# B.A. (Part- I), Semester: I Paper- I: 71240: DSC-B10: Physical Geography

#### **Course Outcomes:**

- 1. Develop an understanding of the basic principles and concepts of physical geography, including the earth's physical systems, natural processes, and environmental issues.
- Develop critical thinking and problem-solving skills related to physical geography, including the ability to identify and evaluate natural and human impacts on the environment.
- 3. Demonstrate effective written and oral communication skills in the context of physical geography, including the ability to communicate complex scientific concepts to a variety of audiences.

#### **Course-Specific Outcomes:**

#### Module - I: Introduction to Physical Geography

- 1.1 Define and explain the meaning of Physical Geography and its scope.
- 1.2 Identify the branches of Physical Geography and explain their significance.
- 1.3 Describe the importance of Physical Geography in understanding natural phenomena and environmental issues.

#### Module - II: Atmosphere

- 2.1 Describe the composition and structure of the atmosphere.
- 2.2 Identify the factors affecting Insolation and explain their impact on the atmosphere.
- 2.3 Analyze the distribution of temperature (Vertical and Horizontal) and explain its impact on climate.
- 2.4 Analyze the belts of atmospheric pressure and planetary winds and explain their impact on weather patterns.

#### Module - III: Lithosphere

- 3.1 Describe the interior of the earth and explain the processes that shape the earth's crust.
- 3.2 Analyze the Continental Drift Theory and explain its impact on land formation.
- 3.3 Analyze the causes and effects of earthquakes and their impact on human populations.
- 3.4 Analyze the causes and effects of volcanoes and explain their impact on land formation and human populations.

#### Module - IV: Denudation

- 4.1 Define and describe the concept of weathering and identify the different types of weathering.
- 4.2 Analyze the Davis Concept of Cycle of erosion and explain its impact on land formation.
- 4.3 Analyze the erosional landforms of rivers and their impact on the environment.
- 4.4 Analyze the depositional landforms of rivers and explain their impact on land formation and human populations.

# B.A. (Part- I), Semester: II Paper- II: 71285: DSC-B24: Human Geography

#### **Course Outcomes:**

- 1. Develop an understanding of the fundamental concepts and principles of Human Geography, including the human-environment relationship, cultural diversity, and globalization.
- 2. Develop critical thinking and problem-solving skills related to Human Geography, including the ability to identify and evaluate human impacts on the environment.
- 3. Demonstrate effective written and oral communication skills in the context of Human Geography, including the ability to communicate complex cultural and economic concepts to a variety of audiences.

#### **Course-Specific Outcomes:**

#### Module I: Human Geography

- 1.1 Explain the definitions of Human Geography and its significance in understanding the human world.
- 1.2 Describe the scope of Human Geography, including its branches and interdisciplinary nature.
- 1.3 Identify and differentiate the various branches of Human Geography and their subdisciplines.
- 1.4 Evaluate the importance of Human Geography in understanding cultural diversity and globalization.

#### Module II: Population

- 2.1 Analyze the factors affecting the distribution of population, including social, economic, and environmental factors.
- 2.2 Evaluate Malthus' theory of population growth and its relevance in understanding population dynamics.
- 2.3 Analyze the Demographic Transition Theory and its relevance in understanding population growth patterns.
- 2.4 Evaluate the different types of migration, including internal and international migration, and their effects on the population.

#### Module III: Settlement

- 3.1 Explain the types and patterns of rural settlements, including their characteristics and functions.
- 3.2 Analyze the functions of rural settlements, including economic, social, and cultural factors.
- 3.3 Evaluate the factors affecting urbanization, including economic, social, and environmental factors.
- 3.4 Analyze the functions of urban centers, including economic, social, and cultural factors.

#### Module IV: Agriculture

- 4.1 Explain the origin and history of agriculture and its significance in human development.
- 4.2 Analyze the different types of agriculture, including subsistence and commercial agriculture, and their characteristics.
- 4.3 Evaluate the factors affecting agriculture, including physical, economic, and social factors.
- 4.4 Analyze the problems of agriculture, including environmental degradation, soil erosion, and climate change, and their effects on human society

# B.A. (Part- II), Semester: III Paper- III: 73388: DSC-D19: Soil Geography

#### **Course Outcomes:**

Upon completion of this course, students will be able to:

- 1. Define and explain the nature, scope, and significance of soil geography.
- 2. Understand the process of soil formation and describe the physical and chemical properties of soils.
- 3. Analyze the genetic classification of soils and their distribution in Maharashtra.
- 4. Identify the causes and consequences of soil degradation and propose appropriate measures to mitigate them.
- 5. Conduct soil analysis using appropriate tools and methods.
- 6. Develop an understanding of the vermicomposting process and its importance in sustainable agriculture.

#### **Course Specific Outcomes:**

#### Module I: Basics of Soil Geography

- 1.1 Define soil geography and explain its nature and scope.
- 1.2 Describe the history of soil geography and pedology and their relationship.
- 1.3 Explain the significance of soil geography in various fields.

#### Module II: Soils: Formation and Properties

- 2.1 Explain the Jenny's Factorial Model of Soil Formation and its factors.
- 2.2 Describe the process of soil formation and the physical, biotic, and chemical factors involved.
- 2.3 Identify and describe the physical properties of soils, such as morphology, texture, structure, water, air, and temperature.
- 2.4 Identify and describe the chemical properties of soils, including pH, organic matter, and NPK.

#### Module III: Soils: Classifications and Distribution

- 3.1 Analyze the genetic classification of soils and their characteristics.
- 3.2 Identify and describe the major soils distribution in Maharashtra.
- 3.3 Analyze soil degradation, identify its causes, and propose measures to mitigate them.

#### Module IV: Practical (Theory Only)

- 4.1 Demonstrate the ability to identify and describe soil profiles.
- 4.2 Demonstrate the use of tools for soil sampling.
- 4.3 Conduct soil analysis for saline and alkaline soils.
- 4.4 Explain the vermi composting process and its importance in sustainable agriculture.

# B.A. (Part- II), Semester: III Paper- III: 73389: DSC-D20: Resource Geography

#### **Course Outcomes:**

- 1. Understand the definition and scope of Resource Geography.
- 2. Explain the concept and classification of resources.
- 3. Identify the importance of Resource Geography.
- 4. Analyze the distribution, utilization, and problems associated with major resources including water, forest, energy, and human resources.
- 5. Evaluate the concept of sustainable resource development.
- 6. Apply different mapping techniques such as proportional circle, choropleth, dot, and isopleth maps to represent resource data.

#### **Course Specific Outcomes:**

#### Module I:

- 1.1 Define and describe Resource Geography.
- 1.2 Classify resources and explain their significance in Resource Geography.
- 1.3 Explain the importance of Resource Geography in environmental management and policy making.

#### Module II:

- 2.1 Analyze the distribution, utilization, and problems associated with water resources.
- 2.2 Evaluate the distribution, utilization, and problems associated with forest resources.
- 2.3 Evaluate the distribution, utilization, and problems associated with energy resources.
- 2.4 Analyze the distribution, utilization, and problems associated with human resources.

#### Module III:

- 3.1 Evaluate the concept of sustainable resource development and describe its key components.
- 3.2 Analyze sustainable natural resource development and its application to water, forest, and energy resources.
- 3.3 Analyze sustainable human resource development and its importance in resource management.

#### Module IV:

- 4.1 Apply the proportional circle map technique to represent resource data.
- 4.2 Apply the choropleth map technique to represent resource data.
- 4.3 Apply the dot map technique to represent resource data.
- 4.4 Apply the isopleth map technique to represent resource data.

# B.A. (Part- II), Semester: IV Paper- V: 73475: DSC-D47: Oceanography

#### **Course Outcomes:**

Upon completion of this course, students will be able to:

- 1. Define and explain the nature and scope of oceanography, and describe its branches and significance.
- 2. Analyze the properties and dynamics of the ocean, including temperature, salinity, and oceanic currents.
- 3. Evaluate the applied aspects of oceanography, including marine deposits, ocean resources, and pollution.
- 4. Apply practical skills related to oceanography, including using hypsographic curves, wind roses, isohalines, and isotherms.

#### **Course Specific Outcomes:**

#### Module 1: Introduction to Oceanography

- 1.1 Explain the definition, nature, and scope of oceanography and its interdisciplinary connection with physical sciences.
- 1.2 Describe the different branches of oceanography and their significance in understanding the ocean.
- 1.3 Explain the significance of oceanography in relation to climate change, marine ecosystems, and human society.

#### Module 2: Properties and Dynamics of Ocean

- 2.1 Analyze the factors affecting ocean temperature and the distribution of oceanic temperature.
- 2.2 Evaluate the factors affecting oceanic salinity and the horizontal distribution of oceanic salinity.
- 2.3 Analyze the types of oceanic currents, responsible factors for origin of ocean currents, and ocean currents of the Pacific, Atlantic and Indian Ocean.

#### Module 3: Applied Oceanography

- 3.1 Describe the sources and classification of ocean or marine deposits.
- 3.2 Evaluate the different ocean resources such as biotic, mineral, and energy resources and their importance.
- 3.3 Analyze the causes, effects, and measures to control ocean pollution, including plastic pollution, oil spills, and other contaminants.

#### Module 4: Practical (Theory Only)

- 4.1 Use hypsographic curves to analyze ocean depth.
- 4.2 Use wind roses to analyze the direction and speed of ocean winds.
- 4.3 Use isohalines to analyze changes in ocean salinity.
- 4.4 Use isotherms to analyze changes in ocean temperature.

## B.A. (Part- II), Semester: IV Paper- VI: 73476: DSC-D48: Agriculture Geography

#### **Course Outcomes:**

By the end of the course, the students will be able to:

- 1. Understand the concept, nature, scope, and significance of agricultural geography and its role in society.
- 2. Trace the evolution of agriculture through ancient, medieval, and modern periods.
- 3. Analyze the determinants of agriculture, including physical and human factors such as economic, social, cultural, political, and administrative factors.
- 4. Understand the major agricultural systems and the Von Thunen's theory of agricultural land-use.
- 5. Apply methods of agricultural regionalization such as crop combination and crop diversification to understand the agricultural landscape.
- 6. Evaluate the problems in agriculture, both physical and non-physical such as economic, social, cultural, political, and administrative.
- 7. Understand the concept of sustainable agriculture and its importance in modern agriculture.
- 8. Apply basic statistical techniques such as line graphs, bar graphs, divided circle, and proportional square to represent agricultural data.

#### **Course Specific Outcomes:**

#### Module I: Introduction to Agricultural Geography

- 1.1 Define agricultural geography and its significance in society.
- 1.2 Trace the evolution of agriculture from ancient to modern periods.
- 1.3 Identify and explain the physical and human determinants of agriculture.

#### Module II: Agriculture: Systems and Land-use Theory

2.1 Describe the major agricultural systems and the Von Thunen's theory of agricultural landuse.

#### Module III: Regionalization, Problems and Modern Concepts in Agriculture

- 3.1 Apply methods of agricultural regionalization such as crop combination and crop diversification.
- 3.2 Evaluate the problems in agriculture, both physical and non-physical.
- 3.3 Explain the concept of sustainable agriculture and its importance in modern agriculture.

#### Module IV: Practical (Theory Only)

- 4.1 Use line graphs to represent agricultural data.
- 4.2 Use bar graphs to represent agricultural data.
- 4.3 Use divided circle to represent agricultural data.
- 4.4 Use proportional square to represent agricultural data.

# B.A. (Part- III), Semester: V Paper- VII: 75546: DSE-E106: Evolution of Geographical Thought

#### **Course Outcomes:**

By the end of the course, students will be able to:

- 1. Demonstrate an understanding of the evolution of geographical thoughts from ancient to modern times.
- 2. Analyze and evaluate the contributions of different schools of geography and their impact on the development of the discipline.
- 3. Evaluate the dualisms in geography and their relevance in contemporary geography.
- 4. Critically evaluate the different trends in geography and their impact on the discipline.

#### **Course Specific Outcomes:**

#### Module I: Geography in Ancient Period

- 1.1 Discuss the contributions of Greeks and Romans to the development of geography.
- 1.2 Analyze the Arab geographical thoughts and their impact on geography.
- 1.3 Evaluate the Indian geographical thoughts and their contribution to the discipline of geography.
- 1.4 Analyze the exploration and development of geography in the ancient period.

#### Module II: Schools of Geography

- 2.1 Analyze the German school of geography and the contribution of Alexander von Humboldt.
- 2.2 Evaluate the French school of geography and the contribution of Vedal de la Blache.
- 2.3 Analyze the American school of geography and the contribution of William Moris Davis.
- 2.4 Evaluate the British school of geography and the contribution of Halford J. Mackinder.

### Module III: Dualisms in Geography

- 3.1 Compare and contrast determinism and possibilism and their relevance in contemporary geography.
- 3.2 Analyze the difference between systematic and regional geography and their impact on geography.
- 3.3 Evaluate the difference between physical and human geography and their relevance in contemporary geography.
- 3.4 Analyze the difference between historical and contemporary geography and their impact on the discipline.

#### Module IV: Trends in Geography

- 4.1 Evaluate the quantitative revolution and its impact on geography.
- 4.2 Analyze the model building in geography and its relevance in contemporary geography.
- 4.3 Critically evaluate the man-nature relationship and its impact on geography.
- 4.4 Discuss the future of geography and the possible directions it may take in the future.

# B.A. (Part- III), Semester: V Paper- VIII: 75547: DSE-E107: Geography of India

#### **Course Outcomes:**

By the end of this course, students will be able to:

- 1. Understand the physical profile of India, including its location, physiographic divisions, and major drainage systems.
- 2. Explain the characteristics of different soil and forest types found in India, and discuss issues related to soil degradation and deforestation in the country.
- 3. Describe India's mineral and power resources, including conventional and non-conventional resources, and their distribution, production, and trade.
- 4. Analyze the importance of agriculture and industries in the Indian economy, and identify major crops and industries in the country.

#### **Course Specific Outcomes:**

#### Module - I: Physical Profile of India

- 1.1) Understand the concept of location and explain India's absolute and relative location.
- 1.2) Analyze the characteristics and importance of India's physiographic divisions.
- 1.3) Describe the weather conditions and characteristics of the summer, rainy, and winter seasons in India.
- 1.4) Explain the characteristics and importance of major river systems in northern and southern India.

#### Module - II) Soils and Forests

- 2.1) Identify major soil types in India, describe their characteristics, and explain their distribution.
- 2.2) Discuss issues related to soil degradation and soil conservation in India.
- 2.3) Identify major forest types in India, describe their characteristics, and explain their distribution.
- 2.4) Analyze issues related to deforestation and forest conservation in India.

#### Module - III) Mineral and Power Resources

- 3.1) Explain the concept of conventional resources and identify the distribution, production, and trade of iron ore and manganese in India.
- 3.2) Describe the distribution, production, and trade of coal and mineral oil in India, and explain the concept of power resources.
- 3.3) Discuss the distribution, production, and trade of non-conventional resources, such as solar and wind energy, in India.

#### Module - IV) Agriculture and Industry

- 4.1) Analyze the importance of agriculture in the Indian economy and its contribution to the country's GDP.
- 4.2) Identify major crops in India, describe their characteristics, and explain their distribution, production, and trade.
- 4.3) Analyze the importance of industries in the Indian economy and their contribution to the country's GDP.
- 4.4) Identify major industries in India, such as sugar, iron and steel, and fertilizer, describe their characteristics, and explain their distribution, production, and trade.

# B.A. (Part- III), Semester: V Paper- IX: 75548: DSE-E108: Population Geography

#### **Course outcomes:**

Upon completion of this course, students will be able to:

- 1. Define and explain the nature, scope, and significance of population geography.
- 2. Analyze the factors affecting population growth and distribution at the global level.
- 3. Understand the concepts of fertility, mortality, and population dynamics, and their causes, effects, and measures.
- 4. Analyze the population composition in terms of age, sex, literacy, and rural-urban divide.

#### **Course Specific Outcomes:**

#### Module I: Introduction to Population Geography

- 1.1 Define Population Geography and explain its importance in studying human geography.
- 1.2 Explain the scope of Population Geography and its relationship with other branches of geography.
- 1.3 Analyze the significance of Population Geography in understanding population growth and its implications.
- 1.4 Describe the different sources of Population data and their importance.

#### Module II: Population Growth and Distribution

- 2.1 Explain the global population growth trends and projections.
- 2.2 Identify and analyze the factors affecting population distribution across the world.
- 2.3 Analyze the patterns of population distribution across the world.
- 2.4 Define and distinguish between minimum population, optimum population, and overpopulation.

#### Module III: Population Dynamics

- 3.1 Define and explain the concept of population dynamics and its components.
- 3.2 Define fertility, its types, and factors affecting fertility.
- 3.3 Analyze the effects of fertility on population growth and the measures to control it.
- 3.4 Define mortality, its types, and factors affecting mortality.
- 3.5 Analyze the effects of mortality on population growth and the measures to control it.

#### Module IV: Population Composition

- 4.1 Analyze the age structure of a population and its implications.
- 4.2 Analyze the sex ratio of a population and its implications.
- 4.3 Analyze the literacy rate of a population and its implications.
- 4.4 Analyze the rural-urban divide of a population and its implications.

## B.A. (Part- III), Semester: VI Paper- X: 75746: DSE-E231: Economic Geography

#### **Course Outcomes:**

Upon completion of this course, students will be able to:

- 1. Understand the basic concepts and theories of economic geography
- 2. Explain the significance of economic geography in the global economy
- 3. Analyze the factors affecting the location of agricultural and industrial activities
- 4. Evaluate the theories of industrial location and their applicability in real-world situations
- 5. Identify and explain the characteristics of manufacturing regions and special economic zones
- 6. Describe the major industries in different countries and their role in the global economy
- 7. Analyze the significance of transportation in economic geography
- 8. Understand the major transport routes and their impact on the global economy
- 9. Evaluate the trade policies of different countries and their impact on international trade
- 10. Analyze the trade relations between India and the USA.

#### **Course Specific Outcomes:**

#### Module I: Introduction to Economic Geography

- 1.1 Define economic geography and explain its nature and scope
- 1.2 Classify economic activity and explain its different types
- 1.3 Identify and explain the different branches of economic geography
- 1.4 Analyze the significance of economic geography in the global economy

#### Module II: Economic Activity

- 2.1 Analyze the factors affecting the location of agricultural activity
- 2.2 Analyze the factors affecting the location of industrial activity
- 2.3 Evaluate Alfred Weber's theory of industrial location

#### Module III: Manufacturing Activity

- 3.1 Define the concept of a manufacturing region and explain its characteristics
- 3.2 Define the concept of a special economic zone and explain its characteristics
- 3.3 Describe the major industries in different countries and their role in the global economy

#### Module IV: Transport and Trade

- 4.1 Analyze the significance of transportation in economic geography
- 4.2 Identify and describe the major transport routes and their impact on the global economy
- 4.3 Analyze the trade relations between India and the USA
- 4.4 Evaluate the trade policies of different countries and their impact on international trade.

# B.A. (Part- III), Semester: VI Paper- XI: 75747: DSE-E232: Urban Geography

#### **Course outcomes:**

Upon completing this course, students should be able to:

- 1. Understand the meaning, nature, and scope of urban geography
- 2. Comprehend the various approaches used in urban geography research
- 3. Analyze the significance of urban geography in contemporary society
- 4. Identify the different types and factors of urbanization
- 5. Describe the structure and morphology of urban centers
- 6. Explain the concepts of city region, C.B.D., and rural-urban fringe
- 7. Analyze and critique the different models of town morphology
- 8. Identify and discuss the urban issues and challenges facing contemporary cities
- 9. Understand the concept of the Garden City and its relevance to urban planning
- 10. Analyze urban planning in India and its successes and challenges

#### **Course Specific Outcomes:**

Upon completing each module, students should be able to:

#### Module I:

- Define the meaning of urban geography and its relevance to contemporary society.
- Understand the nature and scope of urban geography and the various approaches used in urban geography research.
- Identify the significance of urban geography for urban planning and development.

#### Module II:

- Understand the concept and factors of urbanization and the patterns of urbanization in developed and developing countries.
- Classify cities based on their functional characteristics and understand their quantitative and qualitative dimensions.

#### Module III:

- Describe the structure and morphology of urban centers and the various models of town morphology.
- Analyze the concepts of city region, C.B.D., and rural-urban fringe and their importance in urban geography research.

#### Module IV:

- Identify and discuss the urban issues and challenges facing contemporary cities, including problems of housing, slums, and civic amenities such as water and transport.
- Understand the concept of the Garden City and its relevance to urban planning.
- Analyze urban planning in India and its successes and challenges.
- Use case studies of Mumbai and Chandigarh to examine issues related to land use and urban problems.

## Class: B.A. (Part- III), Semester: VI, Paper- XII: 75748: DSE- E233: Political Geography

#### **Course Outcomes:**

- 1. Students will develop an understanding of the key concepts and theories in Political Geography.
- 2. Students will be able to analyze and evaluate the geopolitical issues and conflicts that arise from resource disputes and boundary conflicts.
- 3. Students will be able to identify and explain the significance of political geography in shaping the global political landscape.
- 4. Students will develop critical thinking skills through analyzing and synthesizing information from various sources, including maps, data, and scholarly literature.

#### **Course Specific Outcomes:**

### Module I: Introduction to Political Geography

- Students will be able to define political geography and explain its importance in understanding the political landscape.
- Students will identify the various approaches and theories in political geography and their significance.
- Students will analyze the political implications of geographic factors such as location, resources, and borders.

#### Module II: Concepts in Political Geography

- Students will be able to distinguish between the concepts of state and nation and explain how they shape political identity.
- Students will be able to analyze and evaluate the role of boundaries and frontiers in shaping political conflict and cooperation.

#### Module III: Theories in Political Geography

- Students will be able to explain the Hartland and Rimland theories and their relevance to contemporary geopolitics.
- Students will be able to evaluate the strengths and limitations of geopolitical theories in understanding global political issues.

#### Module IV: Resource Disputes and Conflicts

- Students will be able to analyze the political implications of resource disputes and conflicts, including water disputes and dam projects.
- Students will be able to evaluate the role of relief, compensation, and rehabilitation in resolving resource-related conflicts.
- Students will be able to identify and explain the geopolitical implications of resource distribution and management.

# Class: B.A. (Part- III), Semester: VI Paper- XII: (75749) DSE- E234: Fundamentals of Map Making and Map Interpretation

#### **Course outcomes:**

Upon completion of the course, the students should be able to:

- 1. Understand the basics of maps, scales and map projections.
- 2. Identify and interpret relief features, slopes and profiles on maps.
- 3. Interpret and use topographical maps for various purposes.
- 4. Understand the use of weather instruments and IMD maps for weather prediction.
- 5. Apply representation techniques of statistical data on maps.

#### **Course specific outcomes:**

#### Module I: Introduction to Map and Scales

- Understand the concept and elements of a map.
- Classify maps based on scale and purpose.
- Define scale and its methods of representation.
- Construct graphical scales using different methods.

#### Module II: Map Projection

- Define map projection and classify them based on various methods.
- Understand and construct different projections with their properties and use.

#### Module III: Identification, Mapping of Slope, Relief Features and Profiles

- Identify different types of slopes and their expressions.
- Understand the representation of relief by contours.
- Interpret different types of profiles.

#### Module IV: Topographical Maps

- Index and understand the signs, symbols and colors used in SOI Toposheets.
- Interpret SOI's topographical maps for various purposes such as relief, drainage, vegetation, settlements, transportation and communication.

#### Module V: Weather Instruments and IMD Maps

- Understand the principle, mechanism and function of different weather instruments.
- Interpret isobaric patterns and signs and symbols used in Indian daily weather maps.
- Interpret marginal information, pressure, winds, clouds, rainfall, sea condition and temperature departure from normal in Indian daily weather maps.

#### Module VI: Representation Techniques of Statistical Data

• Apply different representation techniques of statistical data such as divided rectangle, proportional circle, proportional square, choropleth map, dot map and isopleths.

#### Module VII: Journal and Viva Voce

- Maintain a journal throughout the course and document the concepts learned.
- Participate in viva voce sessions to demonstrate understanding of the course material.

# Class: B.A. (Part- III), Semester: VI Paper- XIV: (75750) DSE- E235: Advanced tools, Techniques and Field work in Geography

#### **Course Outcomes:**

- 1. Understand the basic concepts of computer applications in geography and apply them in the construction of line graphs, bar graphs, pie diagrams, scatter diagrams, and data analysis using Excel.
- 2. Understand the fundamentals of remote sensing, such as EMR, sensors, and platforms, and their application in geography.
- 3. Comprehend the components and data structures of geographical information systems (GIS), and use them for georeferencing, digitization, map layout preparation, and applications in geography such as LULC, urban sprawl analysis, and forests monitoring.
- 4. Understand the components and applications of the Global Navigation Satellite System (GNSS), and use GPS for determining latitude, longitude, and altitude, as well as conducting fieldwork with the Google Earth program.
- 5. Apply statistical methods and techniques, including measures of central tendency, dispersion, association and correlation, and analysis of time series.
- 6. Understand the various surveying methods, such as plane table survey, dumpy level survey, theodolite survey, total station, and prismatic compass survey, and prepare plans for given areas using these methods.
- 7. Develop a project based on field work in one of the following areas: resource survey, population survey, agricultural survey, settlement survey, environmental issues, industrial visit, health survey, natural hazard, or disaster, and prepare a project report with the necessary content.
- 8. Conduct a study tour for a maximum of 15 days, prepare a tour report, and understand the necessity, importance, objectives, methodology, and geographical profiles of the visited tourist places.

#### **Course Specific Outcomes:**

- Construct and analyze different types of graphs and diagrams using computer applications for better data interpretation in geography.
- Identify and analyze physical and cultural features of the Earth's surface using remote sensing techniques.
- Develop spatial databases using GIS, and analyze and interpret the spatial patterns and relationships of different features on the Earth's surface.
- Conduct field surveys using various surveying methods and prepare plans for a given area.
- Develop research skills through the preparation of project reports and tour reports, including data collection, analysis, and interpretation, and recommendations for improvement.
- Journal and Viva Voce:
- Students are expected to maintain a journal throughout the course, documenting their progress and reflecting on their learning. They will also have to appear for a viva voce examination, where they will be evaluated on their understanding of the course content and their ability to apply it to real-world scenarios.