CBSE EXAMINATION PAPER-2022

GEOGRAPHY

(Solved)

Time allowed : 3 hours | Maximum Marks : 37

General Instructions :

Read the following instructions carefully and follow them :

i. This question paper contains **13 questions.** All questions are **compulsory.**

ii. This question paper is divided into **3 sections.**

iii. **Section A** – questions number **1 to 2** are case based questions

iv. **Section B** – questions number **3 to 9** are short answer

v. **Section C** – questions number **10 to 13** are long answer

vi. There is no overall choice given in the question paper. However, an internal choice has been provided in few questions.

vii. Use of calculator is NOT allowed.

Section A

Question 1.

Read the following source and answer the questions that follow:

Steel Industry

The large integrated steel industry is traditionally located close to the sources of raw materials - iron-ore, coal, manganese and limestone - or at places where these could be easily brought, e.g., near ports. But in mini steel mills, access to markets is more important than inputs. These are less expensive to build and operate and can be located near markets because of the abundance of scrap metal, which is the main input. Traditionally, most of the steel was produced at large integrated plants, but mini mills are limited to just one-step process - steel making - and are gaining ground.

(1) Mention the raw material used in mini steel mills.

[1 Marks]

Answer: Answer: The raw material used in mini steel mills is scrap metal as mentioned in the case passage. Mini steel mills are located near markets because scrap metal is abundantly available and is the main input for these mills instead of raw materials like iron-ore and coal used in large integrated steel plants.
This helps mini mills to be less expensive to build and operate.

Key Points: Raw material is scrap metal - Mini steel mills use scrap metal instead of iron-ore and coal - Located near markets due to availability of scrap metal

(2) What is more important for setting up the mini steel mills?

[1 Marks]

Answer: Access to markets is more important for setting up mini steel mills because they mainly use scrap metal as input which is easily available. They are less expensive and can be located near the market to reduce transportation costs, as mentioned in the passage.

Key Points: Mini steel mills use scrap metal as main input - Mini mills are located near markets - Access to markets is more important than inputs for mini mills

(3) Mention the main factor affecting location of large integrated steel industry.

[1 Marks]

Answer: Answer: The main factor affecting the location of large integrated steel industry is access to raw materials. These industries are located close to the sources of raw materials like iron-ore, coal, manganese and limestone to reduce transportation costs and make production economical, as mentioned in the case passage.

Key Points: Access to raw materials - Close to iron-ore coal manganese limestone sources - Reduce transportation costs

Question 2.

On the given political outline map of India, locate and label any five from the following geographical features with appropriate symbols :

(1)

Oil refinery located in Bihar

[1 Marks]

Answer: The oil refinery located in Bihar is the Barauni refinery. According to the passage, Barauni is a market-based refinery of India. It should be marked on the map of Bihar with the symbol for oil refinery as given in the map legend. This helps in understanding the distribution of conventional energy resources in India.

Key Points: Barauni refinery location - Market-based refinery - Located in Bihar

(2)

Khetri — Copper mines

[1 Marks]

Answer: Khetri is an important location known for its copper mines as mentioned in the case passage. On the political map of India, Khetri can be found in Rajasthan. It should be marked and labeled with the symbol of copper mines to represent its significance in mineral resources according to Fig. 5.3 in the case passage.

Key Points: Khetri is known for copper mines - Located in Rajasthan - Mark and label on political map with copper mine symbol

(3)

Coal mines located in West Bengal

[1 Marks]

Answer: The coal mines in West Bengal are mainly located in the Raniganj coalfield in the western part of the state. You should mark the location of Raniganj on the political outline map of India and label it as a coal mine with the appropriate symbol as given in the map key or legend. This corresponds to one of the important coal mining areas in India as described in the case passage under coal reserves in the Damodar valley region.

Key Points: Locate Raniganj coalfield in West Bengal - Mark coal mines with the correct symbol on the map - Reference coal reserves in Damodar valley region from the passage

(4)

Katni — Bauxite mines

[1 Marks]

Answer: Katni is an important site for bauxite mines in India. According to the case passage, India has a rich variety of mineral resources concentrated mainly in peninsular India. Katni, located in Madhya Pradesh, is known for its bauxite deposits, which are used for producing aluminium. When marking on the political outline map of India, locate Katni in Madhya Pradesh and label it with the bauxite mine symbol to represent the presence of this mineral resource.

Key Points: Katni is in Madhya Pradesh - Katni has bauxite mines - Bauxite is used to produce aluminium

(5)

Western Terminal of East-West Corridor

[1 Marks]

Answer: Western Terminal of East-West Corridor is Porbandar in Gujarat. It marks the starting point of the East-West Corridor which connects Porbandar in the west to Silchar in the east, enhancing connectivity across India as described in the case passage. This corridor is an important part of India's highway development to reduce travel time and cost.

Key Points: Western Terminal - East-West Corridor - Porbandar in Gujarat

(6)

Eastern-most 'metropolitan' city connected by 'Golden Quadrilateral'

[1 Marks]

Answer: Answer: The eastern-most metropolitan city connected by the Golden Quadrilateral is Kolkata. It is one of the four major metro cities connected by this 5,846-km long network of highways, which also includes Delhi, Mumbai and Chennai. The Golden Quadrilateral helps reduce time, distance and cost of travel among these big cities.

Key Points: Eastern-most metropolitan city - Connected by Golden Quadrilateral - Kolkata

Section B

Question 3. Examine the activities of periodic markets of rural areas.

[3 Marks]

Answer: Periodic markets in rural areas are markets that are organized at specific intervals such as weekly or biweekly in places where there are no regular markets. They serve as important trading centres for people from nearby villages who meet their accumulated demand on these specified market days.

Activities of periodic markets:

1. They provide a platform for farmers and villagers to sell agricultural produce and buy essential goods.
2. These markets act as collection and distribution centres for surrounding settlements.
3. Both wholesale (mandis) and retail trading activities take place here.
4. They are quasi-urban centres offering rudimentary personal and professional services.
5. Trading ranges from basic barter to money exchange, helping rural consumers access goods that are frequently demanded.
6. The market shifts location periodically to cater to different villages and reduce travel.

Overall, periodic markets play a key role in rural marketing by linking producers and consumers and enabling exchange of goods and services in areas lacking permanent markets.

Key Points: Periodic markets held at regular intervals - Serve surrounding rural areas - Facilitate both wholesale and retail trade - Act as collection and distribution centres - Provide essential goods to rural people - Support barter and money-based trade

Question 4.

Explain the functions of the 'National Highway Authority of India'.

[3 Marks]

Answer: Functions of the National Highway Authority of India (NHAI):
NHAI is an autonomous body under the Ministry of Surface Transport responsible for the development, maintenance and operation of National Highways in India.
It plans and implements road construction projects to improve the National Highways network.
It ensures good quality and safety standards for highways.
NHAI undertakes major National Highways Development Projects to expand and upgrade roads.
It manages toll collection on certain highways to generate revenue for road maintenance.
It coordinates with state governments and other agencies to facilitate smooth transport and communication through highways.
Thus, NHAI plays a key role in enhancing the road infrastructure to support economic growth and connectivity across the country.

Key Points: Autonomous body under Ministry of Surface Transport - Responsible for development and maintenance of National Highways - Implements National Highways Development Projects - Ensures quality and safety standards - Manages toll collection - Coordinates with states and agencies

Question 5.

"Border Roads Organisation is a premier multifaceted construction agency." Support the statement.

[3 Marks]

Answer: Border Roads Organisation (BRO) was established in May 1960 with the primary aim of accelerating economic development and strengthening defence preparedness. It is called a premier multifaceted construction agency because it constructs and maintains strategically important roads along the northern and north-eastern boundaries of India, which are often in high altitude, difficult, and mountainous terrains. For example, BRO has built roads connecting Chandigarh with Manali (Himachal Pradesh) and Leh (Ladakh) that run at an average altitude of 4,270 metres above mean sea level. These roads not only improve connectivity and economic integration of remote border areas with the rest of the country but also play a crucial role in the movement of the army and defence supplies in border regions. BRO’s expertise in handling difficult terrains and building durable roads under challenging weather conditions makes it a vital agency for national security and development. Hence, BRO is rightly recognized as a premier multifaceted construction agency.

Key Points: Established in 1960 - Builds roads in high altitude and difficult terrains - Connects remote border areas to other parts of India - Supports defence preparedness - Example of Chandigarh-Manali-Leh road at 4270 metres altitude

Question 6.

Why has the Indian Railways launched an extensive programme to convert metre and narrow gauges to broad gauge ? Explain.

[2 Marks]

Answer: The Indian Railways has launched an extensive programme to convert metre and narrow gauges to broad gauge for several important reasons.

1. Uniformity: Broad gauge is the standard gauge in India, so conversion helps in creating a uniform rail network which avoids the need for changing trains or goods at gauge change points.

2. Higher Speed and Capacity: Broad gauge tracks allow trains to run faster and carry heavier loads, improving efficiency for passengers and freight.

3. Better Stability and Comfort: Broad gauge trains provide better stability on tracks and more comfortable rides for passengers.

4. Economic Development: A broad gauge network supports the growth of industries and trade by enabling large-scale transportation of goods across the country.

5. Reduced Operational Costs: Maintaining one type of gauge is cheaper and easier than maintaining multiple gauges.

Therefore, the programme of gauge conversion supports the modernization and integration of India's railway system, enhancing connectivity, economy, and convenience for millions of passengers and businesses.

> **Key Points: Uniformity of rail network - Higher speed and carrying capacity - Better stability and passenger comfort - Economic development and trade facilitation - Reduced maintenance and operational costs**

Question 7.

Explain any two features of manufacturing process.

[2 Marks]

Answer: Manufacturing is the process of converting raw materials into finished goods using power and specialised labour.

(a) Use of Power: Manufacturing processes commonly involve the application of various forms of power such as mechanical, electrical, or thermal energy to operate machines and tools that transform raw materials into products efficiently.

(b) Mass Production of Identical Products: One key feature is producing large quantities of identical goods through standardised processes which ensures uniformity and meets large market demand.

> **Key Points: Use of power in production - Mass production of identical products - Specialised labour involved**

Question 8.

Differentiate between Departmental stores and Chain stores stating two differences.

[2 Marks]

Answer: Departmental stores and chain stores represent two distinct retail formats. Firstly, departmental stores are large retail establishments that are divided into various sections or departments, each specializing in a particular category of goods. These departments operate with a significant level of autonomy, as departmental heads are responsible for purchasing and managing their respective sections. Conversely, chain stores consist of a series of retail outlets that operate under the same brand and are typically controlled from a central headquarters. This centralization allows chain stores to achieve economies of scale by purchasing merchandise in bulk, which helps them lower costs and offer competitive prices. Secondly, while departmental stores may carry a wide variety of products from different manufacturers, chain stores often focus on specific branded products that resonate with their target market.

Key Points: 1. Departmental stores have various autonomous departments; Chain stores operate under a central management. 2. Departmental stores offer diverse products; Chain stores often focus on specific brands.

Question 9.

Differentiate between Telecommunication and Services stating two differences.

[2 Marks]

Answer: Telecommunication and services are two distinct concepts within the realm of communication and utility. Firstly, telecommunication specifically refers to the transmission of information over distances using electronic systems, such as telephones, internet, and satellites. It focuses on transmitting messages and data. In contrast, services encompass a broader category that includes activities aimed at fulfilling various needs, such as transportation, healthcare, and education. Secondly, telecommunication services primarily deal with the exchange of information, while other services, like transportation, involve the movement of people and goods. Thus, telecommunication is a subset of services that emphasizes communication technologies.

Key Points: 1. Telecommunication involves electronic transmission of information; 2. Services include a variety of activities like healthcare and transportation; 3. Telecommunication focuses on information exchange, while services may involve physical movement.

Section C

Question 10.

"The Rhine waterway is the world's most heavily used inland waterway." Assess the significance of this waterway.

[5 Marks]

Answer: Significance of the Rhine Waterway:

The Rhine River is one of the most important inland waterways in the world, and it is the most heavily used waterway globally due to its strategic location and the volume of trade it supports.

1. **Extensive Navigability:** The Rhine is navigable for about 700 km from Rotterdam in the Netherlands to Basel in Switzerland. It allows ocean-going vessels to reach up to Cologne, which is significant for trade because large ships can transport goods directly inland.

2. **Connects Industrial Regions:** The river connects important industrial regions, especially in Germany. The Ruhr river, a tributary of the Rhine, flows through a rich coalfield and industrial zone, making the Rhine critical for transporting raw materials like coal to factories and finished products to ports.

3. **High Traffic Volume:** Every year, over 20,000 ocean-going ships and about 200,000 inland vessels use the Rhine. This heavy traffic shows how vital the river is for both domestic and international transport of goods.

4. **Boosts Economic Activities:** Cities along the Rhine like Dusseldorf and Cologne benefit from the waterway through trade and industries. The ease of transport lowers costs and increases the efficiency of manufacturing and export activities.

5. **Supports International Trade:** Since the Rhine flows through several countries including Switzerland, Germany, and the Netherlands, it acts as an important link in European inland water transport, facilitating trade across borders efficiently.

In conclusion, the Rhine waterway is significant due to its extensive navigability, connection of industrial areas, high traffic volume, and its role in boosting economic growth and international trade in Europe.

Key Points: Navigable for 700 km from Rotterdam to Basel - Connects major industrial regions like the Ruhr coalfield - Over 20,000 ocean-going and 200,000 inland vessels use it annually - Supports international trade and economic growth - Facilitates transport of raw materials and finished goods

Question 11.

"Indiscriminate use of water by increasing population and industrial expansion has led to degradation of the quality of water considerably." Analyse the statement.

[5 Marks]

Answer: Analysis of the statement:

The statement highlights an important environmental issue about water quality degradation caused by increasing population and industrial growth. As population increases, the demand for water also increases for domestic, agricultural, and industrial uses. Rapid industrialisation leads to release of untreated or partially treated effluents containing harmful chemicals and pollutants into water bodies. Surface water from rivers, lakes, and canals naturally contains some suspended particles and dissolved substances, but indiscriminate use and pollution increase their concentration, making water harmful and unsuitable for use.

Reasons for water quality degradation:

1. **Population growth:** More people consume more water and produce more wastewater and sewage, often released into water bodies without proper treatment.
2. **Industrial expansion:** Industries discharge chemicals, heavy metals, and other toxic substances into nearby rivers and lakes, contaminating water.
3. **Agricultural run-off:** Use of fertilizers and pesticides leads to nutrient and chemical load in water bodies.
4. **Reduced water availability:** Over-extraction lowers water levels and increases pollutant concentration.

Impact of water quality degradation:

- Water becomes unsafe for drinking, leading to health hazards.
- Aquatic life is harmed due to toxic substances.
- Agricultural productivity declines if polluted water is used for irrigation.
- Water scarcity worsens due to unusable polluted water.

Conclusion:

Indiscriminate water use and pollution by growing population and industries is leading to serious degradation of water quality. This situation calls for sustainable water management, pollution control measures, and awareness to protect water resources for future generations.

> **Key Points: Increasing population increases water demand - Industrial expansion leads to water pollution - Polluted water harms health and environment - Overuse and pollution cause water scarcity - Need for sustainable water management**

Question 12.

"The pressure on agricultural land increases not only due to the limited availability, but also by deterioration of quality of agricultural land." Analyse the statement.

[5 Marks]

Answer: Explanation:
The pressure on agricultural land is caused by two main factors: limited availability of land and the deterioration of land quality.
1. Limited availability: Agricultural land is a finite resource. As the population grows, the demand for food increases, which puts pressure on available arable land to produce more crops.
2. Deterioration of quality: Land degradation due to soil erosion, waterlogging, salinisation, and alkalinisation reduces the fertility of the land. Continuous cultivation without proper management exhausts soil nutrients, leading to lower productivity.
Reasons for continued pressure on land: (a) In developing countries, a large part of the population depends on agriculture for livelihood and food.
(b) The number of people dependent on agriculture is increasing, while the land quality is degrading, meaning more land or better management is needed to maintain food production.
Effects: Land degradation leads to lower crop yields and forces farmers to use more land or convert wasteland into agricultural land.
Conclusion: Thus, pressure on agricultural land increases not just because land is limited but also because the decreased quality of land demands more effort or area to maintain production, highlighting the need for sustainable land management practices.

> **Key Points: Limited availability of agricultural land - Land quality deterioration reduces soil fertility - Soil erosion, waterlogging, salinisation, alkalinisation cause land degradation - Growing population increases demand on land - Continuous pressure leads to decreased productivity and need for more land**

Question 13.

Analyse any five objectives of 'Drought Prone Area Development Programme'.

[5 Marks]

Answer: Drought Prone Area Development Programme was launched to improve the living standards and provide sustainable employment in drought-prone regions. The five main objectives are:

(1) **Providing Employment:** The programme aims to provide employment opportunities to the people living in drought-prone areas through labour-intensive schemes, helping to reduce poverty and migration.

(2) **Creation of Productive Assets:** It focuses on creating productive assets like irrigation facilities, land development, and soil conservation to improve agricultural productivity.

(3) **Ecological Balance Restoration:** The programme works to restore the ecological balance among water, soil, plants, and animal populations by promoting afforestation, grassland development, and sustainable land use.

(4) **Promotion of Integrated Watershed Development:** It encourages watershed management at the micro-level to conserve rainwater, prevent soil erosion, and improve water availability.

(5) **Development of Rural Infrastructure:** Basic rural infrastructures such as roads, water supply, and small scale industries are developed to support economic activities and improve the quality of life.

Overall, the programme aims for comprehensive development by integrating agriculture, horticulture, animal husbandry, and forestry to make drought-prone areas more productive and sustainable.

> **Key Points: Provide employment - Create productive assets - Restore ecological balance - Promote watershed development - Develop rural infrastructure**