

CBSE Board EXAMINATION – 2024
GEOGRAPHY (THEORY)
Solved Paper
Class–12th

Maximum Marks: 70

Time allowed: Three hours

General Instructions :

- (i) This question paper contains 30 questions, All questions are compulsory.
- (ii) This question paper is divided into five Sections. Section A, B, C, D and E.
- (iii) **Section A:** Question Nos. 1 to 17 are Multiple Choice type questions.
- (iv) **Section B:** Question Nos. 18 and 19 are Source based questions.
- (v) **Section C:** Question Nos. 20 to 23 are Short Answer (SA) type questions. Answer to these questions shall be written in 80 to 100 words.
- (vi) **Section D:** Question Nos. 24 to 28 are Long Answer (LA) type questions. Answer to these questions shall be written in 120 to 150 words.
- (vii) **Section E:** Question Nos. 29 & 30 are Map based questions.

Delhi Set-1

64/5/1

SECTION–A

Q. Nos. 1 to 17 are Multiple Choice Questions.

1. 'Neeru–Meeru' watershed management programme is associated with which of the following states? 1
(A) Rajasthan (B) Tamil Nadu
(C) Andhra Pradesh (D) Karnataka
2. Which of the following is a means of mass awareness regarding 'water conservation'? 1
(A) Writing letters to the people.
(B) Telephonic conversation
(C) Through T.V. and Print Media
(D) Personal contact with people
3. Which one of the following is the main objective of 'Jal Kranti Abhiyan'? 1
(A) Per capita water availability assurance
(B) Rain–water harvesting
(C) Conservation of water resources
(D) Providing sufficient water for agriculture
4. Two statements are given below. They are **Assertion (A)** and **Reason (R)**. 1
Read them carefully and choose the correct option.
Assertion (A): "Free international trade can prove to be detrimental to the under–developed countries."
Reason (R): Under–developed countries are not at par to compete with developed countries.
Options:
(A) (A) is correct, but (R) is incorrect.
(B) (A) is incorrect, but (R) is correct.
(C) Both (A) and (R) are correct and (R) is correct explanation of (A).
(D) Both (A) and (R) are correct, but (R) is not correct explanation of (A).
5. Which of the following fact, about jute cultivation in India, is true? 1
(A) West Bengal is the leading producer of jute.
(B) Jute is cash crop for Punjab and Haryana.
(C) Madhya Pradesh and Maharashtra are other leading jute producing states.
(D) India produces about 30% of the jute production of the world.
6. Read the following information carefully and identify the correct option for the crop: 1
 - Grown in Kharif season.
 - Mainly grown in semi–arid area in India.
 - Gujarat and Maharashtra are the leading producer states.**Option:**
(A) Cotton (B) Tea
(C) Jute (D) Sugarcane
7. Which one of the following states in India is the leading producer of manganese? 1
(A) Jharkhand (B) Madhya Pradesh
(C) Odisha (D) Bihar
8. Which one of the following is the largest coalfields in India? 1
(A) Jharia (B) Raniganj
(C) Neyveli (D) Bokaro

9. Which of the following waterways and their stretches are correctly matched? **1**

(National Waterways) (Stretch)

- (A) National Waterways No. 1 – Godavari – Krishna
 (B) National Waterways No. 2 – Sadiya – Dhubri
 (C) National Waterways No. 3 – Allahabad – Haldia
 (D) National Waterways No. 4 – Kottapuram– Kollam
10. Match the Column-I with Column-II and choose the correct option: **1**

Column-I (Railway Zone)		Column-II (Headquarters)	
(a)	Northern	(i)	Hajipur
(b)	South Central	(ii)	Chennai
(c)	Southern	(iii)	New Delhi
(d)	East Central	(iv)	Secunderabad

Options:

- | | | | | |
|-----|-------|-------|-------|------|
| | (a) | (b) | (c) | (d) |
| (A) | (iv) | (iii) | (ii) | (i) |
| (B) | (iii) | (iv) | (ii) | (i) |
| (C) | (i) | (ii) | (iii) | (iv) |
| (D) | (ii) | (iii) | (iv) | (i) |

11. Which of the following metro-cities is not linked with the 'Golden Quadrilateral'? **1**

(A) Mumbai (B) Chennai
 (C) Hyderabad (D) Delhi

12. Two statements are given below. They are **Assertion (A)** and **Reason (R)**. Read them carefully and choose the correct option. **1**

Assertion(A): "The gateways of the International trade are the ports and harbours."

Reason(R): Only heavy cargos are transported through ports and harbours in the world.

Options:

- (A) (A) is correct, but (R) is incorrect.
 (B) (A) is incorrect, but (R) is correct.
 (C) Both (A) and (R) are correct and (R) is correct explanation of (A).
 (D) Both (A) and (R) are correct, but (R) is not correct explanation of (A).

13. Which one of the following is an example of oil port? **1**

(A) Abadan (B) Manchester
 (C) Kochchi (D) Dover

14. Two statements are given below. They are **Assertion (A)** and **Reason (R)**. Read them carefully and choose the correct option. **1**

Assertion(A): "Waterway is an important mode of transport both for passengers and cargo traffic in India."

Reason(R): "It is fuel efficient and eco-friendly mode of transport."

Options:

- (A) Both (A) and (R) are correct and (R) is correct explanation of (A).
 (B) Both (A) and (R) are correct, but (R) is not correct explanation of (A).
 (C) (A) is correct, but (R) is incorrect.
 (D) (A) is incorrect, but (R) is correct.

Read the given passage and answer the Question Nos. 15 to 17:

Characteristics of High Level Human Development

High level of human development group has 53 countries. Providing education and healthcare is an important government priority. Countries with higher human development are those where a lot of investment in the social sector has taken place. Altogether, a higher investment for people and good governance has set this group of countries apart from the others.

Many of these countries has been the former imperial powers. The degree of social diversity in these countries is not very high. Many of the countries with a high human development score are located in Europe and represent the industrialised western world. Yet there are striking numbers of non-European countries also who have made it to this list.

15. Which one of the following is an important priority of 'high human development index' countries? Choose the most appropriate option. **1**

(A) Education and healthcare
 (B) Healthcare and territorial security
 (C) Education and industrial development
 (D) Economic development and per capita income

16. Which one of the followings differentiates the higher human development countries from others? Choose the most appropriate option. **1**

(A) Higher gross domestic production
 (B) Higher investment in social sector
 (C) Higher industrialisation
 (D) Higher per capita income

17. How many countries are under 'higher human development index' category? Choose the correct option. **1**

(A) 51 (B) 52
 (C) 53 (D) 54

SECTION-B

Q. Nos. 18 and 19 are Source Based Questions.

18. Read the given passage carefully and answer the questions that follow:

**Integrated Tribal Development Project
in Bharmaur Region**

This region lies between 32° 11' N and 32° 41' N latitudes and 76° 22' E and 76° 53' E longitudes. Spread over an area of about 1,818 sq km, the region mostly lies between 1,500 m to 3,700 m above the mean sea level. This region popularly known as the homeland of *Gaddis* is surrounded by lofty mountains on all sides. It has *Pir Panjal* in the north and *Dhaura Dhar* in the South. In the east, the extension of *Dhaura*

19. Study the given map carefully and answer the questions that follow:

Inland Waterway



- (19.1) Identify the given inland waterway and write its name.
(19.2) Mention its two tributaries joining from East.
(19.3) Write the names of terminal ports of the given waterways.

SECTION-C

(Q. Nos. 20 to 23 are Short Answer Type Questions.)

20. (a) "Nature and human are inseparable elements in all geographical studies." Examine the statement. 3

OR

Dhar converges with *Pir Panjal* near Rohtang Pass. The river Ravi and its tributaries—the *Budhil* and the *Tundahen*, drain this territory and carve out deep gorges. These rivers divide the region into four physiographic divisions called *Holi*, *Khani*, *Kugti* and *Tundah* areas. Bharmaur experiences freezing weather conditions and snowfall in winter. Its mean monthly temperature in January remains 4° C and in July 26° C.

- (18.1) Describe the location of Bharmaur region. 1
(18.2) Why does this region experience harsh climatic conditions? Give one reason. 1
(18.3) Why is this region economically backward? Explain any one reason. 1
- 3**

- (b) Examine the main aspects of environmental determinism.

21. Explain the main features of periodic markets in rural areas of the world. 3
22. (a) Explain the main objectives of 'Smart Cities Mission' in India. 3

OR

- (b) Explain the main features of the dispersed settlements in India.
23. "The composition of commodities in India's international trade has been undergoing a change over the years." Examine the statement with examples. 3

SECTION-D

(Q. Nos. 24 to 28 are Long Answer Type Questions.)

24. Analyse any five factors affecting world distribution of population. 5
25. (a) Examine the main characteristics of Co-operative Farming in the world. 5

OR

- (b) Examine the main characteristics of Dairy Farming in the world.
26. Differentiate between the small and large scale manufacturing industries in the world. 5
27. (a) "The distribution of urban population over India has wide variations." Examine the statement. 5

OR

- (b) "If development is not engendered, it is endangered." Examine the statement in the context of inclusive development.
28. (a) Describe any two sources of air pollution in India and suggest any three measures to overcome the air pollution. 5

OR

- (b) Describe any two sources of water pollution in India. Suggest any three measures to overcome the water pollution.

SECTION-E

Q. Nos. 29 and 30 are Map Based Questions.

29. On the given political outline map of the world, seven geographical features have been shown as A, B, C, D, E, F and G. Identify any **five** with the help of following information and write their correct names on the lines drawn near them:

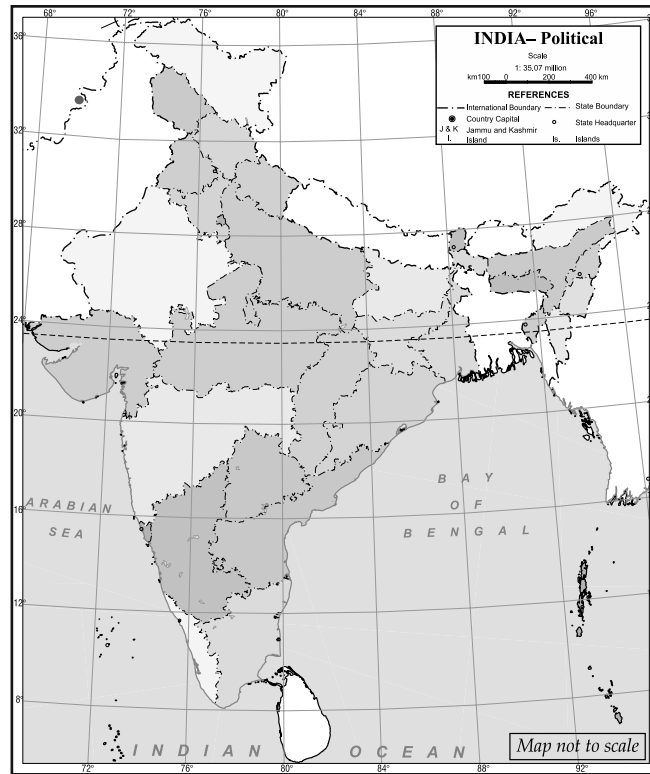
- A. A major sea-port
- B. An international airport
- C. An important shipping canal
- D. An area of subsistence gathering
- E. An area of nomadic herding
- F. A terminal station of trans-continental railway
- G. An area of extensive commercial grain farming



30. Locate and label any **five** of the following geographical features with appropriate symbols on the given political outline map of India:

- 30.1 A state leading in the production of coffee.
- 30.2 An oil refinery in Uttar Pradesh.

- 30.3 An important coal mining area in West Bengal.
- 30.4 A major seaport along the coast of Goa.
- 30.5 A state with highest population density.
- 30.6 An international airport in Gujarat.
- 30.7 An iron-ore mining area in Chhattisgarh.



Delhi Set-2

64/5/2

Except the following all other Questions are from Set-1

SECTION-A

5. Read the following statements carefully regarding rainwater harvesting and choose the correct option.
- Rainwater harvesting helps to capture and store rainwater.
 - Groundwater table is declining due to overuse.
 - Rainwater harvesting increases water availability for use.
 - Check dams help in recharging groundwater. 1
- Options:**
- Only i, ii and iii are correct.
 - Only ii, iii and iv are correct.
 - Only i, iii and iv are correct.
 - Only i, ii and iv are correct.
6. The largest concentration of sugarcane cultivation is found in which of the following states? 1

- Madhya Pradesh
 - Jharkhand
 - Maharashtra
 - Bihar
8. Which one of the following oil refineries is located in Bihar? 1
- Bina
 - Haldia
 - Naharkatiya
 - Barauni
13. A seaport handling bulk and general cargo in large volumes belongs to which of the following categories of seaports? 1
- Industrial port
 - Comprehensive port
 - Oil port
 - Naval port

SECTION-C

21. Explain the main features of retail trading in the world. 3
23. Examine the changing pattern and composition of India's imports. 3

Delhi Set-3

64/5/3

Except the following all other Questions are from Set-1 and 2

SECTION-A

5. The Central Government sponsored 'Haryali' Watershed Development Project was executed by which one of the followings? 1
- District Magistrates with the help of other officers.

- Block Development officers with reputed people's participation.
 - Circle Officers with guidance of school principals.
 - Gram Panchayats with people's participation.
10. 'Atal Tunnel' was built by which one of the following? 1

- (A) National Highway Authority of India
 (B) Border Road Organisation
 (C) Himachal Pradesh Highway Authority
 (D) Punjab Highway Authority
13. A seaport that specialises in bulk cargo like ore, oil, chemicals etc. belongs to which of the following types of seaport? **1**
- (A) Packet station (B) Inland port
 (C) Port of call (D) Industrial port

Outside Delhi Set-1

64/4/1

SECTION-A

Q. Nos. 1 to 17 are Multiple Choice Questions.

(17 × 1 = 17)

1. Read the following characteristics of wholesale trading carefully and choose the correct option: **1**
- It is constituted by numerous intermediaries, merchants and supply houses.
 - Wholesalers often extend credit to retail stores.
 - Generally retailers operate very largely on the wholesaler's capital.
 - Mail order, automatic vending machines, street vendors are some of its examples.
- Option:**
- (A) Only i, ii and iii are correct.
 (B) Only ii, iii and iv are correct.
 (C) Only i, iii and iv are correct.
 (D) Only i, ii and iv are correct.
2. Which one of the following is the headquarter of the 'World Trade Organization'? **1**
- (A) New York (C) Geneva
 (B) Delhi (D) London
3. Two statements are given below. They are **Assertion (A)** and **Reason (R)**. Read both the statements carefully and choose the correct option. **1**
- Assertion (A):** Industries based on ores are located close to the sources of raw material.
Reason (R): Industries maximise profits by reducing transportation costs.
- Options:**
- (A) (A) is correct and (R) is false.
 (B) (A) is false and (R) is correct.
 (C) Both (A) and (R) are correct and (R) is correct explanation of (A).
 (D) Both (A) and (R) are correct, but (R) is not correct explanation of (A).
4. Which one of the followings is the false reason of high growth rate of urban population in India? **1**
- (A) Higher economic development in cities
 (B) Improvement in health condition in cities
 (C) Rapid expansion of urban areas
 (D) Availability of employment opportunities in cities

SECTION-C

21. Explain the main features of wholesale trading in the world. **3**
23. Why are Indian ports considered as gateways of international trade? Examine. **3**

SECTION-D

24. Define Migration. Differentiate between push and pull factors of migration. **5**

5. Which one of the following states has the highest percentage of urban population? **1**
- (A) Maharashtra (B) Goa
 (C) Kerala (D) Gujarat
6. The characteristics of an agricultural crop in India are given below. Read them carefully and identify the crop. **1**
- It is a crop of tropical humid area.
 - West Bengal farmers grow it three crops in a year.
 - It is grown as a Kharif crop in North-Western parts.
 - West Bengal, Uttar Pradesh and Punjab are major producing states.

Crop:

- (A) Wheat (B) Gram
 (C) Bajra (D) Rice
7. Two statements are given below. They are **Assertion (A)** and **Reason (R)**. Read both the statements carefully and choose the correct option. **1**
- Assertion (A):** The economic development of a region depends upon its resource base.
Reason (R): Economic development requires technologies as well as investment.
- Options:**
- (A) (A) is correct, but (R) is false.
 (B) (A) is false, but (R) is correct.
 (C) Both (A) and (R) are correct and (R) is the correct explanation of (A).
 (D) Both (A) and (R) are correct, but (R) is not correct explanation of (A).
8. Match the Column-I with Column-II and choose the correct option: **1**

	Column-I (National Waterway)	Column-II (River)	
(a)	National Waterway No. 1	(i)	Matai
(b)	National Waterway No. 2	(ii)	Godavari
(c)	National Waterway No. 4	(iii)	Ganga
(d)	National Waterway No. 5	(iv)	Brahmaputra

Options:

	(a)	(b)	(c)	(d)
(A)	(iv)	(iii)	(ii)	(i)
(B)	(iv)	(iii)	(i)	(ii)
(C)	(iii)	(iv)	(i)	(ii)
(D)	(iii)	(iv)	(ii)	(i)

9. Which of the following is an example of a 'Modern City'? **1**

- (A) Surat (B) Nagpur
(C) Madurai (D) Hyderabad

10. Choose the correct option related to Garrison towns in India: **1**

- (A) Raniganj, Digboi and Jharia
(B) Mhow, Babina and Udhampur
(C) Itarsi, Katni and Kandla
(D) Modinagar, Jamshedpur and Bhilai

11. Read the following characteristics of settlements carefully and identify its type: **1**

- It is seen in the form of isolated huts in the forest.
- It is visible on the slopes of small hills.
- This kind of settlements are found in different parts of Meghalaya, Uttarakhand and Himachal Pradesh.

Settlement types:

- (A) Nucleated (B) Fragmented
(C) Hamleted (D) Dispersed

12. Choose the correct option to fill the blanks: **1**

Indian Railway was introduced in 1853 and a railway line was constructed from _____ to _____ covering a distance of 34 km.

- (A) Mumbai (Bombay), Thane
(B) Kolkata (Calcutta), Hugli
(C) Chennai (Madras), Madurai
(D) Bengaluru (Bangalore), Calicut

13. Which one of the following human body system gets affected the most by water pollution? **1**

- (A) Nervous system (B) Circulatory system
(C) Respiratory system (D) Digestive system

14. Which of the following tribes is in majority in Jhabua district of Madhya Pradesh? **1**

- (A) Bhil (B) Tharu
(C) Bakarwal (D) Gaddi

Read the given passage and answer the Q. Nos. 15 to 17:

Demographic Transition Theory

The first stage has high fertility and high mortality because people reproduce more to compensate for the deaths due to epidemics and variable food supply. The population growth is slow and most of the people are engaged in agriculture where large

families are an asset. Life expectancy is low, people are mostly illiterate and have low levels of technology. Two hundred years ago all the countries of the world were in this stage.

Fertility remains high in the beginning of second stage but it declines with time. This is accompanied by reduced mortality rate. Improvements in sanitation and health conditions lead to decline in mortality. Because of this gap the net addition to population is high.

In the last stage, both fertility and mortality decline considerably. The population is either stable or grows slowly. The population becomes urbanised, literate and has high technical know-how and deliberately controls the family size.

This shows that human beings are extremely flexible and are able to adjust their fertility.

15. In which of the following stage/stages, the natural growth of population was/were almost stagnant? **1**

- (A) Only I (B) Only II
(C) Only I and Last (D) Only II and Last

16. In which of the following stage/stages, the death rate declined the most? **1**

- (A) Only I (B) Only II
(C) Only I and II (D) Only I and Last

17. Which one among the following countries is an example of second stage? **1**

- (A) Kenya (B) Bangladesh
(C) Japan (D) Canada

SECTION-B

Q. Nos. 18 and 19 are Source Based Questions.

(2 × 3 = 6)

Read the given passage carefully and answer the questions that follow:

Tertiary Sector

When you fall ill you go to your family doctor or you call a doctor. Sometimes your parents take you to a hospital for treatment. While in school, you are taught by your teachers. In the event of any dispute, legal opinion is obtained from a lawyer. Likewise, there are many professionals who provide their services against payment of their fee. Thus, all types of services are special skills provided in exchange of payments. Health, education, law, governance and recreation etc. require professional skills. These services require other theoretical knowledge and practical training. Tertiary activities are related to the service sector. Manpower is an important component of the service sector as most of the tertiary activities are performed by skilled labour, professionally trained experts and consultants.

In the initial stages of economic development, larger proportion of people worked in the primary sector. In a developed economy, the majority of workers

get employment in tertiary activity and a moderate proportion is employed in the secondary sector.

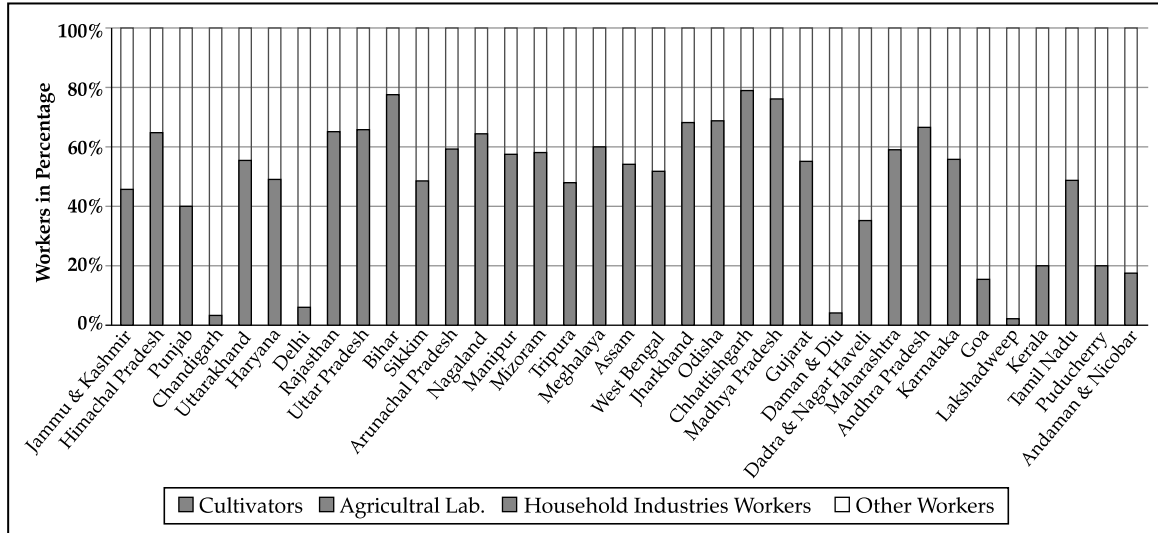
(18.1) Why 'manpower' is an important factor of service sector? Explain. 1

(18.2) Explain the difference between the activities of secondary and tertiary sectors. 1

(18.3) "Tertiary activities include both production and exchange." Support the statement. 1

19. Study the given diagram carefully and answer the questions that follow:

India – Occupational Structure, 2011



(19.1) Write the names of two states with highest percentage of cultivators. $\frac{1}{2} + \frac{1}{2} = 1$

(19.2) Write the names of two Union Territories having the highest percentage of other workers. $\frac{1}{2} + \frac{1}{2} = 1$

(19.3) What is the approximate percentage of cultivators in Tripura? 1

four pillars of 'human development. $1 + 4 = 5$

OR

(b) Which country has the highest rank in the world in 'Human Development Index' in 2020? Explain four approaches of human development. $1 + 4 = 5$

SECTION-C

Q. Nos. 20 to 23 are Short Answer Type Questions.

20. (a) How do differences in national resources become the basis of international trade? Explain with examples. 3

OR

(b) Explain the differences between the inland and out-ports with examples. 3

21. (a) Analyse any three objectives of 'Jal Kranti Abhiyan' in India. 3

OR

(b) Analyse any three key features of 'Indian National Water Policy'. 3

22. Explain the concept of 'Humanisation of Nature' by giving examples. 3

23. Suggest any three measures to solve the problem of 'Urban Waste Disposal' in India and explain them. 3

SECTION-D

Q. Nos. 24 to 28 are Long Answer Type Questions.

(5 × 5 = 25)

24. (a) Which organisation published the 'Human Development Report' every year? Explain the

25. Describe any five features of commercial livestock rearing in the world. 5

26. Explain with examples the importance of 'Satellite Communication' in the world. 5

27. (a) Explain any five measures for the conservation of mineral resources in India. 5

OR

(b) Explain the importance of solar energy in Indian context. 5

28. (a) "Pipelines are the most convenient and efficient mode of transportation in India." Examine the statement with examples. 5

OR

(b) "India has the second largest road networks in the world." Examine the statement with examples. 5

SECTION-E

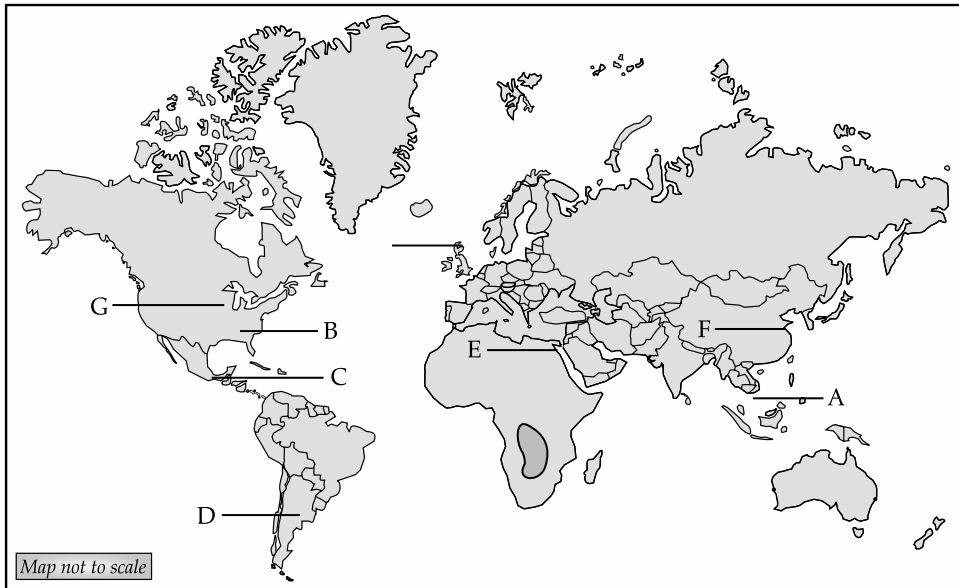
Q.Nos. 29 and 30 are Map Based Questions.

(2 × 5 = 10)

29. On the given political outline Map of the World, seven geographical features have been marked as A, B, C, D, E, F and G. Identify any FIVE correctly with the help of following information and write their correct names on the lines marked near them:

5 × 1 = 5

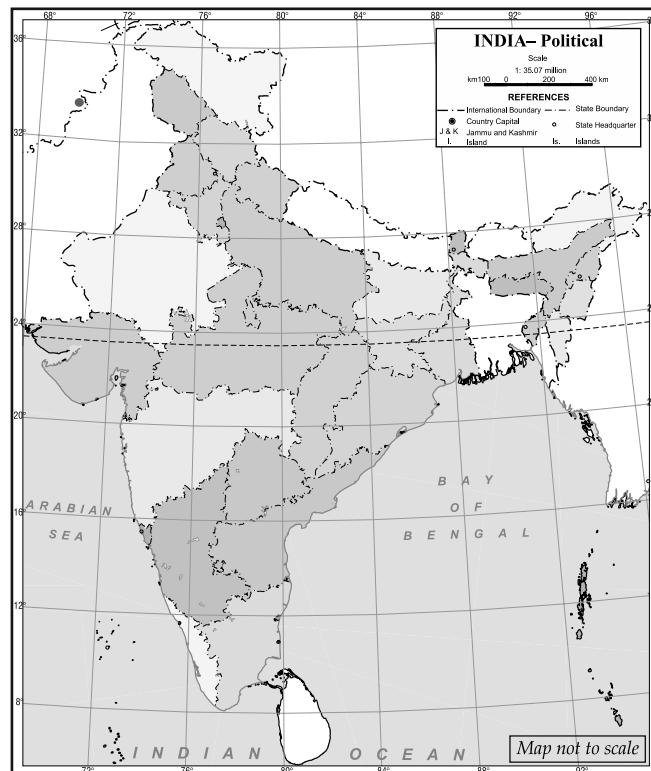
- A. An area of extensive commercial grain farming
- B. An area of commercial livestock rearing
- C. Eastern most station of "Trans-Canadian Railways"
- D. A major seaport of Asia
- E. A major international airport of Europe
- F. A shipping canal
- G. An area of 'Nomadic Herding'



30. Locate and label any five of the following geographical features on the given political outline Map of India with appropriate symbols: 5 × 1 = 5

- 30.1 A state with highest population density
- 30.2 State leading in the production of coffee

- 30.3 Hazaribagh: Copper mines
- 30.4 Neyveli: Coal mines
- 30.5 Ratnagiri: Iron ore mines
- 30.6 Haldia: Major seaport
- 30.7 Ahmedabad: Major international airport



Outside Delhi Set-2

64/4/2

Except the following all other Questions are from Set-1

SECTION-A

2. Which one of the following is the easternmost station of "Trans-Australian Railway"? **1**
 (A) Melbourne (B) Sydney
 (C) Parkes (D) Perth
5. Which one of the following states has the highest percentage of rural population? **1**
 (A) Assam (B) Bihar
 (C) Himachal Pradesh (D) Odisha

SECTION-C

Q. Nos. 20 to 23 are Short Answer Type Questions.

21. (a) Analyse any three objectives of watershed management' in India. **3**

OR

- (b) Analyse any three methods of 'rainwater harvesting' in India. **3**
22. Explain with examples the concept of 'Naturalisation of Human'. **3**
23. Explain the meaning of noise pollution. Why is noise pollution location specific? Explain. **1+2=3**

SECTION-D

25. Describe any five features of 'plantation agriculture' in the world. **5**
26. Explain the characteristics of 'Trans-Siberian Railways'. **5**

Outside Delhi Set-3

64/4/3

Except the following all other Questions are from Set-1 and 2

SECTION-A

1. Which one of the following sectors is seen as an advanced form of services involving specialised technical skill and administrative knowledge? **1**
 (A) Primary (B) Secondary
 (C) Tertiary (D) Quaternary
2. Choose the correct option related to the expansion of the 'Orient Express'. **1**
 (A) Sydney to Melbourne
 (B) Paris to Istanbul
 (C) Winnipeg to Cudbury
 (D) Moscow to Kazan

SECTION-C

Q. Nos. 20 to 23 are Short Answer Type Questions.

21. (a) "Provision of irrigation makes multiple cropping

possible." Support the statement with suitable arguments in Indian context. **3****OR**

- (b) "Water resources are degrading rapidly in India." Support the statement with suitable arguments. **3**
22. "Human beings can conquer nature by obeying it." Analyse the statement in context of relation between human and nature. **3**
23. Suggest any three measures to solve the problem of land degradation in India and explain them. **3**

SECTION-D

25. Describe any five features of 'mixed farming' in the world. **5**
26. Explain the importance of air transport in the world. **5**



ANSWERS

Delhi Set-1

64/5/1

SECTION-A

1. **Option (C) is correct.**
Explanation: The 'Neeru-Meeru' program is associated with Andhra Pradesh. It focuses on water conservation and management, aiming to improve groundwater levels and water resources in the state.
2. **Option (C) is correct.**
Explanation: Mass awareness regarding 'water conservation' can be effectively spread through T.V. and Print Media. These platforms have a wide reach and can communicate the importance of saving water to a large audience.
3. **Option (C) is correct.**
Explanation: The main objective of 'Jal Kranti Abhiyan' is conservation of water resources. This campaign aims to consolidate water conservation and management in the country to ensure proper utilisation of water.
4. **Option (D) is correct.**
Explanation: Both (A) and (R) are correct, but (R) is not the correct explanation of (A). Free international trade can be harmful to under-developed countries because they might not be able to compete with developed countries, but the reason provided does not explain why it is detrimental.
5. **Option (A) is correct.**
Explanation: West Bengal is the leading producer of jute in India. This state has the ideal climate and soil conditions for jute cultivation, making it the top producer.
6. **Option (A) is correct.**
Explanation: Cotton is the crop that matches the given description. It is grown in the Kharif season, primarily in semi-arid areas, with Gujarat and Maharashtra being the leading producers.
7. **Option (C) is correct.**
Explanation: Odisha is the leading producer of manganese in India. The state has large deposits of manganese ore, which is crucial for steel production.
8. **Option (A) is correct.**
Explanation: Jharia is the largest coalfield in India, known for its prime coking coal. The coal field lies in the Damodar River Valley, and produces bituminous coal suitable for coke. Most of India's coal comes from Jharia.
9. **Option (D) is correct.**
Explanation: National Waterway No. 4 (Kottapuram - Kollam) is correctly matched. This waterway is part of India's efforts to enhance inland water transport.
10. **Option (B) is correct.**
Explanation: The correct matching is: Northern Railway - New Delhi, South Central Railway - Secunderabad, Southern Railway - Chennai, East Central Railway - Hajipur.

11. **Option (C) is correct.**

Explanation: Hyderabad is not linked with the 'Golden Quadrilateral'. The Golden Quadrilateral connects four major metro cities of India - Delhi, Mumbai, Chennai and Kolkata.

12. **Option (D) is correct.**

Explanation: Both (A) and (R) are correct, but (R) is not the correct explanation of (A). Ports and harbours are indeed gateways of international trade, but they are not used only for heavy cargos.

13. **Option (A) is correct.**

Explanation: Abadan is an example of an oil port, known for its significant role in the oil industry.

14. **Option (A) is correct.**

Explanation: Both (A) and (R) are correct and (R) is the correct explanation of (A). Waterways are important for transport in India because they are fuel-efficient and eco-friendly.

15. **Option (A) is correct.**

16. **Option (B) is correct.**

17. **Option (C) is correct.**

SECTION-B

18. (1) The Bharmaur region is situated in the mountainous terrain between latitudes $32^{\circ} 11' N$ to $32^{\circ} 41' N$ and longitudes $76^{\circ} 22' E$ to $76^{\circ} 53' E$, at elevations ranging from 1,500 m to 3,700 m above sea level. It's known for being the homeland of the *Gaddis* and is encircled by the *Pir Panjal* and *Dhauladhar* mountain ranges.
 - (2) The region experiences harsh climatic conditions mainly due to its high elevation, which leads to lower temperatures and snowfall, especially during winter, with January temperatures averaging around $4^{\circ}C$.
 - (3) Economic backwardness in the Bharmaur region can be attributed to its difficult geographical features, such as mountainous terrain, deep gorges cut out by the river Ravi and its tributaries and harsh climate, which hinder infrastructure development and limit economic activities.
19. (1) Rhine River
 - (2) Main river and Neckar river
 - (3) Netherlands, Germany and Switzerland

SECTION-C

20. (a) "Nature and humans are inseparable elements in all geographical studies." This statement highlights the association between human activities and the natural environment.

Geographical studies examine how human societies influence and are influenced by natural elements such as climate, terrain and water resources. This interdependence is crucial for understanding environmental challenges and sustainable development.

OR

- (b) Environmental determinism suggests that human activities and cultural practices are shaped by their environment. Key aspects include the influence of climate on agricultural practices, the impact of terrain on settlement patterns and the availability of natural resources affecting economic development. This theory underscores the adaptability of human societies to their natural surroundings.
21. Periodic markets in rural areas serve as essential nodes of economic and social interaction. They typically operate on specific days, offering a wide range of goods from basic necessities to livestock and agricultural products. These markets facilitate trade and commerce for rural communities, acting as vital links between rural producers and urban markets. They also serve as social gathering spots, reinforcing community ties.
22. (a) The main objectives of the 'Smart Cities Mission' in India are to promote cities that provide core infrastructure, give a decent quality of life to their citizens and apply smart solutions to improve services and infrastructure. The mission aims to drive economic growth and improve the quality of life by enabling local development and harnessing technology to create smart outcomes for citizens.

OR

- (b) The main features of dispersed settlements in India typically include scattered houses, often spread over a large area with no close neighbours. These are common in rural areas where families live on their own piece of land, usually engaged in agriculture or other primary activities. Such settlements reflect the adaptation to geographical conditions and available resources, offering more space and privacy but requiring more travel for social, educational and economic activities.
23. Over the years, the composition of India's international trade has shifted from traditional agricultural products to more diversified sectors including technology, pharmaceuticals and engineering goods. For instance, the IT sector has become a significant export, alongside a rise in pharmaceutical exports and

engineering goods like automobiles and machinery. This change reflects India's evolving economic landscape, moving towards higher-value and technology-driven exports.

SECTION-D

24. Factors affecting world population distribution include:

- **Geographical conditions:** Areas with favourable climates, fertile soil and adequate water supply tend to have higher population densities.
- **Economic opportunities:** Regions with robust economies, job opportunities and infrastructure attract more people.
- **Political stability:** Areas with stable governance and peace are more likely to have dense populations.
- **Access to resources:** Regions rich in natural resources tend to attract and sustain larger populations.
- **Cultural and historical factors:** Historical settlements and cultural significance can influence population distribution.
- **Technological advancements:** Regions with advanced technology and infrastructure can support higher population densities.

25. (a) Co-operative Farming:

- **Shared Resources:** Farmers combine their land, machinery and other resources, leading to more efficient farming practices and reduced costs.
- **Collective Decision-Making:** Decisions regarding crop selection, farming practices and sales are made collectively, ensuring all members' inputs are considered.
- **Economies of Scale:** By operating together, farmers can achieve economies of scale, accessing larger markets and better prices for their produce.
- **Risk Sharing:** The co-operative model spreads the financial risks of farming across all members, making individual farmers less vulnerable to market fluctuations and crop failures.
- **Community Empowerment:** These cooperatives often lead to stronger community ties and provide a support network for farmers, including access to credit and agricultural advice.

OR

(b) Dairy Farming in the World:

- Dairy farming involves the breeding and management of cows or other animals for milk production, which is a critical agricultural activity worldwide. Its main characteristics are:
- **Breeding and Management:** Focus on selective breeding of animals for high milk yield and efficient feed conversion, alongside proper health management.
- **Technology Integration:** Use of modern technologies for milking, storage and processing

to improve efficiency and product quality.

- **Environmental Concerns:** Addressing challenges related to waste management and methane emissions to reduce environmental impact.
- **Market Orientation:** Production is often oriented towards both local and international markets, with value-added products like cheese and yogurt.
- **Regulatory Compliance:** Adherence to strict health and safety standards to ensure the quality of dairy products and animal welfare.

26. Small vs. Large Scale Manufacturing:

	Small Scale Industries	Large Scale Industries
1.	Small scale industry is the cottage industry in which machines in the production process have been introduced.	Large scale industries use power-driven machines in the production.
2.	It requires a small number of labourers.	Thousands of labourers are employed.
3.	It requires small amount of capital.	Large amount of capital is invested here.
4.	Light power is required to drive the machines.	Large power is supplied to run its heavy machines.
5.	Local material is used.	It uses raw materials brought from distant areas.
6.	Eg - Clothes, paper goods, toys, earthen wires, furniture and electric goods.	Eg - Modern iron and steel industries, aviation and petrochemical industries.

27. (i) **Historical and Cultural Factors:** Urbanization in India has been influenced by historical and cultural factors. Some cities have a long history of urban development dating back centuries or even millennia, while others have experienced rapid growth in recent decades due to industrialization, economic development, and migration.
- (ii) **Regional Disparities:** Urban population distribution in India exhibits significant regional disparities. States and regions with higher levels of economic development, industrialization, and infrastructure tend to have larger urban populations. For example, the states of Maharashtra, Tamil Nadu, Karnataka, and Gujarat have several large cities with high urban populations, while states in the northeastern and central parts of India have lower levels of urbanization.
- (iii) **Economic Opportunities:** Urban population distribution is closely linked to economic

opportunities and employment prospects. Cities and urban centers that serve as hubs for industries, services, commerce, education, and healthcare attract migrants from rural areas in search of livelihoods and better standards of living. Metropolitan areas such as Mumbai, Delhi, Bangalore, and Chennai offer a wide range of economic opportunities, resulting in high urban populations.

- (iv) **Infrastructure and Services:** The availability of infrastructure, amenities, and basic services such as housing, transportation, water supply, sanitation, healthcare, and education also influence urban population distribution. Well-developed cities with modern infrastructure and amenities tend to attract more residents, while those lacking in basic services may experience slower rates of urbanization.
- (v) **Government Policies and Planning:** Investments in infrastructure, industrial corridors, special economic zones, and urban renewal projects can stimulate urban growth and attract population influx to specific cities and regions.

OR

- (i) **Gender Equality as a Development Imperative:** Inclusive development recognizes that achieving gender equality is not only a matter of human rights but also essential for sustainable development. Gender disparities in access to education, healthcare, employment, and decision-making undermine the potential for economic growth, social progress, and poverty reduction. Failing to address gender inequalities jeopardizes the overall development agenda and perpetuates cycles of poverty and exclusion.
- (ii) **Women's Empowerment and Participation:** Women's empowerment involves ensuring equal opportunities, rights, and resources for women to fulfill their potential, make informed choices, and exercise control over their lives. Empowered women contribute to stronger families, communities, and economies, driving progress towards sustainable development goals.
- (iii) **Addressing Structural Inequalities:** By promoting gender-sensitive policies, legal reforms, and social programs, inclusive development strives to create an enabling environment for women's advancement and gender equality.
- (iv) **Investing in Women's Health and Education:** Investing in women's health care, reproductive rights, and maternal healthcare services

improves maternal and child outcomes, reduces mortality rates, and enhances overall well-being. Similarly, expanding access to quality education for girls and women enhances their skills, knowledge, and capabilities, unlocking opportunities for personal growth, employment, and social mobility.

- (v) **Fostering Gender-Responsive Policies and Programs:** Gender-responsive policies and programs address the specific needs, priorities, and concerns of women and girls, including issues related to violence against women, unpaid care work, economic empowerment, and political participation. By mainstreaming gender considerations, development initiatives become more effective, equitable, and sustainable.
- (vi) **Promoting Partnerships and Collaboration:** By mobilizing resources, sharing knowledge, and fostering dialogue, stakeholders can leverage collective action to address gender disparities, promote social justice, and build inclusive societies.

28. (a) **Two significant sources of air pollution in India include vehicular emissions and industrial pollution:**

- (i) **Vehicular Emissions:** The rapid increase in the number of vehicles, especially in urban areas, contributes significantly to air pollution. Exhaust emissions from vehicles release harmful pollutants such as carbon monoxide (CO), nitrogen oxides (NO_x), particulate matter (PM), and volatile organic compounds (VOCs) into the atmosphere.
- (ii) **Industrial Pollution:** Industries, including manufacturing facilities, power plants, and refineries, emit various pollutants during production processes. These pollutants include sulfur dioxide (SO₂), nitrogen oxides (NO_x), particulate matter (PM), volatile organic compounds (VOCs), and heavy metals.

To overcome air pollution in India, several measures can be implemented:

- (i) **Promotion of Clean and Sustainable Transportation:** Encouraging the adoption of electric vehicles (EVs), hybrid vehicles, and public transportation systems can help reduce vehicular emissions. Incentives such as subsidies, tax breaks, and rebates can make EVs more affordable for consumers.
- (ii) **Stringent Regulations and Enforcement:** Regular inspection and maintenance programs can ensure that vehicles comply with emission norms, while industrial facilities must install pollution control equipment and adhere to emission limits.

- (iii) **Promotion of Clean Energy and Renewable Sources:** Transitioning from fossil fuels to clean energy sources such as solar, wind, and hydroelectric power can help reduce air pollution from industrial and power generation activities. Encouraging investment in renewable energy infrastructure, incentivizing clean energy projects.

- (iv) **Public Awareness and Education:** Educational campaigns, workshops, and community outreach programs can inform citizens about the sources of air pollution, its effects on health and the environment, and actions they can take to reduce their contribution to pollution.

- (v) **Afforestation and Green Spaces:** Planting trees and creating green spaces in urban areas can help mitigate air pollution by absorbing pollutants, providing shade, and improving air quality. Urban greening initiatives, such as tree planting drives, park development, and rooftop gardens, can enhance the aesthetic appeal of cities while reducing the concentration of airborne pollutants.

OR

- (b) **Two significant sources of water pollution in India are industrial discharge and agricultural runoff.**

- (i) **Industrial Discharge:** Industries discharge various pollutants into water bodies through effluents, including heavy metals, toxic chemicals, organic compounds, and suspended solids. Industrial effluents contain pollutants from manufacturing processes, chemical treatments, and waste disposal practices, contaminating surface water and groundwater sources.

- (ii) **Agricultural Runoff:** Agricultural activities contribute to water pollution through runoff of fertilizers, pesticides, and herbicides from farmland into nearby water bodies. Excessive use of chemical fertilizers and pesticides leads to nutrient runoff and contamination of rivers, lakes, and groundwater, causing eutrophication, algal blooms, and degradation of aquatic ecosystems.

To overcome water pollution in India, several measures can be implemented:

- (i) **Stringent Regulation and Enforcement:** Implementing and enforcing stringent regulations and standards for industrial discharge and agricultural practices is crucial to controlling water pollution. Industrial units must comply with effluent standards and install

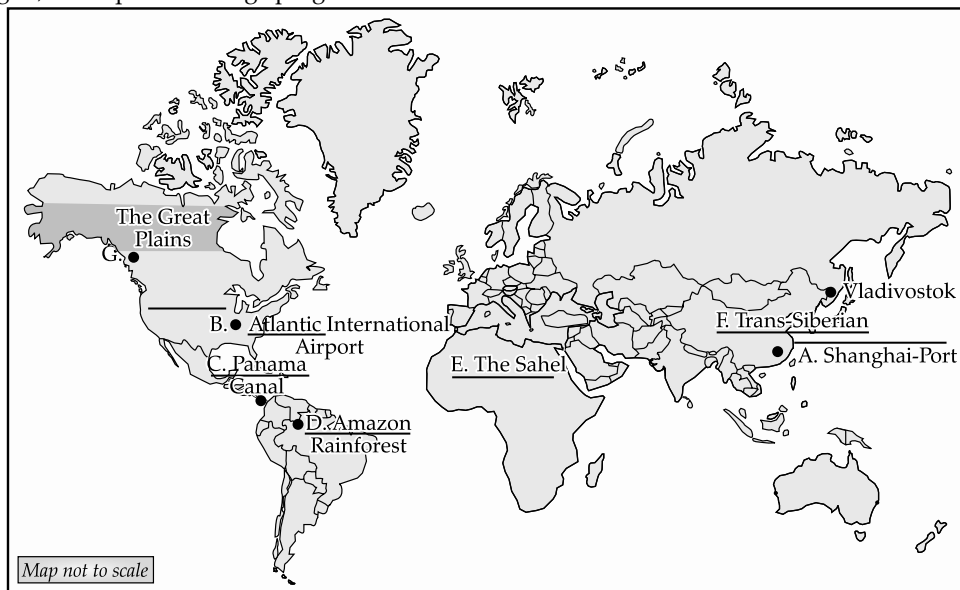
SECTION-E

pollution control measures, such as wastewater treatment plants, to reduce the release of pollutants into water bodies.

- (ii) **Investment in Wastewater Treatment Infrastructure:** Constructing and upgrading treatment plants, implementing advanced treatment technologies, and expanding sewage networks can improve the quality of wastewater discharged into water bodies.
- (iii) **Promotion of Sustainable Agriculture Practices:** Promoting sustainable agriculture practices, such as organic farming, integrated pest management (IPM), and conservation agriculture, can reduce the use of chemical fertilizers and pesticides. Educating farmers about soil health, water conservation, crop rotation, and agroforestry techniques.
- (iv) **Integrated Water Resource Management:** Adopting an integrated approach to water resource management involves considering the interconnectedness of water sources, ecosystems, and human activities. Implementing watershed management plans, river basin management strategies, and aquifer recharge programs.

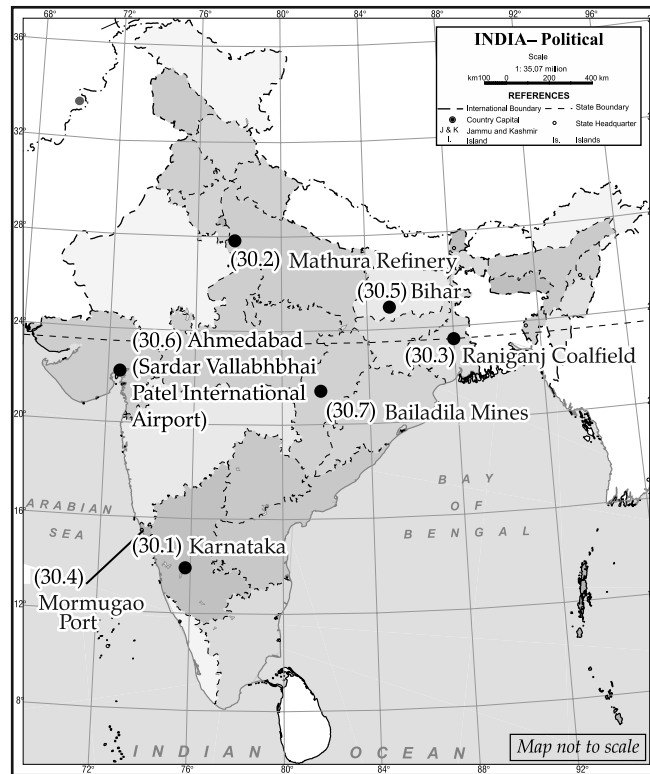
29. For the World Map:

- A. A major sea-port: Shanghai Port, China – The world's busiest container port.
- B. An international airport: Hartsfield-Jackson Atlanta International Airport, USA – Known for being one of the busiest airports in terms of passenger traffic.
- C. An important shipping canal: Panama Canal – Connects the Atlantic and Pacific oceans, crucial for international maritime trade.
- D. An area of subsistence gathering: Amazon Rainforest, Brazil – Indigenous tribes practice subsistence gathering here.
- E. An area of nomadic herding: The Sahel, Africa – Semi-arid region just south of the Sahara Desert, known for nomadic herding practices.
- F. A terminal station of trans-continental railway: Trans-Siberian Railway's eastern terminus, Vladivostok, Russia.
- G. An area of extensive commercial grain farming: The Great Plains, USA – Known for extensive commercial grain farming, especially wheat and corn.



30. For the Political Outline Map of India:

- (30.1) A state leading in the production of coffee: Karnataka – The largest coffee-producing state in India.
- (30.2) An oil refinery in Uttar Pradesh: Mathura Refinery – One of the significant oil refineries located in Uttar Pradesh.
- (30.3) An important coal mining area in West Bengal: Raniganj Coalfield – One of the oldest and largest coal mining areas in West Bengal.
- (30.4) A major seaport along the coast of Goa: Mormugao Port – A leading iron ore exporting port of India located in Goa.
- (30.5) A state with highest population density: Bihar – Known for having the highest population density among Indian states.
- (30.6) An international airport in Gujarat: Sardar Vallabhbhai Patel International Airport, Ahmedabad – The major international airport in Gujarat.
- (30.7) An iron-ore mining area in Chhattisgarh: Bailadila Mines – Renowned for its high-grade iron ore, located in Chhattisgarh.



Delhi Set-2

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SECTION-A**5. Option (C) is correct.**

Explanation: Rainwater harvesting increases water availability as it involves capturing and storing rainwater. One of the techniques of rainwater harvesting is checking dams which help to restore ground water. While the Groundwater table is declining due to overuse, here it is not directly related to rainwater harvesting thus, it is not included.

6. Option (C) is correct.

Explanation: Maharashtra is one of the leading states in sugarcane cultivation due to its suitable climate and irrigation facilities, contributing significantly to India's sugar production.

8. Option (D) is correct.

Explanation: The Barauni refinery is one of the oldest refineries in India, which processes crude oil for the production of various petroleum products.

13. Option (C) is correct.

Explanation: Comprehensive ports handle a wide variety of cargo including bulk and general cargo, making them versatile in their operations and services. They are equipped to manage large volumes of different types of goods, serving as crucial nodes in international trade and logistics.

SECTION-C**21. Main Features of Retail Trading in the World:**

Retail trading globally is characterised by a mix of traditional and modern formats. Traditional retail

involves small, family-owned shops and street vendors, common in many parts of the world, offering personalised services. On the other hand, modern retail features large-scale supermarkets, shopping malls and online stores that provide a wide range of products under one roof or platform. The global retail sector is also marked by rapid technological advancements, such as e-commerce and mobile shopping, enhancing convenience for consumers. Additionally, there's a growing trend towards sustainability and ethical consumerism, influencing product ranges and business practices in retail.

23. Changing Pattern and Composition of India's Imports:

Over the years, the pattern and composition of India's imports have significantly evolved. Earlier, India primarily imported heavy machinery, electronics and petroleum products to support its industrial and energy needs. However, recent trends show a diversification in import composition, including high-value and technology-driven goods like smartphones, medical equipment and pharmaceuticals. Additionally, there's been an increase in the import of crude oil due to growing energy demands, despite efforts to increase renewable energy sources. The changing pattern reflects India's economic growth, technological advancement and shifts in consumer preferences, pointing towards a dynamic and evolving import sector.

SECTION-A**1. Option (D) is correct.**

Explanation: This approach emphasises community involvement and the use of local governance structures to implement and manage watershed development projects effectively.

10. Option (B) is correct.

Explanation: It was responsible for the construction of the Atal Tunnel. The BRO is a leading road construction agency under the Ministry of Defence, which undertakes road and infrastructure projects in border areas of India.

13. Option (D) is correct.

Explanation: Industrial ports are equipped with specialized facilities and infrastructure to manage the loading, unloading and storage of bulk materials, which are typically transported in large quantities and require specific handling procedures to ensure efficient and safe operations.

SECTION-C**21. Main Features of Wholesale Trading in the World:**

Wholesale trading globally acts as a critical link between manufacturers and retailers, facilitating large-volume transactions. The key feature is the purchase and sale of goods in bulk, allowing retailers to buy at lower prices and sell to consumers. Wholesalers often provide storage, distribution and logistics support, reducing the burden on producers and retailers. With advancements in technology, wholesale trading is increasingly moving online, offering wider reach and efficiency.

23. Indian Ports as Gateways of International Trade:

Indian ports are considered gateways of international trade due to their strategic location on major shipping routes connecting the East and the West. These ports handle a significant portion of India's external trade, including imports and exports, enabling access to global markets. Moreover, with a long coastline and the presence of major ports like Mumbai, Chennai

and Kolkata, India leverages its maritime potential to boost trade, attract foreign investment and fuel economic growth.

SECTION-D**24. Migration refers to the movement of people from one place to another to settle temporarily or permanently in a new location. It can occur within a country (internal migration) or across countries (international migration).**

In migration, push factors are conditions or circumstances that effectively force individuals to leave their current location, while pull factors are attractive attributes or opportunities of another location that draw individuals towards it.

Origin vs. Destination:

- Push Factors: Originate in the migrant's home country or region, causing them to want to leave.
- Pull Factors: Located in the destination country or region, enticing individuals to move there.

Nature of Factors:

- Push Factors: Often negative, involving hardship, lack of resources, or other adverse conditions.
- Pull Factors: Generally positive, highlighting opportunities, benefits, or improved conditions.

Examples of Push Factors:

- Economic hardship and lack of job opportunities.
- Political instability, conflict or persecution.
- Environmental disasters or climate change effects.
- Poor access to education and healthcare.

Examples of Pull Factors:

- Higher employment opportunities and better wages.
- Political stability and safety.
- Superior quality of life, including better education and healthcare systems.
- Favourable climate or environmental conditions.

SECTION-A**1. Option (A) is correct.**

Explanation: Only i, ii and iii are correct. Characteristics i, ii and iii describe aspects of wholesale trading, including the role of intermediaries, credit extension and reliance on wholesaler capital by retailers. Option iv describes the examples of retail trading.

2. Option (C) is correct.

Explanation: The World Trade Organisation (WTO) is headquartered in Geneva, Switzerland. It is an intergovernmental organisation that regulates international trade.

3. Option (C) is correct.

Explanation: Industries based on ores are often located near raw materials to minimize transportation costs in order to maximise their profits.

4. Option (C) is correct.

Explanation: Rapid expansion is a consequence of urbanisation driven by factors such as higher economic development, better health conditions and more employment opportunities in cities, rather than a cause of increased urban population growth.

5. **Option (B) is correct.**

Explanation: As per the Census, Rural and Urban Population 2011 these are the data for respective states and Goa has the highest percentage of urban Population. Maharashtra- 45.23, Goa- 62.17, Kerala- 47.72, Gujarat- 42.58

6. **Option (D) is correct.**

Explanation: The crop described by these characteristics is Rice. Rice thrives in tropical humid areas and in regions like West Bengal, it can be cultivated multiple times a year due to favourable climatic conditions. It's also a major Kharif crop in various parts of India, including the north-western regions, with West Bengal, Uttar Pradesh and Punjab being significant producers.

7. **Option (C) is correct.**

Explanation: The economic development of a region indeed depends on its resource base, but the effective utilisation of these resources requires appropriate technologies and investment.

8. **Option (D) is correct.**

Explanation: National Waterway No. 1 is on the Ganga River, National Waterway No. 2 is on the Brahmaputra, National Waterway No. 4 involves the Godavari and Krishna rivers (Godavari being a part of it) and National Waterway No. 5 includes parts of the Brahmani River and the Matai River, among others.

9. **Option (D) is correct.**

Explanation: Hyderabad is considered a modern city due to its significant growth in information technology, biotechnology and pharmaceuticals and its role as a global center for the technology industry, making it an example of modern urban development.

10. **Option (B) is correct.**

Explanation: Garrison towns are towns that are established around a military base. Mhow, Babina and Udhampur are known for their significant military presence, making them garrison towns.

11. **Option (D) is correct.**

Explanation: The characteristics mentioned describe dispersed settlements, where homes and buildings are spread out over a large area. This pattern is common in forested areas and hilly regions, such as those found in Meghalaya, Uttarakhand and Himachal Pradesh.

12. **Option (D) is correct.**

Explanation: The first railway line in India was indeed constructed between Mumbai (Bombay) and Thane in 1853, covering a distance of 34 kilometers.

13. **Option (D) is correct.**

Explanation: Water pollution primarily affects the digestive system because contaminated water, when consumed, can lead to various gastrointestinal and digestive health issues.

14. **Option (A) is correct.**

Explanation: The Bhil tribe is in the majority in the Jhabua district of Madhya Pradesh. They are one of the largest tribal groups in India and are primarily found in Madhya Pradesh, Gujarat, Rajasthan and Maharashtra.

15. **Option (D) is correct.**

Explanation: In the first stage of demographic transition, both fertility and mortality rates are high, which results in a low rate of natural increase or almost stagnant population growth. People reproduce more to compensate for the high mortality rates, but the high death rate offsets the high birth rate, leading to slow population growth.

16. **Option (B) is correct.**

Explanation: The second stage of demographic transition is characterized by a significant decline in mortality rates due to improvements in sanitation and health conditions. While fertility remains high initially, the reduction in mortality leads to a rapid increase in population growth during this stage.

17. **Option (B) is correct.**

Explanation: Bangladesh is an example of a country in the second stage of demographic transition. In this stage, the country experiences high birth rates with rapidly falling death rates due to improvements in healthcare and sanitation, leading to rapid population growth.

SECTION-B

18. (18.1) In simple terms, 'manpower' means the people who work in various jobs. It's super important in the service sector because this area is all about services that need human labour, like teachers, doctors, lawyers etc. Machines can't do these jobs; only trained and skilled people can.

(18.2) The secondary sector makes things, like cars and clothes, using raw materials. It's about manufacturing and building. The tertiary sector, on the other hand, is all about services like teaching, banking or healthcare. It doesn't make physical goods but offers help and support that make our lives easier.

(18.3) Tertiary activities involve both making services available and ensuring they reach the people who need them. For example, a teacher not only teaches (which is creating a service) but also interacts with students and parents, making sure the teaching service is

delivered and used. Similarly, shops not only sell products but also provide the service of helping customers find what they need.

19. (1) Himachal Pradesh, Nagaland
- (2) Chandigarh, Lakshadweep
- (3) 20%

SECTION-C

20. (a) Differences in national resources become the basis of international trade because different countries have different endowments of natural resources such as land, water, minerals, forests, etc. These resources affect the production possibilities and costs of different goods and services in different countries. Therefore, countries tend to specialise and trade in those goods and services that they can produce more efficiently or at a lower cost than other countries, using their abundant or superior resources. For example, Saudi Arabia has a large reserve of oil, which it exports to other countries that have less or no oil. India has a large and fertile land, which enables it to produce and export agricultural products such as rice, wheat, tea, etc. Australia has a rich deposit of iron ore, which it exports to countries that need it for steel production. These are some examples of how differences in national resources become the basis of international trade.

OR

- (b) **Difference between inland and out-ports:**

Inland ports are located away from the sea coast and are linked to the sea through a river or a canal. Out-ports are deep water ports built away from the actual ports and serve the parent ports for large ships.

Inland ports are mainly used for domestic or regional trade, as they connect different parts of a country or a region through waterways. Out-ports are mainly used for international trade, as they connect different countries or continents through sea routes.

For example, Manchester is an inland port in the UK that is linked to the sea through a canal. Piraeus is an out-port in Greece that serves the parent port of Athens.

21. (a) *Jal Kranti Abhiyan* is a water conservation and management initiative launched by the Ministry of Water Resources, River Development and Ganga Rejuvenation in 2015. The main objectives of the *Jal Kranti Abhiyan* are:
 - To strengthen grass root involvement of all stakeholders including Panchayati Raj Institutions and local bodies in the water security and development schemes.
 - To encourage the adoption/utilisation of traditional knowledge and modern techniques in water resources conservation and management.

- To enhance livelihood security through water security in rural areas.

OR

- (b) The Indian National Water Policy is a policy document that provides the framework and guidelines for water resources planning, development and management in the country. The key features of the Indian National Water Policy are:
 - (i) To recognize water as a scarce and precious natural resource, a basic human need and a national asset and to plan, develop and manage it accordingly.
 - (ii) To adopt an integrated and participatory approach for water resources development and management, based on river basin or sub-basin units, involving all stakeholders and considering social, economic and environmental aspects.
 - (iii) To promote water conservation, efficiency and equity in water use and to ensure that water charges reflect the full cost of service provision, including operation, maintenance and capital costs.
22. The concept of humanisation of nature refers to the process by which humans modify and transform natural environments to suit their needs and desires. This concept recognises that humans are an integral part of nature and highlights the importance of considering nature's well-being and coexistence with human activities. Some examples of the humanisation of nature are:

Agriculture: Humans cultivate crops and domesticate animals on natural lands, altering the soil, water and biodiversity of the ecosystems.

Urbanisation: Humans build cities and towns on natural landscapes, changing the land use, vegetation and climate of the regions.
23. **Some of the measures to solve the problem of urban waste disposal in India are:**
 - (i) **Segregation of waste at source:** This means separating the waste into different categories such as biodegradable, recyclable, hazardous, etc. at the point of generation, such as households, offices, markets, etc.
 - (ii) **Decentralized waste management:** This means treating and disposing the waste as close as possible to the source of generation, rather than transporting it to distant landfills or dumping sites. This can help save costs, energy and space and prevent environmental and health hazards.
 - (iii) **Public awareness and participation:** This means educating and engaging the public about the importance and benefits of proper waste management and involving them in the process of waste reduction, segregation, collection and disposal. This can help create a sense of responsibility and ownership among the citizens and improve their cooperation and engagement.

SECTION-D

24. (a) The United Nations Development Programme (UNDP) publishes the Human Development Report annually. The four pillars of human development are:
- (i) **Equity:** This means ensuring that everyone has a fair and equal opportunity to achieve their potential and enjoy a decent standard of living, regardless of their gender, ethnicity, disability, or other factors that may affect their access to resources and opportunities.
 - (ii) **Sustainability:** This means meeting the needs of the present without compromising future generations.
 - (iii) **Productivity:** This means enhancing the capabilities and opportunities for people to participate in the economy.
 - (iv) **Empowerment:** This means enabling people to participate fully in societal decisions that affect their lives.

OR

- (b) The country that has the highest rank in the world in the Human Development Index (HDI) in 2020 is Norway, with an HDI value of 0.957. The HDI is a summary measure of average achievement in three key dimensions of human development: a long and healthy life, measured by life expectancy at birth; a decent standard of living, measured by gross national income per capita; and access to knowledge, measured by mean and expected years of schooling.
- Some of the approaches of human development that Norway follows are:**
- (i) Investing in social welfare and public services, such as universal health care, education, child care and pensions, that reduce inequality and poverty and enhance the well-being and dignity of all citizens.
 - (ii) Promoting environmental sustainability and green growth, by reducing greenhouse gas emissions, increasing the share of renewable energy and implementing policies and measures to adapt to and mitigate the impacts of climate change.
 - (iii) Fostering a culture of democracy and human rights, by ensuring the participation and representation of all segments of society in the political process, protecting the freedom of expression and the media and supporting civil society and human rights defenders.
 - (iv) Engaging in international cooperation and solidarity, by providing generous and effective development assistance, supporting multilateral institutions and initiatives and advocating for global peace and security.
25. Commercial livestock farming is the rearing of animals for the purpose of selling their products, such as meat, milk, eggs, wool, leather, etc., in the

market for profit. Some of the features of commercial livestock farming in the world are:

- (i) It is usually practiced in developed and emerging economies, where there is a high demand and consumption of animal products and where there are favourable climatic, geographical and technological conditions for animal husbandry.
 - (ii) It involves the use of improved breeds of animals, that have high productivity and quality and that are adapted to the local environment and disease resistance. It also involves the use of artificial insemination, genetic engineering and biotechnology to enhance the performance and traits of the animals.
 - (iii) It requires a large amount of capital, land, labour and inputs, such as feed, water, veterinary services and infrastructure, to maintain and operate the farms. It also requires a well-developed market and transport system, to sell and distribute the products to the consumers.
26. Satellite communication is the transfer of information using artificial satellites that are launched into orbit around the Earth and that relay and amplify the signals between the source and the destination. Satellite communication has become an important and widespread mode of communication in the world, due to its various advantages and applications. Some of the examples of the importance of satellite communication are:
- (i) It enables global coverage and connectivity, by overcoming the limitations of terrestrial communication systems, such as distance, terrain and infrastructure.
 - (ii) It enables high-speed and high-capacity transmission of data, voice and video, by using high-frequency bands.
 - (iii) It enables diverse and flexible services and functions, by supporting a wide range of applications, such as broadcasting, telephony, internet, navigation, meteorology and serves to a wider user base such as, defense, security, education, healthcare and disaster management.
 - (iv) It enables cost-effective and efficient communication, by reducing the need for expensive and complex ground-based infrastructure and equipment and by sharing the same satellite resources among multiple users and networks.
27. (a) Some of the measures for the conservation of mineral resources in India are:
- (i) Reducing the wastage and losses of minerals during mining, processing and transportation, by adopting improved technologies, methods and practices and by minimising the environmental damage and pollution caused by these activities.
 - (ii) Recycling and reusing the minerals and their products, by recovering and utilising the scrap metals, waste materials and by-products and by

reducing the consumption and disposal of the minerals and their products.

- (iii) Substituting the scarce and expensive minerals with alternative and renewable resources, such as biogas, solar energy, wind energy, etc., that can meet the energy and other needs of the people and that are more environment-friendly and sustainable.
- (iv) Regulating and monitoring the exploration, extraction and utilisation of minerals, by implementing and enforcing the laws, policies and standards and by ensuring the participation and accountability of the stakeholders, such as the government, the industry and the society.
- (v) Promoting the research and development of the mineral sector, by investing in the scientific and technological innovations and by enhancing the human and institutional capacities, that can improve the efficiency, quality and diversity of the mineral resources and their products.

OR

(b) Importance of Solar Energy:

- (i) It can help to meet the growing demand and supply gap of energy in India, by providing a reliable and affordable source of energy, that can supplement and complement the conventional sources of energy, such as coal, oil, gas, etc.
- (ii) It can help to reduce the dependence and import of fossil fuels, which are scarce, costly and polluting and which pose a threat to the energy security and sovereignty of India, by diversifying and indigenising the energy mix and portfolio of India.
- (iii) It can help to mitigate the greenhouse gas emissions and climate change impacts, by reducing the carbon footprint and environmental degradation caused by the burning of fossil fuels and by contributing to the global and national efforts and commitments to combat climate change.
- (iv) It can help to promote the socio-economic development and welfare of India, by creating employment and income opportunities, by enhancing the access and quality of energy services and by improving the living standards and well-being of the people, especially in the rural and remote areas.

28. (a) Pipelines are the most convenient and efficient mode of transportation in India for the following reasons:

- (i) They can transport oil, gas and water across long distances, without any interruption or congestion and with minimal loss or leakage.
- (ii) They can reduce the cost and time of transportation, as they do not require any loading, unloading, or handling of the materials and they operate 24/7 throughout the year.
- (iii) They can enhance the safety and security of the materials, as they avoid the risks of accidents,

theft, or sabotage and they have advanced monitoring and control systems.

- (iv) They can benefit the environment and society, as they reduce the dependence on road and rail transport, which cause pollution, noise and traffic problems and they can provide access to remote and underdeveloped areas.

Examples: The National Infrastructure Pipeline and The Hajira-Bijapur-Jagdishpur (HBJ) Gas Pipeline.

OR

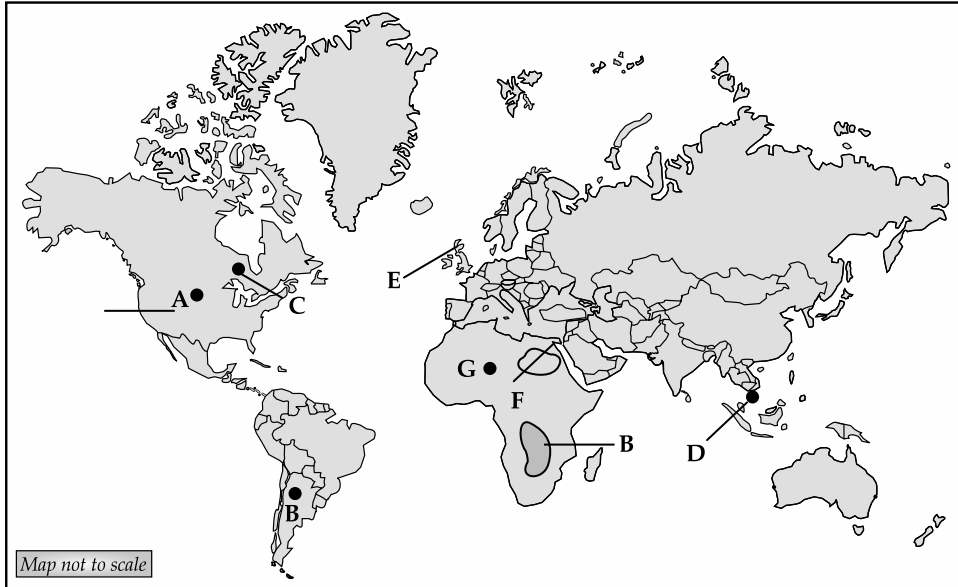
- (b) (i) **Total Length of Roads:** India's road network spans a vast expanse, covering various terrains from plains to mountains. As of the latest data available, India has over 5.8 million kilometers of roadways, including national highways, state highways, district roads, and rural roads.
- (ii) **National Highways:** India's National Highways Authority of India (NHAI) oversees the development and maintenance of the national highway network. For example, the Golden Quadrilateral project, connecting the major metropolitan cities of Delhi, Mumbai, Chennai, and Kolkata, is one of the most ambitious road infrastructure projects in India.
- (iii) **State Highways and Rural Roads:** Apart from national highways, India also has an extensive network of state highways and rural roads. State highways connect important cities and towns within a state, facilitating intra-state transportation. The *Pradhan Mantri Gram Sadak Yojana (PMGSY)* is a flagship program aimed at improving rural connectivity by constructing all-weather roads to rural areas.
- (iv) **Urban Road Networks:** Cities like Delhi, Mumbai, Bangalore, and Chennai have extensive road networks comprising arterial roads, ring roads, and expressways to manage intra-city traffic.
- (v) **Challenges and Development:** While India's road network is extensive, it faces challenges such as congestion, inadequate maintenance, and safety issues. However, the government has been investing significantly in road infrastructure development, including the *Bharatmala Pariyojana*, which aims to construct new highways and improve existing ones.

SECTION-E

- 29. A. **An area of extensive commercial grain farming:** The Great Plains of North America, also known as the "Breadbasket of the World."
- B. **An area of commercial livestock rearing:** The Pampas in Argentina, known for extensive cattle ranching.
- C. **Easternmost station of "Trans-Canadian Railways":** Moncton, New Brunswick, represents the easternmost station of the Trans-Canadian Railways in Canada.

- D. **A major seaport of Asia:** Singapore, one of the busiest seaports in Asia.
- E. **A major international airport of Europe:** Heathrow Airport in London, United Kingdom, is one of the major international airports in Europe.

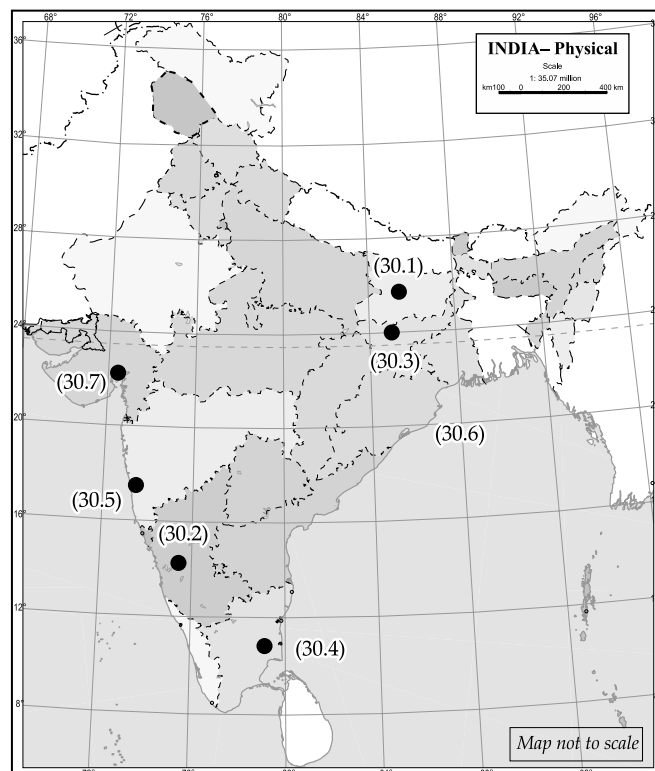
- F. **A shipping canal:** The Suez Canal, a crucial artificial waterway in Egypt that connects the Mediterranean Sea to the Red Sea.
- G. **An area of 'Nomadic Herding':** The Sahel region in Africa, where nomadic herders move with their livestock in search of grazing land.



30.

- (30.1) A state with highest population density– Bihar.
- (30.2) State leading in the production of coffee – Karnataka.
- (30.3) Hazaribagh: Copper mines– Hazaribagh (Jharkhand).

- (30.4) Neyveli: Coal mines– Neyveli–Tamilnadu.
- (30.5) Ratnagiri: Iron ore mines– Ratnagiri is located in Maharashtra.
- (30.6) Haldia: Major seaport– Haldia is located in West Bengal.
- (30.7) Ahmedabad: Major international airport – Ahmedabad is located in Gujarat.



SECTION-A

2. **Option (D) is correct.**

Explanation: Trans Australian railway runs from Perth in the west to Sydney at the east.

5. **Option (B) is correct.**

Explanation: Uttar Pradesh, Bihar and West Bengal top the chart in terms of rural population of India.

SECTION-C

21. (a) **The objectives for watershed management in India are as follows:**

- Conservation of soil and water: The main objective is to conserve soil and water and to replenish the underground water table.
- Economy stabilisation: Adoption of various agriculture methods to improve multiple income sources from the fields.
- Maintaining ecological balance: The balance can be maintain through right use of resources via proper land use techniques.

OR

- (b) **The methods of rainwater harvesting in India are as follows:**

- **Tankas:** Highly prevalent in dry regions. The water falling on the rooftops flows down the pipe and stores in the tankas.
 - **Guls and Kuls:** Prevalent in Hilly regions, where people build diversion channels to store water which are later used for agriculture.
 - **Khadnis:** This is type of earthen dams or bunds. The water collected downslope are used for agriculture.
22. Men and women in the early ages of human history were heavily influenced by their surroundings because they did not have access to high-tech tools. Additionally, human social development was still in its infancy at this time. Thus, the powers of nature

dictated to people. Because they revered and feared nature, people were consequently naturalised. It's referred to as naturalisation of humans.

Example: People who live in the remote areas of tribal societies and deep within forest or in secluded regions of mountain lives sustainably in harmony with nature.

23. Noise pollution is defined as any unwanted or disturbing sounds that affects human or other organism's health and well-being.

Noise pollution is mainly generated from machineries and transportation facilities. So, areas close to transport network, industries or construction sites the noise is highly prevalent.

SECTION-D

25. **Five features of plantation agriculture are as follows:**

- The main reason for doing it is for profit.
- Large areas are used to grow a single crop in considerable quantities.
- Many crops are grown on plantations, such as cotton, tea, coffee, sugarcane, cashew, rubber and tea.
- A robust transportation and communication network linking plantation processing businesses and markets facilitates plantation development.
- It is primarily found in tropical regions of the world.

26. **Features of Trans Siberian railways are:**

- It runs on the east Pacific coast from St. Peterburg to Vladivostok.
- It is considered as one of the most important route in Asia.
- It helps in the opening to West European regions
- It is the longest double tracked electrical trans-continental railway in the world.
- It passes through Ural mountain.

SECTION-A

1. **Option (D) is correct.**

Explanation: This sector includes industries such as information technology, finance, legal services, research and development and other professional services.

5. **Option (B) is correct.**

Explanation: The Orient Express is a historic luxury train that ran from Paris to Constantinople (now Istanbul) for over 80 years, from 1883 to 1977.

SECTION-C

21. (a) In the Indian context, the provision of irrigation plays a crucial role in enabling multiple

cropping.

1. **Extended Growing Seasons:** Irrigation allows farmers to extend the growing seasons beyond the monsoon period. This means they can cultivate crops throughout the year, facilitating multiple harvests.
2. **Diversification of Crops:** With a reliable water supply, farmers can diversify their crop choices based on the water requirements of different plants. This leads to the cultivation of various crops in succession or simultaneously.
3. **Increased Productivity:** Irrigation ensures a consistent water supply, which is especially beneficial during dry spells. This stability

enhances crop productivity, making it feasible for farmers to engage in multiple cropping cycles.

OR

- (b) The degradation of water resources in India is a critical issue.
1. **Groundwater Depletion:** Over-extraction of groundwater is a prevalent issue, particularly in areas with intensive agricultural practices. For example: Punjab, Haryana and Parts of Rajasthan.
 2. **Water Pollution:** Industrial discharge and inadequate sewage treatment contribute to water pollution. Rivers like the Ganges and Yamuna face contamination from industrial effluents and untreated sewage, impacting both surface water quality and the health of aquatic ecosystems.
 3. **Climate Change Impact:** Changes in precipitation patterns and rising temperatures due to climate change contribute to the degradation of water resources. This is evident in altered monsoon patterns, which affect the replenishment of rivers and groundwater.
22. The statement "Human beings can conquer nature by obeying it" implies deep understanding and harmonious coexistence between human and nature. This can be seen in various aspects of human life:
1. **Agriculture:** By understanding the natural cycles of weather and seasons and the needs of plants, humans have been able to cultivate crops for food.
 2. **Medicine:** Many medical breakthroughs have come from understanding the natural processes of the human body and the nature of diseases. By obeying these natural laws, we have been able to cure diseases and improve health.
 3. **Sustainable Development:** In the context of environmental conservation, the statement underscores the importance of sustainable practices that respect and work with nature, rather than exploiting it.
23. 1. **Afforestation and Agroforestry:** Planting trees and integrating them into agricultural practices can help combat soil erosion, improve soil fertility and enhance water retention.
2. **Adoption of Sustainable Agricultural Practices:** Promoting sustainable agriculture practices such as conservation tillage, cover cropping and crop rotation can help maintain soil health.
 3. **Watershed Management Programs:** Implementing watershed management initiatives like building check dams, contour bunding and constructing water harvesting structures are key components of watershed management. It helps in maintaining the

ecological balance and mitigating the impact of land degradation.

SECTION-D

25. Mixed farming, characterised by the combination of crop cultivation and livestock rearing, is a widespread agricultural practice around the world.

Features of Mixed Farming:

1. **Diversification of Activities:** Farmers practice both crop cultivation and livestock rearing simultaneously, which allows for diversification of income sources and risk reduction.
 2. **Complementary Nature of Crops and Livestock:** Crop residues can be used as feed for livestock and animal manure can be used to fertilize crops. This synergy maximises resource utilisation and efficiency.
 3. **Risk Mitigation:** By engaging in both crop and livestock activities, farmers can mitigate risks associated with fluctuations in market prices, climate variations, or crop failures.
 4. **Nutrient Cycling and Soil Fertility:** Livestock contribute to nutrient cycling in mixed farming systems. Animal manure serves as an organic fertiliser, enhancing soil fertility.
 5. **Holistic Approach to Sustainability:** The integration of crops and livestock supports the overall health of the farming ecosystem. It minimizes dependence on external inputs, encourages efficient use of resources and fosters a balanced and resilient agricultural system.
26. Air transport plays a crucial role in the world.
1. **Global Connectivity:** Air transport provides rapid and efficient connectivity between different regions and countries. It facilitates global trade, tourism and cultural exchange.
 2. **Time Efficiency:** Air travel is the fastest mode of transportation, allowing people and goods to reach their destinations quickly.
 3. **Accessibility to Remote Areas:** Air transport helps overcome geographical barriers, providing access to remote and isolated areas.
 4. **Emergency and Disaster Response:** Air transport plays a critical role in emergency and disaster response. It enables the rapid deployment of relief teams, medical supplies and humanitarian aid to areas affected by natural disasters, conflicts, or other crises.
 5. **Cultural Exchange and Tourism:** Air travel facilitates cultural exchange and tourism by making it easier for people to explore different parts of the world. This promotes understanding between diverse cultures, fosters international cooperation and contributes to the growth of the global tourism industry.