

DEPARTMENT OF GEOGRAPHY
JAMIA MILLIA ISLAMIA
SYLLABUS FOR ENTRANCE TEST

M.A/M.Sc./Geography

Solar System; Origin of the Earth : Nebular Hypothesis; Super Nova Hypothesis ; Otto Schmidt's Gas and Dust Cloud Hypothesis; Interior of the Earth; Seismic Evidence; Geological Time Scale; Origin of Continents and Ocean Basins : Wegner's Theory of Continental Drift, Plate Tectonics; Forces of the Earth's Crust & Earth Movements; Folds and Faults; Volcanoes and Earthquakes; Rocks; Major Landforms; Weathering and Mass Wasting; Normal Cycle of Erosion; Types of Streams, Drainage Pattern, Evolution of Landscape : Fluvial, Glacial, Aeolian, Coastal, and Karst

Elements of Weather and Climate; Composition and Structure of 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 Anti-cyclones; Koppen's Classification of Climates. Surface Configuration of the Ocean Floor; Sub-marine Relief of Atlantic and Indian Oceans; Temperature and Salinity; Tides and Currents; Ocean Deposits.

World Patterns of Growth, Distribution and Density of Population; Determinants of Population Distribution; Human Migration: Past and Present; Population Problems of Developed and Developing Societies; Types and Patterns of Rural Settlements; Patterns of Urbanization in the World.

Resources : Components and Classification; Distribution, Utilization and Conservation of Water, Iron Ore, Coal, Petroleum, Forest and Fisheries; Production and Distribution of Wheat, Rice and Tea; Exploitation of Natural Resources and Environmental Problems.

India: Structure; Physiographic Divisions; Drainage System; Climate, Origin and Mechanism of Indian Monsoon; Seasons of India; Classification of Climate; Soils; Natural Vegetation. Trend and Pattern of Population Growth and Distribution; Demographic Attributes : Literacy, Age and Sex, Occupational Structure, Religious and Linguistic Composition; Patterns of Urbanization in India; Population Problems and Policies. Production and Distribution of Mineral (Iron ore, Manganese and Mica) and Energy (Coal, Petroleum and Hydro-electricity) Resources; 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, Chemicals and Electronic industries; Industrial Regions of India (SEZs); Transport Networks : Roads and Railways; Internal and Foreign Trade.

Man-Environment Relationship; Elements of Natural Environment and their relationship with Man; Approaches to Man-Environment Relationship : Environmental Determinism, Possibilism and Modern Environmentalism; Man in the Eco-system; Bio-climatic regions of the World : Human Life in Tundra, Hot Deserts, Equatorial, Monsoon and Mediterranean Regions; Environmental Crisis: Nature and Management of Deforestation, Desertification, Floods and Droughts, Soil Erosion and Land Degradation; Water Pollution; Conservation of Biodiversity; Global Warming; Population Explosion, Food Security and Sustainable Development.

Region: Concept, Types, Forms and Functions; Concept of Spatial and Sectoral Development; Planning: Concept, Levels, Types, Need and Scope; Delineation of regions: Weighted Index; Regional Development: Concepts, Indicators and Levels; Regional Planning: Concept, Purpose and Approaches; Levels of Regional Planning; Local, Regional and National. Theories of Regional Development: Rostow's Model, Hirschman's Model, Perouzes Growth Pole Theory and Core-Periphery Model. Planning in India: Five year Plans; Problem Regions: Drought and Flood Affected Areas.

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. Statistical Methods: Measures of Central Tendency –Measures of Dispersion, Coefficient of variation, Measures of association, Regression. Qualitative and Quantitative areal distribution maps, Age and Sex Pyramid, Surveying: Classification; Radiation, Intersection, Resection; Traverse (open and closed), Leveling; Plane Table, Prismatic Compass, Dumpy Level, Sextant, Theodolite. Remote sensing: History, development and Types, Concept of EMR, GIS: Definition, history and development, sources of spatial and non spatial data, GPS: definition, types and segments.