Geography Class 11 Syllabus

Exam Structure

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| **Part/Unit** | **Topic or Chapter** | **Marks** |
| **Part A** | **Fundamentals of Physical Geography** | **35** |
| Unit-1 | Geography as a discipline |  |
| Unit-2 | The Earth |  |
| Unit-3 | Landforms |  |
| Unit-4 | Climate |  |
| Unit-5 | Water (Oceans) - OTBA |  |
| Unit-6 | Life on the Earth |  |
|  | Map and Diagram | 5 |
| **Part B** | **India - Physical Environment** | **35** |
| Unit-7 | Introduction |  |
| Unit-8 | Physiography |  |
| Unit-9 | Climate, vegetation and soil |  |
| Unit-10 | Natural hazards and Disasters |  |
|  | Map and Diagram | 5 |
| **Part C** | **Practical Work** | **30** |
| Unit-1 | Fundamentals of Maps | 10 |
| Unit-2 | Topographic and Weather Maps | 15 |
|  | Practical Record Book and Viva | 5 |

Part A: Fundamentals of Physical Geography

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

* Geography as an integrating discipline, as a science of spatial attributes.
* Branches of Geography; PhysicalGeography and 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 and effects.

**Unit-3: Landforms**

* Rocks: major types of rocks and their characteristics.
* Landforms and their evolution.
* Geomorphic processes: weathering, mass wasting, erosion and 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 and cloud; rainfall-types and world distribution.
* World climates-classification (Koeppen and Thornthwaite), Global warming and climatic changes.
* Climate and Global Concerns.

**Unit 5: Hydrosphere**

* 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: Biosphere**

* 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.

Part - B: India - Physical Environment

**Unit-7: Introduction**

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

**Unit-8: Physiography**

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

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

* 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: Hazards and Disasters: Causes, Consequences and Management**

* 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.

Part - C: Practical Work

**Unit-1: Fundamentals of Maps**

* Geo spatial data, Concept of Geographicaldata 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**

* 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.