

Social Studies

(Geography)

Chapter 7: Lifelines of National Economy



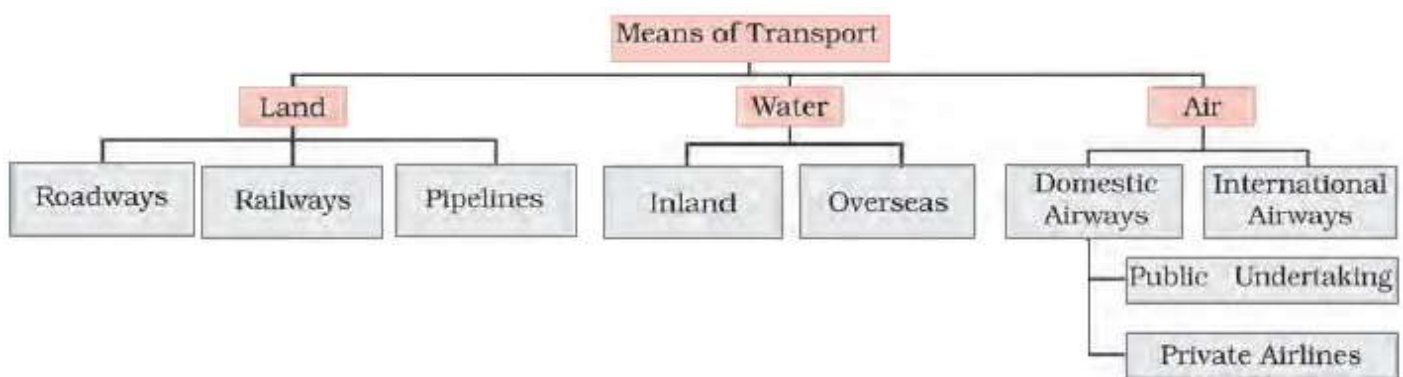
Lifelines of National Economy

The movement of these goods and services from their supply locations to demand locations necessitates the need for transport. Some people are engaged in facilitating these movements. These are known to be traders who make the products come to the consumers by transportation. Thus, the pace of development of a country depends upon the production of goods and services as well as their movement over space. Therefore, efficient means of transport are prerequisites for fast development.

Transport plays a crucial role in the development of any economy. Modern means of transport have become the lifelines of our nation.

Transport

Transport or transportation is the movement of people, animals and goods from one location to another.



Roadways

India has one of the largest networks of roadways in the world. The length of road per 100 sq km. of area is known as the density of roads. Kerala has the highest density of roads.

The network of roads in India is denser than the railways because of the following reasons:

- construction cost of roads is much lower than that of railway lines,
- roads can traverse comparatively more dissected and undulating topography,
- roads can negotiate higher gradients of slopes and as such can traverse mountains such as the Himalayas,
- road transport is economical in transportation of few persons and relatively smaller amount of goods over short distances,
- it also provides door-to-door service, thus the cost of loading and unloading is much lower,
- road transport is also used as a feeder to other modes of transport such as they provide a link between railway stations, air and sea ports.



Classification of Roads in India

In India, roads are classified into six major categories.

Types of Roads	Names/Projects	Significance	Maintenance Authority
Golden Quadrilateral Superhighways	The north–south corridors linking Srinagar and Kanyakumari, and the east–west corridors linking Silchar in Assam to Porbandar in Gujarat. A project is on to link Delhi, Kolkata, Chennai and Mumbai by six-lane superhighways.	Link various important cities and reduce the time of travel and distance between mega cities.	National Authority of India (NAI)
National Highways	National highways connect cities and states to one another. Sher Shah Suri Marg is called National Highway No. 1 and runs between Delhi and Amritsar.	Connect various cities across one or more states.	Central Public Works Department (CPWD)
State Highways	The state highways connect capital cities with district headquarters in a state.	Connect various cities within a state.	State Public Works Department (PWD)
District Roads	They connect district headquarters with other places in a district.	Link various towns and cities in a district.	Zilla Parishad
Other Roads	They connect various villages and towns.	Connect villages to one and other and to towns. Crucial to the transport of agricultural products to markets.	Local bodies and funds are also allocated by the Central and State Governments.
Border Roads	They are built along the borders of our country.	Strengthen defences of the country.	Border Road Organisation (works under the Central Government)

Roads can also be classified on the basis of the type of material used for their construction such as metalled and unmetalled roads. Metalled roads may be made of cement, concrete or even bitumen of coal, therefore, and narrow. Unmetalled roads go out of use in the rainy season.

Problems faced by Roads in India:

- Road network is inadequate in India.
- About half of the roads are unmetalled and this limits their usage during the rainy season.
- The roadways are highly congested in cities.
- Most of the bridges are old and narrow.
- Disrespect to the traffic rules is the major problem. Citizen have casual attitude towards traffic rules, which leads to accidents causing traffic jams.

Railways

Railways are an important means of transport for carrying passengers and goods over a long distance. They bind the entire country together. They have contributed to the growth of the national economy by transporting agricultural and industrial products all over the country. The Indian Railways is organised into 16 zones.



Some problems faced by the railways in India are

- It is difficult to lay railway lines over rivers. It can be done by building bridges which is costly.
- It is extremely difficult to lay railway lines in hilly regions because of rugged terrains and steep slopes of the mountains.
- It is not easy to construct railway lines on the sandy plains of Rajasthan, swampy areas of Gujarat and forested regions of Madhya Pradesh, Bihar and Jharkhand.
- Many people travel without tickets causing loss to the Indian Railways. Damage and theft of railway property has also harmed the Indian Railways.

The Indian Railway network runs on multiple gauge operations extending over 68,442 km.

Gauge in metres	Route (Km)	Running Track (Km)	Total Track (Km.)
Broad Gauge (1.676)	63,491	89,521	1,17,560
Metre Gauge (1.000)	3,200	3,462	3,775
Narrow Gauge (0.762 and 0.610)	1,751	1,752	1,901
Total	68,442	94,735	1,23,236

However, despite all the above problems, the railways have immensely contributed to the growth of our economy. More railway lines are being laid to link inaccessible parts of the country. For example, the development of Konkan Railway along the west coast has made the movement of people and goods easier in the region.

Waterways

Waterways are the most important means of transporting bulky and heavy goods. It is a fuel-efficient and environmental friendly means of transport. Inland waterways connect rivers, canals, backwater and creeks within the country. The following waterways have been declared as national waterways by the Government:

- **N.W. No.1:** The Ganga river between Allahabad and Haldia (1620 km).
- **N.W. No.2:** The Brahmaputra river between



Inland waterways widely used in north-eastern states

Sadiya and Dhubri (891 km).

- **N.W. No.3:** The West-Coast Canal in Kerala (Kottapurma-Kollam, Udyogamandal and Champakkara canals-205 km).
- **N.W. No.4:** Specified stretches of Godavari and Krishna rivers along with Kakinada Puducherry stretch of canals (1078 km).
- **N.W. No.5:** Specified stretches of river Brahmani along with Matai river, delta channels of Mahanadi and Brahmani rivers and East Coast Canal (588 km)..

Sea Ports

India is a peninsular country and has a long coast line. There are 12 major and 187 minor sea ports in the country. Some famous sea ports are

- Mumbai is the biggest port. Jawaharlal Nehru Port was built in order to decongest the Mumbai port.
- Mormugao Port in Goa is an important iron ore-exporting port in the country.
- New Mangalore Port exports iron ore which is concentrated in the Kudremukh mines.
- Kochi Port is located in the extreme southwestern part of the country. It has been developed alongside a natural harbour.
- Tuticorin Port in Tamil Nadu has a natural harbour and exports cargos to our neighbouring countries.
- Chennai is one of the oldest artificial ports of our country. It is next to Mumbai in terms of trading activities.
- Vishakhapatnam is the deepest landlocked port.
- Kolkata is an inland riverine port. Haldia Port was developed to reduce pressure of the Kolkata Port.



Trucks being driven into the vessel at Mumbai port

Airways

The airways is a fast-developing means of transport in India. Government-owned Indian Airlines and other private airlines provide domestic air services. Pawan Hans Helicopters Ltd. provides helicopter services to Oil and Natural Gas Corporation for its off shore operations.



Advantages of Airways

- It is the fastest means of communication. It has greatly reduced travelling time.
- It can easily travel across mountainous regions, deserts, dense forests and great oceanic stretches.
- During natural calamities such as floods or landslides, it helps in providing relief to affected people who inhabit difficult terrains.

The greatest disadvantage of air travel is that it is an expensive means of transport and is not within the reach of common people. Only in the northeastern parts of the country, special provisions are provided to the people.

Pipelines

Pipeline network uses pipes, usually underground, to transport and distribute fluids. These are used to transport water, crude oil, petroleum products and natural gas, fertilizer factories and big thermal power plants. Solids can also be transported through a pipeline when converted into slurry.



There are 3 important networks of pipeline transportation in the country.

- From oil field in upper Assam to Kanpur (Uttar Pradesh)
- From Salaya in Gujarat to Jalandhar in Punjab
- From Hazira in Gujarat to Jagdishpur in Uttar Pradesh

Communication

- Some important means of communication are television, radio, press, newspapers and telecom. The Indian postal network is the largest in the world. It handles parcels and written communications.
- First class mail includes cards and envelopes and second class mail includes books and newspapers. Six mail channels have been opened to ensure quick transport of mails. They are Rajdhani channel, Metro channel, Green channel, Business channel, Bulk mail channel and Periodical channel.
- India has one of the largest telecom networks in Asia. STD facilities have now been provided to even far-off villages.
- Mass communication such as radio, TV and newspapers creates awareness among people about various policies of the state and country. Many programmes in local languages are broadcasted across various regions of the country.
- Doordarshan is the national television channel of India and is one of the largest terrestrial networks in the world.
- Several newspapers, magazines and periodicals are published in several local languages across the country.



Emergency call box on NH-8

International Trade

- The exchange of goods across states and countries is known as trade. Trade between two countries is known as international trade.
- International trade determines the economic prosperity of the country.
- Balance of trade is the difference between the exports and imports of a country. When exports are more than imports, it is known as favourable balance of trade. When imports are more than exports, it is known as unfavourable balance of trade.
- Major exports of India include agriculture and allied products, minerals and ores, gems and jewellery and coal. India mainly imports petroleum and petroleum products, pearls and precious stones, coal, coke and machinery. The IT industry of India earns a large

amount of foreign exchange for the country.

- Tourism is also an important industry. More than 5.78 million foreign tourists visited India in 2010. The tourism industry employs more than 15 million people in the country.
- It also provides support to the handicrafts sector and promotes our culture.
- Some important tourist states of India are Jammu and Kashmir, Himachal Pradesh, Uttaranchal, Rajasthan and the temple towns of south India.

Tourism as a Trade

- Foreign tourist's arrivals in the country witnessed an increase of 11.8 per cent during the year 2010 as against the year 2009, contributing Rs 64,889 crore of foreign exchange in 2010.
- More than 15 million people are directly engaged in the tourism industry.

Importance of Tourism

- Tourism promotes national integration, provides support to local handicrafts and cultural pursuits.
- It also helps in the development of international understanding about our culture and heritage.

Tourism in India

- Indian is ranked world's 4th best holiday haven.
- More than 15 million people are directly engaged in the tourism industry.
- Tourism also promotes national integration, provides support to local handicrafts and cultural pursuits.
- It also helps in the development of international understanding about our culture and heritage.
- Foreign tourists visit India for heritage tourism, eco tourism, adventure tourism, cultural tourism, medical tourism and business tourism.
- Rajasthan, Goa, Jammu and Kashmir and temple towns of south India are important destinations of foreign tourists in India. There is vast potential of tourism development in the north-eastern states and the interior parts of Himalayas, but due to strategic reasons these have not been encouraged so far.

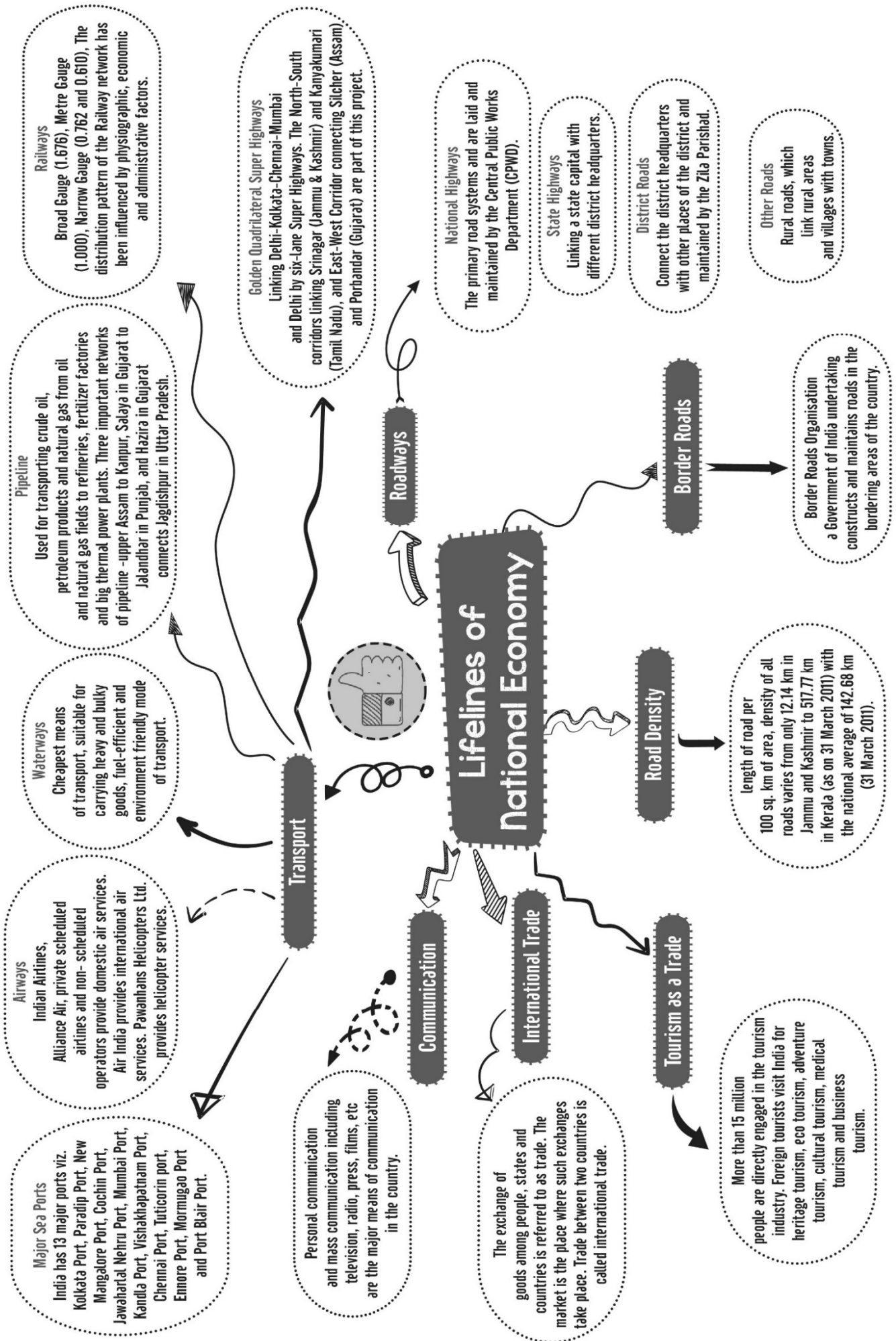


India: National Highways



India: Major Ports and Some International Airport

LIFELINES OF NATIONAL ECONOMY



Important Questions

Multiple Choice questions-

Question 1. Which one of the following groups of cities is connected by the National Highway No. 1?

- (a) Kolkata-Amritsar
- (b) Ranchi-Kolkata
- (c) Delhi-Punjab
- (d) Varanasi-Kanyakumari

Question 2. National Waterway No. 1 is navigable between which of the following places?

- (a) Sadiya and Dhubri
- (b) Allahabad and Haldia
- (c) Udyogamandal and Champakkara
- (d) Kottapuram and Komman

Question 3. Which one of the following ports is the biggest with a spacious natural and well-sheltered harbour?

- (a) Kolkata
- (b) Chennai
- (c) Mumbai
- (d) Vishakhapatnam

Question 4. port was developed as a subsidiary port in order to relieve growing pressure on the Kolkata port.

- (a) Haldia
- (b) Kochi
- (c) Kandla
- (d) Vishakhapatnam

Question 5. Which one of the following is considered as the first-class mail by the Indian postal network?

- (a) Cards and envelopes
- (b) Registered periodicals
- (c) Book packets
- (d) Registered newspapers

Question 6. Which one of the following is the southernmost international airport in India?

- (a) Nedimbacherry
- (b) Chhatrapati Shivaji
- (c) Raja Sansi
- (d) Meenam Bakkam

Question 7. Which one of the following is the oldest port of the eastern coast of India?

- (a) Kolkata (Haldia)
- (b) Vishakhapatnam
- (c) Tuticorin
- (d) Chennai (Madras)

Question 8. Narrow Gauge railway line is found in

- (a) the Northern Plains
- (b) the hilly areas of Darjeeling, Shillong and Ooty
- (c) deserts of Rajasthan
- (d) the Central Highlands

Question 9. Which one of the following is not an advantage of pipeline transportation?

- (a) Pipelines are used for transporting crude oil and gas from fields to refineries.
- (b) Solids can be transported in slurry form through pipelines.
- (c) Pipelines rule out trans-shipment losses or delays.
- (d) Initial cost of laying a pipeline is high.

Question 10. Which organisation constructs and maintains roads in the border areas?

- (a) NHAI
- (b) BRO
- (c) Pradhan Mantri Grameen Sadak Yojana
- (d) BSF

Question 11. Which one of the following ports is a tidal port?

- (a) Mumbai
- (b) New Mangalore port
- (c) Kandla
- (d) Vishakhapatnam

Question 12. Which one of the following ports was developed in order to relieve the pressure of Kolkata port?

- (a) Paradip port
- (b) Tuticorin port
- (c) Haldia port
- (d) Chennai port

Question 13. Which two extreme locations are connected by the North-South Corridor?

- (a) Amritsar and Tuticorin
- (b) Srinagar and Tiruvananthapuram
- (c) Srinagar and Tuticorin
- (d) Srinagar and Kanyakumari

Question 14. National Waterway No. 1 is navigable between which of the following places?

- (a) Between Sadiya and Dhubri
- (b) Between Allahabad and Haldia
- (c) Between Kottapuram and Komman
- (d) Between Udyogamandal and Champakkara

Question 15. Which one of the following is the oldest artificial port of the country?

- (a) Tuticorin
- (b) Vishakhapatnam
- (c) Chennai
- (d) Mumbai

Very Short -

1. Name the language in which the largest numbers of newspapers are published in India?
2. Which is first port to be developed just after independence?
3. What is India's position among the best tourist destinations of the world?
4. Name any two airlines that provide domestic air services.
5. Name the oldest artificial port and second most important port of the country?
6. Which mean of transportation carried 95 percent of India's trade volume?
7. Which mean of transport is a new arrival on the map of India?
8. Which is the longest National Highway of India?
9. Name the extreme cities which are connected by East-west Corridors?
10. Which department is responsible for the construction and maintenance of

the District Roads?

Short Questions-

1. What is international trade? What do you mean by Balance of trade? What is the importance of trade?
2. Mention the different means of transport in India.
3. What are the means of mass communication? Explain features of any two media.
4. What are the different types of roads in India?
5. What do you mean by pipeline transport?
6. Rich agriculture resources and Great Industrial activities in the Great Plains as compared with Himalayan Mountains, further provides favourable conditions for the development of Railway
7. India has one of the largest telecom networks in Asia. Explain?
8. Explain the important pipeline networks in India.
9. What is the work of NHAI, CPWD and SPWD? Explain.
10. Describe the main features of the Indian postal network.

Long Questions-

1. No countries can survive without international trade. Explain.
2. "Railways are the principal mode of transportation in India" Explain.
3. How do physiographic and economic factors influence the distribution pattern of Indian railway network? Explain with example.
4. Explain the major sea ports of India situated on Western coastline.
5. Name any two navigational Rivers of India? In which part of India Inland Water ways are widely used? Write two Merits and Demerits of Inland water Transport.
6. Efficient network of transport and communication is a pre-requisite for local, national and global trade of today? Explain.
7. Explain the different reason for the growing importance of road transport vis-à-vis rail transport.
8. Explain the features of any five western ports of India.

Assertion Reason Questions:

1. **Directions:** - In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both statements carefully and choose the correct answer from the below:
 - a. If both assertion and reason are true and reason is the correct explanation of assertion.

- b. If both assertion and reason are true but reason is not the correct explanation of assertion.
- c. If assertion is true but reason is false.
- d. If both assertion and reason are false.

Assertion (A): Mass communication promotes national integration and provides entertainment

Reason (R): It strengthens democracy in the country by providing news to the masses. they feel attached to the country and a feeling of nationalism arises in them.

2. **Directions:** - In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both statements carefully and choose the correct answer from the below:

- a. If both assertion and reason are true and reason is the correct explanation of assertion.
- b. If both assertion and reason are true but reason is not the correct explanation of assertion.
- c. If assertion is true but reason is false.
- d. If both assertion and reason are false.

Assertion (A): Road transportation in India faces a number of problems.

Reason (R): Roads are unmetalled and their network is inadequate.

Case Study Questions:

1. Railways are the principal mode of transportation for freight and passengers in India. Railways also make it possible for people to conduct multifarious activities like business, sightseeing, pilgrimage along with transportation of goods over longer distances. Apart from being an important means of transport, the Indian Railways have been a great integrating force for more than 150 years. Railways in India bind the economic life of the country as well as accelerate the development of industry and agriculture. The Indian Railway is now reorganised into 16 zones. The distribution pattern of the Railway network in the country has been largely influenced by physiographic, economic, and administrative factors. The Northern plains with their vast level, high population density, and rich agricultural resources provided the most favorable condition for their growth. However, a large number of rivers requiring the construction of bridges across their wide beds posed some obstacles. In the hilly terrains of the peninsular region, railway tracts are laid through low hills, gaps or tunnels
 - i. **Which of the following factors are responsible for distribution pattern of railways network in the country? Identify the correct option:**

- (a) Topographical factors
 - (b) Economic and administrative factors
 - (c) Social factors
 - (d) Both (a) and (b)
- ii. **When was the first railway line opened in India?**
- (a) 1803
 - (b) 1823
 - (c) 1853
 - (d) 1854
- iii. **Why Indian railway network is mostly concentrated in Ganga Plains?**
- (a) Due to concentration of Industries.
 - (b) Due to topographical uniformity and high density of population.
 - (c) Due to high agricultural production.
 - (d) Due to lack of economic opportunities.
- iv. **Why are the Indian Railways called the lifeline of the country?**
- (a) Railways in India bind the economic life of the country.
 - (b) It is the largest public undertaking in the country.
 - (c) Railways are the principal mode of transportation for freight and passengers in India.
 - (d) All of the above
- v. **Why is it essential to develop a unigauge system of railways in our country?**
- (a) It will lead to a reduction in trans-shipment.
 - (b) Because it has a larger capacity.
 - (c) Both (a) and (b)
 - (d) It will bring administrative convenience.

Map Question:

1. Identify the national highways shown on an outline map of India and write their names on the lines marked in the map.

MCQ Answers-

1. Answer: (c) Delhi-Punjab
2. Answer: (b) Allahabad and Haldia
3. Answer: (c) Mumbai
4. Answer: (a) Haldia
5. Answer: (a) Cards and envelopes
6. Answer: (a) Nedimbacherry
7. Answer: (d) Chennai (Madras)

8. Answer: (b) the hilly areas of Darjeeling, Shillong and Ooty
9. Answer: (d) Initial cost of laying a pipeline is high.
10. Answer: (b) BRO
11. Answer: (c) Kandla
12. Answer: (c) Haldia port
13. Answer: (d) Srinagar and Kanyakumari
14. Answer: (b) Between Allahabad and Haldia
15. Answer: (c) Chennai

Very Short Answers -

1. Ans. Hindi
2. Ans. Kandla Port
3. Ans. Forth
4. Ans. Indian Airlines and Alliance Air
5. Ans. Chennai port
6. Ans. Water ways
7. Ans. Pipeline
8. Ans. National Highway-1
9. Ans. Silcher (Assam) and Porbander (Gujarat).
10. Ans. Zila Parishad

Short Answers-

1. Ans. Trade between two countries is called international trade. It includes exchange of commodities, services, information and knowledge.

Relation or difference between nation's exports and imports is called balance of trade. It is of two types:

(i) Surplus trade: when the value of exported goods and services is more than the value of imported goods and services. It is called favorable trade balance.

(ii) Trade Deficit: when the value of exported goods and services is less than the value of imported goods and services. It is called unfavorable trade balance.

The importance of trade is:

1. No country can survive without international trade because resources are space bound.
2. Advancement of international trade of a country leads to its economic prosperity because such a trade provides so many jobs to workers as well as business to traders.

3. It is through international trade that we earn much of our foreign exchange which is required for importing many essential goods.

4. Foreign trade helps in transfer of technology.

2. Ans. Means of transport in India are:-

(i) Roadways

(ii) Waterways

(iii) Airways

(iv) Pipelines

(v) Railways

3. Ans. These are those means of communication through which one can communicate with several people at the same time. For example- Radio, newspaper and T.V.(Television):-

(i) It is one of the largest and essential networks in the world.

(ii) It provides entertainment and keeps the viewers well informed about the world.

Radio:-

(i) It is the cheapest and the most effective means of communication.

(ii) Besides entertainment, it also provides information and promotes social education.

4. Ans. There are six types of roads:-

1. Golden Quadrilateral Super Highways or Expressway National Highways

2. National Highways

3. State Highways

4. District Roads

5. Other Roads or Rural Roads or Village Roads

6. Border Roads

5. Ans. Transportation of liquid, gases or slurries through pipes made of durable metal or a plastic tube is called pipeline transport. It is the most convenient mode of transport for crude oil, petroleum products and natural gas even solids like iron ore in slurry form to refineries, fertilizer factories, industries and big thermal power plants.

For example:.. From oil field in From Salaya in Gujarat to Jalandhar in Punjab, via Viramgam, Mathura, Delhi and Sonipat. It has branches to connect Koyali (near Vadodara, Gujarat) Chakshu and other places.

Gas pipeline from Hazira in Gujarat connects Jagdishpur in Uttar Pradesh, via Vijaipur in Madhya Pradesh. It has branches to Kota in Rajasthan, Shahajahanpur,

Babrala and other places in Uttar Pradesh (HVJ).

6. Ans. The northern plains with their vast level land, high population density and rich agriculture resource provide the most favorable conditions for their growth. Level land provides the favourable condition for the construction of railway tracks. Due to dense population, people prefer railways for journey. It brings huge capital for the railway department. Railways in plain are very helpful for the development and industries.

The Himalayan region like Jammu and Kashmir, Assam, Uttaranchal and other hilly states too are unfavorable for the construction of railway lines due to high relief, less density of population and lack of economic opportunities.

7. Ans. India has one of the largest telecom networks in Asia. Excluding urban places more than two thirds of the villages in India have already been covered with subscriber Trunk Dialing telephone facility. By the end of 2004-2005, India was the 10th largest telecom network in the world measured in terms of number of phones. Our Government has made the special provision to extend twenty-four hour STD facility to every village in the country. There is uniform rate of STD facility all over India. In India more than 45 million cellular subscribers and cellular customer care bases are growing at very fast rate.

8. Ans.

1. From Oil field in upper Assam to Kanpur, via Guwati, Barauni and Allahabaad. It has branches Baruni to Haldia via Rajbabdh, Rajbabdh to Maurigram and Guwati to Silguri.
2. From Salaya in Gujarat to Jalandhar in Punjab, via Viramgam, Mathura, Delhi and Sonipat. It has branches to connect Koyali (near Vadodra, Gujarat) Chakshu and other places.
3. Gas pipeline from Hazira in Gujarat connects Jagdishpur in Uttar Pradesh, via Vijaypur in Madhya Pradesh. It has branches to Kota in Rajasthan, Shahajahanpur, Babrala and other places in Uttar Pradesh.

9. Ans.

1. NHAI: National Highway Authority of India laid and maintained the major roads of India like Golden Quadrilateral and Super Highways.
2. CPWD: Central Public Works Department laid and maintained the primary road system of India like National Highways.
3. SPWD: State Public Works Department laid and maintained the state highways of Indian states and Union Territories.

10. Ans.

1. Indian postal network is the largest network of the in the world.
2. There are two types of mail-First class mail and Second class mail.
3. First class mail includes cards and envelop.

4. Second class mail includes book packets, registered newspapers and periodicals.
5. For quick delivery of mails, six channels have been introduced. These are Rajdhani, Channels, Metro Channel, Green Channel, Business Channel, Bulk Mail Channel and Periodical channel.

Long Answers-

1. Ans. Yes, no countries in the world are self-sufficient in all its needs. Goods produced by one nation are required in the other nation and vice versa. The difference in needs, resources requirements and development among nations create conditions for international trade. International trade helps in exchange of surplus goods with those of deficit countries through foreign trade. India has adopted the policy of Liberalization in 1991, because the economic development growth rate was very slow and India lacks behind in the terms of technology. International trade helps India to improve advanced technology of other countries to improve its own production process. Foreign trade has helped India to improve its productivity of manufactured goods. International trade contributes to India's economic growth and raised the income level of people. It also increases the foreign exchange reserve.

2. Ans.

1. Railways are the principal mode of transportation for freight and passengers in India.
2. Railways also make it possible to conduct multifarious activities like business, sightseeing, and pilgrimage along with transportation of goods over longer distances.
3. Apart from an important means of transport the Indian Railway has been great integrating force for more than 150 years.
4. Railways in India bind the economic life of the country as well as accelerate the development of the industry and agriculture.
5. The Indian Railways have a network of 7,031 stations spread over a route length of 63,221 km. with a fleet of 7817 locomotives, 5321 passenger services vehicles, 4904 other coach vehicles and 228,170 wagons as on 31 March 2004.

3. Ans.

1. The level and extensive northern plains with high density of population, high density of population, high industrial activity and rich agriculture, favour development of railways. However the wide rivers that flow here cannot be crossed without bridges which become an additional cost for railways.
2. The high relief, sparse population and lack of economic opportunities in the Himalayan region create unfavorable conditions for laying the railway lines. Frequent landslides and rock fall are additional problem.
3. The peninsular regions with their hilly terrains also make it different to lay

railway tracks. In such areas, railway tracks have to be laid through low hills or gaps or tunnels.

4. The low flood plains of Assam and Bihar, where floods are common, have difficulty in maintaining railway lines.

5. Deserts of Rajasthan and the hilly tracks of the Sahayadris were unfavorable for development of railways.

4. Ans.

1. Kandla Port: Kandla in Kuchchh was the first port developed soon after independence to ease the volume of trade on Mumbai port in the wake of loss of Karachi port to Pakistan after the Partition. Kandla is a tidal port.

2. Mumbai Port: Mumbai is the biggest port with a spacious natural and well sheltered harbour.

3. Jawaharlal Nehru Port: Jawaharlal Nehru port was planned with a view to decongest the Mumbai port and serve as a hub port for this region.

4. Marmagao Port (Goa): It is the premier iron exporting port of the country. This port account for about fifty percent of India's iron ore export.

5. New Mangalore Port: New Mangalore port located in Karnataka caters to the export iron ore concentrates from Kudremukh mines.

6. Kochi Port: Kochi is the extreme south-western port, located at the entrance of a lagoon with a natural harbour.

5. Ans. Ganga and Brahmaputra are two navigational Rivers of India.

Inland waterways are widely used in North-Eastern States of India.

Merits:

1. It is cheapest mean of transport.
2. It is very beneficial for our internal trade and carrying of passengers is concerned.

Demerits:

1. Such a mean of transport is very limited in scope.
2. Very few rivers and too for short distance are navigable

6. Ans. We use different materials and services in our daily life. Some of these are available in our immediate surroundings, while other requirements are met by bringing things from other places. Goods and services do not move from supply locales to demand locals on their own. The movement of these goods and services from their supply locations to demand locations necessitates the need for transport. Some people engaged in facilitating these movements. These are known to be traders who make the products come to the consumers by transportation. Thus, the place of development of a country depends upon the production of goods and services as well as their movement over space.

Transport promotes internal as well as international trade. It helps to maintain the defense of country, transport and communication contributes to the promotion of tourism and it brings foreign exchange. Therefore, efficient means of transport are pre-requisites for fast development.

7. Ans.

1. Construction of roads is much lower than that of railway lines.
2. Roads can traverse comparatively more dissected and undulating topography.
3. Roads can negotiate higher gradients of slopes and as such can traverse mountains such as the Himalayas.
4. Road transport is economical in transportation of few persons and relatively smaller amount of goods over short distances.
5. It also provides door to door service, thus the cost of loading and unloading is much lower.
6. Road transport is also used as a feeder to other modes transport such as they provide a link between railway station, air and sea ports.

8. Ans. Tuticorin Port: Tuticorin in Tamil Nadu, located at the south eastern extremity of the country has a natural harbour and a rich hinterland and handles cargoes to Sri Lanka and Maldives.

1. Chennai Port: Chennai is the one of the oldest ports of Tamil Nadu and has an artificial harbour. It ranks next to Mumbai, in terms of volume of trade and cargo.
2. Vishakhapatnam Port: Vishakhapatnam is the deepest; land locked and protected port on the east coast.
3. Paradip Port: Paradip Port in Odisha, is mainly developed for export of iron Ore.
4. Kolkata Port: Kolkata, a major riverine port and a tidal port. It has a vast and rich hinterland of Ganga and Brahmaputra basin.

Assertion Reason Answer:

1. (a) If both assertion and reason are true and reason is the correct explanation of assertion.
2. (a) If both assertion and reason are true and reason is the correct explanation of assertion.

Case Study Answer:

1. i (d) Both (a) and (b)
ii (c) 1853
iii (b) Due to topographical uniformity and high density of population.

iv (d) All of the above

v (c) Both (a) and (b)

Map Answer:

1.

