

Syllabus of Entrance Examination
M.Sc - Geographical Information System (GIS),
CENTRE FOR GEOINFORMATICS TECHNOLOGY,
DOS in Geography, Manasagangothri Campus, University of Mysore, Mysuru

- 1. Physical Geography:** Field, Scope and importance; Approaches – Regional and Systematic; Distribution of land and water -Tetrahedron, Wagner's theory of continental drift, Plate tectonics- Isostasy; Movements of the earth's crust- Diastrophism; Folds and faults; volcanoes and Earth Quakes; Rocks; Soils; Mountains-Plateau, Plains.
- 2. Cartography, Surveying and Mapping:** Definition, Scope and importance of Cartography; Data Models and Information; Topographic Maps; Maps Types: Choropleth Maps; Proportional Symbol Maps; Isopleth Maps; Dot Maps; Surveying; Plane table surveying; Radiation and Intersection; Prismatic compass surveying; Radiation and intersection; Chain surveying.
- 3. Human Geography & Urban Geography:** Environmental determinism; Possibilism; Probabilism; Culture; Hagerstrand theory of diffusion; Race; Religion; Language; Global patterns of tribes; Population growth - Distribution, Density and Demographic Cycle; migration; Primate city concepts; Central place theory of Christaller; Structure of urban centers – Concentric theory, Sector theory, Multiple nuclei theory.
- 4. Economic Geography:** Approaches; Resources - conservation and management; Agricultural and allied activities; agricultural regions – von thunen's agricultural location theory; Crops – Rice and wheat, Cotton and Sugarcane, Coffee and tea; Fishing and animal resources; Industries- factors of location - Weber's theory, Losch theory, International trade - basis, pattern and trends.
- 5. Agriculture Geography:** Nature and Scope; Development; Approaches -Commodity Approach, Economic Approach, Systematic Approach, Environmental Approach; Soils - Formation and characteristics; Types of Agriculture; Irrigation; Green revolution in India; Factors Influencing Agriculture; Agricultural Regionalization.
- 6. World Geography:** Major relief features; Weather and Climate; Erosional process; Movements of the earth's crust; Global cultural diversities; Natural regions; Mineral and power resources; types of transportation; Submarine topography; Salinity and Temperature of the ocean water; Circulation of ocean water; Ocean deposits and coral reefs.
- 7. Geography of India:** Physical Divisions; Drainage System; Climate; Soil; Irrigation; Mineral Resource; Industries– industrial regions, Iron and steel, cotton textiles, Fertilizers, cement; Transportation; Population - growth, diversity, distribution; Agriculture; natural vegetation; Economy – Agricultural, minerals resources, Power resources, coal, petroleum, Electricity.
- 8. Environmental Studies:** Definition, principles and scope of environmental science. Environmental ethics, Basic of Atmospheric Science and Biosphere; Biomes and Habitat Diversity; Biodiversity conservation; Conventional and Non-Conventional Energy Sources, Noise Pollution; Air Pollution; Water Pollution; Environmental laws in India
- 9. ICT and Computer Applications:** Basics of Computer; Types of Computer systems; Software; Hardware; CPU; Mother Board; Input and output Devices; Multimedia; external storage devices; Networking; operating system; Word processing Software; Spread Sheets; Line, Bar and Pie Charts; DBMS.
- 10. Mathematics and Statistics:** Number theory; Algebra; Average and Ratios; Geometry; Permutation; Combination; Probability; Statistics- meaning, importance and limitations; data primary and secondary; Sampling and its types; Measures of central tendency – mean, median

ELIGIBILITY CRITERIA
M.Sc. Geographical Information System (GIS)

Any degree or equivalent from a recognized College/ University/ Tertiary Educational Institution or a degree in Geography (B.A./B.Sc.) /any branch of Science (B.Sc.) or a degree in Social Science (B.A.)/ Commerce or Management (B.Com/B.B.A/B.B.M) with Statistics or Mathematics at Junior College Level or a degree in Engineering (B.E./B.Tech.) or a degree in Architecture/ Planning/ Environmental/ Biological or Agricultural Sciences with at least 45% marks (40% for SC/ ST/Cat-I candidates) is eligible.