

M. A. Previous (Geography) Syllabus

Paper- I : Geomorphology (Compulsory) (भूआकृतिविज्ञान)

- Unit- A :** Meaning, Scope & Approaches of the study of Geomorphology (भू-आकृतिविज्ञान का अर्थ, क्षेत्र और अध्ययन के उपागम), Evolution & concept of Geomorphology and its place within the discipline of Geography (भू-आकृतिविज्ञान का उद्भव, संकल्पनाएं और भूगोल में इसका स्थान), Recent Trends in the study of Geomorphology (भू-आकृति विज्ञान के अध्ययन की नवीनतम प्रवृत्तियां). Origin & age of the Earth (पृथ्वी की उत्पत्ति और आयु), Interior of the Earth (पृथ्वी का अन्तर्गत), Isostasy (समस्थिति), Origin of Continents & Ocean Basins (महाद्वीप और महासागरों की उत्पत्ति).
- Unit- B :** Concept of Plate Tectonics (प्लेट विवर्तनी की संकल्पना), Rigid Mass & Geosynclines (दृढ़ भूखण्ड और भू-सन्नति), Recent Theory of Mountain Building (पर्वत निर्माण का अभिनव सिद्धान्त), Forces affecting the Earth crust (भूपटल को प्रभावित करने वाले बल), Diastrophism (पटलविरूपण), Volcanic activities & landforms resulting from it (ज्वालामुखी क्रिया और उत्पन्न स्थलाकृतियां), Earthquakes (भूकम्प), Denudation (अनाच्छादन).
- Unit- C :** Concept of cycle of Erosion (अपरदन चक्र की संकल्पना), Concept of Structure, Processes & Stages (संरचना, प्रक्रम और अवस्था की संकल्पना), Concept of Davis & Penk (डेविस और पेंक की संकल्पना), Polycyclic landscapes and dynamic Equilibrium theory (बहुचक्रीय स्थलाकृतियां और गतिक संतुलन सिद्धान्त), Erosion surface & their interpretation (अपरदन सतह और उनका निरूपण), Fluvial & Glacial landscape in hills & Plains (पर्वतों व मैदानों में हिमानी व बाढ़कृत स्थलाकृतियां), Aeolian landscapes in hot deserts (उष्ण मरुस्थलों की वायुकृत स्थलाकृतियां), Coastal landscapes - submerged & emerged (तटीय स्थलाकृतियां- निमज्जित और उमज्जित). Coastal tracts & Karst Topography (तटीय क्षेत्र और कार्स्ट स्थलाकृतियां).
- Unit- D :** Slope analysis (ढाल विश्लेषण), Morphometry (आकारमिति), Climatic Geomorphology (जलवायविक भू-आकृतिविज्ञान), Morphogenetic Regions (आकारजनक प्रदेश), Morphogenetic study of UP/Uttarakhand Himalayas (उत्तराखण्ड हिमालय का आकारजनक अध्ययन), Applied Geomorphology (अनुप्रयुक्त भू-आकृतिविज्ञान).

Paper- II : Geography of Resources (Compulsory) (संसाधन भूगोल)

- Unit- A :** Nature, Scope & significance of the Geography of Resources (संसाधन भूगोल की प्रकृति, क्षेत्र और महत्व), Definition & concepts of resources as related to cultural, economic & technological development, stages and perceptions (सांस्कृतिक, आर्थिक और प्रौद्योगिकी के सन्दर्भ में संसाधनों की परिभाषा और संकल्पनाएं), Classification of Resources (संसाधनों का वर्गीकरण).
- Unit- B :** Characteristics & Distributional Patterns of Major Natural resources of the World (विश्व के प्रमुख संसाधनों के लक्षण और वितरण प्रतिरूप), Formation, Classification & Distribution of Soils (मृदा की रचना, वर्गीकरण और वितरण), Water Resources (जल संसाधन), World distribution & production of Power Resources - Coal, Petroleum, Hydropower, & Atomic Fuels (विश्व के प्रमुख ऊर्जा संसाधनों- कोयला, खनिज तेल, जल विद्युत और परमाणु ऊर्जा का वितरण और उत्पादन) Mineral Resources - Iron Ores, Manganese & Mica (खनिज संसाधनों- लौह अयस्क, मैंगनीज और अन्नक), Energy Crisis (ऊर्जा संकट) and Possible Non-conventional Energy Resources of future (भविष्य के संभाव्य गैर परम्परागत ऊर्जा संसाधन), Human Resources (मानव संसाधन): Distribution & Density of Human Resources (वितरण और घनत्व) along with recent trends in the World (विश्व जनसंख्या वृद्धि की नवीनतम प्रवृत्तियां).
- Unit- C :** Resource Utilization patterns (संसाधन उपयोग प्रतिरूप): Impact of Physical, Techno-economic characteristics and role of infrastructural facilities in Resource Utilization (संसाधनों के उपयोग में भौतिक, तकनीकी-आर्थिक विशेषताओं और अद्य-संरचनात्मक सुविधाओं का प्रभाव). Particularly in the development of agricultural & Industrial Patterns (कृषि और औद्योगिक प्रतिरूपों के विकास पर); Van Thunen's Theory of Agricultural Location & its Modification (वॉन थूइनेन का कृषि अवस्थिति सिद्धान्त और उसमें संशोधन), Agricultural Regions of the World (विश्व के कृषि प्रदेश), Weber's theory of Industrial Location (वेबर का उद्योग के स्थानीयकरण का सिद्धान्त), Industrial Regions of the World with special reference to USA, UK, China & Japan (संयुक्त राज्य अमेरिका, यूनाइटेड किंगडम, चीन और जापान के विशेष सन्दर्भ में विश्व का औद्योगिक प्रादेशीकरण), Resource Regions of the World (विश्व के संसाधन प्रदेश),
- Unit- D :** Conservation & Management of the Resources (संसाधनों का संरक्षण और प्रबन्धन), Concept, Methods and Measures of Conservation (संसाधन संरक्षण की संकल्पना, विधि और उपाय), Conservation of Major natural

Resources (Soil, Water & Biotic Resources) (मृदा, जल और जैविक आदि प्रमुख संसाधनों का संरक्षण), Impact of Resource utilization on Environment (संसाधनों के उपयोग का पर्यावरण पर प्रभाव), Population Resource Relationship, (जनसंख्या और संसाधनों में सम्बन्ध), Resource Scarcity and adequacy (संसाधन दुर्लभता और अधिकता), Resource potential and future technology (संसाधन संभाव्यता और भविष्य की तकनीकी).

Paper- III : Environmental Geography (Optional) (पर्यावरण भूगोल)

- Unit- A:** Definition of environmental Geography (पर्यावरण भूगोल का अर्थ), Aims & Scope of environmental Geography (उद्देश्य और क्षेत्र), Geography & Ecology (भूगोल और पारिस्थितिकी), environmental Geography and related sciences (पर्यावरण भूगोल और सम्बद्ध विज्ञान), Fundamental concepts in environmental Geography (पर्यावरण भूगोल की आधारभूत संकल्पनाएं).
- Unit- B:** Definition of Ecology (पारिस्थितिकी की संकल्पना), Aims & Scope of Ecology (पारिस्थितिकी के उद्देश्य और क्षेत्र), Ecological concepts and Principles (पारिस्थितिकीय संकल्पना और नियम), Meaning of Ecosystem (पारितन्त्र), Types of Ecosystem (पारितन्त्र के प्रकार), Components of Ecosystem (पारितन्त्र के संघटक).
- Unit- C:** Sources of Energy (ऊर्जा के स्रोत), Ecological Production (पारिस्थितिकीय उत्पादन), Trophic levels (पोषण स्तर), Food Chain & Food Webs (आहार श्रृंखला और आहार जाल), Ecological Pyramids (पारिस्थितिकीय पिरामिड), Flow of energy (ऊर्जा प्रवाह), Circulation of elements in the ecosystem (पारितन्त्र में तत्वों का परिसंचरण) and Biogeochemical Cycles (जैव भू-रासायनिक चक्र).
- Unit- D:** Man & Atmospheric Environment (मानव और वायुमण्डलीय पर्यावरण), Man induced Soil erosion and sedimentation (मानवकृत मृदा अपरदन और अवसादन), Environmental Degradation (पर्यावरणीय अवक्रमण), Extreme Events (वृष्टि घटनाएं), Hazards and disaster (आपदा और विनाश), Environmental Pollution (पर्यावरणीय प्रदूषण), Environmental Planning & Management (पर्यावरण नियोजन और प्रबन्धन).

Paper : IV – Agricultural Geography (Optional) (कृषि भूगोल)

- Unit- A:** Definition, Scope & Nature of Agricultural Geography (कृषि भूगोल की परिभाषा, विषय क्षेत्र और प्रकृति), Approaches to the study of Agricultural Geography (कृषि भूगोल के अध्ययन के उपागम), Types of Agriculture (कृषि के प्रकार)
- Unit- B:** Evolution of Agriculture & development of Agricultural Geography (कृषि और कृषि भूगोल का विकास) Geographical factors of Agriculture- climate, soil, water availability & slope (कृषि को प्रभावित करने वाले भौगोलिक कारक- जलवायु, मृदा, जल की उपलब्धता, ढाल आदि), Economic, social & technological factors Agriculture (कृषि और को प्रभावित करने वाले आर्थिक, सामाजिक और तकनीकी कारक), Agriculture & Animal Husbandary (कृषि और पशुपालन), Agriculture & Agroforestry (कृषि और कृषि वानिकी) Crop rotation & Crop combination. (फसलक्रम और फसल साहचर्य) Concept of Mixed & Multi cropping (मिश्रित और बहुफसली कृषि की संकल्पना) Crop Intensity (शस्य गहनता) Agricultural Landuse (कृषि भूमि उपयोग) Crop Concentration & Diversification (शस्य संकेन्द्रण और विविधीकरण) Agriculture & Irrigation (कृषि और सिंचाई के साधन)
- Unit- C:** Cropping patterns (कृषि प्रतिरूप), Production of Main Crops & Their Production Area (प्रमुख फसलों का उत्पादन व उत्पादन क्षेत्र), Types of Crops (फसलों के प्रकार), Locational Theories of Agriculture, Thuenen & Weber (कृषि के स्थानीयकरण के सिद्धान्त- थूईनेन, वेबर), Agricultural Regionalization of the world (विश्व का कृषि प्रदेशीकरण), Agricultural Regions of USA, Japan, UK, China and India (संयुक्त राज्य अमेरिका, जापान, यूनाईटेड किंगडम, चीन और भारत के कृषि प्रदेश).
- Unit- D:** Agriculture Planning (कृषि नियोजन) Green Revolution & Indian Agriculture (हरित क्रान्ति और भारतीय कृषि), Problems of Indian Agriculture (भारतीय कृषि की समस्याएं), Food Security (खाद्य सुरक्षा), Food Crises (खाद्य संकट), Five Year Plan & Agricultural Development (पंचवर्षीय योजनाएं एवं कृषि विकास), Co-operative Farming in Russia, Israel & Japan (सोवियत संघ, इजराइल और जापान में सहकारी कृषि पद्धति), Agri-marketing & Storage (कृषि विपणन प्रणाली और भण्डारण)

M. A. I Geog. Paper - V : Practical Geography (2012-13)

- Unit - I: Map Projections: Constructions, Properties & Uses of the following Projections
- (i) Conical - Bonne's, Polyconic & International.
 - (ii) Cylindrical - Mercator's & Gall's Projection.
 - (iii) Zenithal - Equidistant & Equal Area (Equatorial case) Gnomonic & Stereographic (Polar Case)
 - (iv) Conventional- Globular, Mollwied and Sinusoidal Projection.
- Unit - II: Representation of Statistical data: Construction of following graphs, Diagrams & cartograms-
- (i) Graphs - Polygraphs, Band Graphs, Climograph, Climatograph, & Ergo graph.
 - (ii) Diagrams - Star Diagram, Multiple Bar Diagram, Pyramid Diagram, Ring Diagram, Rectangular & Spherical Diagram.
 - (iii) Cartograms - Rectangular Cartogram & Traffic Flow Cartograms.
- Unit - III: Statistical Techniques and their use in Cartographical representation; Sampling Techniques, Standard Deviations, Co-relation, Measures of Dispersion, and Lorenz Curve.
- Unit - IV: Representation of Thematic Maps: Representation of Population, Agricultural, Industrial and Transport Data on Maps, by Choropleth, Isopleth, Choroschematic and Diagrammatic Methods.
- Unit - V: Air Photo Interpretation and Remote Sensing: Development of Air Photo Interpretation, Techniques of Air photography and their Application in Geography, Simple Geometry of Air Photographs, Measurement of Scale, Height and scope for vertical Air Photographs, Techniques of Remote Sensing and their Application in Geography, Automatic in Cartography (Use of Computer).

Tour & Field Study: Organization of an Educational Study Tour of about Ten Days duration aiming Geographical Study of a sizable Area located in Hilly/Plateau/Coastal/Desert Region of India.

The study of such Area will include the collection, interpretation & mapping of obtained Data, information, concerned with physiography and any one of the following aspects of the region. The students shall be required to present a **Tour Report** (based on the above work) for evaluation in practical examination.

- i- Rural/Urban landscape
- ii- Mining/Agriculture/Industrial landscape.
- iii- Population: structure & Problems.
- iv- Transport and Tourism.
- v- Tribal Study- Habitat & Economy.
- vi- Integrated Area Development.

Distribution of Marks for the purpose of Practical Examination:

i- Written Examination of 4 Hours 30 Minutes	50 Marks.
ii- Record Work (Sessional Cartographic Work)	15 Marks.
iii- Viva-Voce	10 Marks.
iv- Tour Report (Field Study)	25 Marks.

Courtesy :

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Syllabus

M. A. Final Geography

Paper- I: Geographic Thoughts and Research Methodology (Compulsory)

- Section - A :** The General character of Geography in ancient Period; Contribution of Greek and Roman Scholars with special reference to Eratosthenese, Ptolemy and Strabo; Contribution of Indian Scholars; Dark Age of Medieval Period; Contribution of Arabs.
- Section – B:** Evolution of Geographic Thought in 19th & 20th Century; Contribution of German & French school of Thoughts with particular reference to Humboldt, Ritter, Ratzel, Richthofen, Hetner, Blache, and Bruhnes; Development of Dualism in Physical & Human Geography and Dichotomy in Regional and Systematic Geography.
- Section –C:** Development of concept of Geography- Geography as the study of Relationships; Distribution and Areal Differentiation; Environmental Determinism, Possibilism and Human Ecology; Concept of Cultural Landscape; Modern concept of Geography and its place in Scientific study; Contribution of British and American School of Thoughts.
- Section - D:** Research Methodology - Methods of Field Study in Geography; Preparation of Questionnaire; Sampling; Techniques for Primary data collection- their types and application, Role of Remote Sensing and Computer.
Concept of Region; Delimitation of region; Concept of core and marginal areas; Location and network analysis- Models of Von Thuenen, Weber and Christallar, Functional Hierarchy of Settlements.

Paper- II: Regional Geography of India (Compulsory)

- Section - A :** Geology, Structure and Relief features; Major Physiographic Divisions; Origin of Himalayas; Drainage System; Mechanism of Monsoon and regional variation in rainfall; Climatic regions with particular reference to the classification by Koppen, Kendrew and RL Singh.
- Section - B :** Natural Resources- Types, distribution & Conservation of Soil and Forests. Power Resources- their crisis and future prospects. Main characteristics and problems of Indian Agriculture, Technological development and commercialization of Agriculture in India. Industrial development and future prospects; Locational factors and special Patterns of Major Industries in India- Iron & Steel, Cotton Textile, Sugar, Fertilizer and Engineering Industry.
- Section – C:** Regional Study- Basis of regional divisions; Classification and Main Characteristics of the following regions of India- Natural Regions, Resource Regions, Agricultural Regions, Industrial Regions and Economic Regions.
- Section – D:** Detail study of Uttar Pradesh in the following heads- Physiography, Agricultural land-use, Industrial growth centers, Sugar and Cottage industry, Settlement types & Patterns. Geographical Regions- Classification and characteristics of Macro, Meso and Micro Regions of UP Himalayas and Gangetic Plains.

Paper- III: Climatology & Oceanography (Optional)

- Section – A:** Meaning & Scope of Climatology; Factors of Climate; Composition & Structure of the Atmosphere; Insolation; Distribution of Horizontal & Vertical Temperature; Humidity; Clouds- types & factors of Precipitation.
- Section - B:** Air Pressure and Wind System; Frontogenesis and Air masses; Origin & Development of Temperate & Tropical Cyclones; Anticyclones; Thunderstorms; Comparative study of Climates.
Principles & Criterion of Climatic Classification by Kendrew, Koppen, Thornthwait, Millar and Trewartha.
- Section - C:** Nature & Scope of Oceanography; Ocean Topography- Pacific, Atlantic and Indian Ocean; Classification and Characteristics of Ocean Deposit; Salinity & Density of Ocean Water.
- Section - D:** Ocean Currents; Tides; Corals and Coral Reefs; Types of Coasts & Shores; Ocean as a source of Food & Minerals.

Paper : IV – Man & Environment (Optional)

- Section – A:** Nature, Scope & Significance of the study of Man & Environment; The effect of Environment on Man- (i) Biophysical, Perceptual and Behavioral (ii) related to resource availability; Man's capacity to modify the Environment; Concept of Environmentalism, Possibilism and Neo-determinism; Principles of Environmental Activity; Terrestrial Unity and Man's Adjustment with his Environment.
- Section – B:** Evolution and Dispersion of Man- Australopithecus to Modern Man; Development of Man's Cultural Landscape; Rise of Civilization with special reference to Nile Valley, Indus Valley and Inca & Maya Civilizations; Relation of man with Climate, Topography, Vegetation, Soil and Water; Environment types & Components.
- Section – C:** Human Race- Concept of Race; Criteria of Racial Classification; Distribution and characteristics of Primary Human Races; Racial Classification of Indian Population. Habitat, Economy and Society of First people- The Pigmies, Eskimos, Khirghiz, Bushman and Masai; Tribes of India- their essential feature and classification; Habitat, Economy, and Society of Nagas, Bhils, Bhotia, Gujjar, Gaddies, Santhal & Gonds.
- Section – D:** History of Population growth in the World; Stages of Population growth; Distribution, Density and Migration of Population. The Environmental Crises- Nature and causes of Environmental Problems, Some Case studies; Ecological bases of Environmental Management.

Paper - V : Practical Geography

Part –A : Surveying & Levelling

Topographical Surveying and Levelling of local area with help of the following instruments:

- (I) **Plane Table :** Traversing; Resection (Two Point Problem); Use of Telescopic Alidade in Traversing, (Measurement of distance by Telescopic Alidade)
- (II) **Prismatic Compass Survey:** Traversing, Adjustment of Closing Error by Graphical Method.
Mathematical Analysis- Correction of Bearings and calculation of included Angles.
- (III) **Theodolite :** Measurement of Horizontal & Vertical angles; Traversing;
Mathematical Analysis- Computation of Omitted Measurement in a Traverse Survey.
- (IV) **Dumpy Level Survey:** Simple Levelling; Differential Levelling; Profile Leveling.
Mathematical Analysis- Calculation of Curvature and refraction, Reciprocal leveling.

Part – B: Project Work: Survey Camp and Field Study

An out station survey camp of about Ten Days duration will be organized in a selected Area located in Hilly/Plateau/Coastal/Desert Region of India where the students will be required to carry out the following work of the Project.

- A- Actual mapping of the selected area with the help of the Survey Instruments.
- B- Reporting of any three of the following aspects of that area depending on its situation-
- (i) Geomorphology & Terrain.
 - (ii) Soils & Soil Erosion.
 - (iii) Agricultural Land use.
 - (iv) Industrial Activities.
 - (v) Flora & Fauna.
 - (vi) House types & Settlement Patterns.
 - (vii) Transport Patterns.
 - (viii) Tourism.
 - (ix) Flood & Water logging.
 - (x) Marine Erosion.

A project report of the above work will be submitted for the evaluation in Practical Examination.

Courtesy :

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