ICSE EXAMINATION PAPER - 2025
GEOGRAPHY
(H.C.G. PAPER - 2)
Class-10th
(Solved)

Maximum Marks: 80 *Time Allotted: Two Hours*

Instructions to Candidates:

1. *Answers to this Paper must be written on the answer sheet provided separately.*
2. *You must **NOT** start writing during the first 15 minutes.*
3. *This time is to be spent in reading the question paper.*
4. ***The time given at the head of this Paper is the time allowed for writing the answers.***
5. *Attempt **all** questions from **Part I** (Compulsory).*
6. *A total of **five** questions are to be attempted from **Part II**, two out of three questions from **Section A** and **three** out of five questions from **Section B**.*
7. *The intended marks for questions or parts of questions are given in brackets[].*

PART I (30 Marks)

*(Attempt **all** questions from this **Part**.)*

Question 1

Study the extract of the **Survey of India** Map Sheet No. **G43S10** and answer the following questions:

(i) **(a)** Give the *six-figure* grid reference for spot height **.437** in the *southeastern* part of the map extract. **[2]**

(b) Aman, a local craftsman, wants to sell his product to a large gathering to earn money instantly.

1. Which settlement should he go to?

2. Name the month in which he should visit the settlement named by you above.

(ii) **(a)** On which bank of the ***Sukli nadi*** is the settlement of ***Pamera*** situated? **[2]**

(b) Identify the **settlement pattern** seen in the grid square **6732**.

(iii) Roshan, while travelling from **Sirori** to **Tokra**, observed that the surface water sources are dry except for the reservoir near **Tokra**. **[2]**

(a) What according to you may be the reason for the presence of water in the reservoir in **6832** near Tokra settlement?

(b) State whether this reservoir is *artificial* **or** *natural* source of water.

(iv) **(a)** What is the *direct distance* between *Gulabganj* to *Pithapura*? Give your answer in **kilometre**. **[2]**

(b) Mention the *compass direction* of *Pithapura* **from** *Gulabganj*.

(v) **(a)** Name **two** *man-made features* seen in the grid square **6534**. **[2]**

(b) Define *contour interval*.

Question 2

On the outline map of India provided:

(i) Mark and label the *Nathu-La pass*. **[1]**

(ii) Shade and name the *coastal plain* that occupies a large part of *Kerala*. **[1]**

(iii) Mark and label *Digboi*. **[1]**

(iv) Mark and label *Chilka lake*. **[1]**

(v) Mark with arrows and *name the wind* that brings rainfall to Tamil Nadu coast during winter. **[1]**

(vi) Mark and label the river *Sutlej*. **[1]**

(vii) Mark and label the *Standard Meridian of India*. **[1]**

(viii) Mark and label *Satpura range*. **[1]**

(ix) Shade and label the *Chota Nagpur plateau*. **[1]**

(x) Mark and label *Visakhapatnam*. **[1]**

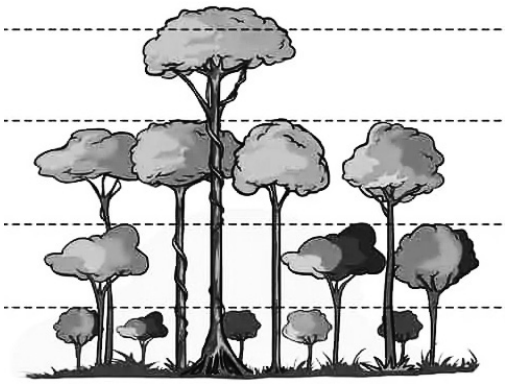
Question 3

Choose the correct answers to the questions from the given options. **[10]**
(Do not copy the questions, write the correct answers only.)

(i) **Assertion(A):** Mumbai receives more rainfall than Pune.
Reason(R): Mumbai gets rain from Arabian Sea branch of southwest monsoon.
(a) Both (A) and (R) are true and (R) is the correct explanation for (A).
(b) Both (A) and (R) are true and (R) is not the correct explanation for (A).
(c) (A) is true and (R) is false.
(d) (A) is false and (R) is true.

(ii) Which of the following *pairs of soils* displays **similar characteristics** in terms of their **colour and texture**?
(a) Alluvial soil and laterite soil **(b)** Black soil and red soil
(c) Red soil and laterite soil **(d)** Alluvial soil and black soil

(iii) The *type of natural vegetation* shown in the picture given below is found in:



(a) Tropical desert **(b)** Tropical deciduous
(c) Tropical evergreen **(d)** Littoral forest

(iv) Which of the following *prevents wastage of water*?
(a) Canal **(b)** Well
(c) Sprinkler **(d)** Tube well

(v) Balaghat: Manganese:: Mumbai High: _____
(a) Copper **(b)** Coal
(c) Iron Ore **(d)** Petroleum

(vi) A *microbiological process* that loosens the bark of a crop and facilitates *removal of fibre* from the stalk:
(a) Rolling **(b)** Ratooning
(c) Retting **(d)** Fermentation

(vii) Which industry amongst the following has revolutionised the lifestyle of the Indian masses in recent years?
(a) Cotton Textile **(b)** Electronic
(c) Iron and Steel **(d)** Sugar

(viii) Which of the following household products is associated with the petrochemical industry?
(a) Glass bottle **(b)** Wooden chopping board
(c) Kitchen knife **(d)** Plastic mug

(ix) Raman, a dairy farmer in Ludhiana, supplies milk within the city on a daily basis. Which mode of transport is he most likely to use?
(a) Railway **(b)** Roadway
(c) Airway **(d)** Waterway

(x) The collection of discarded materials and converting them into useful products is:
(a) Recycling **(b)** Processing
(c) Reducing **(d)** Composting

PART II (50 Marks)

(*Attempt **any five** questions from this **Part**.*)

Question 4

(i) *'Severe cyclonic storms are often formed over the Bay of Bengal during the retreating monsoon season'.* **[2]**

(a) Name *two* states that are affected by tropical cyclones on the *eastern coast* of India.

(b) The temperate cyclones cause less damage than the tropical cyclones.
Give *any two points* to support this statement.

(ii) **(a)** Name the *local wind* that causes rainfall in the states of **Assam** and **West Bengal** in the month of *April*. **[2]**

(b) How is this rainfall *beneficial* for the states mentioned above?

(iii) With reference to **Figure A** and **Figure B** given below, answer the questions that follow: **[3]**

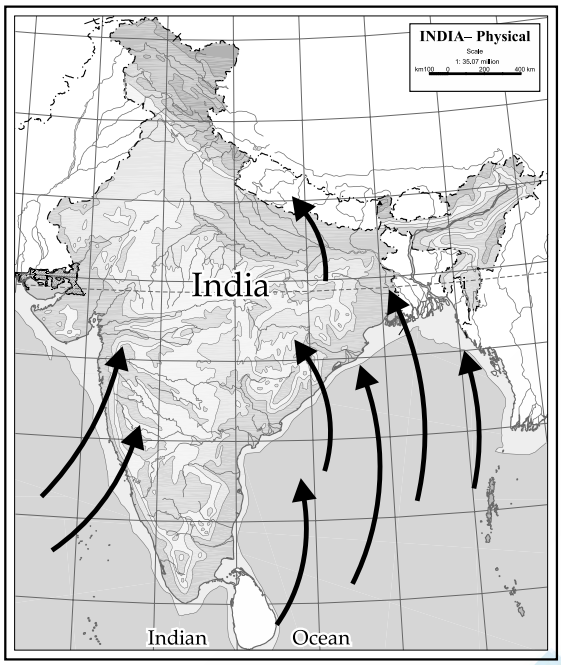


Figure A

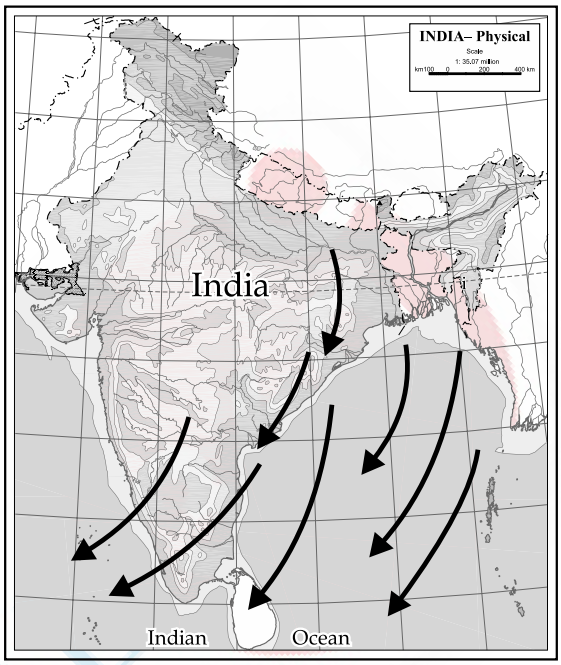


Figure B

(a) Name the winds shown by arrows in Figure **A** and Figure **B**.

(b) How is the wind shown in Figure **A** different from the one shown in Figure **B**?

(iv) Study the climate data of station **X** and answer the following questions: **[3]**

Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Temp (°C)	24.0	25.4	26.7	28.3	30.0	28.9	27.6	27.4	27.3	27.1	27.0	25.0
Rainfall (cm)	0.25	0.25	-	-	1.75	50.2	61.0	37.0	27.0	4.75	1.50	-

(a) What is the **annual range of temperature** for station **X**?

(b) Which is the **wettest month**?

(c) Name the **wind** which brings rainfall for station **X** during the **rainy season**.

Question 5

(i) The Ganga Plain is known for its fertile soil. It is often referred to as the food bowl of India. This region supports a variety of crops such as rice, wheat, pulses, jute and sugarcane. **[2]**

(a) Name the soil that is found in large parts of Ganga plain.

(b) Give two properties of this soil which helps it to produce a variety of crops.

(ii) **(a)** What is meant by *soil erosion*? **[2]**

(b) Name *any two* agents of *soil erosion*.

(iii) Give a geographical reason to explain each of the following: **[3]**

(a) **Soil conservation** is the need of the hour.

(b) **Red soil** has a poor water retention capacity.

(c) **Laterite soils** are infertile.

(iv) With reference to **black soil** of India, answer the following questions. **[3]**

(a) How is this soil formed?
(b) How is this soil able to retain moisture for a long period?
(c) Mention *any two* minerals present in this soil.

Question 6

(i) *India has lost 2.33 million hectares of tree cover since the year 2000. This is equivalent to a six per cent decrease in tree cover during this period. Source: The Indian Express, Date: 12.04.2024* **[2]**

(a) Mention *any two* causes of the decrease in the forest cover of India.
(b) Name a *conservation method* that may be used to help in increasing the forest cover.

(ii) Mention the *climatic condition* suitable for the development of tropical evergreen forest. **[2]**

(iii) State *any three* differences between tropical deciduous and tropical desert vegetation. **[3]**

(iv) **(a)** Give *any two* reasons for the great diversity of natural vegetation in India. **[3]**
(b) How do the forests help in maintenance of air quality?

Question 7

(i) Mention *any one* advantage and *any one* disadvantage of **well irrigation**. **[2]**

(ii) Suggest *any two* measures to overcome *scarcity of water* in the metropolitan cities of India. **[2]**

(iii) Give *one* reason to explain each of the following: **[3]**

(a) *Tank* irrigation is **NOT** common in Northern India.
(b) Canal irrigation is important in Punjab.
(c) All farmers *do not* use tube well irrigation even if the geographical condition is favourable.

(iv) State *any three* objectives of rainwater harvesting. **[3]**

Question 8

(i) *With the rising price of fossil fuel every passing day, it is very important to develop non-conventional energy resource. -Bulletin-Department of non-conventional sources of energy* **[2]**

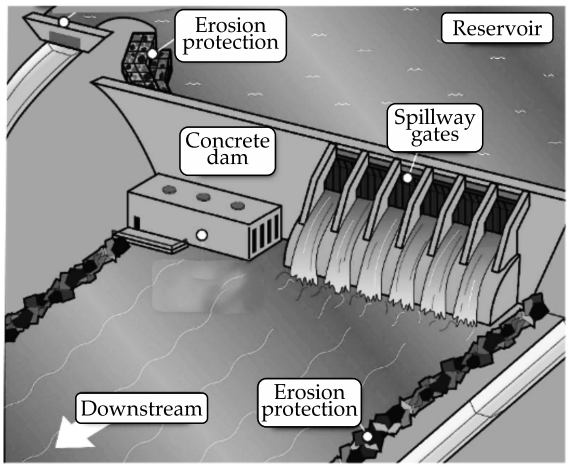
(a) Name a non-conventional energy source that can be harnessed by taking advantage of India's vast coastline.
(b) State *one* advantage of using *geothermal energy*.

(ii) **(a)** How is *Biogas* formed? **[2]**
(b) Mention *any one* advantage of Biogas over other non-conventional energy resources.

(iii) Give a reason for each of the following. **[3]**

(a) *Iron ore* is called a versatile mineral.
(b) *Windmills* set up on agricultural lands are beneficial to farmers.
(c) Coal is the most preferred source of energy in Indian industries.

(iv) **[3]**



(a) Identify the type of energy being generated in the picture given above.
(b) State why this type of energy is cheaper in the long run.
(c) Name a power project associated with the generation of this energy in the northern part of India.

Question 9

(i) Mention *two* climatic conditions that favour the cultivation of *groundnut*. **[2]**

(ii) Give *any two* reasons why *Maharashtra* has emerged as an important *sugarcane* producing state. **[2]**

(iii) Give *one* reason to explain each of the following: **[3]**

(a) *Trees* are planted in between the rows of *coffee plants*.

(b) *Cotton* cultivation requires plenty of *cheap labour*.

(c) *Hill slopes* are best suited for *tea cultivation*.

(iv) Explain the following: **[3]**

(a) Mixed farming

(b) Zayad

(c) Transplantation

Question 10

(i) State *any two* factors that are responsible for the growth of the cotton textile industry in Kolkata. **[2]**

(ii) *'Karnataka is the leading state for silk production in India'.* **[2]**

Give *any two* reasons to justify the above statement.

(iii) **(a)** Name the Iron and Steel industry located at Chhattisgarh. **[3]**

(b) From where does the industry named by you above get its supply of the following?

1. Iron ore

2. Coal

(iv) Raghav has been given a project by his teacher in which he has to write about the by-products of an industry that is used for preparing shoe polish, carbon paper and cardboard. **[3]**

(a) Which industry will he be writing about?

(b) Name *any two* by-products of the industry mentioned by you.

Question 11

(i) Why is a well-developed transport network important for India? **[2]**

(ii) Mention *any two* advantages of *road transport.* **[2]**

(iii) Name the following: **[3]**

(a) The mode of transport that ensures comfortable journey, especially for elders and children.

(b) The highway connecting *Silchar in Assam to Porbandar in Gujarat,*

(c) The *cheapest* means of transport for *bulky goods.*

(iv) Give a reason for each of the following. **[3]**

(a) *Airways* are the most efficient mode of transport to connect *Northeast India* with the rest of the country

(b) *Railways* are easily developed in the *Northern Plains of India*.

(c) *Rivers of peninsular India* are **NOT** ideal for *inland water transport*.

Question 12

(a) Give a reason for a substantial rise of E-waste in India. **[2]**

(b) What is *dumping*?

(ii) *'You cannot protect environment unless you empower people, you inform them and help them to understand that these resources are their own, that they must protect them'.* **[2]**

– Wangari Maathai (recipient of Nobel Prize 2004 for Sustainable Development)

As a responsible student how would you contribute to reduce and manage the waste generated in your surroundings. Explain by giving suitable examples.

(iii) With reference to the **3Rs**, *give a term* that best describes each of the following: **[3]**

(a) An empty soft drink can is used as a pen stand.

(b) Old scrap papers are used to manufacture handmade paper.

(c) No food is wasted in the household.

(iv) Give a reason for the following statements: **[3]**

(a) Organic manure should replace chemical fertilisers.

(b) There should be a ban on the use of polythene and plastic products.

(c) Manual handling of waste must be avoided.

Answers

PART I

Answer 1.

(i) (a) 673295

(b) **1.** Pamera (6233) large settlement,

2. March as annual fair is organised in month of March. **2**

(ii) (a) Pamera is situated on the right bank of the Sukli Nadi.

(b) The settlement pattern seen in the grid square 6732 is dispersed. **2**

(iii) (a) The embankments made obstruct the flow of water and helps to store water for dry months.

(b) This reservoir is an artificial source of water. **2**

(iv) (a) The direct distance is approximately 3 km.

(b) The compass direction of Pithapura from Gulabganj is Northeast. **2**

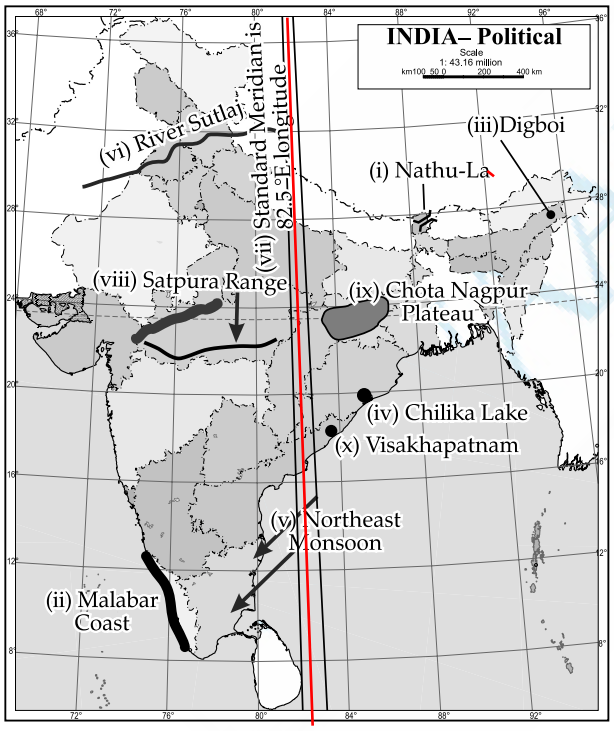
(v) (a) Metalled roads

Cart tracks Temples, permanent huts

(Any two)

(b) Contour interval is the vertical difference in elevation between adjacent contour lines on a topographic map. In this map, the contour interval is 20 metres. **2**

Answer 2. **1 mark each**



Answer 3.

(i) Option (a) is correct.

Explanation: Mumbai is located on the windward side of the Western Ghats. Thus, it is directly exposed to the Arabian Sea branch of the southwest monsoon. Whereas, Pune being located on the leeward side, receives less rainfall. **1**

(ii) Option (c) is correct.

Explanation: Both red soil and laterite soil are rich in iron oxide, giving them a reddish colour. They also have a coarse texture and are well-drained. **1**

(iii) Option (c) is correct.

Explanation: The tall, dense trees with multiple canopy layers indicate a tropical evergreen forest, which is found in regions with high annual rainfall of approximately 200 cm, along with high humidity levels, like the Western Ghats and Northeastern India. **1**

(iv) Option (c) is correct.

Explanation: Sprinkler irrigation ensures efficient water distribution, reducing evaporation and runoff, thus preventing wastage. It is commonly used in regions facing water scarcity. **1**

(v) Option (d) is correct.

Explanation: Balaghat in Madhya Pradesh is known for manganese production, whereas Mumbai High is an offshore oil field in the Arabian Sea and a major source of petroleum in India. **1**

(vi) Option (c) is correct.

Explanation: Retting is a biological process where microorganisms break down the pectin that binds fibres to the stalk, making fibre removal easier. It is used in the processing of jute, flax and hemp fibres. **1**

(vii) Option (b) is correct.

Explanation: The electronics industry has drastically changed the daily lifestyle of Indians by introducing mobile phones, the internet, computers and digital transactions, thereby influencing communication, business and education. **1**

(viii) Option (d) is correct.

Explanation: Plastic is made from polymers which are derived from petrochemicals, which come from crude oil and natural gas. **1**

(ix) Option (b) is correct.

Explanation: Road transport is the most efficient and flexible way for local milk distribution within a city, allowing door-to-door delivery. Railways, airways and waterways are not suitable for short-distance daily deliveries. **1**

(x) Option (a) is correct.

Explanation: Recycling is the process of reusing waste materials to create new products, thereby reducing environmental pollution. Processing is a general term for manufacturing. Reducing focuses on minimising waste. Composting involves converting organic waste into fertilizer. **1**

PART II

Answer 4.

(i) (a) Odisha and Andhra Pradesh are often affected by tropical cyclones on the eastern coast of India.

(b) Temperate cyclones cause less damage than the tropical cyclones due to:

- **Weaker winds:** Temperate cyclones have wind speeds of 30—60 km/h, whereas tropical cyclones can exceed 200 km/h, causing widespread destruction.
- **Less storm surge:** Tropical cyclones bring intense storm surges, leading to severe flooding, while temperate cyclones usually cause moderate rainfall and winds. **2**

(ii) (a) Nor'westers, also known as Kalbaisakhi, are violent thunderstorms that bring pre-monsoon rainfall to eastern India, especially in Assam and West Bengal, during April-May.

(b) Nor'westers are beneficial to Assam and West Bengal in the following ways:

- The rain benefits paddy, jute and tea plantations, which are vital crops in Assam and West Bengal.
- It provides temporary relief from the summer heat by cooling temperatures before the monsoon. **2**

(iii) (a)

- **Winds shown in Figure A:** Southwest Monsoon Winds
- **Winds shown in Figure B:** Northeast Monsoon Winds

(b)

- **Figure A (Southwest Monsoon):** Blows from the sea (Arabian Sea and Bay of Bengal) towards the land, bringing moisture and rainfall during the summer months (June—September).
- **Figure B (Northeast Monsoon):** Blows from the land towards the sea, typically during the winter months (October—December). It carries less moisture and brings rainfall primarily to the Coromandel Coast (Tamil Nadu). **3**

(iv) (a) Annual Range of Temperature = Maximum Temperature – Minimum Temperature

- Highest Temperature: 30.0 °C (May) – Lowest Temperature 24.0 °C (January) = 6.0 °C
- Hence, Annual Range = 6.0 °C

(b) July is the wettest month with the highest rainfall of 61.0 cm.

(c) Southwest Monsoon Winds -These winds originate from the Indian Ocean, carry moisture and bring heavy rainfall to India from June to September. **3**

Answer 5

(i) (a) Alluvial Soil - Found in northern India, particularly in the Indo-Gangetic plains.

(b) Properties of Alluvial Soil:

- Alluvial soil contains potash, phosphoric acid and lime, making it highly fertile for crops like rice, wheat and sugarcane.
- Alluvial soils retain water , making them suitable for irrigation and multiple cropping. **2**

(ii) (a) Soil Erosion:

- Soil erosion is the removal of the top fertile layer of soil by natural agents like wind and water, leading to land degradation.

(b) Agents of Soil Erosion:

- Water through runoff, heavy rainfall and floods.
- Strong winds they blow especially in arid and semi-arid regions.
- Human activities such as deforestation, construction activities and unreasonable farming practices. **(Any two points) 2**

(iii) (a) Soil conservation is the need of the hour because it is a non-renewable resource. Continuous deforestation, overgrazing and intensive farming lead to soil degradation, making soil conservation essential for maintaining agricultural productivity and preventing desertification.

(b) Red soil is porous and rich in iron, but it lacks humus and clay, making it unable to retain moisture for long.

(c) Laterite soils are infertile because the areas where it is found experiences heavy rainfall which further leads to leaching and loss of necessary nutrients like nitrogen and potassium. **3**

(iv) (a) Black soil is formed by the weathering of volcanic rocks, particularly basaltic lava found in the Deccan Plateau region.

(b) Black soil is clayey, allowing it to absorb and retain moisture for an extended period, making it ideal for cotton cultivation.

(c) Minerals present in black soil:

- Iron
- Magnesium carbonate **3**

Answer 6

(i) (a) Causes of decrease in the forest cover of India:

- Deforestation for agriculture and urbanisation.
- Uncontrolled forest fires that destroy vast areas of forests, reducing tree cover. **2**

(b) Conservation method that may be used in increasing the forest cover:

- Afforestation (planting new trees) or reforestation (replanting trees in deforested areas). **(Any two) 2**

(ii) Climatic conditions suitable for the development of tropical evergreen forests:

- High rainfall (over 200 cm annually) and high temperatures (25—27°C) throughout the year, support the growth of tropical evergreen forests. **2**

(iii) Difference between tropical deciduous forests and tropical desert vegetation: **3**

Feature	Tropical Deciduous Forests	Tropical Desert Vegetation
Annual Rainfall	100—200 cm	Less than 50 cm
Trees	Trees shed leaves in the dry season (e.g., Sal, Teak).	Cactus, thorny bushes adapted to dry conditions.
Location	Found in central and eastern India.	Found in Rajasthan, Gujarat.

(iv) Reasons for great diversity in of natural vegetation in India:

(a)
- **Varied Climate:** India experiences a wide range of climatic conditions, from tropical to temperate and alpine, supporting diverse vegetation types.
- **Diverse Landforms:** Mountains, plateaus, plains and coastal regions contribute to different types of ecosystems and plant life.

(b) Forests absorb carbon dioxide and release oxygen, reducing air pollution and improving air quality. Trees also trap dust and pollutants, helping to purify the air. **3**

Answer 7.

(i)
- **Advantage:** Wells can be dug easily with low initial investment, making them accessible to farmers.
- **Disadvantage:** Can lead to depletion of groundwater if overused, and requires initial investment for digging and pumps. **2**

(ii) Measures to overcome scarcity of water in metropolitan:
- **Rainwater Harvesting:** Implement systems to collect and store rainwater from buildings and open spaces.
- **Recycling wastewater:** Treat and reuse water for non-drinking purposes like irrigation and cleaning. **2**

(iii) (a) Northern India has flat terrain and perennial rivers, making canal irrigation less suitable. Tanks are more common in decentralised regions with uneven topography like Southern India.

(b) Punjab has a network of rivers and fertile plains, making it ideal for canal irrigation to distribute water efficiently for agriculture.

(c) The high cost of installation and maintenance prevents small farmers from using tube well irrigation. Additionally, some regions face ground-water depletion issues. **3**

(iv) Objectives of rainwater harvesting:
- **To conserve water:** Reducing dependence on surface water and groundwater.
- **To recharge groundwater levels:** Preventing depletion of underground water reserves.
- **To reduce waterlogging and urban floods:** Efficiently managing excess rainwater. **3**

Answer 8.

(i) (a) Tidal energy -primarily in the Gulf of Kutch and Gulf of Cambay (or Khambhat) in Gujarat, and the Sunderbans region of West Bengal.

(b) Advantage of geothermal energy:
- Geothermal energy is renewable and eco-friendly – It produces no greenhouse gases and provides a constant source of energy. **2**

(ii) (a) Biogas is formed through the anaerobic decomposition of organic matter (like cow dung, agricultural waste and sewage) by bacteria in the absence of oxygen.

(b) Advantage of biogas:
- Biogas production helps in waste management and converts organic waste into useful energy while reducing pollution.
- It provides a clean and renewable source of energy while managing waste and producing organic fertiliser. **(Any one point) 2**

(iii) (a) Iron ore is a versatile mineral as it is used to produce steel, which is essential for various industries, such as steel production, construction, manufacturing of machinery, and automobile industries.

(b) Windmills generate renewable energy and provide an additional income source to farmers by allowing electricity production on unused land.

(c) Coal is abundantly available in India and is relatively cheap compared to other energy sources, making it a readily accessible and affordable option for industrial use. **3**

(iv) (a) The image shows a hydroelectric power plant, which generates hydroelectric energy from flowing water.

(b) Hydroelectric energy is cheaper in the longrun because:
- it relies on water, which is a renewable resource.
- once a dam is built; operational costs are minimal compared to fossil fuel-based power plants.

(c) Bhakra Nangal Dam on the Sutlej River in Himachal Pradesh is a major hydroelectric project in northern India. **3**

Answer 9.

(i) Climatic conditions favourable for cultivation of groundnuts:
- **Warm Climate:** Groundnuts require warm temperatures (20—30°C) for favourable growth.
- **Annual Moderate Rainfall:** The ideal rainfall for the crop is 50–75 cm, as excessive rain can be harmful. **2**

(ii) Maharashtra has emerged as an important sugarcane producing state because of:
- **Fertile Black Soil:** Maharashtra has welldrained black soil, which is ideal for sugarcane cultivation.
- **Availability of Irrigation:** The state has developed irrigation facilities, particularly in the river valleys, ensuring a reliable water supply for sugarcane. **2**

(iii) (a) Coffee plants are shade-loving and require protection from direct sunlight and strong winds.

(b) Cotton cultivation involves labour-intensive tasks like sowing, weeding, picking and ginning, which require a large and cheap workforce.

(c) Tea plants require well-drained soil, and hill slopes prevent waterlogging, making them ideal for tea cultivation. **3**

(iv) (a) Mixed farming: It is an agricultural practice that involves growing crops and raising livestock on the same farm. It provides diversification, income stability and efficient use of resources.

(b) Zayad: It is the short cropping season that occurs in summer, between the Rabi and Kharif seasons. Examples include watermelon, cucumber and muskmelon, which are grown during the Zayad season.

(c) Transplantation is a method of crop cultivation where seedlings are first grown in nurseries and then transferred to the main field for better growth. Example: Rice cultivation. **3**

Answer 10

(i) Factors responsible for the growth of the cotton textile industry in Kolkata:

- **Availability of Raw Cotton:** Kolkata has access to raw cotton from surrounding regions and through imports from other states.
- **Cheap and skilled labour:** Availability of cheap workers from West Bengal and neighbouring states.
- **Port Facility:** The port facility helps in the smooth import of raw cotton and export of finished goods. **(Any two points) 2**

(ii) Karnataka is the leading state for silk production in India due to:

- **Favourable Climate:** Karnataka has a warm and humid climate suitable for silkworm rearing.
- **Availability of mulberry leaves:** The state has extensive mulberry plantations, the primary food for silkworms. **2**

(iii) (a) Bhilai Steel Plant

(b) 1. Iron ore: Supplied from Dalli-Rajhara mines in Chhattisgarh.

2. Coal: Obtained from Korba and Jharia coalfields. **3**

(iv) (a) Petrochemical Industry

(b) 1. Coal tar: Used in making shoe polish, candles and carbon paper.

2. Coal gas: Used as a fuel in industries and households. **3**

Answer 11

(i) A well-developed transport network is important for India as it:

- enhances trade, connectivity and economic development by ensuring efficient movement of goods, people and services across the country.
- it also promotes industrial growth and strengthens national integration. **2**

(ii) Advantages of road transport:

- **Door-to-Door Service:** Provides flexibility and direct access to various locations.
- **Connectivity to remote areas:** Road transport can reach hilly and rural areas where rail or air transport is not feasible. **2**

(iii) (a) Railways: Provides smooth, spacious seating and sleeper coaches.

(b) National Highway 27, also known as East-West Corridor (part of the National Highways Development Project) connects Silchar in Assam to Porbandar in Gujarat.

(c) Water transport: Inland waterways and coastal shipping are the cheapest means of transport for bulky goods. **3**

(iv) Give a reason for each of the following statements:

(a) Northeast India has challenging terrain with dense forests, hills and rivers, making road and rail development difficult and time-consuming. Airways provide the fastest and most reliable means of transport.

(b) The Northern Plains are flat and have fertile soil, making it easy and cost-effective to lay railway tracks. Additionally, the region has a high population density and agricultural productivity, ensuring continuous demand for rail transport.

(c) Peninsular rivers are seasonal, rain-fed and have rocky beds with waterfalls and rapids. This makes them unsuitable for navigation and inland water transport compared to the perennial rivers of the Northern Plains. **3**

Answer 12

(i) (a) Reasons for substantial rise of E-waste in India:

- Rapid technological advancement, increasing consumerism and shorter product lifecycles have led to a surge in the disposal of electronic devices, contributing to the rise of E-waste.
- Shorter product lifespans and lack of proper disposal mechanisms contribute to this problem. **(Any one point)**

(b) Dumping is the indiscriminate disposal of waste materials in open areas, landfills or water bodies without proper treatment or recycling, causing environmental pollution. **2**

(ii) As a responsible student, I can contribute to waste management by encouraging:

- **Reduce, Reuse, Recycle:** Practice and promote the 3Rs by using reusable bags, bottles and containers, repairing broken items and segregating waste for recycling.
- **Awareness Campaigns:** Organise workshops and campaigns in schools and communities to educate people about waste segregation, recycling and composting. For example, instead of throwing away old clothes, I can donate them to charities, and also encourage my school to implement waste segregation bins.
- **Composting:** Set up composting units in schools and homes to convert organic waste into valuable fertiliser.
- **Clean-up Drives:** Participate in and organise clean-up drives in neighborhoods, parks and beaches to remove litter and raise awareness about cleanliness. **(Any two points) 2**

(iii) (a) Reuse

(b) Recycle

(c) Reduce **3**

(iv) (a) Oragnic manure should replace chemical fertilisers as: Organic manure is eco-friendly, improves soil fertility and does not cause soil degradation or water pollution, unlike chemical fertilisers that lead to soil exhaustion and groundwater contamination.

(b) Polythene and synthetic products are not accomplishing their environment-friendly goal and are detrimental to the environment. The soil and water also become damaged from the synthetic polymers that do not disintegrate. These, in turn, not only cause wildlife deaths worldwide but also choke drainage systems, leading to urban flooding.

(c) Manual handling of waste must be avoided as it can be dangerous for workers. If they are not careful, they may come into contact with harmful substances, toxic chemicals, or germs, which can cause severe health problems.This is where the use of a proper mechanised waste disposal ensures the hygienic operation and safety of workers. **3**

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