

## Syllabus for Common Entrance Test (2017): M.A./M.Sc. Geography

### A. Subject Related 75 Questions all over the Syllabus:

#### 1. Geography of India:

1. Location, relief, drainage, climate, soils, natural vegetation, and natural disasters.
2. Population: distribution, density, growth and composition, migration, human settlement types and levels of urbanization.
3. Land resources, irrigation, regional variations in cropping pattern, green revolution and problems of Indian agriculture.
4. Energy and mineral resources: coal, petroleum, hydroelectricity and nuclear energy, iron ore, manganese and mica.
5. Industries- iron and steel, cotton textile, sugar and petrochemical industries; and industrial regions of India.
6. Modes of transport and communication, international trade changing pattern of export and import.

#### 2. Physical Geography:

1. Interior of the earth, geological time scale, rocks and other types.
3. Earth movements; orogenic, eperiogenic, earthquakes and volcanoes.
4. Theory of isostasy; Wegner's theory of continental drift and plate tectonic.
5. Weathering; causes and types.
6. Mass-movements: causes, types and impacts.
7. Cycle of erosion, processes of wind, river, underground water, glaciers and sea waves.
- 8 Weather and climate, origin, composition and structure of atmosphere.
9. Insolation, Global heat budget, horizontal and vertical distribution of temperature, inversion of temperature.
10. Atmospheric pressure- measurement and distribution, pressure belts, planetary winds, monsoon, Jet Streams EL NINO- La Nina phenomenon and local winds.
11. Humidity- measurement and variables, evaporation, condensation, precipitation forms and types and distribution, hydrological cycle.
12. Air masses- concept and classification; fronts- type and characteristics, weather disturbances- tropical and extra-tropical cyclones.
13. Climatic classification by Koppen; climate change and global warming.
14. Configuration of oceanic floors and surface relief of Pacific, Atlantic and Indian Oceans; temperature and salinity of oceans.
15. Tides, waves and oceanic currents; circulation in Pacific, Atlantic and Indian Oceans; Oceanic resources.

#### 4. Human Geography:

1. Approaches to the study of human Geography.
2. Division of Mankind: spatial distribution of race and tribes of India; man-environment relation : a historical approach.

3. Human adaptation to the environment (i) cold region – Eskimo (ii) hot region- Bushman (iii) plateau–Gonds (iv) mountains–Gujjars.
4. Meaning, nature and components of resources; classification of resources – renewal and non- renewable ; biotic and abiotic, recyclable and non recyclable.
5. Distribution, utilization and conservation of biotic (flora and fauna) and abiotic (water, minerals and energy) resources. Distribution and density of world population, population growth, fertility and mortality patterns.
6. Concept of over, under and optimum population; population theories: Malthus, Ricardo and Marx.
7. Rural settlements: meaning, classification and types; urban settlements: origin, classification and functions of towns.
8. Population pressure, resource use and environmental degradation; sustainable development, concept of deforestation, soil erosion, air and water pollution.

### **5. Economic Geography:**

1. Nature, scope and relationship of economic geography with economics and other branches of social sciences.
2. Classification of economic activities and their impact on environment.
3. World natural resources: types, bases and classification; conservation and utilization of natural resources.
4. Spatial distribution of food (rice and wheat), commercial (cotton and sugarcane) and plantation crops (tea, rubber and coffee).
5. Classification of mineral resources (ferrous and non-ferrous), distribution and production of coal, iron ore, petroleum and natural gas.
6. Classification of industries, world distribution and production of iron and steel and textile industry, major industrial complexes of the world.
7. Transport, communication and trade: geographical factors in their development, major modes of water, land and air transport, recent trends in international trade.

### **6. Introduction to Remote Sensing, GIS & Quantitative Methods:**

1. Aerial Photographs; their advantages and types.
2. Elements of aerial Photo interpretation.
3. Remote Sensing; Electromagnetic spectrum, stages in remote sensing, type of satellites.
4. Types of Imageries and their application in various fields such as agriculture, environment and resource mapping.
5. Introduction to Geographical Information System: Purpose, advantages, software and hardware requirements.
6. Application of GIS in various fields of geography.
7. Measure of Central Tendency: Mean, Median and Mode.
8. Measure of Dispersion: Range, Quartile deviation and Mean deviation, Standard deviation, Coefficient of variation.

### **7. Maps, Scales and Representation of Physical Features:**

1. Introduction to Cartography; maps their types, scale, enlargement and reduction.
2. Introduction to topographical sheets; conventional signs.
3. Methods of representing relief and topographical features by contours; slopes (Concave, convex, undulating and terraced).
4. Profiles and their types.

### **8. Representation of Climatic Data, Map Projections and Survey:**

1. Representation of temperature, rainfall, pressure and humidity; Hythergraph, climograph and weather maps.
2. Map Projection: Meaning, Classification their types and characteristics with reference to cylindrical, conical and zenithal.
3. Surveys: Plane Table Survey and Prismatic compass Survey.

### **B. General Awareness 25 Questions Covering the following:**

- Current Affairs (National/International)
- Major Social/Economic/Political News
- Who's Who/personalities
- Sports
- Books and Authors
- Awards and Honors
- Science – Inventions and Discoveries
- Popular Abbreviations
- Important Dates
- National/International Organizations