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MEER SIR ACADEMY

JMI MA and MSc Geography Entrance Test Syllabus

**Department of Geography
Jamia Millia Islamia New Delhi**

Complete topic wise syllabus prepared from the supplied official document

Programme	MA or MSc Geography
Institution	Jamia Millia Islamia
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Syllabus Overview

The entrance syllabus covers physical geography, climatology and oceanography, human and economic geography, geography of India, environmental geography, regional planning, cartography, statistics, surveying, remote sensing, GIS and GPS. Candidates should prepare concepts, processes, spatial patterns, theories and practical geographical techniques listed below.

1. Geomorphology and Earth systems	2. Climatology and oceanography
3. Population and settlement geography	4. Resources and economic geography
5. Geography of India	6. Human and environmental geography
7. Regional development and planning	8. Cartography, statistics and geospatial techniques

1 Geomorphology and Earth Systems

- Solar System.
- Origin of the Earth: Nebular Hypothesis, Supernova Hypothesis, and Otto Schmidt's Gas and Dust Cloud Hypothesis.
- Interior of the Earth and seismic evidence.
- Geological Time Scale.



- Origin of continents and ocean basins; Wegener's Theory of Continental Drift; plate tectonics.
- Forces of the Earth's crust and earth movements; folds and faults.
- Volcanoes and earthquakes; rocks; major landforms.
- Weathering and mass wasting; normal cycle of erosion.
- Types of streams and drainage patterns.
- Evolution of landscape: fluvial, glacial, aeolian, coastal and karst landscapes.

2 Climatology and Oceanography

- Elements of weather and climate; composition and structure of the atmosphere.
- Insolation and heat budget; temperature; pressure and winds.
- Humidity, condensation and precipitation; forms of precipitation and types of rainfall; world patterns of rainfall.
- Air masses and fronts; cyclones and anticyclones.
- Koppen's classification of climates.
- Surface configuration of the ocean floor; submarine relief of the Atlantic and Indian Oceans.
- Ocean temperature and salinity; tides and currents; ocean deposits.

3 Population and Settlement Geography

- World patterns of population growth, distribution and density.
- Determinants of population distribution.
- Human migration in the past and present.
- Population problems of developed and developing societies.
- Types and patterns of rural settlements.
- Patterns of urbanization in the world.

4 Resources and Economic Geography

- Resources: components and classification.
- Distribution, utilization and conservation of water, iron ore, coal, petroleum, forests and fisheries.
- Production and distribution of wheat, rice and tea.
- Exploitation of natural resources and environmental problems.

5 Geography of India

- Structure, physiographic divisions and drainage system of India.
- Climate of India; origin and mechanism of the Indian monsoon; seasons and classification of climate.
- Soils and natural vegetation.
- Trends and patterns of population growth and distribution.
- Demographic attributes: literacy, age and sex, occupational structure, and religious and linguistic composition.
- Patterns of urbanization in India; population problems and policies.
- Production and distribution of mineral resources: iron ore, manganese and mica.
- Production and distribution of energy resources: coal, petroleum and hydroelectricity.



- Irrigation; production and distribution of rice, wheat, cotton, sugarcane and tea.
- Green Revolution and problems of Indian agriculture.
- Production and distribution of sugar, cotton textile, iron and steel, chemical and electronic industries.
- Industrial regions of India, including Special Economic Zones.
- Transport networks: roads and railways; internal and foreign trade.

6 Human and Environmental Geography

- Man-environment relationship and the relationship between elements of the natural environment and human life.
- Approaches to the man-environment relationship: environmental determinism, possibilism and modern environmentalism.
- Human beings in the ecosystem.
- Bioclimatic regions of the world and human life in tundra, hot desert, equatorial, monsoon and Mediterranean regions.
- Environmental crises and their management: deforestation, desertification, floods and droughts, soil erosion and land degradation.
- Water pollution; conservation of biodiversity; global warming.
- Population explosion, food security and sustainable development.

7 Regional Development and Planning

- Region: concept, types, forms and functions.
- Concept of spatial and sectoral development.
- Planning: concept, levels, types, need and scope.
- Delineation of regions using the weighted index.
- Regional development: concepts, indicators and levels.
- Regional planning: concept, purpose and approaches; local, regional and national levels.
- Theories of regional development: Rostow's Model, Hirschman's Model, Perroux's Growth Pole Theory and the Core-Periphery Model.
- Planning in India: Five-Year Plans.
- Problem regions: drought-affected and flood-affected areas.

8 Cartography and Map Work

- Maps: definition and classification.
- Map projections.
- Methods of relief representation; contours and their profiles.
- Determination of slope and gradient; topographic sheets.
- Line and bar graphs; isotherms, isobars and isohyets; climographs and hythergraphs.
- Qualitative and quantitative areal-distribution maps; age and sex pyramids.

9 Statistical Methods

- Measures of central tendency.



- Measures of dispersion and coefficient of variation.
- Measures of association and regression.

10 Surveying

- Classification of surveying.
- Radiation, intersection and resection.
- Open and closed traverses; levelling.
- Plane table, prismatic compass, dumpy level, sextant and theodolite.

11 Remote Sensing GIS and GPS

- Remote sensing: history, development and types; concept of electromagnetic radiation.
- Geographic Information System: definition, history and development; sources of spatial and non-spatial data.
- Global Positioning System: definition, types and segments.

Preparation Note

Revise undergraduate-level geography fundamentals and practise maps, diagrams, numerical problems, statistical techniques, surveying concepts and interpretation of spatial data alongside the theoretical topics listed in the syllabus.