

Paper II

Total Marks: 100

Ph.D. Coursework Examination Syllabus (Geography)

Geomorphology

Fundamental concepts; Endogenetic and Exogenetic forces; Denudation and weathering; Geosynclines, continental drift and plate tectonics; Concept of geomorphic cycle; Landforms associated with fluvial, glacial, arid, coastal and karst cycles.

Climatology

Composition and structure of the atmosphere; Heat budget of the earth; Distribution of temperature; Atmospheric pressure and general circulation of winds; Monsoon and jet stream; Tropical and temperate cyclones; Classification of world climates; Koppen's and Thoramwaite's schemes.

Oceanography

Ocean deposits; Coral reefs; Temperature and salinity of the oceans; Density of sea water; Tides and ocean currents.

Bio–Geography

World distribution of plants and animals; Forms and functions of ecosystem; Conservation and management of ecosystems; Problems of pollution.

Geographic Thought

General character of Geographic knowledge during the ancient and medieval period; Foundations of Modern Geography; Determinism and possibilism; Areal differentiation and spatial organisation.

Population Geography and Settlement Geography

Patterns of world distribution;. Growth and density of population; Patterns and processes of migration; Demographic transition. Settlement Geography : Site, situation, types, size, spacing and internal morphology of rural and urban settlements; City – region; Primate city; Rank – size rule; Settlement hierarchy; Christaller's Central Place theory; August Losch's theory of market Centres.

Economic Geography

Sectors of Economy: primary, secondary, tertiary and quaternary; Natural resources: renewable and non-renewable. Measurement of agricultural productivity and efficiency; Crop combination and diversification; Von Thunen's Model. Classification of Industries: Weber's and Losch's approaches; Resource based and footloose industries.

Political Geography

Heartland and Rimland theories; Boundaries and frontiers; Nature of administrative areas and Geography of public policy and finance.

Social Geography

Ethnicity; tribe; dialect; language, caste and religion; Concept of social well-being.

Regional Planning

Regional concept in Geography; Concept of planning regions; Types of regions; Methods of regional delineation; Regional planning in India; Indicators of development; Regional imbalances; Evolution, nature and scope of town planning with special reference to India, and Fundamentals of Town and Country planning.

Geography of India

Physiographic divisions; Climate: Its regional variations; Vegetation types and vegetation regions; Major soil types; Irrigation and agriculture; Population distribution and growth; Settlement patterns; Mineral and power resources; major industries and industrial regions.

Cartography

Types of maps: Techniques for the study of spatial patterns of distribution; Choropleth; Isopleth and Chorochromatic maps and pie diagrams; Mapping of location – specific data; Accessibility and flow maps. Remote sensing and Computer application in mapping; Digital mapping; Geographic Information System (GIS).

Statistical Methods

Data sources and types of data; Frequency distribution and cumulative frequency ; Measures of central, tendency; Selection of class intervals for mapping; Measures of dispersion and concentration; Standard deviation; Lorenz Curve; Methods of measuring association among different attributes; Simple and Multiple correlation; Regression. Nearest – neighbour analysis; Scaling techniques; Rank score; weighted score; Sampling techniques for Geographical analysis.

Agricultural Geography

Concept and techniques of delimitation of agricultural regions; Measurement of agricultural productivity and efficiency; Crop combinations and diversification; Von Thunen's Model; Agricultural systems of the world.

Geography of Transport

Modes of transportation, Models of transportation; Accessibility and connectivity: Inter-regional and Intra-regional.