9.1.4 Geography

Course Code: BGGCT 131	Course Title: Physical Geography	Credits: 6

Physical geography is one of the two major branches of systematic geography. It consists of the four main spheres of the earth i.e., lithosphere, atmosphere, hydrosphere, and biosphere. Physical geographers study the nature of natural phenomena and processes operating in these spheres. This course would enable the learners to observe spatial variations and similarities in natural phenomenon and reasons for these, and the consequences thereof, in relation to human beings.

Section 1: Geo-Tectonics: Origin of Earth, Earth- A Living Planet, The Interior of the Earth: Structure and Composition, Concept of Isostasy.

Section 2: Lithosphere: Materials of the Earth's Crust: Rocks and Minerals, Continental Drift, Mountain Building and Plate Tectonics, Endogenetic Forces and Exogenetic Processes.

Section 3: Atmosphere: Composition and Structure of the Atmosphere, Insolation and Atmospheric Temperature, Global Distribution of Surface Pressure Systems and Winds, Humidity and Precipitation, Climatic Classification of Koeppen.

Section 4: Hydrosphere: Introduction to Hydrosphere, Ocean Floor and Relief Features, Distribution of Temperature and Salinity in the Oceans, Tides and Currents, Ocean Deposits.

Tutorials (1 Credit): Students are required to do tutorials equivalent to 1 Credit provided in the Self Learning Material.

Course Code: BGGCT 132	Course Title: Human Geography	Credits: 6

Human geography is one of the two main branches of geography. Physical geography is the other main branch. The basic philosophy of introducing human geography is to make learners aware about spatial differentiation and organization of human activities and interrelationship with earth and its environment.

Section 1: Human Geography Fundamentals: Nature and Scope of Human Geography, Concepts in Human Geography, Perspectives on Human-Environment Relationships, Human Adaptation to the Environment.

Section 2: Space and Society:Peopling and Racial Elements, Religion and Beliefs, Languages, Cultural Regions.

Section 3: Population: Population Distribution and Growth, Population Composition, Human Migration, Population and Resources.

Section 4: Human Settlements:Human Settlements, Rural Settlements, Urban Settlements, Urbanisation.

Tutorials (1 Credit): Students are required to do tutorials equivalent to 1 Credit provided in the Self Learning Material.

Course Code: BGGCT 133	Course Title: General Cartography (Theory)	Credits: 4

Cartography is the art and science of making maps. Till recently, maps were being made manually which was both time consuming and tedious. However, with the advancement of technology, cartographic techniques have continuously been changing in order to meet the demands of new generation of mapmakers and map users. This course deals with the introduction to cartography, map projections, sources of data, map reading and interpretation, and representation of data with an aim to train the learners in cartographic tools and techniques for geographical studies.

Section 1: Introduction to Cartography: Basic Concepts, Maps, Map Scale.

Section 2: Map Projections:Introduction, Cylindrical Projections, Conical Projections, Zenithal Projections.

Section 3: Sources of Data: Sources, Census and Sample Surveys, Remotely Sensed Data.

Section 4: Map Reading and Interpretation:Topographical Maps, Representation of Climatic Data, Weather Maps.

Section 5: Representation of Data: Graphs and Diagrams, Maps.

Course Code: BGGCL134	Course Title: General Cartography (Laboratory)	Credits: 2

Exercises:

The course includes 12 exercises and evaluation of practical records and viva voce.

Exercise 1: Construct Map Scales: Graphical, Comparative and Diagonal

Exercise 2: Construction of Cylindrical Projection

Exercise 3: Construction of Conical Projection

Exercise 4: Construction of Zenithal Projection

Exercise 5: Prepare Statistical Diagram from a given data

Exercise 6: Make a Choropleth and Isopleth Map from the given data

Exercise 7: Draw prominent relief features and Interpret major physical and cultural features from a given Toposheet

Exercise 8: Calculation of Slope Gradient by Wentworth's method from a given Toposheet

Exercise 9: Prepare Climograph and Hythergraph from a given data

Exercise 10: Prepare Wind Rose and Star Diagram from the given data

Exercise 11: Interpretation of Indian Daily Weather Map

Exercise 12: Prepare Simple Thematic Maps from the given data

Preparation of Record: A practical file consisting of performed exercises needs to be submitted for evaluation.

Course Code: BGGCT135	Course Title: Environmental Geography	Credits: 6

This course is designed to develop a broad understanding of natural environment and human-nature interrelationship that are very important today within environmental geography. This course is set out in the form of different blocks such as introduction to environmental geography, human-environment relationship, environmental problems and management, conservation of environment, and environmental issues programmes and policies. This course will help to identify some of the significant adverse environmental effects caused by human activities and facilitate to address these consequences through proper management policies and legislation from global to local perspective. This course will provide an opportunity to think about various environmental problems in a wider context.

Section 1: Introduction to Environmental Geography: Concepts and Scope of Environmental Geography, Ecology and Ecosystems, Biogeography.

Section 2: Human-Environment Relationship: Human-Environment Relationships in Equatorial Regions, Desert Regions, Mountain Regions, Coastal Regions.

Section 3: Environmental Problems and Management: Understanding Pollution, Air Pollution, Solid and Liquid Waste, Biodiversity Loss.

Section 4: Conservation of Environment: Environmental Conservation and Management, Environmental Impact Assessment: Methods and Techniques, Environmental Standards and Monitoring.