

GEOGRAPHY (853)

Aims

1. To enable candidates to acquire knowledge (information) and to develop an understanding of facts, terms, symbols concepts, principles, generalizations, hypotheses, problems, trends, processes and methods of Geography at the national and global level.
2. To apply the knowledge of the principles of Physical Geography in explaining the causes and consequences of natural hazards and suggest ways of coping with them through sustainable development.
3. To develop skills of drawing maps, surveying, and drawing statistical diagrams and thematic maps.
4. To develop an interest in Geography.

CLASS XI

There will be **two** papers in the subject.

Paper I – Theory (3 hours)70 marks

Paper II – Practical and Project Work ...30 marks

PAPER I: THEORY -70 Marks

*There will be one Theory paper of **three** hours duration divided into **two** parts -*

Part I (30 marks) will be **compulsory** and will consist of Section A and Section B.

Section A will include **compulsory** short answer questions testing knowledge, application and skills related to elementary/fundamental aspects of the entire syllabus.

Section B will consist of one question on **mapwork**.

Part II (40 marks) will consist of **seven** questions. Candidates will be required to answer **four** out of **seven** questions. Each question in this part shall carry 10 marks.

PRINCIPLES OF PHYSICAL GEOGRAPHY

1. Earth's Interior

- (i) Composition and structure.
- (ii) Rocks.

2. Changing Face of the Earth

Land forms and Processes of Gradation

- (i) Endogenous processes and associated landforms – mountains, plateaus and plains and types of structural plains as an outcome.

(ii) Vulcanicity – materials and processes. Major volcanic forms.

(iii) Earthquakes.

(iv) Exogenetic process and associated landforms.

(v) Soil.

(vi) Fluvial processes and associated landforms.

(vii) Aeolian processes and associated landforms.

(viii) Glacial processes and associated landforms.

(ix) Work of ground water and associated landforms. Water conservation.

(x) Marine processes and associated landforms.

3. Atmosphere

(i) Composition and structure of atmosphere.

(ii) Atmospheric temperature.

(iii) Atmospheric pressure.

(iv) Atmospheric moisture.

4. The Realms of Water

(i) Submarine relief and deposits of the Atlantic, Pacific and Indian Oceans.

(ii) Ocean water - salinity, temperature, density.

(iii) Ocean water movements.

5. Biosphere – Life on the Earth

(i) Nature of Biosphere, concept of ecosystems, components of ecosystem.

(ii) Major biomes of the Tropics.

6. World Climatic types

Low Latitude climates (i) Equatorial
(ii) Monsoon and tradewind littoral
(iii) Wet - dry tropical (vi) Dry tropical (desert).

Mid latitude climates - (i) Mediterranean
(ii) Marine west coast (iii) Dry sub tropical
(vi) Moist subtropical (v) Moist continental
(vi) Dry midlatitude (cold deserts).

High latitude climates - (i) Boreal (ii) Tundra
(iii) Ice sheet. Highland climates.

MAN - ENVIRONMENT INTERACTION

7. Sustainable Development and Natural Resources (Sample Studies)

- (i) Agricultural development in the Mississippi region of the USA.
- (ii) Animal rearing and development of the dairy industry in New Zealand.
- (iii) Mining and its management – Ruhr and Chattisgarh collieries.
- (iv) Oceanic resources – minerals, energy, biotic resources – Indian Ocean.

8. Natural hazards, their causes and management

- (i) Hazards of volcanic eruptions and earthquakes.
- (ii) Identification of major drought prone areas.
- (iii) Areas prone to floods / landslides – South Asia.

9. Map Work

On the outline map of the world: locating and labelling (for the examinations, some aspects could be *identified, others labelled and located*) - physical features, ocean currents, submarine relief, climatic regions from **Principles of Physical Geography** and mineral distribution, industrial centres, cities from **Man-Environment Interaction**.

PAPER II PRACTICAL WORK AND PROJECT WORK

(30 Marks)

Candidates will be required to undertake the following Practical work and Project work .

1. Practical Work

- (a) Surveying - elementary principles; preparing plans of the school compound or a small area with the help of chain and tape.
- (b) Understanding weather or weather bulletins on the radio or television and newspapers. Use of meteorological instruments like wet and dry thermometer, maximum and minimum thermometer, rain guage, wind vane and barometer.
- (c) Statistical diagrams - line graphs (simple and multiple), composite bars, pie diagram, flow and star diagram (the data used will be that used in Paper I).
- (d) Map projections – uses, construction and properties of the following:
 - (i) Cylindrical equal area.
 - (ii) Simple conical with one standard parallel.
 - (iii) Zenithal equidistant.

2. Project Work (Assignment)

Fieldwork to understand any physical phenomena in the local or selected area to illustrate the physical processes (Only **one** topic as an assignment of not more than 10-12 pages of written text, excluding pages for pictures and maps. No extra credit will be given for computer output or special effects. Sketches and drawings will be given credit).

- (i) Landuse in a river basin – e.g. uplands for forestry, dams, grazing and intensive farming and urban uses in the plains and on estuaries.
- (ii) Physical and chemical weathering in the local area.
- (iii) Use of glaciated mountain areas for tourism, forestry, farming.
- (iv) Coastal areas and processes of sea waves.
- (v) Any natural hazard like drought, flood, erosion, landslides, etc. in a local area.

CLASS XII

There will be **two** papers in the subject.

Paper I – Theory (3 hours) ...70 marks

Paper II – Practical/Project Work ...30 marks

PAPER I: THEORY -70 Marks

*There will be one Theory paper of **three** hours duration divided into **two** parts -*

***Part I** (30 marks) will be **compulsory** and will consist of Section A and Section B.*

***Section A** will include **compulsory** short answer questions testing knowledge, application and skills related to elementary/fundamental aspects of the entire syllabus.*

***Section B** will consist of one question on **mapwork**.*

***Part II** (40 marks) will consist of **seven** questions. Candidates will be required to answer **four** out of **seven** questions. Each question in this part shall carry 10 marks.*

INDIA IN THE WORLD'S CONTEXT

Physical Environment

- 1. Locational setting – India:** size and area. Importance of the location of India with reference to the Indian Ocean Rim countries. Comparison with China and Australia.
- 2. Structure of India** – Relief and drainage, major physiographic divisions and their characteristics.
- 3. Climate: India** - Factors affecting India's weather and climate – Temperature: factors affecting temperature; atmospheric pressure conditions during the year; origin and mechanism of the monsoon, Jet streams, Southern Oscillations, wind and rainfall distribution during the year; characteristics of the main seasons - hot and dry, hot and wet, cool and dry, cool and wet; variability of rainfall; occurrence of droughts and floods.

Cool and dry weather and cool and wet weather with reference to temperature distribution in north and south India, pressure, wind conditions – distribution of resultant rainfall; variability of rainfall, incidence of droughts and floods.

Temperature and rainfall graphs of Mumbai, Delhi, Kolkata, Chennai, Jaisalmer, Leh, Hyderabad.

- 4. Natural vegetation:** Classification of vegetation types and their geographical distribution; importance of the trees in these forests; status of the tropical forests in comparison to other countries of the tropical world. Potential and exploitation. Our efforts at conservation.
- 5. Population and Human settlements**
 - (i) Population of India compared to six countries - China, Australia, USA, Canada, Russia and Brazil.
 - (ii) National and State level patterns of population distribution.
 - (iii) Pattern of population growth in the last three decades – comparison of these trends with China; implications for development.
 - (iv) Migration trends over the last 30 years.
 - (v) Demographic attributes at National level - trends and patterns of 1. Rural urban population, 2. Age and sex composition 3. Literacy levels, 4. Working and non-working population (comparison of these trends with China; implications for development).
 - (vi) Rural settlements – Size and number of villages in 2001. Types and patterns in hill areas, plains and coastal locations.
 - (vii) Urban settlements – size classification of towns in 2001. Trends over the last 30 years; Study of four large cities - Kolkata, Shanghai, Singapore and Karachi.
- 6. Resources of India and their Utilisation**
 - (i) Land resources – Land use pattern in India and comparison with China – quality of cultivable land, size of land holdings.
 - (ii) Water resources and types of irrigation.
 - (iii) Agriculture: Types, development and problems.

(a) Wet and dry farming, crop rotation and crop combination, intensity of cropping, problem of agriculture; use of technology in agriculture. Modern inputs, change over from subsistence to commercial agriculture, scope of Green Revolution.

(b) Comparative study of:

- (i) Conditions of growth (soil, temperature, rainfall requirements, crop seasons, secondary crops cultivated with them)
- (ii) Methods of cultivation
- (iii) World production and India's position
- (iv) Major producing states in India and their rank as producers of the following crops:

Food grains - Rice (China/ Japan) Wheat (China), Maize (China), Coarse grains – Sorghum (Jowar), Pennisetum (Bajra or Camboo), Eleusine (Ragi), pulses (India, inter- state).

Commercial and industrial crops – Coffee (Nilgiris and N.E. India), Tea (Sri Lanka), Cotton (Pakistan), Sugarcane (China), Jute (Bangladesh), oilseed cultivation in India particularly of Groundnut (China), Coconut (Sri Lanka).

Market Gardening and Orchard Farming - development and growth in recent years in different areas of India- Jammu and Kashmir, Uttaranchal, Sikkim and Assam.

(iv) Fishing in India, Japan & Bangladesh.

(v) Minerals and power resources.

7. Infrastructural Resources (Development of Transport and Communication).

(a) Railways – Roadways – Water transport (inland and coastal) – air transport- pipelines - these modes of transport are to be studied with regard to:

- (i) Location and distribution state-wise, of air, road and rail routes, natural and economic factors that govern their distribution, density and growth. Patterns in India.

(ii) Ports, their location and advantage; major exports and imports of different ports. Examples and case studies of some ports. Nature and direction of trade from the ports. International trading patterns and products in the last ten years.

(iii) Compare and contrast the development of rail, road, air transport in India with China and Australia.

(b) Communication – Importance of communication in rural development and its policy. Importance of infrastructure as a key to the development of industrial economy.

8. Industries

(a) Study of the location and distribution of important industrial centres; a general comparison of disparities.

(b) Major and minor industrial regions – factors governing their growth. Achievements and problems of industrial development and disparity in India over the last three Five Year Plans.

(c) Location, production and growth of the following industries:

(i) **Agro based industries** – Sugar, cotton textile, and ready-made garments.

(ii) **Mineral based industries** – Iron and steel, aluminium, cement, and transport equipment. Petrochemicals, including refineries and fertilizers.

(d) Tourism industry – Major natural and cultural tourist areas in India. Their special features and level of development - impact on environment and local economy. Tourist flows.

9. Regional Economic Development

(Case studies)

(i) Bastar Tribal Development Block.

(ii) National Capital Region and the Mumbai Metropolitan Region.

(iii) Kanara (Karnataka) Coastal zone - potential and development.

10. Map Work

A question on map work will be set as follows:

Marking location and distribution of features and areas pertaining to the items studied in topics 1 – 9 above, using appropriate symbols/colour tints or shades in an outline map of India.

PAPER II : PRACTICAL WORK AND PROJECT WORK (30 Marks)

Candidates will be required to undertake the following Practical work and Project work .

1. Practical Work

- (i) Drawing of scales: Linear, graphic scales showing primary and secondary divisions; representative fractions and statement of scale methods.
- (ii) Drawing of cross-section or profiles of important contours, viz. ridge, plateau, escarpment, valley, conical hill, types of slope, sea cliffs, waterfalls, spurs, by using vertical exaggeration and horizontal equivalent.
- (iii) Understanding and illustrating location references of SOI maps.
- (iv) Map reading and interpretation of survey of India maps: Study will be based on representative portions of any three topographical sheets. It will include the description of location, extent, relief features, drainage, land use, settlement patterns, communications and inferences about human occupations and stage of economic development of the area.
- (v) Elementary principles of surveying an area: preparing two plans of the school compound and/or a small area using Plane table.

2. Project Work (Assignment)

Local field surveys on any **one** of the following will be submitted as Project Report. The length of project report will be 15-20 written pages, excluding photographs, maps, diagrams and sketches. No extra credit will be given for computer based maps or text. These surveys should be organized with a table of contents, sample taken, statistical methods used and interview schedule. The report should be organized systematically and the conclusions should be clearly stated.

- (i) Agricultural land use survey.
- (ii) Household survey of about 30-60 households of a village or locality.
- (iii) Traffic flow survey of a locality at different hours of the day.
- (iv) Area served by a school.
- (v) Study of a manufacturing industry or a self employed person.
- (vi) Study of an urban village in terms of change in occupancy and activities over a given period of time.
- (vii) Area development of a multipurpose project – impact on the region.

The Practical work and the Project work will be assessed by the teacher and a Visiting Examiner appointed locally and approved by the Council. No question paper for practical work and project work will be set by the Council.

Evaluation of Practical Work and Project Work will be as follows:

Practical file (Sessional Record):	10 marks
Assignment (Project Report):	10 marks
Viva voce:	10 marks