

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.

GEOGRAPHY AS A DISCIPLINE

1. Geography - its interdisciplinary approach and future prospects

Geography as an integrating discipline. Physical Geography and Natural Sciences; Geography and Social Sciences.

PRINCIPLES OF PHYSICAL GEOGRAPHY

2. Earth's Interior

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

3. Changing Face of the Earth

Land forms and Processes of Gradation

- (i) Endogenous processes: theory of plate tectonics and the role of drifting continents and associated landforms – mountains, plateaus and plains and their types as an outcome. Isostasy – definition, theories and concepts.
- (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.

Note: For topics (vi) to (x) only diagram based questions will be asked. Photograph based information should be made use of to emphasize the different processes of gradation.

4. Atmosphere

- (i) Composition and structure of atmosphere.
- (ii) Atmospheric temperature.
- (iii) Atmospheric Pressure.
- (iv) Atmospheric Moisture.

5. 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.

6. Biosphere – Life on the Earth

Nature of Biosphere, concept of ecosystems, components of ecosystem.

7. A. World Climatic types

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

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

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

Highland climates.

B. Climate Change – causes/factors of climatic changes in the recent past.

MAN- ENVIRONMENT INTERACTION

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 - India.

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, climatic regions from **Principles of Physical Geography** and cities from climatic regions only.

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

Any **three** of the following **four** topics to be undertaken.

- (a) Surveying - elementary principles; preparing plans of the school compound or a small area with the help of chain and tape.
- (b) 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).
- (c) Map projections – uses, construction and properties of the following:
 - (i) Cylindrical equal area.
 - (ii) Simple conical with one standard parallel.
 - (iii) Zenithal equidistant.
- (d) Aerial photographs – introduction; definition; difference between maps and aerial photographs; uses of aerial photographs, advantages of aerial photography.

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) Take any physical feature in your immediate locality:
 - (a) draw sketches or take photographs to highlight physical features.
 - (b) survey how these features have been used and prepare a report.

(c) suggest ways by which the area of study could be better used keeping in view the needs of the people of the region.

- (ii) Choose any island area of the world or India and:
 - (a) trace the map of the area and show physical features, towns and port cities.
 - (b) prepare a project report using photographs and pictures from brochures and magazines to show:
 - its origin and formation.
 - soil types, vegetation.
 - human occupations.
- (iii) 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

1. Physical Environment

- (i) **Locational setting - India:** size and area. Present importance of the location of India with reference to the Indian Ocean Rim countries and the Northern and Western frontiers. Comparison with China and Australia.

(ii) **Structure of India** – Geological formation, relief and drainage; major physiographic divisions and their characteristics.

(iii) **Climate: India** - Factors affecting India's 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 four main seasons - hot and dry, hot and wet, cool and dry, cool and wet 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.

(iv) **Natural vegetation:** Major vegetation types of India, their geographical distribution with reference to rainfall and temperature conditions – description of the important tree types and their adaptation to the climate. Forest – area covered, importance, use, misuse and potential both for exploitation and conservation. Present forest policy.

2. 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; implications for development.
- (iv) Migration trends over the last 25 years.
- (v) Demographic attributes at National level - trends and patterns of:
 1. Rural urban population
 2. Age and sex ratio
 3. Literacy levels
 4. Working and non-working population; 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. Study of population growth in Delhi, Mumbai, Kolkata and Chennai since 1951 till 2001.

3. Resources of India and their Utilisation

- (i) Land resources: Land use pattern in India – 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, problems of Indian agriculture; use of technology in agriculture. Modern inputs, change over from subsistence to commercial agriculture, need for Green Revolution. Diversifying Indian agriculture – importance of animal husbandry.
 - (b) Comparative study of:
 - (i) Conditions of growth (soil, temperature, rainfall requirements, crop seasons, secondary crops cultivated with them)
 - (ii) World production and India's position
 - (iii) Major producing States in India and their rank as producers of the following crops:
Food grains - Rice (China/Japan), Wheat (China/Pakistan), Coarse grains – Sorghum (Jowar, Maize), Pennisetum

(Bajra or Cambo), 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, Coconut (Sri Lanka).

Importance of Market Gardening and Orchard Farming – reasons and trends in development in recent years.

(iv) Fishing in India, Japan and Bangladesh.

(v) Minerals and power resources.

4. 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 state wise distribution 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. Nature and direction of trade from the ports. International trading patterns and products in the last five years.
- (b) Communication – importance of communication in rural development and its policy. Importance of infrastructure as key to the development of an industrial economy.

5. 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.
- (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.

6. Regional Economic Development

(Case studies)

Case studies will be preceded by a brief understanding of the meaning of development, multilevel planning and planning regions. These case studies will be undertaken with reference to the advantages and disadvantages that have accrued to the people and area - aspects covered will be their geographical location, resource base, developmental history, present trends of population, occupations, agriculture and industrial activities, issues of development.

1. Area development in Chattisgarh region – mining, silk industry and farming.
2. Electronics industry in Bangalore – reasons for its development, extent, national and international linkages and problems.
3. Growth of Haldia port, its industries and hinterland.

7. Map Work

A question on map work will be set as follows:

Marking locations and distributions of features and areas pertaining to the items studied in topics 1-6 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) Introduction to Geographic Information System: Elements of visual interpretation of remote sensing maps/ images.

- (vi) Elementary principles of surveying an area: preparing two plans of school compound and/or a small area using Plane table/ GPS.

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 and statistical methods used, 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) Amenity study.

- (iv) Study of a manufacturing industry or a self employed person.

- (v) Area development of a multipurpose project – impact on the region.