

Syllabus for BA/BSc Course in Geography (GENERAL)

TO BE EFFECTIVE FROM THE ACADEMIC SESSION 2009-2010

FRAMED AT THE WORKSHOP HELD ON 20.4.2009 AND 21.4.2009



West Bengal State University

Berunanpukuria, Malikapur

Barasat, North 24 Parganas

West Bengal – 700126

General Papers

Section 1: Course Structure

Part	Type	Paper	Subject	Marks	Exam Time
I	Theoretical	I	Physical Geography	100	3 hours
II	Theoretical	II	Human and Regional Geography of India	100	3 hours
	Practical	III	Applied Geographical Techniques	100	
III	Theoretical	IV A	Applied Geography	70	
	Practical	IV B	Applied Geography Practical	30	

Section 2: Syllabus with Details of Marks Division

Part-I Paper

/// PAPER-I: PHYSICAL GEOGRAPHY

Full Marks: 100

Examination Time: 3 hours.

Number of Questions to be answered

Marks division of each group	Category wise marks	Number of questions to be answered	
		Category A (10marks)	Category B (5 marks)
Gr A = 40 Marks	20 + 20	2 out of 4	4 out of 7
Gr B = 30 Marks	10 + 20	1 out of 2	4 out of 7
Gr C = 30 Marks	10 + 20	1 out of 2	4 out of 7

GROUP A: GEOMORPHOLOGY

(40 MARKS)

1. Structure of the earth
2. Influence of rocks on topography: Limestone and Granite
3. Broad outline of plate tectonics and major crustal formations – fold mountains, trenches and island arcs.

4. Evolution of landforms under fluvial process, Normal Cycle of Erosion.
5. Processes of formation of erosional and depositional landforms: coastal and aeolian

GROUP B: CLIMATOLOGY

(30 MARKS)

1. Insolation and Heat Budget.
2. Horizontal and Vertical distribution of temperature and pressure.
3. Greenhouse effect.
4. Atmospheric disturbances: Tropical and Mid-latitude cyclones.
5. Characteristics of Monsoonal rainfall
6. Climatic classification after Köppen.

GROUP C: BIO-GEOGRAPHY

(30 MARKS)

1. Factors of soil formation.
2. Development of an ideal soil profile and eluviation and illuviation
3. Properties of soil: Physical (texture, structure) and Chemical (pH, organic matter).
4. Concept of zonal, azonal and intrazonal soils
5. Concept of Ecosystem and Biomes – i) Tropical Rainforest, ii) Hot Desert
6. Plant types and distribution (Halophite, Xerophytes, Hydrophite, Mesophite).

Part-II Papers

/// PAPER-II: HUMAN GEOGRAPHY AND REGIONAL GEOGRAPHY OF INDIA

Full Marks: **100**

Examination Time: **3 hours**.

Number of Questions to be answered

Marks division of each group for examination	Category wise marks	Number of questions to be answered	
		Category A (10marks)	Category B (5 marks)
Gr A = 30 Marks	10 + 20	1 out of 2	4 out of 7
Gr B = 30 Marks	10 + 20	1 out of 2	4 out of 7
Gr C = 40 Marks	20 + 20	2 out of 4	4 out of 7

GROUP-A: POPULATION AND SOCIAL GEOGRAPHY

(30 Marks)

1. Factors of growth and distribution of world population.
2. Fertility, mortality and age-sex structure of population with reference to India.
3. Migration: Types, causes and consequences.
4. Contemporary Social issues: Literacy and poverty.

GROUP-B: ECONOMIC GEOGRAPHY

(30 Marks)

1. Sectors of the economy: primary, secondary, tertiary and quaternary: Changing emphasis through time.
2. Types of agriculture:
 - a) Shifting cultivation of India.
 - b) Intensive subsistence rice farming in India.
 - c) Plantation farming in India: Tea and Coffee
3. Scales of production: cottage, small scale and large-scale industries — general characteristics and examples.
4. Location, problems and prospects of Indian industries.
 - a) Cotton textile industry.
 - b) Heavy engineering industry: locomotive.
 - c) Petroleum refining industry

GROUP-C: REGIONAL GEOGRAPHY AND ENVIRONMENTAL ISSUES OF INDIA

(40 Marks)

1. Regions of India:
 - a) Concept of regions: formal and functional
 - b) Broad physiographic regions of India: special reference to Deccan Trappe
 - c) Agricultural Regions of India: special reference to Punjab-Haryana wheat belt,
 - d) Industrial Regions of India: special reference to Asansol-Durgapur industrial belt.
2. Indian monsoon and its impact: problem of flood, drought and cyclone.
3. Forest resources of India: issues concerning deforestation and social forestry.
4. Causes and consequences of soil erosion in India.

/// PAPER-III (PRACTICAL): APPLIED GEOGRAPHICAL TECHNIQUESFull Marks: 100.

• *Group A to C*: Internal Assessment: 80 marks. • *Group D*: Evaluation of Field Report: 10 marks + Viva-voce on Field Report: 5 Marks • *Group E*: Viva-voce on Practical Notebook by external examiner: 5 marks.

GROUP-A: CARTOGRAPHY

1. Scales: Concept of scales, drawing of linear scales. (10 Marks)
2. Projections: Concept and major classification. Construction may be done graphically or mathematically (15 Marks)
 - a) Simple conic with one standard parallel
 - b) Cylindrical Equal Area
 - c) Polar Zenithal Gnomonic.
3. Cartograms: Choropleth, pie-graphs and square diagrams with proportional scales. (15 Marks)

GROUP-B: MAP INTERPRETATION

(20 Marks)

1. Basis of numbering and scale of Survey of India Topographical sheets.
2. Interpretation of 1:50,000 topographical sheets under the following heads:
 - I. Interpretation of relief and drainage from topographical maps with profiles and sketches.
 - II. Interpretation of communication and settlement from topographical maps with sketches.
 - III. Relationship between physical and cultural features with the help of transect chart.

GROUP-C: STATISTICS

(20Marks)

1. Nature and classification of data.
2. Process of tabulation and graphical representation: histogram, frequency polygon, cumulative frequency curve.
3. Measures of central tendency: mean, median and mode.

GROUP-D: FIELD REPORT

(Report 10 + 5 viva voce = 15 Marks)

Field Report on either a rural mouza or an urban ward (to be conducted during field excursion)

Guidelines for field report on rural mouza

One rural mouza is to be selected and the followings are to be done:

- (a) Landuse survey
- (b) Collection of socio-economic and physical data
- (c) Classification and tabulation of data
- (d) Preparation of landuse map on cadastral map
- (e) Preparation of maps and diagrams showing broad Physiography, drainage, settlement, demographic characteristics etc.

The report is to be prepared preferably under the following sections:

- (a) Introduction: Objective, extent and space relations, sources of information, methodology.
- (b) Physical components: drainage, surface condition, slope, climate, soil vegetation, etc.
- (c) Population: Number, FMR, literacy, occupational structure, religious composition, language, media exposure, per capita income (based on availability of data).
- (d) Settlement: Number of houses, building materials, number and size of rooms, amenities (based on availability of data)
- (e) Agriculture: irrigational facilities, general landuse, cropping intensity, production and marketing (based on availability of data).
- (f) Other economic activities: Fishing, horticulture, brick-making industries (based on availability of data).
- (g) Problems, prospects, suggestions and conclusion.
- (h) Bibliography.

Guidelines for field report on urban area

One urban area is to be selected and the followings are to be done:

- (a) Landuse survey
- (b) Collection of socio-economic data
- (c) Classification and tabulation of data

- (d) Preparation of urban landuse map
- (e) Preparation of maps and diagrams showing urban morphology, sewage networks, communication networks, traffic flow, demographic characteristics, cultural and economic zonation etc.

The report is to be prepared preferably 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) Population: Number, FMR, literacy, occupational structure, religious composition, language, media exposure, per capita income (based on availability of data).
- (d) Town morphology: sectors of landuse.
- (e) Economy: Economic individuality of the town, production and marketing patterns, spatial differences in occupation and per capita income characteristics (based on availability of data).
- (f) Bibliography

Field report is to be hand-written.

Text of the report should not exceed 1500 words.

Maps and diagrams excluding photo-plates should not exceed 15.

GROUP E: VIVA-VOCE ON LABORATORY NOTEBOOK

(5 Marks)

Part-III Papers

/// PAPER-IV: APPLIED GEOGRAPHY

Full Marks: Theoretical: **70**

Practical: **30**

Examination Time: Theoretical: **hours.**

Practical: **hours**

Number of Questions to be answered for theoretical group

Marks division of each theoretical section	Category wise marks	Number of questions to be answered	
		Category A (10marks)	Category B (5 marks)
Gr A Section I = 40	20 + 20	2 out of 4	4 out of 7
Gr A Section II = 30	1 + 20	1 out of 2	4 out of 7

GROUP A: (THEORETICAL): APPLIED GEOGRAPHY

[70 Marks]

Section I: Land use and settlement Geography

(30 Marks)

1. Concept and attributes of land.
2. Objectives and principles of land use.
3. Factors influencing land use and land categories:
 - a) Agricultural land use.
 - b) Non-agricultural landuse.

4. Rural settlements: evolution, nature and effect of physical environment,
5. Urban settlements: definition, morphology and function.

Section II: Remote Sensing and Geographical Information System

(40Marks)

1. Concept of Remote Sensing, different methods of remote sensing – aerial photo and satellite imagery.
2. Aerial Photo: Types and interpretation keys; concept of principal point, fiducial marks, flight line, photo overlap.
3. IRS images: Sensors, different types of resolution and their applicability.
4. Concept of GIS and its applicability: Spatial and attribute data, raster and vector data structure and concept of information layers in GIS.

GROUP B: (PRACTICAL): APPLIED GEOGRAPHY

[30 Marks]

• *Item 1 to 2*: Internal Assessment: 24 marks. • *Item 4*: Evaluation of practical note book and viva-voce on Practical Notebook by external examiner: 6 marks.

1. Interpretation of Daily Weather Maps published by India Meteorological Department – Monsoon season (10 Marks)
2. Preparation of thematic maps: (7 Marks)
 - i) Flow diagram and ii) Determination of Detour Index
3. Aerial photo interpretation for identification of broad physical and cultural features. (7 Marks)
4. Laboratory Note Book and Viva-voce (3 + 3 = 6 Marks)

Section 3: Suggested books

/// PAPER-I:

Bandyopadhyay T and Sil A. K: Adhunik Bhu Porichoy, Chhaya Prakashani

Basu S.R and Maity R: Adhunik Bhumirupbigyan

Das P and Basu Swapna: Mrityikar kotha o Damodar Upatyakar Mrityika Khoyer Ruprekha

Dash, M.C., Fundamentals of Ecology, 2nd edition, Tata McGraw-Hill, New Delhi.

De, N.K. and Chattopadhyay, S. Jib Bhugol, Sribhumi Publishing Co.

De, N.K. Mrittika Bhugol, West Bengal State Book Board.

Lal, D.S. Climatology, 3rd edition, Chaitanya Pub. House, New Delhi.

Mukhopadhyay, S.C and Das, R.K. Bhumiruper Udbhab O Prakiti, Volumes 1 & 2, West Bengal State Book Board

Saha, P. Adhunik jalabauibidya, West Bengal State Book Board.

Sidhartha K: Biogeography

Singh, S : Physical Geography, Prayag Pustak Bhawan, Allahabad

Singh, S. Geomorphology, Prayag Pustak Bhavan, Allahabad: 390p.

/// PAPER-II:

Bandyopadhyay, T. and Mallik, G. Arthanaitik Sampad Samiksha, Chhaya Prakashani

Bhattacharyya, A and Bhattacharyya, B. Samaj Bijnaniya Bhugol, West Bengal State Book Board.

Chattopadhyay, A. Sampad Samiksha / Arthanaitik Bhugol O Sampad Shastrer Parichay, TD Publications

Guha, J .L. and Chattoraj, P.R. 1998. A New Approach to Economic Geography: A Study of Resources, 15th edition, World Press, Calcutta.

Hartshorn, T.A. and Alexander, J.W. 1988. Economic Geography, 3rd edition, Prentice- Hall India Ltd., New Delhi.

Khullar, D.R. 1999. A Comprehensive Geography of India, Kalyani Publishers, New Delhi.

Leong, G.C. and Morgan, G.C. 1982. Human and Economic Geography, 2nd edition, Oxford University Press, Oxford.

/// PAPER-III (Practical):

Das D and Hazra J. Snatok Byaboharik Bhugol. Chhaya Prokashoni

Sarkar A. Practical Geography. Revised edition. Orient Blackswan Private Ltd.

/// PAPER-IV:

Group-A (Theoretical):

Sen Jyotirmoy. Janabasati Bhugol

Rajan, M.S. Space Today, 2nd edition, National Book Trust, New Delhi.

De N.K. Land – multifaceted appraisal and management

Pradhan N and Bhattacharya D. Adhunik Bhu-bigyan

Group-B (Practical):

Das D and Hazra J. Snatok Byaboharik Bhugol. Chhaya Prokashoni

Sarkar A. Practical Geography. Revised edition. Orient Blackswan Private Ltd.
