

The University of Burdwan  
CCFUP 4 Year/ 3 Year Degree with  
Geography Major  
Semester-II  
Hiralal Bhakat College

**Course II (GEOG 2012) – Population and Settlement geography**

**Unit-1: Population Geography**

<b>Topic</b>	<b>Teachers' Name</b>
1. Development of Population Geography; Relation between Population Geography and Demography	BM (4)
2. Determinants of Population Dynamics: Fertility, Mortality and Migration	SG (4)
3. Measures of Fertility and Mortality	SG (5)
4. Migration: Theories, Causes and Types	SG (5)
5. Theories of population growth: Malthus and Marx; Demographic Transition Theory (Thompson and Notestein)	RIS (6)
6. Population Composition (Age-Sex; Occupational Structure); Population (India and Sweden) policies	CG (6)

**Unit-2: Settlement Geography**

<b>Topic</b>	<b>Teachers' Name</b>
1. Development of Settlement Geography	BM (4)
2. Characteristics of Rural Settlement: Site, Situation, types and Pattern	BM (5)
3. Morphology of rural Settlements	BS (4)
4. Urban Settlements: Census Definition, Urban Agglomeration; Urban sprawl, Rural-urban Continuum, Rurban and Periurban	BS (5)
5. Urban Morphology: Classical Models of Burgess, Hoyt, Harris and Ullman	BS (6)
6. Central place theory and Hierarchy of settlements; Urban primacy	ND (6)

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**Course 2 (Theory) – Field Survey Techniques**

<b>Topic</b>	<b>Teachers' Name</b>
1.Fieldwork in Geographical studies – Role and significance, Selection of study area and objectives, Pre-field preparations, Ethics of fieldwork	IM (10)
2.Preparation of Survey Schedule and Questionnaires (open, closed, structured, non-structured)	CG (8)
3.Interview with special reference to focused group discussions	RIS (7)
4.Field techniques and tools: Landscape survey using transects and quadrants, constructing a sketch, photo and video recording	ND (10)
5.Collection of samples. Preparation of inventory from field data. Post-field tasks	CG, IM (10)

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**CC8 (Theoretical): REGIONAL PLANNING AND DEVELOPMENT**

**Unit 1: Regional Planning**

<b>Topic</b>	<b>Teachers' Name</b>
1. Concept and Classification of Regions	IM
2. Types of Planning; Principles and Techniques of Regional Planning	IM
3. Need for Regional Planning; Multilevel Planning in India	IM
4. Metropolitan Concept: Metropolis, Metropolitan Areas, Metropolitan Region	ND

**Unit 2: Regional Development**

<b>Topic</b>	<b>Teachers' Name</b>
1. Development: Meaning, Growth versus Development	BM
2. Models for Regional Development: Growth Pole (Perroux) and Core Periphery (Hirschman)	CG
3. Model for Regional Development in India: Growth Foci (R.P.Misra)	CG
4. Concept of Regional Inequality and Disparity	CG
5. Human Development: Significance, Indicators and Measurement	RIS
6. Status of Regional Imbalances in India	RIS
7. Strategies for Regional Development in India	RIS
8. NITI Aayog and its Functions	BM

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**CC 9 (Theoretical): ECONOMIC GEOGRAPHY**

**Unit 1: Concepts and Approaches**

<b>Topic</b>	<b>Teachers' Name</b>
1. Meaning and Approaches to Economic Geography	BM
2. Concepts in Economic Geography: Goods; Services; Production; Consumption	BM
3. Factors Influencing Location of Economic Activity and Forces of Agglomeration	ND
4. Determining Factors of Transport Cost	ND

**Unit 2: Economic Activities**

<b>Topic</b>	<b>Teachers' Name</b>
1. Concept and Classification of Economic Activities	SG
2. Location Theories: Von Thünen and Alfred Weber	SG
3. Primary Activities: Subsistence and Commercial Agriculture; Forestry; Fishing	BS
4. Secondary Activities: Manufacturing (Iron and Steel in India and Japan, Petrochemical in India and USA)	BS
5. Tertiary Activities: Types of Trade and Services	BS
6. Agricultural Systems: Tea Plantation in India and Mixed Farming in Europe	BM
7. Highways: Roles in Economic Development of India since 1990s	ND
8. International Trade Blocs: WTO and OPEC	RIS

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**CC 10: ENVIRONMENTAL GEOGRAPHY**

**Theoretical: Environmental Issues**

<b>Topic</b>	<b>Teachers' Name</b>
1. Geographers' Approach to Environmental Studies	IM
2. Changes in Perception of Environment in different stages of Human Civilization	IM
3. Ecosystem: Concept, Structure and Functions	BS
4. Environmental Degradation and Pollution: Water and Air	BS
5. Environmental Issues related to Agriculture	BS
6. Urban Environmental issues related to Waste Management	ND
7. Concept and Issues related to Bio-diversity	ND
8. Environmental Programs and Policies on Forest and Wetland: National and Global	ND

**CC 10 (Practical): ENVIRONMENTAL GEOGRAPHY**

<b>Topic</b>	<b>Teachers' Name</b>
1. Preparation of questionnaire for perception survey on environmental problems	IM
2. Environmental Impact Assessment: Leopold Matrix	CG
3. Quality assessment of soil using field kit: pH and NPK	CG
4. Interpretation of air quality using CPCB / WBPCB data	CG

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**SEC -2 (Practical)\*: ADVANCED SPATIAL STATISTICAL TECHNIQUES**

1. Concept of Probability and Normal Distribution and their Geographical Applications, Skewness (Pearson's Method)	ND
2. Differences between Spatial and non-Spatial data, Nearest Neighbour Analysis	ND
3. Correlation and Regression Analysis, t-test, Spearman's Rank Correlation, Product Moment Correlation; Linear Regression	RIS
4. Time Series Analysis; Smoothing time series by Least Square and/or Moving Average Method	RIS

- Computer based

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**CC 13 (THEORETICAL): EVOLUTION OF GEOGRAPHICAL THOUGHT**

**UNIT: 1**

<b>Topic</b>	<b>Teachers' Name</b>
1. Definition, Scope and Content of Geography; Geography as a Spatial Science	CG
2. Geography in Ancient Period: Greek and Roman	RIS
3. Development of Geography in Medieval period: Arabian	CG
4. Development of Mapping and Knowledge about the World Regional Geography in the Age of Explorations	ND
5. Classical Geography in 19th Century: Humboldt, Ritter	ND
6. Quantitative Revolution and its Critique	ND

**UNIT: 2**

<b>Topic</b>	<b>Teachers' Name</b>
1. German School of Thought	SG
2. French School of Thought	SG
3. American School of Thought	SG
4. Indian Contribution to Geography	SG
5. Concept of Determinism, Possibilism and Neo- Determinism	BS
6. Approaches to the study of Geography: Systematic and Regional	BS

## CC 14: DISASTER MANAGEMENT

### UNIT 1

<b>Topic</b>	<b>Teachers' Name</b>
1. Classification of hazards and disasters	SG
2. Approaches to hazard study: Risk perception and vulnerability assessment. Hazard paradigms	SG
3. Responses to hazards: Preparedness, trauma and aftermath. Resilience and capacity building	ND
4. Hazard's mapping: Data and techniques	ND

### UNIT 2

<b>Topic</b>	<b>Teachers' Name</b>
1. Earthquake: Factors, vulnerability, consequences and management	BM
2. Landslide: Factors, vulnerability, consequences and management	BM
3. Cyclone: Factors, vulnerability, consequences and management	BS
4. Fire: Factors, vulnerability, consequences and management	BS

## CC 14 (PRACTICAL): DISASTER MANAGEMENT

### DISASTER MANAGEMENT PROJECT WORK

#### LIST OF PRACTICAL

An individual Project Report based on any one among the following disasters incorporating preparedness, mitigation and management plan.

1. Earthquake
2. Landslide
3. Cyclone
4. Flood
5. Drought
6. River Bank Erosion
7. Mining Area Subsidence
8. Tsunami

Topic	Teachers' Name
1. Students will prepare a Project Report based on the topic mentioned by the Department;	IM/RIS/CG
2. The report should be typed in MS-Word in English language on A4 size paper in candidate's own words within 2000 words. The total number of pages in the Field Report should not exceed 20 pages including texts, figures, tables, photographs, maps, references (APA) and appendices	IM/RIS/CG
3. A copy of the bound report, duly signed by the concerned teacher, should be submitted	IM/RIS/CG
4. Preparation of maps with suitable scale and latitude and longitude	IM/RIS/CG
5. Preparation of charts/graphs in MS-Excel and duly labelled	IM/RIS/CG
6. The report should be typed in MS-Word. The font size is fixed at 12 in Times New Roman and the line spacing 1.5	IM/RIS/CG

## **DSE - 3 (THEORETICAL): FLUVIAL GEOMORPHOLOGY**

### **UNIT: 1**

<b>Topic</b>	<b>Teachers' Name</b>
1. Scope and Content of Fluvial Geomorphology	
2. Run off Cycle: Components and Controlling Factors	
3. Concepts of Overland flow, Constant of Channel Maintenance and Belt of NoErosion	
4. Drainage Basin as a Hydrological and Geomorphic Unit	

### **UNIT: 2**

<b>Topic</b>	<b>Teachers' Name</b>
1. Linear, Areal and Relief properties of Drainage Basin	
2. Horton's Laws of Stream: Number, Length and Area	
3. Fluvial Landforms: Terraces and Alluvial Fans	
4. Riverbank Erosion Processes and Mechanisms	
5. Adjustment of Channel Bed Forms to Hydrological Regime	
6. Human Intervention on Fluvial Systems: Dams and Barrages	
7. Concept of Watershed Management	
8. DVC as a Watershed Planning Unit: Success and Failure	

**OR**

**DSE - 3 (Theoretical) : RESOURCE GEOGRAPHY**

**Unit: 1**

<b>Topic</b>	<b>Teachers' Name</b>
1. Resource Geography: Its Importance and relation with other sub-disciplines	BM
2. Resource: Concept and Classification	BM
3. Functional Theory of Resource	BM
4. Problems of Resource Depletion with Special Reference to Forest, Water and Fossil Fuels	BM
5. Resource Conservation : Principles and Methods	SG
6. Concept of 'Limits to Growth'	SG

**Unit: 2**

<b>Topic</b>	<b>Teachers' Name</b>
1. Distribution and Utilisation of Metallic Mineral Resources in Indian Context: Iron ore, Bauxite	BS
2. Distribution and Utilisation of Non-Metallic Mineral Resources in Indian Context: Mica, Limestone	BS
3. Distribution, Problems and Management of Energy Resources in Indian Context: Conventional (Coal) and Non-Conventional (Solar)	RIS
4. Power resources and problems with reference to Petroleum	RIS
5. Contemporary Energy Crisis and Future Scenario	IM
6. Sustainable Resource Development	IM

## **DSE - 4 (Theoretical): SOIL AND BIO GEOGRAPHY**

### **Unit: 1: Soil Geography**

<b>Topic</b>	<b>Teachers' Name</b>
1. Soil: Definition, Factors of Formation	CG
2. Development and Characteristics of an ideal Soil Profile	CG
3. Physical and Chemical Properties of Soil with special reference to Texture, Structure, Organic Carbon and pH	CG
4. Concept of Zonal, Azonal and Intrazonal Soil; Formation and Profile Characteristics of Laterite and Podsol	BM
5. Classification of Soil : Russian and Indian (ICAR)	BM
6. Soil Degradation and Management	BM

### **Unit-2: Bio-Geography**

<b>Topic</b>	<b>Teachers' Name</b>
1. Definition and Scope of Bio-geography, Meaning of Biosphere, Ecology, Ecosystem, Environment, Communities, Habitats, Niche, Ecotone and Biotopes	SG
2. Biosphere and Energy: Laws of Energy Exchange, Food Chain, Food Web and Energy Flow	BM
3. Bio-Geo Chemical Cycle: Carbon, Nitrogen	RIS
4. Factors of Plant Growth: Light, Heat, Moisture, Wind, Soil and Topography	RIS
5. Biomes – Concept and Classification; Tropical Rainforest and Temperate Grassland	ND
6. Threat to Biodiversity- Causes, Consequences and Conservation	ND

OR

**DSE - 4 (THEORETICAL): AGRICULTURAL GEOGRAPHY**

**Unit-I**

<b>Topic</b>	<b>Teachers' Name</b>
1. Origin and Diffusion of Agriculture	
2. Concepts and Types of Agricultural Systems	
3. Physical and Human Influences on the Distribution of Agricultural Systems	
4. Classification and Characteristics of Agricultural Regions of the World	
5. Characteristics and Distribution of Dairy Farming	
6. Models of Agricultural Location by Sinclair	
7. Crop Combination (Weaver)	
8. Crop Diversification (Jasbir Singh)	

**Unit-II**

<b>Topic</b>	<b>Teachers' Name</b>
1. Methods of Agricultural Regionalization	
2. Agro-climatic Regions of India	
3. Green Revolution in India: Problems and Prospects	
4. Agricultural Credit and Marketing: NABARD	