

## 23. GEOGRAPHY (Code No. 029) (2016-17)

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 rigours 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:

- Familiarise with key concepts, terminology and core principles of Geography.
- Describe locations and correlate with Geographical Perspectives.
- List/describe what students might see, hear, 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 analyse the inter-relationship between physical and human environments and utilise 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.

**GEOGRAPHY (029)**  
**Class - XI (2016-17)**

One Theory Paper

70 Marks  
3 - 3½ Hours

<b>Part A</b>	<b>Fundamentals of Physical Geography</b>	<b>30 Marks</b>
	Unit-1: Geography as a discipline	<b>25</b>
	Unit-2: The Earth	
	Unit-3: Landforms	
	Unit-4: Climate	
	Unit-5: Water (Oceans)	
	Unit-6: Life on the Earth (OTBA)	
	Map and diagram	<b>5</b>
<b>Part B</b>	<b>India-Physical Environment</b>	<b>30 Marks</b>
	Unit-7: Introduction	<b>25</b>
	Unit-8: Physiography	
	Unit-9: Climate, vegetation and soil	
	Unit-10: Natural Hazards and Disasters	
	Map and Diagram	<b>5</b>
	<b>Note:</b> The question paper will include a section on <b>Open Text-based Assessment</b> of 10 marks from Unit - 6 (Part A). No other question will be asked from this unit. The open text material on this unit will be supplied to students in advance. These materials are designed to test the analytical and higher order thinking skills of students. The OTBA will be asked in the final examination to be held in March 2017.	<b>10</b>
<b>Part C</b>	<b>Practical Work</b>	<b>30 Marks</b>
	Unit-1: Fundamentals of Maps	<b>10 Marks</b>
	Unit-2: Topographic and Weather Maps	<b>15 Marks</b>
	Practical Record Book and Viva	<b>5 Marks</b>

**Part A: Fundamentals of Physical Geography**

**87 Periods**

**Unit-1: Geography as a Discipline**

**04 Periods**

- Geography as an integrating discipline, as a science of spatial attributes.
- Branches of Geography; Physical Geography and Human Geography.
- Scope and Career Options

**Unit-2: The Earth**

**11 Periods**

- Origin and evolution of the earth; Interior of the earth.

- Wegener's continental drift theory and plate tectonics.
- Earthquakes and volcanoes: causes, types and effects.

### **Unit-3: Landforms**

**20 Periods**

- Rocks: major types of rocks and their characteristics.
- Geomorphic processes: weathering, mass wasting, erosion and deposition; soil-formation.
- Landforms and their evolution.

### **Unit 4: Climate**

**30 Periods**

- Atmosphere- composition and structure; elements of weather and climate.
- 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.
- Pressure-pressure belts; winds-planetary, seasonal and local; air masses and fronts; tropical and extratropical cyclones.
- Precipitation-evaporation; condensation-dew, frost, fog, mist and cloud; rainfall-types and world distribution.
- World climates-classification Koeppen, Global warming and climatic changes.
- Climate and Global Concerns.

### **Unit 5: Water (Oceans)**

**10 Periods**

- Basics of Oceanography
- Oceans - distribution of temperature and salinity.
- Movements of ocean water-waves, tides and currents; submarine reliefs.
- Ocean resources and pollution.

### **Unit 6: Life on the Earth**

**07 Periods**

- Biosphere - importance of plants and other organisms; biodiversity and conservation; ecosystem and ecological balance.

**Map work on identification of features based on 1 to 6 units on the outline/Physical/Political map of the world.**

**05 Periods**

## **Part - B: India - Physical Environment**

**78 Periods**

### **Unit-7: Introduction**

**04 Periods**

- Location, space relations, India's place in the world.

### **Unit-8: Physiography**

**28 Periods**

- Structure and Relief; Physiographic Divisions.
- Drainage systems: Concept of river basins, Watershed; the Himalayan and the Peninsular rivers.

**Unit-9: Climate, Vegetation and Soil****28 Periods**

- Weather and climate - spatial and temporal distribution of temperature, pressure winds and rainfall, Indian monsoon: mechanism, onset and withdrawal, variability of rainfalls: spatial and temporal; use of weather charts; Climatic types (Koeppen).
- Natural vegetation-forest types and distribution; wild life; conservation; biosphere reserves.
- Soils - major types (ICAR's classification) and their distribution, soil degradation and conservation.

**Unit-10: Natural Hazards and Disasters: Causes, Consequences and Management****14 Periods**

- Floods, Cloudbursts
- Droughts: types and impact
- Earthquakes and Tsunami
- Cyclones: features and impact
- Landslides

**Map Work of features based on above units for locating and labelling on the Outline/Political/Physical map of India.**

**04 Periods****Open Text based Assessment****05 Periods****Part - C: Practical Work****50 Periods****Unit-1: Fundamentals of Maps****20 Periods**

- Geo spatial data, Concept of Geographical data matrix; Point, line, area data.
- Maps -types; scales-types; construction of simple linear scale, measuring distance; finding direction and use of symbols.
- Map projection- Latitude, longitude and time, typology, construction and properties of projection: Conical with one standard parallel and Mercator's projection. (only two projections)

**Unit 2: Topographic and Weather Maps****30 Periods**

- 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.
- Aerial Photographs: Types and Geometry-vertical aerial photographs; difference between maps and aerial photographs; photo scale determination. Identification of physical and cultural features.
- Satellite imageries, stages in remote sensing data-acquisition, platform and sensors and data products, (photographic and digital).
- Use of weather instruments: thermometer, wet and dry-bulb thermometer, barometer, wind vane, rain gauge.

**Practical Record Book and Viva Voce**

Viva to be based on Practical Unit I and II only.

## GEOGRAPHY (Code No. 029)

Class - XI (2016-17)

### 1. Theory - One Paper

Time: 3½ - 3 hours

Marks: 70

<b>Part-I</b>	<b>Fundamentals of Physical Geography</b>	<b>30</b>
	Unit-1: Geography as a discipline	25
	Unit-2: The Earth	
	Unit -3: Landforms	
	Unit - 4: Climate	
	Unit - 5: Water (Oceans)	
	Unit - 6 : Life on the Earth (OTBA)	
	Map Work & Diagram	05
<b>Part-II</b>	<b>India- Physical Environment</b>	<b>30</b>
	Unit - 7 : Introduction	25
	Unit - 8 : Physiography	
	Unit - 9 : Climate, vegetation and soil	
	Unit -10 : Natural Hazards and Disasters	
	Map Work & Diagram	05
<b>Part-III</b>	<b>Note:</b> The question paper will include a section on <b>Open Text-based Assessment</b> of 10 marks from Unit - 6 (Part A). No other question will be asked from this unit. The open text material on this unit will be supplied to students in advance. These materials are designed to test the analytical and higher order thinking skills of students. The OTBA will be asked in the final examination to be held in March 2017.	<b>10</b>
	<b>Total</b>	<b>70</b>
<b>Value Based Question from any unit 1-6 (Part- I), 7-10 (Part-II) - 3 Marks</b> <b>Note: - One Value Based Question can be taken from any unit 1-6 (Part -I), 7-10 (Part-II). Accordingly the weightage of the lessons can be reduced as per the discretion of the teacher.</b>		
<b>Part -III</b>	<b>Practical Work</b>	<b>30</b>
	Unit -1 : Fundamentals of Maps	10
	Unit - 2 : Topographic and Weather Maps	15
	Practical Record Book and Viva	05

### 2. Weightage to Difficulty Level

Estimated Difficulty Level	Percentage
(i) Easy (E)	20%
(ii) Average (AV)	60%
(iii) Difficult (D)	20%

QUESTION PAPER DESIGN 2016-17								
GEOGRAPHY (Theory)			Code No. 029				CLASS-XI	
Time: 3 Hours			Max. Marks: 70					
S. No.	Typology of Questions	Learning Outcomes & Testing Skills	Short Answer (1 Mark)	Short Answer (3 Marks)	Long Answer I (5 Marks)	Map Skills based (5 Marks)	Marks	%
1	<b>Remembering-</b> (Knowledge based Simple recall questions, to know specific facts, terms, concepts, principles, or theories; Identify, define, or recite, information), Map skill based questions (Identification, location)	<ul style="list-style-type: none"><li>● Reasoning</li><li>● Analytical Skills</li><li>● Critical thinking</li></ul>	3	1	1	1 (identify location)	16	23%
2	<b>Understanding-</b> (Comprehension -to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase information)		1	1	2	-	14	20%
3	<b>Application</b> (Use abstract information in concrete situation, to apply knowledge to new situations; Use given content to interpret a situation, provide an example, or solve a problem)		-	1	2	-	13	19%
4	<b>High Order Thinking Skills</b> (Analysis & Synthesis- Classify, compare, contrast, or differentiate between different pieces of information; Organize and/or integrate unique pieces of information from a variety of sources) (includes Map interpretation)		2	1	2 (OTBA)	1 (Map interpretation)	20	28%
5	<b>Evaluation-</b> (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict outcomes based on values)		1	1+ (values based)	-	-	7	10%
Total			7x1 =7	6x3=18	7x5=35	2x5=10	70 (22) Practical 30	100 %
Time Estimated			15 min.	60 min.	70 min.	20 min.	165+15 = 180 min	

**Note:**

- No Chapterwise weightage, care to be taken to cover chapters in both books.
- The question paper will include a section on **Open Text-based Assessment** of 10 marks from Unit - 6 (Part A). No other question will be asked from this unit. The open text material on this unit will be supplied to students in advance. These materials are designed to test the analytical and higher order thinking skills of students. The OTBA will be asked in the final examination to be held in March 2017.

**GEOGRAPHY (Code No. 029)**  
**Class XII (2016-17)**

One Theory Paper

3 Hours  
70 Marks

<b>A</b>	<b>Fundamentals of Human Geography</b>	<b>35 Marks</b>
	Unit 1: Human Geography	<b>30</b>
	Unit 2: People	
	Unit 3: Human Activities	
	Unit 4: Transport, Communication and Trade	
	Unit 5: Human settlements	
	Map Work	<b>5</b>
<b>B</b>	<b>India: People and Economy</b>	<b>35 Marks</b>
	Unit 6: People	<b>30</b>
	Unit 7: Human Settlements	
	Unit 8: Resources and Development	
	Unit 9: Transport, Communication and International Trade	
	Unit 10: Geographical Perspective on selected issues and problems	
	Map Work	<b>5</b>
<b>C</b>	<b>Practical Work</b>	<b>30 Marks</b>
	Unit 1: Processing of Data and Thematic Mapping	<b>15</b>
	Unit 2: Field study or Spatial Information Technology	<b>10</b>
	Unit 3: Practical Record Book and Viva Voce	<b>5</b>

**GEOGRAPHY (Code No. 029)**  
**CLASS XII**

<b>Part-A. Fundamentals of Human Geography</b>	<b>90 Periods</b>	<b>35 Marks</b>
<b>Unit 1: Human Geography: Nature and Scope</b>		<b>05 Periods</b>
<b>Unit 2: People</b>		<b>18 Periods</b>
<ul style="list-style-type: none"> <li>Population-distribution, density and growth</li> <li>Population change-spatial patterns and structure; determinants of population change;</li> <li>Age-sex ratio; rural-urban composition;</li> <li>Human development - concept; selected indicators, international comparisons</li> </ul>		
<b>Unit 3: Human Activities</b>		<b>28 Periods</b>
<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> </ul>		

- Secondary activities-concept; manufacturing: types - household, small scale, large scale; agro based and mineral based industries; people engaged in secondary activities - some examples from selected countries.
- Tertiary activities-concept; trade, transport and tourism; services; people engaged in tertiary activities - some examples from selected countries.
- Quaternary activities-concept; people engaged in quaternary activities - case study from selected countries.

**Unit 4: Transport, Communication and Trade 24 Periods**

- Land transport - roads, railways; trans-continental railways.
- Water transport- inland waterways; major ocean routes.
- Air transport- Intercontinental air routes.
- Oil and gas pipelines.
- Satellite communication and cyber space- Importance and usage for geographical information; use of GPS.
- International trade-Bases and changing patterns; ports as gateways of international trade, role of WTO in International trade.
- Ocean: National rights and international treaties.

**Unit 5: Human Settlements 10 Periods**

- Settlement types - rural and urban; morphology of cities (case study); distribution of mega cities; problems of human settlements in developing countries.

**Map Work on identification of features based on 1-5 units on the outline/Physical/Political map of World.**

**05 Periods**

**Part B. India: People and Economy 90 Periods**

**Unit 6: People 15 Periods**

- Population: distribution, density and growth; composition of population - linguistic, religious; sex, rural-urban and occupational-regional variations in growth of population.
- Migration: international, national-causes and consequences.
- Human development: selected indicators and regional patterns.
- Population, environment and development.

**Unit 7: Human Settlements 10 Periods**

- Rural settlements - types and distribution.
- Urban settlements - types, distribution and functional classification.

**Unit 8: Resources and Development 30 Periods**

- 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.



- Water resources-availability and utilization-irrigation, domestic, industrial and other uses; scarcity of water and conservation methods-rain water harvesting and watershed management.
- 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.
- Industries - types, factors of industrial location; distribution and changing pattern of selected industries-iron and steel, cotton textiles, sugar, petrochemicals, and knowledge based industries; impact of liberalization, privatisation and globalisation on industrial location; industrial clusters.
- Planning in India- target group area planning (case study); idea of sustainable development (case study).

**Unit 9: Transport, Communication and International Trade 15 Periods**

- Transport and communication-roads, railways, waterways and airways: oil and gas pipelines; Geographical information and communication networks.
- International trade- changing pattern of India's foreign trade; sea ports and their hinterland and airports.

**Unit 10: Geographical Perspective on Selected Issues and Problems 15 Periods**

- Environmental pollution; urban-waste disposal.
- Urbanisation, rural-urban migration; problems of slums.
- Land degradation.

**Map work on locating and labelling of features based on above units on outline map of India. 05 Marks**

**Part-C Practical Work 40 Periods**

**Unit 1: Processing of Data and Thematic Mapping 25 Periods**

- Type and Sources of data: Primary, Secondary and other sources.
- Tabulating and processing of data; calculation of averages, measures of central tendency, deviation and rank correlation.
- Representation of data- construction of diagrams: bars, circles and flowchart; thematic maps; construction of dot; choropleth and isopleth maps.
- Data analysis and generation of diagrams, graphs and other visual diagrams using computers.

**Unit 2: Field Study or Spatial Information Technology 15 Periods**

Field visit and study: map orientation, observation and preparation of sketch; survey on any one of the local concerns; pollution, ground water changes, land use and land-use changes, poverty, energy issues, soil degradation, impact of floods and drought, catchment area of school, Market survey and Household survey (any one topic of local concern may be taken up for the study; observation and questionnaire survey may be adopted for the data collection; collected data may be tabulated and analysed with diagrams and maps). Students can be given different topics to get more insight into various problems of society.

OR

### **Spatial Information Technology**

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.

#### **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, 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, Class XII, Published by NCERT

**Note:** The above textbooks are also available in Hindi medium.

QUESTION PAPER DESIGN 2016-17								
GEOGRAPHY (Theory)			Code No. 029				CLASS-XII	
Time: 3 Hours						Max. Marks: 70		
S. No.	Typology of Questions	Learning Outcomes & Testing Skills	Short Answer (1 Mark)	Short Answer - (3 Marks)	Long Answer I (5 Marks)	Map Skills based (5 Marks)	Marks	%
1	<b>Remembering-</b> (Knowledge based Simple recall questions, to know specific facts, terms, concepts, principles, or theories; Identify, define, or recite, information), Map skill based questions (Identification, location)	<ul style="list-style-type: none"><li>Reasoning</li><li>Analytical Skills</li><li>Critical thinking</li></ul>	3	1	1	1 (identify location)	16	23%
2	<b>Understanding-</b> (Comprehension -to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase information)		1	1	2	-	14	20%
3	<b>Application</b> (Use abstract information in concrete situation, to apply knowledge to new situations; Use given content to interpret a situation, provide an example, or solve a problem)		-	1	2	-	13	19%
4	<b>High Order Thinking Skills</b> (Analysis & Synthesis- Classify, compare, contrast, or differentiate between different pieces of information; Organize and/or integrate unique pieces of information from a variety of sources) (includes Map interpretation)		2	1	2	1 (Map interpretation)	20	28%
5	<b>Evaluation-</b> (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict outcomes based on values)		1	1+ 1(values based)	-	-	7	10%
Total			7x1 =7	6x3=18	7x5=35	2x5=10	70 (22) Practical 30	100%
Time Estimated			15 min.	60 min.	70 min.	20 min.	165+15 = 180 min	

**Note:** No Chapterwise weightage, care to be taken to cover chapters in both books.

**I. Weightage to content (Chapter nos. of NCERT textbooks are given against unit within brackets)**

**Part A: Fundamentals of Human Geography (Textbook I)**

**35 marks**

A	Fundamentals of Human Geography	35 Marks
	Unit 1: Human Geography (Ch.1)	30
	Unit 2: People (Ch. 2 to 4)	
	Unit 3: Human Activities (Ch. 5 to 7)	
	Unit 4: Transport, Communication and Trade (Ch. 8 and 9)	
	Unit 5: Human Settlements (Ch. 10)	
	Map Work-----World map (for identification only relating to Units 1 to 5)	5
	<b>Total</b>	<b>35</b>

**II. Weightage to content (Chapter nos. of NCERT textbooks are given against unit within brackets)**

**Part B: India, People and Economy (Textbook II)**

**35 marks**

B	India: People and Economy	35 Marks
	Unit 6: People (Ch. 1 -3)	30
	Unit 7: Human Settlements (Ch. 4)	
	Unit 8: Resources and Development (Ch. 5-9)	
	Unit 9: Transport, Communication and International Trade (Ch. 10-11)	
	Unit 10: Geographical Perspective on selected issues and problems (Ch.12)	
	Map Work	5
	<b>Total</b>	<b>35</b>
	<b>Grand Total</b>	<b>70</b>

**Note: Value Based Question from any Unit 1-10.**

**III. Weightage to Difficulty Level**

Estimated Difficulty Level	Percentage
(i) Easy (E)	20%
(ii) Average (AV)	60%
(iii) Difficult (D)	20%

Scheme of Option: No internal choice except for blind students.

## Fundamentals of Human Geography

### Textbook I (NCERT)

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

Unit-1	Ch.-1	Nil
Unit-2	Ch. 2 to 4	<ol style="list-style-type: none"> <li>1 A large country in each continent in terms of area.</li> <li>1 Areas having low and high density of population of each continent.</li> <li>2 Countries having low/high growth rate of population. .</li> </ol>
Unit-3	Ch. 5 to 7 Primary Activities.	<ol style="list-style-type: none"> <li>1 Areas of subsistence gathering.</li> <li>2 Major areas of nomadic herding of the world.</li> <li>3 Major areas of commercial livestock rearing.</li> <li>4 Major areas of extensive commercial grain farming.</li> <li>5 Major areas of mixed farming of the World.</li> <li>6 Major areas of mediterranean agriculture of the World.</li> </ol>
	Secondary Activities	<ol style="list-style-type: none"> <li>1 Ruhr region, Silicon Valley, Appalachian region, Great lakes region.</li> </ol>
Unit - 4	Ch. 8 to 9	<ol style="list-style-type: none"> <li>2 Transcontinental Railways: Terminal Stations of transcontinental railways</li> <li>3 Major Sea Ports : Europe: North Cape, London, Hamburg North America: Vancouver, San Francisco, New Orleans South America: Rio De Janeiro, Colon, Valparaíso Africa: Suez, Durban and Cape Town Asia: Yokohama, Shanghai, Hongkong, Aden, Colombo, Karachi, Kolkata Australia: Perth, Sydney, Melbourne</li> <li>4. Inland Waterways: Suez canal, Panama canal, Rhine waterway and St. Lawrence Seaway</li> <li>5. Major Airports: Asia: Tokyo, Beijing, Irkutsk, Vladivostok, Mumbai, Jedda, Aden Europe: Moscow, London, Paris, Berlin, and Rome North America: Chicago, New Orleans, Mexico City South America: Bogota, Brasilia, Buenos Aires, Santiago Australia: Darwin and Sydney</li> </ol>
Unit - 5	Ch. 10	

## India - People and Economy Textbook II (NCERT)

### Map 2 tems for locating and labelling only on the outline political map of India

Units - 6 & 7	Ch. 1 to 4	<ul style="list-style-type: none"> <li>State with high level of urbanisation and low level of urbanisation</li> <li>One state with high level of HDI &amp; One with low level of HDI</li> <li>State with higher level of pop pressure on land &amp; one state lower level of pop pressure on land.</li> <li>One out - migrating state</li> <li>One in - migrating state</li> <li>One state with higher gender ratio &amp; one with lower gender ratio</li> <li>Any city with more than 10 million population.</li> </ul>
Unit - 8	Ch. 5 to 9	<p>Leading producing states of the following crops:</p> <p>(a) Rice, (b) Wheat, (c) Jowar, (d) Bajra, (e) Maize, (f) Groundnut, (g) Cotton, (h) Jute, (i) Sugarcane, (j) Tea, and (k) Coffee</p> <p>Minerals:</p> <p>Iron-ore mines: Mayurbhanj, Kendujhar, Durg, Bailadila, Ratnagiri, Bellary. Manganese mines: Sundergarh, Balaghat, Nagpur, Shimoga. Copper mines: Hazaribagh, Singhbhum, Khetari, Udaipur and Amarkantak. Bauxite mines: Katni, Bilaspur and Koraput. Coal mines: Jharia, Bokaro, Raniganj, Korba, Talcher, Singareni, Neyveli. Oil Refineries: Bhatinda, Panipat, Mathura, Jamnagar, Mangalore, Tatipaka, Haldia, Guwahati, Baroni Industries. Iron and Steel Plants: Bhadravati, Bhilai, Bokaro. Durgapur, Rourkela and Jamshedpur. Cotton Textile: Ahmedabad, Surat, Gwalior, Varanasi, Murshidabad, Pune, Nagpur, Solapur and Mysore. Software Technology Parks: Gandhinagar, Shrinagar, Mohali, Shimla, Delhi, Noida, Kanpur, Indore, Hyderabad, Bhubaneshwar and Major Industrial Regions.</p>
Unit - 9	Ch. 10 - 11	<p>Transport:</p> <p>(i) Important tower on north south corridor east-west corridor &amp; golden quadrilateral.</p> <p>(ii) Headquarters of all railway zones.</p> <p>(iii) Major Sea Ports: Kandla, Mumbai, Marmagao, Kochi, Ennore, Tuticorin, Chennai, Vishakhapatnam, Paradwip, Haldia.</p> <p>(iv) International Air ports: Ahmedabad, Mumbai, Bangalore, Chennai, Kolkata, Guwahati, Delhi, Amritsar, Panaji, Kochi, Thiruvananthapuram &amp; Hyderabad</p>
Unit - 10	Ch. 12	NIL