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.

Extent, position with reference to latitude and longitude, length of coastline and frontiers with neighbouring countries. The locational advantages of India in the Indian Ocean and as a subcontinent.

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

Outline of the geological evolution and structure; the three-fold physiographic divisions - major relief features with reference to their extent, altitude, slope and landforms characteristics, drainage (i.e. rivers) and drainage systems. Comparison of Himalayan and Peninsular rivers.

(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.

Role of various factors affecting Indian climate; understanding of the concept and mechanism of monsoon; comparison of seasonal cycle in different seasons. Explanation of the variability of rainfall.

(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.

Classification of vegetation types and their geographical distribution and adaptation; importance of the trees in these forests. Potential and exploitation. Our policy of conservation.

2. Population and Human settlements

(i) Population of India compared to six countries - China, Australia, USA, Canada, Russia and Brazil.

*Population of India as compared to the other six countries with reference to **percentage of world population** and India's position in comparison.*

(ii) National and State level patterns of population distribution.

Identification of distinctive patterns shown by dots on a map of India and explanation of the factors – landforms, climate, accessibility and level of development that result in this pattern. Comparison of the distribution at State level.

(iii) Pattern of population growth in the last three decades; implications for development.

Natural growth rate and absolute growth of population to be defined. Population growth of India at national level – trends for 1921, 1951 and 1981-2001. Impact of rapid growth rate on economic development; some general conclusions.

(iv) Migration trends over the last 25 years.

Types and trends of migration between States; economic, political and social causes for migration, comparing the consequences of migration in the cities and rural areas.

(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; implications for development.

Study of the trends of rural urban composition, sex ratio at the country level in the 1981 and 2001 census. Age and sex ratio. Statewise working population to total population, literacy level of males and females for the latest census figures.

(vi) Rural settlements – size and number of villages in 2001. Types and patterns in hill areas, plains and coastal locations.

Size and classification of villages as per the 2001 census; determining the factors affecting the types and spacing of rural settlements in plains, coastal areas, mountains and plateau areas.

(vii) Urban settlements – size classification of towns in 2001. Study of population growth in Delhi, Mumbai, Kolkata and Chennai since 1951 till 2001.

Trends of urbanization and factors that influence the growth of urban centres in India. Problems of urban growth; advantages of urban growth.

3. Resources of India and their Utilisation

(i) Land resources**:** Land use pattern in India – quality of cultivable land, size of land holdings.

Defining the term land resource; its importance and problems. Land use pattern, availability of arable land – quality and size of cultivable land holdings. Land degradation, soil erosion, water-logging in India.

(ii) Water resources and types of irrigation.

Sources of irrigation: wells, tanks, tube wells; advantages and disadvantages of each method. Modern methods: tube wells, multipurpose projects, Perennial canals, sprinkler irrigation - advantages and disadvantages, use and misuse of water for irrigation and dangers of over watering. Study of alternative methods 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.

Wet and dry agriculture: location of areas, crops associated, intensity of cropping, concept and its expression; subsistence type, advantages of crops grown and use of new technology. Diversification of Indian agriculture.

(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 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, Coconut (Sri Lanka).

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

Self-explanatory.

(iv) Fishing in India, Japan and Bangladesh.

Areas, methods, types of fish caught, fishing grounds; factors affecting the importance and development, fishing ports and markets, need and methods of fish conservation. Recent Indian Fisheries Policy.

(v) Minerals and power resources.

Iron ore, manganese, mica, petroleum, coal, Nuclear power resources. Thermal, hydel power and nuclear power generation in India. Non conventional sources of energy – areas and production. Conservation of natural resources - need and methods. State level distribution of energy consumption and production.

(Emphasis to be on the use and analysis of maps showing distribution, production, consumption).

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.

The present position, areas well and poorly served by each mode, (map showing the distribution pattern of railways, roadways, airways, canal ways and major ports). Problems – comparative advantage of each mode of transport, national goals to be achieved in the development of modes of transport.

(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.

Modern means of communication to be highlighted so as to understand the way these act as support system to the development of the national economy and rural areas, even the most remote parts of the country. Advantage of satellites and remote sensing - Geographic Information Systems, their use today.

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.

Maps and sketches of industrial centres- industrial regions- location of agro based and mineral based industries (only those identified) will be the basis for explaining the pattern of industrial development. Factors responsible for the origin and development and present status of the industries – contribution to the production in India in the last decade.

(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.

Concept, characteristics and types in India today: importance given; the nature of Indian environment and history; positive and negative impact of mass based tourism, problems and remedial measures for developing eco-tourism. Map showing important tourist routes in India.

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.

Self-explanatory.

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.

Colour significance in the image and true colour (false colour composition): texture; size; shape; shadow; association.

(Reference material – Wikipedia, Google.earth, IIRS Hyderabad).

(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.

Choose a district or topographical map of an area 1: 250000 and make a sketch map showing land use; compare the patterns of these. Alternatively, a local village could be chosen and the fields mapped from the cadastral map with information on the crops grown in different seasons and the location of the village, its roads and landmarks, if any.

(ii) Household survey of about 30-60 households of a village or locality.

Family size, age structure, educational background, occupation, involvement of men and women in economic activity, educational service. Draw conclusions to reflect the economic development of the households.

(iii) Amenity study.

Study of hospitals in a city, schools (school where you studied), post offices, municipal zones within the city (blocks in a village study) – reasons for travel (based on the importance and demand for the place), travel time, travel distance, mapping the hinterland of the service.

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

Visit a manufacturing unit or self employed person – cycle or car repair shop, small fabricating unit, factory if nearby and find out – source of raw material, supply routes, final product, areas where it is sent, manpower strength and their organization.

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

Self- explanatory.