

**University of Kashmir, Srinagar-6, J&K**  
**NAAC Accredited Grade "A+"**  
**P.G. Department of Geography & Disaster Management**  
**(DST-FIST and UGC-SAP (DRS-II) Assisted Department)**  
**Syllabus of Entrance Test for MA/MSc. Geography-2025**

**SECTION-I**

**04 Marks**

1. Realms of Earth: Lithosphere, Atmosphere, Hydrosphere & Biosphere
2. Structure of Earth's Interior- a. Seismological evidence; b. Zonation of Earth
3. Weathering and Mass Movement:
4. Wegner's theory of Continental Drift
5. Isostasy and seafloor Spreading,
6. Earthquakes: Origin, Scales of Measurement
7. Classification and Characteristics of Rocks
8. Weathering: Factors and Types
9. Endogenetic and Exogenetic Processes

**SECTION-II**

**04 Marks**

1. Fundamental concepts in Human Geography: Place, Space and Landscape
2. Races of the world- their physical and socio-economic characteristics.
3. Major religious groups of the world
4. Human adaptation to environment: Eskimos, Bushman, Gujjars, Gonds.
5. Concept and Measures of Development
6. Sustainable Development: Concept and Goals
7. Concept of Human Development Index (HDI)
8. Global Pattern of Development: Inter-regional Variations
9. Global Population: Growth and Distribution - Patterns and Factors
10. Concepts of Over, under and Optimum Population
11. Theories of Population Growth: Malthus and Demographic Transition
12. Migration: Causes, Types and Consequences

**SECTION-III**

**04 Marks**

1. Nature and Scope of Geomorphology
2. Development of Geomorphology: European and American Schools
3. Principles of Geomorphology: Uniformitarianism and Neo-catastrophism
4. Concept of Time and Space
5. Concept of Dynamic Equilibrium
6. Geological Time Scale
7. Vulcanicity and Earthquake
8. Evolution of Landforms
9. Theories and Process of Slope Development
10. Cycle of Erosion: W.M. Davis and W. Penck
11. Geomorphic Agents and Landforms: Fluvial, Aeolian, Glacial, Karst and Coastal

**SECTION-IV**

**04 Marks**

1. Composition and Structure of Atmosphere

2. Insolation, Heat Budget & Latitudinal Heat Balance
3. Vertical & Horizontal Distribution of Temperature
4. Normal Lapse Rate and Inversion of Temperature
5. Atmospheric Pressure and winds
6. Tropical and Temperate Cyclones, Thunderstorms and Tornadoes
7. Atmospheric Circulations
8. Air masses and Fronts: Origin & Types
9. Jet Streams: Origin and Types
10. Climatic Classification Schemes:(i) Koppen (ii)Thornthwaite
11. Theories of Indian Monsoon: Classical & Modern Theory
12. Western Disturbances: Origin & Significance

#### **SECTION-V**

**04 Marks**

1. Evolution of Oceanography
2. Surface configuration of the ocean floor- continental shelf, continental slope, abyssal plain, mid- oceanic ridges and oceanic trenches
3. Distribution of temperature and salinity of oceans and seas
4. Waves and tides
5. Currents of the Atlantic, Pacific and Indian Oceans
6. Marine deposits; Oceans as Store-house of resources for the future
7. Coral reefs and Atolls: Origin, types and significance
8. Law of the Sea & Exclusive Economic Zone
9. Ocean Hazards: Tsunami & Cyclone

#### **SECTION-VI**

**04 Marks**

1. Recent Approaches in Urban Geography
2. Urbanization, Sub-Urbanization, Counter Urbanization, Urban Resurgence
3. Global Urban Growth, Trends and Patterns
4. Theories of city growth: Concentric zone, Sector and Multi-nuclei theory
5. Central Place Theory of Christaller
6. Urban Sprawl and Rural-Urban Fringe
7. Urban Heat Island and Green Belt
8. Smart City – Concept and Features
9. Urbanization in India: Trends and Pattern
10. Urban Poverty and Slums in India
11. National Urbanization Policy and Programmes
12. Urban Development under Master Plans

#### **SECTION-VII**

**04 Marks**

1. Economic Geography: Fundamental Concepts and Scope
2. Recent Themes: Agglomeration Economies, Commodity Chain, Knowledge Economy, Green Economy
3. Special Economic Zones and Technological Parks
4. Industrial Location Theories of Weber and Losch
5. Major Industrial Regions of the World
6. Industrial Policies of India: 1956 & 1991

7. Liberalization, Privatization and Globalization
8. Regional Disparities in the Levels of Economic Development
9. Market Linkages: Market Centers, Retailing & Whole Selling and E- Commerce
10. Comparative Cost Advantage & Absolute Advantage Theory

#### **SECTION-VIII**

**04 Marks**

1. Fundamental Concepts in Geography: Spatial Process and Pattern, Areal Differentiation,
2. Spatial Organization
3. Approaches in Geography– Positivism, Pragmatism, Humanistic, Behaviouralism,
4. Dualism in Geography- Physical vs. Human, General vs. Regional, Ideographic vs. Nomothetic
5. Dichotomies in Geography- Environmental Determinism, Possibilism, Neo-determinism,
6. Environmentalism
7. Quantitative Revolution and its Impact
8. Impact of Darwin's Theory on Development of Geography
9. Contribution of Phoenicians, Greeks, Romans and Arabs in Geography
10. Major Schools of Geographical Thought-German (Ratzel & Alfred Hettner); French (Vidal de la Blache & Jean Brunches); British (Meckinder & Stamp); American (W.M Davis & E. Churchill Semple) and Soviet Union (V.V. Dokuchaiev & Voeikov)

#### **SECTION-IX**

**04 Marks**

1. Introduction to Hydrology, Hydrologic Cycle and Water Balance
2. Concept of Catchment: Linear and Aerial Aspects
3. Runoff: Virgin Flow, Surface Runoff, Overland Flow, Direct Runoff and Base Flow
4. Runoff Processes: Factors Affecting Runoff- Flood Hydrograph, Unit Hydrograph Analysis: Rainfall- Runoff Relationship
5. Groundwater Hydrology: Groundwater in Hydrological Cycle
6. Occurrence of Groundwater: Aquifer, Aquiclude, Aquifuge and Aquitard
7. Water Movement: Saturated Soils- Darcy's Law
8. Groundwater Fluctuation: Secular, Seasonal and Short Term

#### **SECTION-X**

**04 Marks**

1. Cryosphere and its Significance
2. Global Distribution of Glaciers
3. Classification System of Glaciers on the basis of Temperature and Location
4. Glacier Mass Balance
5. Glacial System Overview
6. Permafrost and Ground Ice
7. Glacier Hazards: GLOFs and Surge
8. Glacial Runoff and its Impact on the Environment

#### **SECTION-XI**

**04 Marks**

1. GIS: Concept, Development & Components

2. Raster & Vector data
3. Geospatial Database: Development and Organization
4. Geographic Data: Types & Characteristics
5. Spatial Data Analysis in GIS
6. Overlays Analysis in GIS
7. Data quality and sources of errors
8. Global Positioning System(GPS)
9. Development of GPS System: NAVSTAR and GLONASS
10. Introduction to Global Navigation Satellite System(GNSS)
11. Basics of Geodesy: Geoid, Datum and Ellipsoid
12. GPS Segments: Space, Control and User
13. Fundamentals of GPS Positioning

#### **SECTION-XII**

**04 Marks**

1. Regional Geography and types of regions
2. Approaches to Delineation of Region
3. History of Regional Planning in India
4. Levels of Planning: Local, Regional, National and Multi-Level
5. Planning Processes: (i) Sectoral & Spatial (ii) Short Term & Long Term
6. Hilly, Tribal and Drought Regions planning
7. Concept of Sustainable Development; Environmental, Social and Economic dimensions
8. Brundtland Commission and UN Summits
9. Sustainable Development Perspectives: MDGs &SDGs
10. Agenda 21, 2030 Agenda for Sustainable Development
11. Limits to Growth: Concept & Significance
12. Carrying Capacity: Concept & Measurements
13. Ecological Foot-Print Analysis

#### **SECTION-XIII**

**04 Marks**

1. Definition, Types and elements of maps
2. Mapping techniques: Isopleth, Choropleth, Choroschematic and Chorochromatic
3. Types of Cartographic Symbols and their uses: i. Points, ii. Lines, iii. Areas
4. Scales: Definition, Classification, types and uses
5. Methods of showing relief features
6. Construction of Climograph and Hythergraph
7. Profiles: Definition, types and uses
8. Map projections.

#### **SECTION-XIV**

**04 Marks**

1. Remote Sensing: Concept and Development
2. Types of Remote Sensing (Active and Passive)
3. Stages in Remote Sensing Data Acquisition
4. Types and Characteristics of Platforms and Sensors
5. EMR&its interaction with atmosphere and Earth surface features.
6. Resolution and Types
7. Aerial Photographs and their Types

8. Image Interpretation and its Elements
9. Image Interpretation Keys
10. Multi Concept in Remote Sensing

**SECTION-XV**

**04 Marks**

1. Measures of Central Tendency: Mean, Median, Mode and Partition values
2. Measures of Dispersion: Mean deviation, Standard deviation
3. Coefficient of variation in data analysis
4. Correlation analysis: Scatter diagram, Karl Pearson's method
5. Geomorphic and socio-economic field survey-Meaning, significance and procedure
6. Sampling: Significance and Methods
7. Hypothesis testing: Formulation, Rejection rule, one and two tailed tests, significance level, Construction of Composite Index,
8. Drainage Morphometry: Delineation of Watershed, Stream Ordering, Mean Stream Length and Drainage Density
9. Scales of Measurement- Nominal, Ordinal, Interval and Ratio
10. Breaking Point Model for Determination of City-Region
11. Nearest Neighbour Analysis
12. Rank Size Rule