

# VIKRAM UNIVERSITY, UJJAIN

## Syllabus for Ph. D Entrance Examination

(Under the provision of Ordinance No. 11)

### GEOGRAPHY 2024

The Doctoral Entrance Test will have the question paper in two parts. Part-A shall consist of 50 multiple choice objective type compulsory questions of one mark each based on Research Methodology. Part-B shall also consist of 50 multiple choice objective type compulsory questions of one mark each covering basic papers of Post graduate course of Geography. The duration of the Doctoral Entrance Test will be of two hours. There will be no negative marking.

The candidate must score minimum 50% marks (45% for SC/ST/OBC/PH) in the entrance test to qualify for the interview.

### Part A – Research Methodology

#### Unit 1

Concept of Research in Social Sciences. Nature of Geographical Research and its purpose. Research approaches in Geography – Inductive and Deductive. Basis of Geographical Research – Historical, Logical and Scientific.

#### Unit 2

Identification of Research Problem, formulation of problem, Research Design, making of Hypothesis, Review of Literature, preparation of bibliography and reference material.

#### Unit 3

Collection of Data- Primary and Secondary, Topographical Sheet, Selection of indicators and variables. Collection of facts- Observation, interview, schedule and Questionnaire. Classification and Tabulation of Data. Presentation of data - Graphical and Diagrammatic methods.

#### Unit 4

Sampling techniques, measurement of Central tendency, Deviation, Correlation and Regression Analysis. Probability, test of significance- t - test, f- test, chi-square test analysis of time series and Report writing.

#### Unit 5

Use of computer in Geographical Research – Basic components of a computer, Hardware and Software, Input and Output devices. Application and use of MS word, MS Excel, Power Point and Internet.

## Part B – Geography

### Paper – 1 Geomorphology

Fundamental concepts - Geological structures and land forms. Plate tectonics. Model of Davis and Penk. Geomorphic processes, dynamics of Fluvial, Glacial, Arid and Karst regions, processes and resulting landforms, Coral Surface, coastal morphology, Geomorphic hazards.

### Paper – 2 History of Geographical Thoughts

Development of Geographical thoughts in ancient periods, Greek, Arab, Roman geographers. Geographical knowledge in ancient India. The Dark age, Period of Renaissance. The contribution of various schools of thought in modern Geography. The German school - Ritter, Humboldt, Ratzel, the French school - Vidal de la Blache, Brunhes, the American school - E.C. Semple, W.M. Davis, Griffith Taylor, Huntington, the British school - Mackinder, Herbertson, L.D. Stamp, Peter Haggett. Concept of Environmental Determinism, Possibilism and Neo Determinism. Dualism in Geography.

### Paper – 3 Climatology and Oceanography

Composition and structure of Atmosphere, Insulation, vertical and horizontal distribution of temperature, inversion of temperature, Cyclones and Anti cyclones. Classification of world climate by Koppen and Thornthwaite. Global warming. Origin of oceans, relief of ocean floor. Temperature of oceanic water and Salinity, waves, tides and ocean currents. Ocean deposits.

### Paper – 4 Regional Geography of India

Physiographic divisions, drainage, climate, soils, natural vegetation, irrigation, agriculture, livestock, minerals and power. Principle industries – location and distribution of Textile, Iron and Steel, Chemical, Cement, Sugar, Pulp and Paper, Automobile, Ship building, Aeronautical industries. Industrial Regions. Population – distribution and growth, Settlement Patterns in India.

### Paper – 5 Geography of Ecosystem

Difference between environment and ecosystem, ecological pyramid, energy and nutrients in the ecosystem, hydrological and bio-geo-chemical cycles, food chains. Major terrestrial ecosystems of the world : Agriculture, forests, grasslands and desert. Resource use and ecological imbalance with reference to soils, forests, water and energy resource, alternate means of energy. Biodiversity and its conservation, Environmental Pollution, ecology of tropical farming systems. Environmental Degradation, Management and Legislation, Degradation and Social Problems, Slums and Housing Problems, need of Environmental Management.

### Paper – 6 Geography of Health

Geographical factors affecting the human health and diseases arising from them. Classification of diseases : Genetic, Communicable and Non-communicable, Occupational and Deficiency diseases, World distribution Pattern of major diseases- Cholera, Malaria, Tuberculosis, Hepatitis, Leprosy, Cardiovascular, cancer & AIDS.

### Paper – 7 Social Geography

Geographical base of social formations. Social well being concepts of social well being, physical quality of life. Patterns and bases of rural and urban society. Strategies to improve social well being in tribal, hill, drought and flood prone areas.

### Paper – 8 Geography of Tourism

Factors influencing tourism, Types of tourism, motivating factors for pilgrimages, leisure, recreation elements of tourism, tourism as an industry. Environmental Laws and tourism- current trends, spatial patterns and recent changes, role of foreign capital and impact of globalization on tourism.

### Paper – 9 Agricultural Geography

Approaches to the study of Agricultural Geography. Determinants of agricultural land use. Cropping pattern, crop concentration, intensity of cropping, degree of commercialization, diversification and specialization, efficiency and productivity, crop combination regions and agricultural development. Green Revolution- its impact and consequences. Von Thunen's theory of Agricultural Location and its recent modifications.

### Paper – 10 Political Geography

Nature and Scope. Themes in Political geography : State, Nation, Nation state and nation building. Frontiers and Boundaries, Colonialism, Decolonization, Neocolonialism, Federalism. World Powers : perspectives on core – periphery concept, Conflicts and co-operation and Geopolitics.

### Paper – 11 Urban Geography

Different approaches and recent trends in Urban Geography, growth of urban settlements and functional classification. Theories of Urban Growth. Urban Hierarchy, Central Place Theory of Christaller. Urban morphology- City, Core, commercial, industrial and residential areas, modern urban landscape. Urban expansion, umland and periphery. Contemporary urban issues. Urban policy and planning. Globalization and urban planning in the third world, urban land use planning.

### Paper – 12 Geography of Rural Settlements

Approaches to study Rural Settlement Geography. Distribution of rural settlements, functional classification of rural settlements, Central Place and rural service centers. Rural and Urban fringe, structure, characteristics and functions. Social issues in rural settlements. Environmental issues in rural settlements.

### Paper – 13 Natural Resources Management

Concept, models and approaches to natural resource management, problems of resource utilization. Natural hazards and Risk management. Use and Misuse of resource : Global scenario. Conservation and management of resources. Resource Development : Sustainable Resource management. Integrated resource development and its application.