

# **GEOGRAPHY**

## **XI-XII (2022-23)**

### **(Code No. 029)**

Geography is introduced as an elective subject at the senior secondary stage. After ten years of general education, students branch out at the beginning of this stage and are exposed to the rigors of the discipline for the first time. Being an entry point for the higher education, students choose Geography for pursuing their academic interest and, therefore, need a broader and deeper understanding of the subject. For others, geographical knowledge is useful in daily lives because it is a valuable medium for the education of young people. Its contribution lies in the content, cognitive processes, skills and values that Geography promotes and thus helps the students explore, understand and evaluate the environmental and social dimensions of the world in a better manner.

Since Geography explores the relationship between people and their environment, it includes studies of physical and human environments and their interactions at different scales-local, state/region, nation and the world. The fundamental principles responsible for the varieties in the distributional pattern of physical and human features and phenomena over the earth's surface need to be understood properly. Application of these principles would be taken up through selected case studies from the world and India. Thus, the physical and human environment of India and study of some issues from a geographical point of view will be covered in greater detail. Students will be exposed to different methods used in geographical investigations.

#### **Objectives:**

The course in Geography will help learners to:

- Familiarize with key concepts, terminology and core principles of Geography.
- Describe locations and correlate with Geographical Perspectives.
- List/describe what students might see, hear, and smell at a place.
- List/describe ways a place is linked with other places.
- Compare conditions and connections in one place to another.
- Analyze/describe how conditions in one place can affect nearby places.
- Identify regions as places that are similar or connected.
- Describe and interpret the spatial pattern features on a thematic map.
- Search for, recognize and understand the processes and patterns of the spatial arrangement of the natural features as well as human aspects and phenomena on the earth's surface.
- Understand and analyze the inter-relationship between physical and human environments and utilize such knowledge in reflecting on issues related to community.

- Apply geographical knowledge and methods of inquiry to emerging situations or problems at different levels-local, regional, national and global.
- Develop geographical skills, relating to collection, processing and analysis of spatial data/ information and preparation of report including maps and graphs and use of computers where ever possible; and to be sensitive to issues.
- The child will develop the competency to analyze, evaluate, interpret and apply the acquired knowledge to determine the environmental issues effectively.

## COURSE STRUCTURE

### CLASS XI (2022-23)

**One Theory Paper**

**70 Marks  
3 Hours**

Part	Units	No. of Periods	Marks
<b>A</b>	<b>Fundamentals of Physical Geography</b>	<b>89</b>	<b>35 Marks</b>
	Unit-1: Geography as a discipline	06	<b>30</b>
	Unit-2: The Earth	11	
	Unit-3: Landforms	20	
	Unit-4: Climate	30	
	Unit-5: Water (Oceans)	10	
	Unit-6: Life on the Earth	07	
	Map and diagram	05	<b>5</b>
<b>B</b>	<b>India-Physical Environment</b>	<b>78</b>	<b>35 Marks</b>
	Unit-7: Introduction	04	<b>30</b>
	Unit-8: Physiography	28	
	Unit-9: Climate and Natural Vegetation	28	
	Unit-10: Natural hazards and disasters	14	
	Map and Diagram	04	<b>5</b>
	<b>Total</b>	<b>167</b>	<b>70 Marks</b>
<b>C</b>	<b>Practical Work in Geography Part I</b>	<b>50</b>	<b>30 Marks</b>
	Unit-1: Fundamentals of Maps	25	<b>15 Marks</b>
	Unit-2: Topographic Maps	25	<b>10 Marks</b>
	Practical Record Book and Viva		<b>5 Marks</b>

## COURSE CONTENT

<b>Part A:</b>	<b>Fundamentals of Physical Geography</b>	<b>89 Periods</b>
<b>Unit 1:</b>	<p><b>Geography as a Discipline</b></p> <ul style="list-style-type: none"> <li>▪ Geography as an integrating discipline, as a science of spatial attributes</li> <li>▪ Branches of Geography: Physical Geography and Human Geography</li> </ul>	<b>06 Periods</b>
<b>Unit 2:</b>	<p><b>The Earth</b></p> <ul style="list-style-type: none"> <li>▪ Origin and evolution of the earth</li> <li>▪ Interior of the earth Earthquakes and volcanoes: causes, types and effects</li> <li>▪ Distribution of oceans and continents : Wegener's continental drift theory and plate tectonics</li> </ul>	<b>11 Periods</b>
<b>Unit 3:</b>	<p><b>Landforms</b></p> <ul style="list-style-type: none"> <li>▪ Geomorphic processes: weathering; mass wasting; erosion and deposition; soil-formation</li> <li>▪ Landforms and their evolution- Brief erosional and depositional features</li> </ul>	<b>20 Periods</b>
<b>Unit 4:</b>	<p><b>Climate</b></p> <ul style="list-style-type: none"> <li>▪ Atmosphere- composition and structure; elements of weather and climate</li> <li>▪ Solar Radiation-Insolation-angle of incidence and distribution; heat budget of the earth-heating and cooling of atmosphere (conduction, convection, terrestrial radiation and advection); temperature- factors controlling temperature; distribution of temperature-horizontal and vertical; inversion of temperature</li> <li>▪ Atmospheric circulation and weather systems - Pressure-pressure belts; winds-planetary, seasonal and local; air masses and fronts; tropical and extra tropical cyclones</li> <li>▪ Water in the atmosphere-Precipitation-evaporation; condensation-dew, frost, fog, mist and cloud; rainfall-types and world distribution</li> <li>▪ World Climate and Global Concerns</li> </ul>	<b>30 Periods</b>

<b>Unit 5:</b>	<b>Water (Oceans)</b> <ul style="list-style-type: none"> <li>▪ Basics of Oceanography</li> <li>▪ Oceans - distribution of temperature and salinity</li> <li>▪ Movements of ocean water-waves, tides and currents; submarine reliefs</li> </ul>	<b>10 Periods</b>
<b>Unit 6:</b>	<b>Life on the Earth</b> <ul style="list-style-type: none"> <li>▪ Biosphere - importance of plants and other organisms; biodiversity and conservation</li> </ul>	<b>07 Periods</b>
<b>Map work on identification of features based on 1 to 6 units on the outline Physical/Political map of the world.</b>		<b>05 Periods</b>
<b>Part B:</b>	<b>India-Physical Environment</b>	<b>78 Periods</b>
<b>Unit 7:</b>	<b>Introduction</b> <ul style="list-style-type: none"> <li>▪ India : Location, space relations, India's place in the world</li> </ul>	<b>04 Periods</b>
<b>Unit 8:</b>	<b>Physiography</b> <ul style="list-style-type: none"> <li>▪ Structure and Relief; Physiographic Divisions</li> <li>▪ Drainage systems: Concept of river basins, watershed; the Himalayan and the Peninsular rivers</li> </ul>	<b>28 Periods</b>
<b>Unit 9:</b>	<b>Climate, Vegetation and Soil</b> <ul style="list-style-type: none"> <li>▪ Weather and climate - spatial and temporal distribution of temperature, Indian monsoon: mechanism, onset and withdrawal</li> <li>▪ Natural vegetation-forest types and distribution; wild life; conservation; biosphere reserves</li> </ul>	<b>28 Periods</b>
<b>Unit 10:</b>	<b>Hazards and Disasters: Causes, Consequences and Management</b> <ul style="list-style-type: none"> <li>▪ Floods, Cloudbursts</li> <li>▪ Droughts: types and impact</li> <li>▪ Earthquakes and Tsunami Cyclones: features and impact</li> <li>▪ Landslides</li> </ul>	<b>14 Periods</b>
<b>Map Work of features based on above units for locating and labeling on the outline Political/Physical map of India</b>		<b>04 Periods</b>

<b>Part C:</b>	<b>Practical Work in Geography Part I</b>	<b>50 Periods</b>
<b>Unit 1:</b>	<b>Fundamentals of Maps</b> <ul style="list-style-type: none"> <li>▪ Geo spatial data, Concept of Geographical data matrix; Point, line, area data</li> <li>▪ Maps - types; scales-types; construction of simple linear scale, measuring distance; finding direction and use of symbols</li> <li>▪ Map projection- Latitude, longitude and time, typology, construction and properties of projection: Conical with one standard parallel and Mercator's projection. (only two projections)</li> </ul>	<b>25 Periods</b>
<b>Unit 2:</b>	<b>Topographic and Weather Maps</b> <ul style="list-style-type: none"> <li>▪ Study of topographic maps (1 : 50,000 or 1 : 25,000 Survey of India maps); contour cross section and identification of landforms-slopes, hills, valleys, waterfall, cliffs; distribution of settlements</li> <li>▪ Satellite imageries, stages in remote sensing data- acquisition, platform and sensors and data products, (photographic and digital)</li> </ul>	<b>25 Periods</b>
	<b>Practical Record Book and Viva Voce Viva to be based on Practical Unit I and II only.</b>	

## COURSE STRUCTURE

Class XII (2022-23)

One Theory Paper

3 Hours  
70 Marks

Part	Units	No. of Periods	Marks
<b>A</b>	<b>Fundamentals of Human Geography</b>	<b>90</b>	<b>35 Marks</b>
	Unit 1: Human Geography	07	<b>30</b>
	Unit 2: People	20	
	Unit 3: Human Activities	32	
	Unit 4: Transport, Communication and Trade	26	
	Map Work	05	<b>5</b>
<b>B</b>	<b>India: People and Economy</b>	<b>90</b>	<b>35 Marks</b>
	Unit 6: People	15	<b>30</b>
	Unit 7: Human Settlements	10	
	Unit 8: Resources and Development	30	
	Unit 9: Transport, Communication and International Trade	15	
	Unit 10: Geographical Perspective on selected issues and problems	15	
	Map Work	05	<b>5</b>
	Total	<b>180</b>	<b>70 Marks</b>
<b>C</b>	<b>Practical Work in Geography Part II</b>	<b>40</b>	<b>30 Marks</b>
	Unit 1: Processing of Data and Thematic Mapping	25	<b>15</b>
	Unit 2: Spatial Information Technology	15	<b>10</b>
	Practical Record Book and Viva Voce		<b>5</b>

## COURSE CONTENT

<b>Part A:</b>	<b>Fundamentals of Human Geography</b>	<b>90 Periods</b>
<b>Unit 1:</b>	<b>Human Geography: Nature and Scope</b>	<b>07 Periods</b>
<b>Unit 2:</b>	<p><b>People</b></p> <ul style="list-style-type: none"> <li>▪ The World Population- distribution, density and growth</li> <li>▪ Population change - Components of population change, Demographic Transition</li> <li>▪ Human development - concept; selected indicators, international comparisons</li> </ul>	<b>20 Periods</b>
<b>Unit 3:</b>	<p><b>Human Activities</b></p> <ul style="list-style-type: none"> <li>▪ Primary activities - concept and changing trends; gathering, pastoral, mining, subsistence agriculture, modern agriculture; people engaged in agricultural and allied activities - some examples from selected countries</li> <li>▪ Secondary activities- concept; manufacturing: types - household, small scale, large scale; agro based and mineral based industries;</li> <li>▪ Tertiary activities - concept; trade, transport and tourism; services; people engaged in tertiary activities</li> <li>▪ Quaternary activities- concept; people engaged in quaternary activities - case study from selected countries</li> </ul>	<b>32 Periods</b>
<b>Unit 4:</b>	<p><b>Transport, Communication and Trade</b></p> <ul style="list-style-type: none"> <li>▪ Land transport - roads, railways; trans-continental railways Water transport- inland waterways; major ocean routes</li> <li>▪ Air transport- Intercontinental air routes Oil and gas pipelines</li> <li>▪ Satellite communication and cyber space- importance and usage for geographical information; use of GPS</li> <li>▪ International trade- bases and changing patterns; ports as gateways of international trade; role of WTO in international trade</li> </ul>	<b>26 Periods</b>
<b>Map Work on identification of features based on 1-5 units on the outline Physical/Political map of World.</b>		<b>05 Periods</b>

<b>Part B:</b>	<b>India: People and Economy</b>	<b>90 Periods</b>
<b>Unit 6:</b>	<b>People</b> <ul style="list-style-type: none"> <li>▪ Population: distribution, density and growth; composition of population - linguistic, religious; sex, rural-urban and occupational-regional variations in growth of population</li> </ul>	<b>15 Periods</b>
<b>Unit 7:</b>	<b>Human Settlements</b> <ul style="list-style-type: none"> <li>▪ Rural settlements - types and distribution</li> <li>▪ Urban settlements - types, distribution and functional classification</li> </ul>	<b>10 Periods</b>
<b>Unit 8:</b>	<b>Resources and Development</b> <ul style="list-style-type: none"> <li>▪ Land resources- general land use; agricultural land use; geographical conditions and distribution of major crops (Wheat, Rice, Tea, Coffee, Cotton, Jute, Sugarcane and Rubber); agricultural development and problems</li> <li>▪ Water resources-availability and utilization-irrigation, domestic, industrial and other uses; scarcity of water and conservation methods-rain water harvesting and watershed management</li> <li>▪ Mineral and energy resources- distribution of metallic (Iron ore, Copper, Bauxite, Manganese); non-metallic (Mica, Salt) minerals; conventional (Coal, Petroleum, Natural gas and Hydroelectricity) and non-conventional energy sources (solar, wind, biogas) and conservation</li> <li>▪ Planning in India- target group area planning (case study); idea of sustainable development (case study)</li> </ul>	<b>30 Periods</b>
<b>Unit 9:</b>	<b>Transport, Communication and International Trade</b> <ul style="list-style-type: none"> <li>▪ Transport and communication-roads, railways, waterways and airways: oil and gas pipelines; Geographical information and communication net works</li> <li>▪ International trade- changing pattern of India's foreign trade; sea ports and their hinterland and airports</li> </ul>	<b>15 Periods</b>



<b>Unit 10:</b>	<b>Geographical Perspective on selected issues and problems</b> <ul style="list-style-type: none"> <li>▪ Environmental pollution; urban-waste disposal</li> <li>▪ Urbanization, rural-urban migration; problems of slums</li> <li>▪ Land degradation</li> </ul>	<b>15 Periods</b>
<b>Map work on locating and labeling of features based on above units on outline map of India.</b>		<b>05 Periods</b>
<b>Part C:</b>	<b>Practical Work in Geography Part II</b>	<b>40 Periods</b>
<b>Unit 1:</b>	<b>Processing of Data and Thematic Mapping</b> <ul style="list-style-type: none"> <li>▪ Type and Sources of data: Primary, Secondary and other sources</li> <li>▪ Tabulating and processing of data; calculation of averages, measures of central tendency</li> <li>▪ Representation of data- construction of diagrams: bars, circles and flowchart; thematic maps; construction of dot; choropleth and isopleths maps</li> </ul>	<b>25 Periods</b>
<b>Unit 2:</b>	<b>Spatial Information Technology</b> <ul style="list-style-type: none"> <li>▪ Introduction to GIS; hardware requirements and software modules; data formats; raster and vector data, data input, editing and topology building; data analysis; overlay and buffer.</li> </ul>	<b>15 Periods</b>

**Prescribed Books:**

1. Fundamentals of Physical Geography, Class XI, Published by NCERT
2. India, Physical Environment, Class XI, Published by NCERT
3. Practical Work in Geography Part I, Class XI, Published by NCERT
4. Fundamentals of Human Geography, Class XII, Published by NCERT
5. India - People and Economy, Class XII, Published by NCERT
6. Practical Work in Geography Part II, Class XII, Published by NCERT

**Note:**

1. The above textbooks are also available in Hindi medium.
2. Kindly refer to the latest editions of all NCERT Textbooks.

## QUESTION PAPER DESIGN GEOGRAPHY THEORY CLASS XI & XII

<b>COMPETENCIES</b>	<b>Total Marks and %</b> <b>70 Marks</b>
<b>DEMONSTRATE</b>	29 marks- 41%
<b>APPLICATION</b>	26 marks - 37%
<b>FORMULATE</b>	15 marks - 22%
<b>TOTAL</b>	70 marks - 100%

**Fundamentals of Human Geography**  
**Class XII - Textbook I (NCERT)**

**Map Items for identification only on outline political map of the World.**

Unit-1	Ch.-1	Nil	
Unit-2	Ch. 2 to 4	1	The largest country in each continent in terms of area
Unit-3	Ch. 5 to 7 Primary Activities	1	Areas of subsistence gathering
		2	Major areas of nomadic herding of the world
		3	Major areas of commercial livestock rearing
		4	Major areas of extensive commercial grain farming
		5	Major areas of mixed farming of the World
Unit - 4	Ch. 8 to 9	2	Transcontinental Railways: Terminal Stations of transcontinental railways– Trans Siberian, Trans Canadian, Trans-Australian Railways
		3	Major Sea Ports :  Europe: North Cape, London, Hamburg North America: Vancouver, San Francisco, New Orleans South America: Rio De Janeiro, Colon, Valparaiso Africa: Suez and Cape Town Asia: Yokohama, Shanghai, Hong Kong, Aden, Karachi, Kolkata Australia: Perth, Sydney, Melbourne
		4.	Inland Waterways: Suez canal, Panama canal, Rhine waterway and St. Lawrence Seaway
		5.	Major Airports:  Asia: Tokyo, Beijing, Mumbai, Jeddah, Aden Africa: Johannesburg & Nairobi Europe: Moscow, London, Paris, Berlin and Rome North America: Chicago, New Orleans, Mexico City South America: Buenos Aires, Santiago Australia: Darwin and Wellington

**India - People and  
Economy Class XII-  
Textbook II (NCERT)**

**Map Items for locating and labeling only on the outline political map of India**

Units - 6 & 7	Ch. 1 to 4	<ul style="list-style-type: none"><li>• State with highest level of urbanization and lowest level of urbanization</li> <li>• State with higher level of population density &amp; one state with lowest level of population density (2011)</li><li>• Any city with more than 10 million population – Greater Mumbai, Delhi, Kolkata, Chennai, Bengaluru</li></ul>
Unit - 8	Ch. 5 to 9	<p>Leading producing states of the following crops: (a) Rice (b) Wheat (c) Cotton (d) Jute (e) Sugarcane (f) Tea and (g) Coffee</p> <p><b>Mines:</b></p> <ul style="list-style-type: none"><li>• Iron-ore mines: Mayurbhanj, Bailadila, Ratnagiri, Bellary</li><li>• Manganese mines: Balaghat, Shimoga</li><li>• Copper mines: Hazaribagh, Singhbhum, Khetari</li><li>• Bauxite mines: Katni, Bilaspur and Koraput</li><li>• Coal mines: Jharia, Bokaro, Raniganj, Neyveli</li><li>• Oil Refineries: Mathura, Jamnager, Barauni</li></ul>
Unit - 9	Ch. 10 - 11	<p>Transport:</p> <ul style="list-style-type: none"><li>(i) Important nodes on north south corridor, East west corridor &amp; golden quadrilateral</li><li>(ii) Major Sea Ports: Kandla, Mumbai, Marmagao, Kochi, Mangalore, Tuticorin, Chennai, Vishakhapatnam, Paradwip, Haldia</li><li>(iii) International Air ports: Ahmedabad, Mumbai, Bengaluru, Chennai, Kolkata, Guwahati, Delhi, Amritsar, Thiruvananthapuram &amp; Hyderabad</li></ul>
Unit-10	Ch.12	NIL