

Term -III

Module V

CLIMATOLOGY

Unit-II

2.4 Monsoon mechanism with reference to jet-stream. (Gouri Chakraborty)

Unit - III

3.3 Air mass: Typology origin and characteristics. (Atanu Sarkar)

3.4 Warm and cold fronts; frontogenesis and frontolysis. (Atanu Sarkar)

Unit - IV

4.3 Climatic classification after Koppen. (Atanu Sarkar)

Module VI

SOIL AND BIO-GEOGRAPHY

Unit -I

1.4 Physical properties of soil: Texture, structure and moisture, chemical properties of soil: pH, Organic ma er and NPK. (Kakali Das)

Unit - II

2.4 Land capability classification by Storie. (Kakali Das)

Unit - III

3.4 Energy flow in ecosystems. (Bablu Samanta)

Unit - IV

4.2 Concept of Biomes, Ecotone and Community; study of Tropical rainforest, Taiga and Grass lands. (Bablu Samanta)

Module VII

SOCIAL, CULTURAL AND POLITICAL GEOGRAPHY

Unit-I

1.3 Social structure and social processes macro and micro; social patterns. (Gouri Chakraborty)

Unit - II

2.3 Social issues in urban areas: Social area analysis; Social ecology. (Bablu Samanta)

Unit -III

3.4 Cultural assimilation, integration and diffusion. (Aditi Matilal)

Unit-IV

4.4 Political Geography of India: Impact of partition of India. (Aditi Matilal)

Module VIII

PRACTICAL

Unit -I

1.4 Analysis of landforms and correlation between physical and cultural elements under the Heads of relief, drainage, natural vegetation, settlements and transport. (Satarupa Roy)

Unit-II

2.1 Contouring by levelling along radial line by a Dumpy level: at least three radial lines to be set out from a common centre and their relative position to be obtained by measurement of magnetic bearing and/or included angle by Prismatic Compass. (Gouri Chakraborty)

2.2 Preparation of Level Book. (Gouri Chakraborty)

Term - IV

Module V

CLIMATOLOGY

Unit -I: Revision

Unit - II: Revision

Unit-III: Revision

Unit-IV: Climatic classification after Thorn Thwaite: 1931 and 1948. (Atanu Sarkar)

Module VI

SOIL AND BIO GEOGRAPHY

Unit -I: Revision

Unit-II: Revision

Unit-III: Revision

Unit - IV: Significance of Bio-diversity and controlling factors. (Gouri Chakraborty)

Module VII

SOCIAL, CULTURAL AND POLITICAL GEOGRAPHY

Unit -I

1.4 Concept of space: Social space, Material space; Social wellbeing. (Gouri Chakraborty)

Unit - II

2.4 Social Groups: Tribal, Traditional and Modern Society. (Bablu Samanta)

Unit - III: Revision

Unit - IV: Revision

Module VIII

PRACTICAL

Revision

3rd YEAR HONOURS

Term -I

Module IX

POPULATION AND SETTLEMENT GEOGRAPHY

Unit -I

1.1 Factors influencing special distribution and density of population. (Gouri Chakraborty)

1.2 Population growth: Global trends and patterns. (Gouri Chakraborty)

1.3 Population structure: Age and sex specific. (Gouri Chakraborty)

1.4 Population composition: Economic and Ethnic. (Gouri Chakraborty)

Unit-II

2.1 Determinants and Measures of Fertility, Morbidity and Mortality; Migration. (Gouri Chakraborty)

2.2 Theories of population growth - Malthus and Marx. (Gouri Chakraborty)

Module X

REGIONAL GEOGRAPHY OF INDIA

Unit -I

1.1 Concepts of region, nature and types of regions. (Kakali Das)

1.2 Approaches to regionalization - Scale and dimensions. (Kakali Das)

1.3 Bases of regional division - physical. (Kakali Das)

1.4 Bases of regional division - Socio-economic. (Kakali Das)

Unit-II

2.1 Structure and Physiography. (Kakali Das)

2.2 Drainage (peninsular and extra peninsular) (Kakali Das)

Module XI

PHILOSOPHY OF GEOGRAPHY

Unit -I

1.1 Geography and its relation with other disciplines. (Bablu Samanta)

1.2 Encyclopaedism, Geographical ideas during ancient period. (Bablu Samanta)

1.3 Development of Geography during medieval period. (Bablu Samanta)

1.4 Emergence of scientific ideas in Modern Geography. (Bablu Samanta)

Unit - II

2.1 Ideographic and Nomothetic approaches. (Bablu Samanta)

2.2 Man-Environment relation. (Bablu Samanta)

Module XII

CONTEMPORARY ISSUES IN GEOGRAPHY

Unit-I

1.1 Concept of hazards and disaster: natural, quasi-natural and man-made hazards. (Aditi Matilal)

1.2 Seasonal climatic hazards: Flood and drought -mechanism. (Aditi Matilal)

1.3 Occasional climatic hazards: Hail storm and Tornadoes - mechanism, environmental impact and management. (Aditi Matilal)

1.4 Bio c hazards: Deforestation and loss of bio-diversity -impact and conservation of biotic resources. (Aditi Matilal)

Unit-II

2.1 Edaphic hazards: Salinization and desertification -mechanism, impact and management. (Aditi Matilal)

2.2 Tectonic hazards: Earthquake - impact and precautionary measures. (Aditi Matilal)

Module XIII

MAPPING TECHNIQUES

1.1 Concept, classification and suitability. (Gouri Chakraborty)

1.2 Construction and properties of Zenithal stereographic projection (Polar case). (Gouri Chakraborty)

1.3 Non-perspective projection: Simple Conical with one standard parallel, cylindrical equal area, Bonne's, Polyconic, Sinusoidal. (Gouri Chakraborty)

1.4 Mercator's projection. (Gouri Chakraborty)

Module XIV

GIS AND REMOTE SENSING

Unit - II

2.1 Principles of photogrammetry - Types of aerial photographs, Determination of scales of aerial photographs. (Kakali Das)

2.2 Identification of physical and cultural features by fusing two overlapping photographs and their verification with topographical sheet with interpretation. (Kakali Das)

2.3 Preparation and interpretation of land use/land cover map using three overlapping aerial photographs. (Kakali Das)

Unit-III

2.1 Preparation of field report. (All teachers)

Module XV

STATISTICAL TECHNIQUES

Unit -I

1.1 Significance of statistical techniques in Geography, nature of statistical data: discrete, continuous, para-metric and non-parametric. (Gouri Chakraborty)

1.2 Sampling techniques: random, stratified random and purposive. (Gouri Chakraborty)

1.3 Frequency distribution: Histogram, frequency polygon, ogive, normal and skewed distribution. (Gouri Chakraborty)

1.4 Measures of central tendency: mean, median, modes, partition values - quartile, decile and percentile. (Gouri Chakraborty)

Unit-II

2.1 Measures of dispersion: mean deviation, quartile deviation, standard deviation and co-efficient of variation. (Gouri Chakraborty)

2.2 Bi-variate scatter diagram and regression trend line. (Gouri Chakraborty)
2.3 Co-efficient of co-relation after Karl Pearson. (Gouri Chakraborty)

2.4 Time series analysis: Moving average, semi average and least square method. (Gouri Chakraborty)

Module XVI

CONTEMPORARY TECHNIQUES IN GEOGRAPHY

Unit -I

1.4 Hazards mapping: Identification and zoning of the following hazards, collation of maps and their interpretation.

Meteorological i) Drought Map (Gouri Chakraborty)
ii) Flood Map. (Gouri Chakraborty)

Term - II

Module IX

Unit - II

2.3 Demographic transition model. (Gouri Chakraborty)

2.4 Population - Resource Region (as per Zelinsky) (Gouri Chakraborty)

Unit-III

3.1 Definition, nature and characteristics of rural settlements. (Atanu Sarkar)

3.2 Morphology of rural settlements: site and situation, layout-internal and external. (Atanu Sarkar)

3.3 Rural house types with reference to India. (Atanu Sarkar)

3.4 Social segregation in rural areas; census categories of rural settlements. (Atanu Sarkar)

Module X

REGIONAL GEOGRAPHY OF INDIA

Unit - II

2.3 Climatic, Edaphic and Bio c regions of India. (Kakali Das)

2.4 Agricultural regions (as per ICAR) (Kakali Das)

Unit-III

3.1 Meghalaya plateau as physiographic region. (Satarupa Roy)

3.2 Damodar valley as planning. (Satarupa Roy)

3.3 Western Rajasthan as Arid region. (Satarupa Roy)

3.4 Sundarbans as Bio c region. (Satarupa Roy)

Module XI

PHILOSOPHY OF GEOGRAPHY

Unit-II

2.3 Location, time and space. (Bablu Samanta)

2.4 Areal differentiation and spatial organization. (Bablu Samanta)

Unit-III

3.1 Empiricism. (Bablu Samanta)

3.2 Positivism. (Bablu Samanta)

3.3 Environmental determinism. (Bablu Samanta)

3.4 Possibilism. (Bablu Samanta)

Module XII

CONTEMPORARY ISSUES IN GEOGRAPHY

Unit - II

2.2 Geomorphic hazards: Landslide, River bank erosion and coastal erosion - mechanisms, impact and management. (Aditi Matilal)

2.4 Water related hazards: Contamination of ground water and fall of piezometric level. (Aditi Matilal)

Unit-III

3.1 Concept of development and under development. Basic indicators of economic development. (Atanu Sarkar)

3.2 Economic disparity as constraint of development: Per capita income, purchasing power and standard of living. (Atanu Sarkar)

3.3 Poverty: Poverty line, Unemployment, Dependency ratio, Work participation and poverty alleviation. (Atanu Sarkar)

3.4 Economic impact of globalization. (Atanu Sarkar)

Module XIII

MAPPING TECHNIQUES

Unit - II

2.1 Choropleth. (Gouri Chakraborty)
2.2 Proportional Squares. (Gouri Chakraborty)

2.3 Dots and Spheres. (Gouri Chakraborty)

2.4 Age-Sex Pyramid. (Gouri Chakraborty)

Unit-III

3.1 Climatic chart. (Satarupa Roy)

3.2 Ternary diagram. (Satarupa Roy)

3.3 Diagram with data on soil profile.(Satarupa Roy)

Module XIV

GIS AND REMOTE SENSING

Unit -I

1.1 Georeferencing of scanned maps and satellite images applying references spheroids. (WGS-84 and Everest) and projections (UTM and Poly conic) (Gouri Chakraborty)

1.2 Digitization of point, line and polygon layout. Attachment of appropriate attributes tables. (Gouri Chakraborty)
1.3 Digitization of administrative maps and attachments of attribute tables (Gouri Chakraborty)
1.4 Preparation of thematic maps: choropleth and maps with Bar and Poe Diagrams (Gouri Chakraborty)

Unit-II

2.4 Resolution of satellite sensors with special reference to Landsat and IRS series; preparation of standard false colour composites from Landsat and IRS data; preparation of land use/Land cover map with interpretation.(Bablu Samanta)

Unit-IV

2.5 Field report continued.

Module XVI

Unit -I

1.4 (iii) River bank erosion. (Gouri Chakraborty)

Unit - II

2.1 Computation of HDI and GDI and ranking of Countries / States / Districts based on HDI and GDI. (Atanu Sarkar)

2.2 Preparation of Questionnaire and Survey schedule for assessment of development and for perception study. (Satarupa Roy)

Term - III

Module IX

POPULATION AND SETTLEMENT GEOGRAPHY

Unit-IV

4.1 Census definition and categories in India. (Kakali Das)

4.2 Urban morphology: Classical models - Burgess, Homer Hoyt, Harris and Ullman. (Kakali Das)

4.3 Metropolitan concept; city region and conurbation. (Kakali Das)

4.4 Functional classification of cities: Harris, Nelson and Mc Kenzie. (Kakali Das)

Module X

REGIONAL GEOGRAPHY OF INDIA

Unit-IV

4.1 Problems of unreliability of rainfall. (Satarupa Roy)

4.2 Problems of soil salinity and its mitigation. (Satarupa Roy)

4.3 Problems of development of SEZ in India. (Satarupa Roy)

4.4 Problems of slum and urban rehabilitation in India. (Satarupa Roy)

Module XI

PHILOSOPHY OF GEOGRAPHY

Unit-IV

4.1 Structuralism. (Bablu Samanta)

4.2 Quantitative Revolution. (Bablu Samanta)

4.3 Radicalism. (Bablu Samanta)

4.4 Humanistic and Behavioural Approaches. (Bablu Samanta)

Module XII

CONTEMPORARY ISSUES IN GEOGRAPHY

Unit-IV

4.1 Basic indicators of human and gender development. (Atanu Sarkar)

4.2 Social inequality as constraint of development, caste and religious fundamentalism, gender bias. (Atanu Sarkar)

4.3 Demographic constraint population growth, malnutrition, Food security and Hunger, Morbidity and Mortality. (Atanu Sarkar)

4.4 Sustainable development. (Atanu Sarkar)

Module XIII: Revision.

Module XIV: Revision.

Module XV: Revision.

Module XVI

Unit -I

1.2 Preparation of station models for different meteorological stations of India with the help of synoptic chart. (Aditi Matilal)

1.3 Preparation and interpretation of Rating Curves, Hydrographs (Gouri Chakraborty) and unit hydrographs (Bablu Samanta) of rivers flowing through the Indian sub-continent.

Unit - II

2. i) Dominant Distinctive Function (Satarupa Roy)
   ii) Rank size rule. (Gouri Chakraborty)
   iii) Lorenz Curve. (Gouri Chakraborty)

GEOGRAPHY GENERAL

1ST YEAR GENERAL

Term -I

Module I

Paper -I

1.1 Structure of the earth's crust. (Satarupa Roy)

1.2 Influence of Rocks on topography. (Satarupa Roy)

1.4 Karst Landforms. (Satarupa Roy)

Module II

.2.1 Growth and distribution of world population, migration, types, causes and consequences. (Atanu Sarkar)

2.3 Sectors of economy. (Atanu Sarkar)

Term - II

Module I

1.3 Broad outline of plate tectonics and major crustal formations, fold mountains, trenches, island arcs. (Satarupa Roy)

1.4 Fluvial landforms Cycle of erosion. (Satarupa Roy)

Module II

2.2 Contemporary social issues, literacy poverty, gender, issues. (Atanu Sarkar)

2.4 Scales of production, small scale and large scale industries, general characteristics and examples. (Atanu Sarkar)

Term - III

Paper -I

Module I

1.4 Development of Landforms: Aeolian, Glacial, Coastal, Cycles of erosion. (Satarupa Roy)

Module II

2.5 Location, problems and prospects of Indian Industries. (Atanu Sarkar)

Term – IV

Revision.

2nd YEAR GENERAL

Term -I

Module III

Paper -II

CLIMATOLOGY, SOIL AND BIOGRAPHY

4.1 Insolation and Heat budget. Horizontal and vertical distribution of temperature and pressure, Green house effect. (Aditi Matilal)

4.2 Monsoon system; its origin and mechanism; Tropical disturbances; Thunderstorm and Cyclone. (Aditi Matilal)

Module IV
REGIONAL GEOGRAPHY OF INDIA

5.1 Concept of region: formal and functional; scale macro, meso and micro. (Kakali Das)

5.2 Broad physiographic regions of India with special reference to western Himalayas. (Kakali Das)

Paper - II

APPLIED GEOGRAPHICAL TECHNIQUES

3.1 Scale: Concept of scale; drawing of linear scale. (Gouri Chakraborty)

3.2 Statistics : (Gouri Chakraborty)

i) Nature and classification of data.

ii) Process of tabula on and graphical representation, histogram, frequency polygon, cumulative frequency curve.

iii) Measures of central tendency: Mean, Median and Mode.

Map Interpretation: (Satarupa Roy)

iv) Basis of numbering and scale of topographic sheet.

ii) Interpretation of 1: 50,000 topographical sheets: plain and plateau region and extraction of geographical information from maps, interpretation and explanation with suitable sketches, profiles and transect chart.

Term - II

Module III

Paper - II

CLIMATOLOGY, SOIL AND BIO GEOGRAPHY

4.3 Climatic classification after Koppen. (Aditi Matilal)

4.4 Origin of soils; profile development; concept of zonal, azonal and intra zonal soils. (Atanu Sarkar)

Module IV
REGIONAL GEOGRAPHY OF INDIA

5.3 Vagaries of Indian Monsoon and its impact; problems of flood and drought; Forest resources of India: issues concerning deforestation and bio-diversity; problems of soil erosion and conservation in India. (Kakali Das)

Module V

Paper - III

APPLIED GEOGRAPHICAL TECHNIQUES -I

3.3 Continuation

Module VI

APPLIED GEOGRAPHICAL TECHNIQUES – II

3.3 6.1 Map projections: Concept and classification

- Simple conic with one standard parallel (Bablu Samanta)
- Cylindrical equal area (Gouri Chakraborty)

Term - III

Module III

Paper - II

CLIMATOLOGY, SOIL AND BIO GEOGRAPHY

4.5 Properties of soil: physical and chemical. (Atanu Sarkar)

4.6 Definition of eco-system and Biomes; Tropical rainforest; Savannah; Hot desert (Atanu Sarkar)

Module IV

REGIONAL GEOGRAPHY OF INDIA

5.4 Regions of India:

i) Agricultural regions of India : with special reference to Punjab-Haryana wheat belt (Bablu Samanta)

ii) Industrial regions of India: with special reference to Hooghly Industrial belt. (Bablu Samanta)

Module V

Paper-III

APPLIED GEOGRAPHICAL TECHNIQUES

Revision.

Module VI

APPLIED GEOGRAPHICAL TECHNIQUES – II

6.1 Polar Zenithal stereographic. (Gouri Chakraborty)

6.2 Cartograms - Bar Graphs - Simple and Compound. (Gouri Chakraborty)

6.3 Field Report. (All Teachers)

Term-IV

Module III

Paper - II

CLIMATOLOGY, SOIL AND BIOGEOGRAPHY

4.7 Plant types and distribution (halophyte, xerophytes, hydrophytes and mesophyte) animal communities. (Atanu Sarkar)

Module VI

REGIONAL GEOGRAPHY OF INDIA

5.4 iii) Planning regions of India: with special reference to DVC region. (Kakali Das)

Module V

Paper - III

APPLIED GEOGRAPHICAL TECHNIQUES - I

Revision.

Module VI

Paper - III

APPLIED GEOGRAPHICAL TECHNIQUES - II

3.4 6.2 Proportional divided circles (Kakali Das) choropleth. (Gouri Chakraborty)

6.3 Field Report. (All Teachers)

3rd YEAR GENERAL

Term -I

Module VII

Paper - IV

LANDUSE AND SETTLEMENT GEOGRAPHY

7.1 Concept and attributes of land. (Satarupa Roy)

7.2 Objectives and principles of land use. (Satarupa Roy)

7.3 Factors influencing, land use and land categories (Satarupa Roy)

i) Agricultural land use.

ii) Non-agricultural land use.

Module VIII

REMOTE SENSING AND THEMATIC MAPPING

8.1 Definition of remote sensing, different methods of remote sensing; air photo and satellite imagery. (Aditi Matilal)

8.2 Air photo characteristics, interpretation. (Aditi Matilal)

Module VIII (Practical)

APPLIED GEOGRAPHICAL TECHNIQUES - III

3.5 9.2 Preparation of thematic maps: flow diagram. (Gouri Chakraborty)

Term - II

Paper - IV

LANDUSE AND SETTLEMENT GEOGRAPHY

7.4 Rural and Urban settlements.

i) Rural settlements: evolution, nature and characteristics, effect of physical environment. (Kakali Das)

Module VIII REMOTE SENSING AND THEMATIC MAPPING

8.3 Satellite imagery: Types of satellite imageries, characteristics of IRS imageries. (Aditi Matilal)

Module IX (Practical)

APPLIED GEOGRAPHICAL TECHNIQUES - III

9.1 Preparation of land use maps from cadastral maps based on primary or secondary data. (Aditi Matilal)

9.2Preparation of thematic maps: Accessibility Maps. (Satarupa Roy)

9.3 Air photo interpretation by Pocket, Stereoscope for identification of broad features. (Gouri Chakraborty)

Term - III

Module VII

Paper - V

LANDUSE AND SETTLEMENT GEOGRAPHY

7.4 Rural and Urban settlements.

i) Urban settlements: definition, morphology and functions. (Kakali Das)

Module VIII

REMOTE SENSING AND THEMATIC MAPPING

8.4 Definition, Objective and Principles of thematic mapping (Climatic, economic and population) (Aditi Matilal)

Module IX

APPLIED GEOGRAPHICAL TECHNIQUES - III

9.3 Continued