



# CBSE Syllabus

Class XI

## GEOGRAPHY



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# GEOGRAPHY

## Course Structure

Parts/Units	Topics	Marks
<b>Part A</b>	<b>Fundamentals of Physical Geography</b>	<b>30</b>
Unit - 1	Geography as a Discipline	
Unit - 2	The Earth	
Unit - 3	Landforms	
Unit - 4	Climate	
Unit - 5	Water (Oceans)	
Unit - 6	Life on the Earth	
Unit - 7	Map and Diagram	5
<b>Part B</b>	<b>India – Physical Environment</b>	<b>30</b>
Unit - 8	Introduction	
Unit - 9	Physiography	
Unit - 10	Climate, Vegetation, & Soil	
Unit - 11	Natural Hazards & Disasters	
Unit - 12	Map and Diagram	5
<b>Part C</b>	<b>Practical Work</b>	<b>30</b>
Unit - 1	Fundamentals of Maps	
Unit - 2	Topographic and Weather Maps	
Unit - 3	Practical Record Book and Viva	
<b>Total</b>		<b>100</b>

## **Course Syllabus**

### **Part A: Fundamentals of Physical Geography**

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

- Geography as:
  - An integrating discipline
  - A science of spatial attributes
- Branches of Geography:
  - Physical Geography
  - Human Geography
- Scope and Career Options

#### **Unit-2: The Earth**

- Origin and evolution of the earth
  - Interior of the earth
- Wegener's continental drift theory and plate tectonics
- Earthquakes and volcanoes:
  - Causes
  - Types
  - Effects

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

- Rocks:
  - Types
  - Characteristics
- Landforms and their evolution
- Geomorphic processes:
  - Weathering

- Mass wasting
- Erosion
- Deposition
- Soil-formation

## Unit 4: Climate

- 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
  - Cloud
  - Rainfall - types and world distribution

- World climates:
  - Classification (Koeppen and Thornthwaite)
  - Global warming
  - Climatic changes
- Climate and Global Concerns

## **Unit 5: Hydrosphere**

- Basics of Oceanography
- Oceans:
  - Distribution of temperature
  - Distribution of salinity
- Movements of:
  - Ocean water-waves
  - Tides
  - Currents
- Submarine reliefs
- Ocean resources and pollution

## **Unit 6: Biosphere**

- Biosphere:
  - Importance of plants and other organisms
  - Biodiversity and conservation
  - Ecosystem
  - Ecological balance

## **Unit 7: Map work**

- Identification of features based on 1 to 6 units on the outline/Physical/Political map of the world.

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

### **Unit - 8: Introduction**

- Location
- Space relations
- India's place in the world

### **Unit - 9: Physiography**

- Structure and Relief
  - Physiographic Divisions
- Drainage systems
  - Concept of river basins
  - Watershed
  - The Himalayan rivers
  - The Peninsular rivers

### **Unit - 10: Climate, Vegetation and Soil**

- Weather and climate:
- Spatial and temporal distribution of:
  - Temperature
  - Pressure
  - Winds
  - Rainfall
- Indian monsoon:
  - Mechanism
  - Onset and withdrawal
  - Variability of rainfalls - spatial and temporal
  - Use of weather charts
  - Climatic types (Koeppen)

- Natural vegetation:
  - Types
  - Distribution
  - Wild life
  - Conservation
  - Biosphere reserves
- Soils:
  - Major types (ICAR's classification) and their distribution
  - Soil degradation
  - Soil conservation

### **Unit-11: Hazards and Disasters: Causes, Consequences and Management**

- Floods
  - Cloudbursts
- Droughts:
  - Types
  - Impact
- Earthquakes and Tsunami
- Cyclones:
  - Features
  - Impact
- Landslides

### **Unit – 12: Map Work**

- Features based on above units for locating and labelling on the Outline/Political/Physical map of India.

## Part - C: Practical Work

### Unit-1: Fundamentals of Maps

- Geo spatial data
- Concept of Geographical data matrix
  - Point data
  - Line data
  - Area data
- Maps:
  - Types
  - Scales-types
  - Construction of simple linear scale
  - Measuring distance
  - Finding direction and use of symbols
- Map projection:
  - Latitude
  - Longitude
  - 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

- Study of topographic maps (1: 50,000 or 1: 25,000 Survey of India maps):
- Contour cross section
- 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