The University of Burdwan

Syllabus

For

B.A. /B.Sc. 3-Year (General) Degree Course in Geography

w.e.f. 2011-12 onward

# Section 1: Course Structure and Examination Pattern

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Section 2: Syllabus with Details of Marks Division

Part-I

PAPER-I

PHYSICAL GEOGRAPHY

Full Marks: 100                   Examination Time: 3 Hours

Number of lectures to be delivered for each Unit 20

1.0 GEOTECTONICS                  [20 MARKS]
1.1 Geological Time-scale and Geological History of the Earth
1.2 Internal Structure of the Earth
1.3 Continental Drift: Evidences and Mechanisms
1.4 Origin of Fold Mountains with special reference to Plate Tectonics

2.0 GEOMORPHOLOGY                [20 MARKS]
2.1 Processes of Denudation: Weathering, Erosion and Mass-wasting
2.2 Fluvial Processes and Landforms
2.3 Theories of Landscape Evolution (Concepts of Davis and Hack)
2.4 Glacial and Aeolian Processes and Landforms

3.0 CLIMATOLOGY                 [20 MARKS]
3.1 Thermal Structure, Chemical Composition and Layering of Atmosphere; Horizontal
distribution of Temperature
3.2 Origin and Classification of Air masses and their Characteristics
3.3 Forms of Precipitation and Types of Rainfall
3.4 Koppen’s Classification of Climate of the World and India

4.0 SOIL GEOGRAPHY               [20 MARKS]
4.1 Definition of Soil, Physical and Chemical Properties of Soil with special reference to
Texture, Colour and pH
4.2 Soil Forming Factors, Soil Types: Zonal, Azonal and Intrazonal
4.3 Soil Formation: Podsolisation and Laterisation
4.4 Causes of Soil Erosion; Methods of Soil Conservation

5.0 BIOGEOGRAPHY                [20 MARKS]
5.1 Definition of Biosphere and Biogeography, Meaning of Ecology, Ecosystem, Environment, Ecotone, Communities, Habitats and Biotopes
5.2 Impact of climate and soil on distribution of plants and animals
5.3 Biomes: Tropical Rainforest and Temperate Grassland
5.4 Problems of deforestation and conservation of forest

N.B. : Pattern of setting question papers along with distribution of marks has been
incorporated in the section-IV of this syllabus.
Part-II

PAPER-II
GEOGRAPHICAL THOUGHT, ECONOMIC AND SOCIAL GEOGRAPHY

Full Marks: 100
Examination Time: 3 Hours

Number of lectures to be delivered for each Unit 20

1.0 GEOGRAPHICAL THOUGHT [20 MARKS]
1.1 Definition, Scope and Content of Geography
1.2 Contributions of Humboldt and Ritter to the Discipline of Geography
1.3 Concepts of Determinism and Possiblism
1.4 Concept of Region and Method of Regionalisation

2.0 ECONOMIC GEOGRAPHY [20 MARKS]
2.1 Agriculture in Tropical Region: Intensive Subsistence Agriculture (Rice) and Plantation Agriculture (Tea)
2.2 Agriculture in Extra-Tropical Regions: Mixed Farming (NW Europe) and Mediterranean Agriculture
2.3 Major Industrial Regions of the World: Industrial Characteristics of the Great Lakes and Asansol – Durgapur Regions
2.4 Growth and Development of Iron and Steel Industry in USA and Cotton Textile Industries in India.

3.0 POPULATION GEOGRAPHY [20 MARKS]
3.1 Growth, Distribution and Density of Population on the World
3.2 Concepts of Optimum Population, Overpopulation and Under-Population
3.3 Types of Population Migration with reference to India
3.4 Population Explosion and Food Crisis

4.0 HABITAT, SOCIETY AND ECONOMY [20 MARKS]
4.1 Major Racial Groups and their World Distribution
4.2 Major Linguistic Groups of India and their Distribution
4.3 Pygmies and Bushmen of Africa
4.4 Bhils and Santals of India

5.0 SETTLEMENT GEOGRAPHY [20 MARKS]
5.1 Criteria of Classification of Settlements into Rural and Urban types in India
5.2 Types and Patterns of Rural Settlements and Factors responsible for their Growth
5.3 Definition and Characteristics of Urban Agglomeration, Metropolis and Megalopolis
5.4 Functional Classification of Towns

N.B. : Pattern of setting question papers along with distribution of marks has been incorporated in the section-IV of this syllabus.
PAPER-III (PRACTICAL)
CARTOGRAPHICAL TECHNIQUES IN GEOGRAPHY

Full Marks: 100     Examination Time: 5 hours

Number of periods to be assigned for Unit 1, 2, 3 and 4 – 10 each, Unit 5 - 15.

1.0 SCALE AND CARTOGRAMS [20 MARKS]
1.1 Linear and Comparative Scales
1.2 Proportional Diagrams: Circles and Squares
1.3 Composite Bar Diagrams and Age-Sex Pyramids
1.4 Taylor’s Climograph

2.0 MAPPING TECHNIQUES AND MAP PROJECTION [20 MARKS]
2.1 Isopleth Method: Rainfall Distribution and Temperature Zones
2.2 Choropleth Method: Population Density and Cropping Intensity (Based on Ratio between Net Sown Area and Gross Cropped Area)
2.3 Drawing of Graticule on Cylindrical Equal Area Projection
2.4 Drawing of Graticule on Simple Conical Projection with One Standard Parallel

3.0 MAP INTERPRETATION [20 MARKS]
3.1 Interpretation of Relief and Drainage from Topographical Maps
3.2 Interpretation of Communication and Settlement from Topographical Maps
3.3 Relationship between Physical and Cultural Features in Plateau and Plain Regions on the basis of Topographical Maps Published by Survey of India
3.4 Interpretation of Daily Weather Maps Published by India Meteorological Department

4.0 SURVEYING [20 MARKS]
4.1 Definition and Classification of Surveying
4.2 Plane Table Survey by Radial Method
4.3 Open and Closed Traverse Survey by Prismatic Compass
4.4 Drawing of Profile by Dumpy / Precision Level

5.0 FIELD REPORT AND LABORATORY NOTEBOOK

5.1 FIELD REPORT ON EITHER A RURAL MOUZA OR AT LEAST ONE WARD OF AN URBAN AREA (TO BE CONDUCTED DURING FIELD EXCURSION).

[WRITTEN REPORT: 6 MARKS + VIVA-VOCE ON FIELD REPORT: 4 MARKS = 10 MARKS]

5.1.1 Guidelines for Field Report on Rural Mouza
The following methods are to be followed before the preparation of field report:
(a) Plot-to-plot Land Use Survey
(b) Collection of Socio-Economic and Physical Data
(c) Classification and Tabulation of Data
(d) Preparation of Land Use Map on Cadastral Plan
(e) Preparation of Maps and Diagrams showing Physiography, Drainage, Soil, Forest, Settlement, Irrigation, Cropping Pattern, Demographic Characteristics etc.
(f) Interrelation and Analysis of Data, Maps and Diagrams
The Report is to be prepared under the following sections:
(a) Introduction: Objective, Extent and Space Relations, Sources of Information, Methodology etc.
(b) Physical Components: Lithology, Drainage, Surface Condition, Slope, Climate, Soil Vegetation, etc.
(c) Population: Number, Sex Ratio, Literacy, Occupational Structure, Ethnic and Religious Composition, Language, Mobility, Media Exposure, Per Capita Income etc.
(d) Settlement: Number of Houses, Building Materials, Number and Size of Rooms, Amenities etc.
(e) Agriculture: Soil Properties, Irrigational Facilities, General Landuse, Cropping Intensity, Crop-Combination, use of Fertilisers, Production and Marketing etc.
(f) Other Economic Activities: Fishing, Horticulture, Brick-Klin Industries
(g) Problems, Prospects, Suggestions and Conclusion
(h) Bibliography

5.1.2 Guidelines for Field Report on Urban Area (at least one ward)
The following Methods are to be followed before the Preparation of Field Report:
(a) Plot-to-Plot Land Use Survey
(b) Collection of Socio-Economic Data
(c) Classification and Tabulation of Data
(d) Preparation of Urban Land Use Map on Cadastral Plan
(e) Preparation of Maps and Diagrams showing Urban Morphology, Drainage and Sewage Networks, Communication Networks, Traffic Flow and Travel-Time, Demographic Characteristics, Cultural and Economic Zonation etc.
(f) Interrelation and Analysis of Data, Maps and Diagrams
The Report is to be Prepared under the following Sections:
(a) Introduction: Objective, Extent and Space Relations, Sources of Information, Methodology etc.
(b) Physical Components: Surface Conditions, Slope, Drainage, Climate, etc.
(c) Demography: Spatial Analyses of Population Density, FMR, Literacy, Occupational Structure, Ethnic and Religious Composition, Language, Mobility, Media Exposure, etc.
(d) Town Morphology: Activity Zones, Sectors of Land Use, Linkages between Different Zones and Sectors
(e) Economy: Economic Individuality of the Town, Production and Marketing Patterns, Spatial Differences in Occupation and Per Capita Income Characteristics etc.
(f) Urban Waste and its Management: Types of Wastes Generated, Network of Drains, Efficiency of Waste Removal and Sewage Treatment, Peoples’ Perception of Pollution Problems
(g) Bibliography

5.3 Field Report is to be Hand-Written
5.4 Text of the Report should not Exceed 1,500 words
5.5 Maps and Diagrams Excluding Photo-Plates should not Exceed 15

6.0 Laboratory Notebook and Viva-VOCE [6+4 = 10]

N.B.: Pattern of setting question papers along with distribution of marks has been incorporated in the section-IV of this syllabus.
Part-III

PAPER-IV
GEOGRAPHY OF INDIA AND ANALYTICAL TECHNIQUES IN GEOGRAPHY

Group-A (Theoretical)

GEOGRAPHY OF INDIA

Full Marks: 60       Examination Time: 3 Hours

Number of lectures to be delivered for each Unit: 20

1.0 PHYSICAL ASPECTS [20 MARKS]
1.1 Structure and Relief & their Interrelationship
1.2 Characteristics of River Systems of Peninsular and Extra-Peninsular India
1.3 Climatic Characteristics: Seasonality, Unevenness and Unreliability of Rainfall
1.4 Distribution of Natural Vegetation, Soil and their Interrelationship

2.0 SOCIO-ECONOMIC ASPECTS [20 MARKS]
2.1 Distribution and Production of Principal Crops (Rice, Wheat, Cotton and Tea)
2.2 Power Resources: Coal, Petroleum and Hydroelectricity
2.3 Locational Factors and Growth of Iron and Steel and Aluminium Industries
2.4 Population Growth and Distribution, Population Problems, Trends of Urbanisation

3.0 REGIONAL ASPECTS [20 MARKS]
3.1 Kashmir Himalaya
3.2 Deccan Trap
3.3 Bengal Delta
3.4 Marusthali

N.B. : Pattern of setting question papers along with distribution of marks has been incorporated in the section-IV of this syllabus.
PAPER-IV

GEOGRAPHY OF INDIA AND ANALYTICAL TECHNIQUES IN GEOGRAPHY

Group-B (Practical)

ANALYTICAL TECHNIQUES IN GEOGRAPHY

Full Marks: 40       Examination Time: 3 hours

Number of periods to be assigned for Unit 1 - 8; Unit 2 - 10

1.0 STATISTICAL TECHNIQUES [15 MARKS]
   1.1 Methods of Collection, Classification and Tabulation of Data
   1.2 Frequency Distribution: Graphical Representation and Interpretation of Histogram, Frequency Polygon, Curves and Ogives
   1.3 Measures of Central Tendency: Mean, Median and Mode
   1.4 Simple Correlation: Scatter Diagram and Fitting of Trend-Line by Eye-Estimation

2.0 LABORATORY WORK [20 MARKS]
   2.1 Reading of Barometer, Hygrometer and Maximum and Minimum Thermometer
   2.2 Determination of Soil Texture by Feel Method and Soil pH by Soil Kit
   2.3 Measurement of Area by Graphical Method and Length by Rotameter
   2.4 Megascopic Identification of Common Minerals and Rocks & their Characteristics: Quartz, Mica, Feldspar, Bauxite, Haematite, Granite, Basalt, Conglomerate, Sandstone, Shale, Gneiss, Schist, Phyllite and Marble

3.0 LABORATORY NOTEBOOK AND VIVA-VOCE [3+2 = 5]

N.B. : Pattern of setting question papers along with distribution of marks has been incorporated in the section-IV of this syllabus.
Section 3: References

Paper – I: Physical Geography

De, N.K. Mritikka Bhugol. West Bengal State Book Board.
Saha, P., Adhunik Jalabauididya, West Bengal State Book Board.

Paper – II: Geographical Thought, Economic and Social Geography

Bandyopadhyay, T., and Mallik, G., Arthanaitik Sampad Samiksha, Chhaya Prakashani.
Bhattacharyya, A and Bhattacharyya, B. Samaj Bijaniya Bhugol, West Bengal State Book Board.
Lahiri-Dutt, K. Bhugol Chintar Bikash, World Press.

Paper – III (Practical): Cartographic Techniques in Geography

Paper – IV: Geography of India and Analytical Techniques in Geography

Group- A (Theoretical): Geography of India


Group- B (Practical): Analytical Techniques in Geography

Section 4: Question Pattern

GENERAL COURSE

Theoretical Papers (Paper I, Paper II): Full Marks: 100

Pattern of setting questions: In SECTION A which carries 16 marks, altogether 15 questions (Short Answer Type) each of 2 marks from 5 Units, having three questions from each Unit are to be set. 8 questions are to be answered, selecting at least one from each Unit. In SECTION B which carries 36 marks, question number 1 (Short Type) with an optional question shall be compulsory of 6 marks. 10 other questions (Short Type), each of 6 marks from 5 Units, having 2 questions from each Unit are to be set. Question number 1 and 5 other questions, selecting one from each Unit are to be answered. 6 marks shall have a break-up of either 4+2 or 4+1+1 or 5+1. In SECTION C which carries 48 marks, altogether 10 questions (Broad Type), each of 12 marks from 5 Units, having two questions from each Unit are to be set. 4 questions are to be answered; selecting one from four of the five Units. 12 marks shall have a break-up of 10+2.

Theoretical Paper (Paper IV, Group A): Full Marks: 60

Pattern of setting questions: In SECTION A which carries 6 marks, altogether 6 questions (Short Answer Type) each of 2 marks from 3 Units, having two questions from each Unit are to be set. 3 questions are to be answered, selecting at least one from each Unit. In SECTION B which carries 18 marks, questions (Short Type), each of 6 marks from 3 Units, having 2 questions from each Unit are to be set. 3 questions, selecting one from each Unit are to be answered. 6 marks shall have a break-up of either 4+2 or 4+1+1 or 5+1. In SECTION C which carries 36 marks, altogether 6 questions (Broad Type), each of 12 marks from 3 Units, having two questions from each Unit are to be set. 3 questions are to be answered; selecting one from each Unit. 12 marks shall have a break-up of 10+2.

Practical Paper (Paper III): Full Marks: 100

Pattern of setting questions: * Units 1.0—4.0: Four compulsory questions are to be set from each Unit; each Question is to have at least two parts. * Unit 5: Evaluation of Practical Notebook: 6 marks. Viva-voce: 4 marks.

Practical Paper (Paper IV, Group B): Full Marks: 40

Pattern of setting questions: * Units 1.0—4.0: Two compulsory questions are to be set from each Unit; each Question is to have at least two parts. * Unit 3: Evaluation of Practical Notebook: 3 marks. Viva-voce: 2 marks.