

**Mohan Lal Sukhadia University, Udaipur**  
**SYLLABUS FOR SCREENING TEST FOR THE POST OF ASSISTANT**  
**PROFESSOR IN GEOGRAPHY**

**Unit – I**

**Geomorphology:** Endogenetic and exogenetic forces; denudation processes: weathering and erosion, geosynclines, mountain building, continental drift and plate tectonics; concept of geomorphic cycle; landforms associated with fluvial, glacial, arid, coastal and karst cycles; slope forms and processes.

**Unit – II**

**Climatology:** Composition and structure of atmosphere; insolation; heat budget of the earth; distribution of temperature; atmospheric pressure and general circulation of winds; Monsoons and jet streams; stability and instability of atmosphere; air-masses; fronts; temperate and tropical cyclones; types and distribution of precipitation; classification of world climates: Koppen's and Thornthwatt's schemes; hydrological cycle; global warming.

**Unit - III**

**Oceanography:** Origin of ocean basins; bottom relief of Indian, Atlantic and Pacific oceans; ocean deposits; coral reefs; temperature and salinity of oceans; density of sea water; tides and ocean currents; sea-level changes.

**Environment Geography:** Physical factors influencing world distribution of plants and animals; forms and functions of ecosystem; forest, grassland, marine and mountain ecosystems; bio-diversity and its depletion through natural and man- induced causes; conservation and management of ecosystems; environmental hazards and problems of pollution; ozone depletion.

**Unit – IV**

**History of Geographic Thought:** General character of geographic knowledge during ancient and medieval period; foundations of modern geography; contributions of German, French, British and American schools; conceptual and methodological developments during the 20th century; changing paradigms; man- environment relations: determinism and possibilism, areal differentiation and spatial organization; quantitative revolution; impact of positivism, humanism, radicalism and behaviouralism in geography.

**Unit – V**

**Population Geography:** Nature, scope, subject matter and recent trends; patterns of world distribution, growth and density of population; policy issues; patterns and processes of migration; demographic transition; population-resource regions.

**Settlement Geography:** Site, situation, types, size, spacing and internal morphology of rural and urban settlements; ecological processes of urban growth; urban fringe; city-region; settlement systems; primate city; rank-size rule; settlement hierarchy; Christaller's central place theory; August Losch's theory of market centers.

**Regional Planning:** Regional concept in geography; its application to planning; concept of planning region; regional hierarchy; types of regions and methods of regional delineation; conceptual and theoretical framework of regional planning; regional planning in India; concept of development; indicators of development; regional imbalances.

## **Unit – VI**

**Economic Geography**: Location of economic activities and spatial organization of economies; classification of economies; sectors of economy: primary, secondary, tertiary and quaternary; natural resources: renewable and non-renewable; conservation of resources.

**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.

**Industrial Geography**: Classification of industries, theories of industrial location: Weber, Smith and Hoover; resource based and footloose industries.

**Geography of Transport**: Models of transportation and transport cost; accessibility and connectivity; spatial patterns of flow.

## **Unit – VII**

**Political Geography**: Definition and scope of political geography; geopolitics; global strategic views (Heartland and Rimland theories); concept of nation, state and nation-state; boundaries and frontiers; politics of world resources; geography and federalism.

**Social Geography**: Nature and scope of social geography; social structure and social processes; elements of social geography: ethnicity, tribe, dialect, language, caste and religion; concept of social well-being.

**Cultural Geography**: Nature and scope of cultural geography; environment and culture; concept of culture-areas and cultural regions; theories of tribal groups; dwelling places as cultural expressions.

## **Unit – VIII**

**Geography of India**: Physiographic divisions; climate; vegetation; major soil types; coastal and marine resources; water resources; irrigation; agriculture; agroclimatic regions; mineral and power resources; major industries and industrial regions; population distribution and growth; settlement patterns; regional disparities in social and economic development.

## **Unit – IX**

**Geography of Rajasthan**: Physiography; climate; droughts; soils and vegetation; minerals and power resources; agriculture and irrigation; livestock; major industries and industrial regions; means of transport; population: growth, distribution, problems and solutions; art, culture and tourism; geographical regions.

## **Unit – X**

**Cartography**: Types of maps; techniques for the study of spatial patterns of distribution; single purpose and composite maps; choropleth, isopleth and chorochromatic maps; accessibility and flow maps.

Remote sensing and computer application in mapping; digital mapping; geographic information system (GIS): thematic maps.

**Statistical Method**: Data sources and type of data; study of frequency distribution 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.

Measurement of spatial patterns of distribution; nearest-neighbour analysis; scaling techniques; rank score; weighted score; sampling techniques for geographical analysis.

**Note:- Pattern of Question Paper**

1. Objective type paper
2. Maximum Marks :100
3. Number of Questions : 100
4. Duration of Paper : Two Hours
5. All questions carry equal marks
6. There will be Negative Marking

