

**DETAILED SYLLABUS FOR THE POST OF POST OF ASSISTANT PROFESSOR IN
GEOGRAPHY (BY TRANSFER) (Collegiate Education(Training Colleges)) -
By Transfer Recruitment**

(CATEGORY NO. 142/2022)

GEOGRAPHY SYLLABUS

Module –I. GEOMORPHOLOGY (8 marks)

- Geomorphic thought – concepts, modern trends, processes and theories.
- Rocks, weathering, major landforms, earth movements and earth's interior.
- Landforms by rivers, wind, glaciers, waves and underground water.
- Drainage patterns, morphometry and channel morphology.
- Landform evolution- views of Davis, Penck and King.
- Slope development - concepts and theories.
- Erosional surfaces, desertification, coastal dynamics and morphogenetic regions.
- Applied geomorphology.

Module – II. CLIMATOLOGY (8 marks)

- Atmosphere- origin, structure , composition, layers ,processes and general circulation.
- Latitude and seasonal variation, Insolation, temperature inversion and heat budget.
- Atmospheric equilibrium and motion, pressure belts and temperature zones.
- Local winds, jet streams, forms of precipitation and rainfall, humidity, clouds.
- Weather systems – cyclones, anticyclones, monsoons, thunderstorms, airmasses, fronts,
El-Nino, La-Nina, Southern oscillation.
- Climatic classification – Koeppen, Thornthwaite, Trewartha.

- Climatic regions of the world, Climatic changes, global warming , atmospheric hazards.
- Applied climatology.

Module – III. HYDROLOGY AND OCEANOGRAPHY (7 marks)

- Hydrology –Hydrological cycle and human impacts.
- Soil composition and texture, soil moisture, soil water.
- Surface water systems, groundwater hydrology, water quality.
- Oceanography – Origin, bottom topography and relief of oceans.
- Ocean water properties and movements, oceanic deposits and circulation.
- Marine life, sediments, ecosystem, resources, pollution and coral reefs.
- Geo-political significance of Indian Ocean.

Module IV. REMOTE SENSING, GIS,GPS. (7 marks)

- Remote sensing-definition and components--Aerial remote sensing, photogrammetry.--Satellite remote sensing- programs and online sources.-- Digital image processing.--Applications of remote sensing.
- GIS-definition, concepts, data sources and techniques – Spatial data models and management –Spatial decision support systems, open data sources –Web and mobile GIS –Applications of GIS.
- GPS-history, development and concepts –Design objectives and components – Signal structure and characteristics – survey methods – Applications of GPS.

Module V. URBAN ,REGIONAL AND ECONOMIC GEOGRAPHY OF INDIA AND REGIONAL PLANNING. (10 marks)

- Urban Geography- Origin, evolution, classification of urban centres.— classification of cities and towns.—urban theories and models.—urban morphology, urban fringe, urban housing, slums, Indian urbanization.
- Regional Geography of India—Basis of regionalization—Macro, meso and micro regions of India—Resource utilization in various physiographic regions of India— Coastal India and islands of India.

- Economic Geography—concepts, nature and types of economic activities—Agricultural location theories.—Crop diversification and intensity.—Industrial and service location theories.—Agglomeration economies.—World trade-current trends, globalization and its impacts.—Regional trading blocs.
- Regional planning and development.--Types of regions—Regional hierarchy—Regional delineation—Theories of regional planning—Regional planning and developments in India—Regional imbalances—Special regions—Watershed and decentralised planning--
- Role of transportation in tourism development.—Tourism and planning, development and environmental aspects.—Growth and development of tourism in India and Kerala.—Eco-tourism.

Module VI. ENVIRONMENTAL GEOGRAPHY, RESEARCH METHODOLOGY AND QUANTITATIVE TECHNIQUES IN GEOGRAPHY. (10 marks)

- Ecology and ecosystem, biodiversity and soils.—Environmental impact assessment-environmental auditing and clearance—Consequences of environmental degradation.—Global environmental imbalance and their management,--Environmental management techniques, environmental risk management.-- Watershed management--Environmental education, environmental legislation, environmental protection and environmental pollution..
- Disease ecology-environmental factors causing diseases.—Urban environment and emerging health problems.—Communicable and water-borne diseases, — Geography of health care.
- Research-need and types.—Research design.—Sampling and its types.—Data acquisition and analysis—thesis writing.
- Quantitative techniques—Thematic mapping, landuse mapping.-- land surveying and mapping.—Maps and map projections.—Data analysis.--Quantitative techniques in Geography.—Climatic maps and diagrams.

Syllabus- GEOGRAPHY EDUCATION

Module I FOUNDATIONS OF GEOGRAPHY EDUCATION (8 Marks)

- Nature and scope of Geography
- Functions and evolution of Geography teaching
- Recent trends and historic developments
- Aims and objectives of Geography teaching
- Blooms taxonomy-old and revised.
- Process skills

Module II GEOGRAPHY CURRICULUM (10 Marks)

- Meaning and scope of curriculum
- Different patterns, approaches and trends in curriculum construction
- Curriculum-regional/national/international – critical pedagogy, KCF,NCF,NCERT
- Curriculum processes-learning experiences, organization, and their integration.
- Need for changing curriculum
- Syllabus revision in Kerala-upgrading and modernization of syllabus.
- Critical study of syllabus, textbooks, sourcebooks, workbooks, handbooks.
- Guidelines for preparing Geography curriculum.
- Techno-pedagogic curriculum transaction.
- Curriculum evaluation-criterion and strategies adopted in India and abroad.

Module III STRATEGIES FOR GEOGRAPHY INSTRUCTION (10 Marks)

- Theories of learning and its implications in Geography instruction-Piaget, Gagne, Ausubel, Vygotsky, Gardener.
- Strategies for Geography instruction-Individualised and personalized systems of learning, auto lecture and programs for disadvantaged.

- Modern strategies and techniques for Geography instruction.
- Constructivist approaches and Instructional models.
- Reflective practices.

MODULE IV TECHNOLOGY ORIENTED GEOGRAPHY INSTRUCTION (10 Marks)

- Techno- pedagogic content knowledge and analysis
- Digital textbooks
- e-resources in Geography teaching and learning
- e-content development
- Programmed instruction and micro-teaching
- ICT and Geography teaching.
- Personal and professional growth.
- Online learning- meaning and purposes.
- Blogs, Cyber aids, Teleconferences.
- Virtual learning, classrooms and libraries.
- e-learning and m-learning.

MODULE V EVALUATION, ASSESSMENT AND RESEARCH PERSPECTIVES IN GEOGRAPHY EDUCATION (12 Marks)

- Concept and types of evaluation and assessment.
- Teacher-made tests and standardized tests
- Achievement test- construction and standardization.
- CCE and Grading
- Diagnostic test- construction and remediation.
- Tools and techniques of assessment.
- Assessment of curricular activities and content knowledge.

- Online examination and Informal assessment strategies in Geography.
- Research findings in Geography education.
- Areas and tools for research in Geography.
- Variables related to Geography achievement.
- Researches in Geography and Education.

NOTE: - It may be noted that apart from the topics detailed above, questions from other topics prescribed for the educational qualification of the post may also appear in the question paper. There is no undertaking that all the topics above may be covered in the question paper.
