

## **GEOGRAPHY**

### **SYLLABUS FOR HIGHER SECONDARY FIRST YEAR COURSE**

#### **Rationale:**

Geography is introduced as an elective subject at the Higher 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 contributions lie 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.

Common Core Components (NPE 1986) such as India's common cultural heritage, equality of sexes, protection of environment, observance of the small family norm and inculcation of scientific temper will be reflected in the geography syllabus.

The Geography course will incorporate some issues of NCF-2005 such as making children sensitive to environment and its protection to nature and preserve the environment, and using geographical knowledge in understanding various environmental and socio-economic issues of the community, region and the country, e.g. gender and marginalised groups.

#### **Objectives:**

##### **The course in Geography will help learners :**

- ❖ Familiarise themselves with the terms, key concepts and basic principles of Geography;
- ❖ Search for, recognise and understand the processes and patterns of the spatial arrangement of the natural as well as human features and phenomena on the earth's surface;
- ❖ Understand and analyse the inter-relationship between physical and human environments and their impact;
- ❖ Apply geographical knowledge and methods of inquiry to new situations or problems at different levels-local/regional, national and global;
- ❖ Develop geographical skills, relating to collection, processing and analysis of data/information and preparation of report including maps and graphics and use of computers wherever possible; and
- ❖ Utilize geographical knowledge in understanding issues concerning the community such as environmental issues, socio-economic concerns, gender and become responsible and effective member of the community.

# GEOGRAPHY

## SYLLABUS FOR HIGHER SECONDARY FIRST YEAR COURSE

**One Paper**

**Time : Three Hours**

**Marks : 70**

**Unitwise Distribution of Marks & Periods :**

Unit	Topics	Marks	Periods
<b>A. FUNDAMENTALS OF PHYSICAL GEOGRAPHY</b>			
Unit-I	Geography as a Discipline	03	06
Unit-II	The Earth	05	12
Unit-III	Landforms	08	20
Unit-IV	Climate	10	20
Unit-V	Water (Ocean)	04	12
Unit-VI	Life on the Earth	03	08
Unit-VII	Map Work	02	
<b>B. INDIA– PHYSICAL ENVIRONMENT</b>			
Unit-I	Introduction	03	06
Unit-II	Physiography	10	22
Unit-III	Climate, Vegetation and Soil	10	20
Unit-IV	Natural Hazards and Disasters	09	20
Unit-V	Map Work	03	
<b>Total :</b>		<b>70</b>	<b>146</b>

**Evaluation :**

Evaluation on geography should be based on the objectives of Geography which are to be realised at this stage. There is a need to introduce continuous and comprehensive evaluation in a systematic manner. Emphasis is to be given on evaluating learners' progress in acquiring various geographical skills along with the cognitive areas.

**Unitwise Distribution of Course Contents:**

**A. FUNDAMENTALS OF PHYSICAL GEOGRAPHY**

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

- ❖ Geography as an integrating discipline, as a science of spatial attributes;
- ❖ Branches of geography; importance of physical geography

**Unit II : The Earth**

- ❖ Origin and evolution of the earth; interiod of the earth. Wegener's continental drift theory and plate tectonics; Earthquakes and volcanoes.

**Unit III : Landforms**

- ❖ Rocks and minerals- major types of rocks and their characteristics;
- ❖ Landforms and their evolution
- ❖ Geographic processes- weathering, mass wasting, erosion and deposition; soils- formation

#### **Unit IV : Climate**

- ❖ Atmosphere- compositions 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, 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 extra tropical cyclones;
- ❖ Precipitation- evaporation; condensation- dew, frost, fog, mist and cloud; rainfall- types and world distribution;
- ❖ World climates- classification (Koeppen), greenhouse effect, global warming and climatic changes.

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

- ❖ Hydrological cycle;
- ❖ Oceans- submarine relief; distribution of temperature and salinity; movements of ocean water- waves, tides and currents.

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

- ❖ Biosphere- importance of plants and other organisms; biodiversity and conservation; ecosystems, bio-geo chemical cycle, and ecological balance.

### **B. INDIA- PHYSICAL ENVIRONMENT**

#### **Unit I : Introduction**

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

#### **Unit II : Physiography**

- ❖ Structure and relief;
- ❖ Drainage systems : concept of water sheds : the Himalayan and Peninsular;
- ❖ Physiographic divisions.

#### **Unit III : Climate, Vegetation and Soil**

- ❖ Weather and climate- spatial and temporal distribution of temperature, pressure, winds and rainfall; Indian monsoons; mechanism, onset and variability- spatial and temporal; climatic types
- ❖ 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 IV : Natural Hazards and Disasters : Causes, Consequences and Management (One case study to be introduced for each topic)**

- ❖ Floods and droughts
- ❖ Earthquakes and Tsunami
- ❖ Cyclones
- ❖ Landslides

## GEOGRAPHY

C. PRACTICAL WORK			Total Marks : 30
Unit-I:	Fundamental of maps	10	22
Unit-II:	Topographic and Weather Maps	20	32
<b>Total :</b>		<b>30</b>	<b>Total Periods 54</b>

### C. PRACTICAL WORK

#### Unit I : Fundamental of maps

- ❖ Maps - types; scales-types; construction of linear scales, measuring distance, finding direction and use of symbols;
- ❖ Latitude, Longitude and time;
- ❖ Map projection - typology, construction and properties of conical with one standard parallel and Mercator's projection.

#### Unit II: Topographic and Weather Maps

- ❖ Study of topographic maps (1:50,000, Survey of India maps); contour cross section and identification of landforms- slopes hills, valleys, waterfalls, cliffs; distribution of settlements;
- ❖ Aerial Photographs and Satellite Images:  
*Aerial Photographs* : types and geometry - vertical aerial photographs, difference between maps and aerial photographs; photo scale determination;  
*Satellite images* : Stages in remote sensing data acquisition, platform and sensors and data products, (photographic and digital)  
Interpretation of physical and cultural features from aerial photographs and satellite imageries .
- ❖ Use of weather instruments: thermometer, wet and dry-bulb thermometer, barometer, windvane, rain gauge .
- ❖ Use of weather charts: describing pressure, wind and rainfall distribution.

- Prescribed Textbook :
1. Fundamentals of Physical Geography, Published by NCERT.
  2. India : Physical Environment, Published by NCERT.
  3. Practical Work in Geography, Published by NCERT.
  ১. প্রাকৃতিক ভূগোলৰ বুনীয়াদ, Published by AHSEC.
  ২. ভাৰতৰ প্ৰাকৃতিক পৰিবেশ,, Published by AHSEC.
  ৩. ভূগোল বিজ্ঞানৰ ব্যৱহাৰিক কাৰ্য, Published by AHSEC.



# GEOGRAPHY

## SYLLABUS FOR HIGHER SECONDARY FINAL YEAR COURSE

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- ❖ preparation of report including maps and graphics and use of computers wherever possible; and
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## GEOGRAPHY

### SYLLABUS FOR HIGHER SECONDARY FINAL YEAR COURSE

**One Paper** **Time : Three Hours** **Marks 100**

**Unitwise Distribution of Marks and Periods :**

Unit No. Title	Marks	Periods
<b>A. FUNDAMENTAL OF HUMAN GEOGRAPHY</b>		
Unit-I Human Geography	02	05
Unit-II People	08	18
Unit-III Human Activities	08	26
Unit-IV Transport, Communication and Trade	07	18
Unit-V Human Settlements	05	10
<b>B. INDIA- PEOPLE AND ECONOMY</b>		
Unit-I People	02	05
Unit-II Human Settlements	04	08
Unit-III Resources and Development	09	20
Unit-IV Transport, Communication and International Trade	07	16
Unit-V Geographical Perspective on Selected Issues and Problems	06	15
<b>C. ASSAM- LAND, PEOPLE, AND ECONOMY</b>		
Unit-I Physio graphy, drainage Climate	03	05
Unit-II People : Composition, distribution, Density	03	05
Unit-III Economy : Agriculture and industrial base and development	03	05
Unit-IV Transport and Communication	03	05
<b>D. PRACTICAL WORK (UNIT I AND II)</b>		
Unit-I Processing of Data and Thematic Mapping	16	20
Unit-II Field Study or Spatial Information Technology	14	20
<b>Total</b>	<b>100</b>	<b>201</b>

**Unitwise Distribution of Course contents :**

#### **A. FUNDAMENTALS OF HUMAN GEOGRAPHY**

##### **Unit I : Human Geography**

- ❖ Nature and scope

##### **Unit II : People**

- ❖ Population of the world– distribution, density and growth;
- ❖ Population change-spatial patterns and structure; determinants of population change;
- ❖ Age-sex ratio; rural-urban composition;
- ❖ Human development– concept; selected indicators, international comparisons.

**Unit III : Human Activities**

- ❖ Primary activities– concept and changing trends; gathering, pastoral, mining, subsistence agriculture, modern agriculture; people engaged in agriculture and allied activities– some examples from selected countries;
- ❖ Secondary activities– concept; manufacturing : agro-processing, household, small scale, large scale; people engaged in secondary activities– some examples from selected countries;
- ❖ Tertiary activities– concept; trade, transport and communication; services; people engaged in tertiary activities– some examples from selected countries;
- ❖ Quaternary activities– concept; knowledge based industries; people engaged in quaternary activities– some examples from selected countries.

**Unit IV : Transport, Communication and Trade**

- ❖ Land transport– roads, railways– rail network; trans– continental railways;
- ❖ Water transport– inland waterways; major ocean routes;
- ❖ Air transport– Intercontinental air routes;
- ❖ Oil and gas pipelines;
- ❖ Satellite communication and cyber space;
- ❖ International trade– Basis and changing patterns; ports as gateways of international trade, role of WTO in international trade.

**Unit V : Human Settlements**

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

**B. INDIA : PEOPLE AND ECONOMY****Unit I : People**

- ❖ Population– distribution, density and growth; composition of population : linguistic and religious; rural-urban population change through time– regional variations; occupation;
- ❖ Migration : international, national– causes and consequences;
- ❖ Human development– selected indicators and regional patterns;
- ❖ Population, environment and development.

**Unit II : Human Settlements**

- ❖ Rural settlements– types and distribution;
- ❖ Urban settlements– types, distribution and functional classification

**Unit III : Resources and Development**

- ❖ Land resources– general land use; agricultural land use– major crops; agricultural development and problems, common property resources;
- ❖ Water resources– availability and utilization– irrigation, domestic, industrial and other uses; scarcity of water and conservation methods– rain water harvesting and watershed management (one case study related with participatory watershed management to be introduced);
- ❖ Mineral and energy resources– metallic and non-metallic minerals and their distribution; conventional and non-conventional energy sources;
- ❖ Industries– types and distribution; industrial location and clustering; changing pattern of selected industries– iron and steel, cotton textiles, sugar, petrochemicals and knowledge based industries; impact of liberalisation, privatisation and globalisation on industrial location;
- ❖ Planning in India– target area planning (case study); idea of sustainable development (case study).



**Unit IV : Transport, Communication and International Trade**

- ❖ Transport and communication– roads, railways, waterways and airways; oil and gas pipelines; national electric grids; communication networkings– radio, television, satellite and internet;
- ❖ International trade– changing pattern of India’s foreign trade; sea ports and their hinterland and airports.

**Unit V : Geographical Perspective on Selected Issues and Problems  
(One case study to be introduced for each topic)**

- ❖ Environmental pollution; urban-waste disposal;
- ❖ Urbanisation-rural-urban migration; problem of slums;
- ❖ Land Degradation.

**C. ASSAM– LAND PEOPLE AND ECONOMY****Unit I : Physiography, Drainage Climat.****Unit II : People : Composition, Distribution, Density****Unit III : Economy : Agriculture and Industrial base and Development****Unit IV : Transport and Communication****D. PRACTICAL WORKS****Unit I : Processing of Data and Thematic Mapping**

- ❖ Sources of data;
- ❖ 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.
- ❖ Use of computers in data processing and mapping.

**Unit II : Field Study or Spatial Information Technology**

Field visit and study : map orientation, observation and preparation of sketch; survey on any one of the local concerns : population, ground water changes, land use and land-use changes, poverty, energy issues, soil degradation, drought and flood impacts (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).

**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.

**Note :** There will be six text books, two for theory and one for practical work for each class.

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