

8 CHAPTER 1 TRANSPORT AND COMMUNICATION

Importance of trade, Transport and communication

Q.1 Explain the **importance** of trade, Transport and communication?

Ans.

- i. They link the areas of production with areas of consumption.
- ii. They reduce distance between places of natural resources, manufacturing and market.
- iii. They facilitate the movement and exchange of goods and services and people.
- iv. Today's world economy heavily depends on efficient trade, transport and communication.
- v. High living standard and quality of life depend on efficient transport, communication and trade.
- vi. It promote cooperation and unity among scattered peoples

Q.2 What is the meaning of term **transport**?

Ans.

It is a service for the carriage of goods and passengers from one place to other using different modes such as humans, animals and vehicles. This movement of goods and passengers take place through land, water and air therefore it has four modes namely roadways and railways, waterways, pipelines and airways.

Q.3 What is the meaning of term **communication**?

Ans.

It means conveyance of information from the place of origin to the place of destination. Communication can be done through postal services, telephone and fax services, internet and satellites. The information is conveyed through a channel such as wires, radio waves and other frequencies.

Q.4 What is the meaning of **trade**?

Ans.

Trade means exchange of goods and services through market channels among places in response to differences in prices or demand and supply. It refers to flow of goods and services being exchanged between places.

Factors affecting mode of TRANSPORTATION

Q.5 Explain the three factors on which the significance of a mode of transport depends.

Ans. The three factors on which the significance of a mode of transport depends are: -

- i. Type of goods to be transported: - if the goods which are to be carried are bulky and heavy they can be transported easily by the water ways. If the goods are of high value and perishable they are transported by airways. Liquids and gasses are transported easily by pipelines.
- ii. Transportation cost: - road transportation is cheaper for short distances while railways are used when the distance is long. International trade is done through waterways as it is cheaper.
- iii. Means of transport available: - remote and hilly areas can be reached by airways as no other transportation is available. For transport of goods from ports roadways are used.

LAND TRANSPORT

Q.6 Describe the developments which brought revolution in land transport in the world.

Ans. In early days the humans and animals were the carriers. Revolution in land transportation came after:

- i. Invention of steam engine in the eighteenth century. It resulted in the introduction of public railway lines which became the most popular and fastest form of transport in the nineteenth century. It opened up continental interiors for commercial grain farming, mining and manufacturing.
- ii. The invention of the internal combustion engine. The road quality and vehicles (motor cars and trucks) plying over them increased many folds.
- iii. Among the newer developments in land transportation are pipelines, ropeways and cableways.
- iv. Liquids like mineral oil, water, sludge and sewers are transported by pipelines.

Q.7 What are the recent/latest developments in land transport?

Ans.

- i. Ropeways and cableways have been developed in hilly and difficult terrain.
- ii. Pipelines are used to transport liquids and gasses such as mineral oil, water, sludge and sewers.

Roadways

Q.8 Explain why freight transport by road is gaining importance.

Ans.

- i. Road transport is the most economical for short distances as compared to railways.
- ii. Roads are important than other modes of transport because it offers door to door services.
- iii. They provide long distance links through highways, motorways and autobahn.
- iv. Due to increase in the size of Lorries and its power, roadways can now carry large and heavy goods.

Q.9 What are the problems/limitations of road transport?

Ans. Road transport suffers from some limitations such as:

- i. Unmetalled roads are not effective and serviceable during the rainy season. These become unmotorable.
- ii. Even the metalled ones are seriously handicapped during heavy rains and floods.
- iii. The quality of roads varies greatly between countries because the construction and maintenance is very high.
- iv. Many cities suffer from traffic congestion during peak hours.

Highways

Q.10 What are highways?

Ans.

- Highways are metalled roads connecting distant places.
- Such roads are constructed in a manner that vehicles could ply in an unobstructed manner.
- These roads are wide as much as 80 meters, smooth, and dual-carriage.

- Several bridges and traffic lanes are constructed for the smooth flow of traffic.

Q.11 Describe some of important highways of the world.

Ans. Important highways of the world:

1. European ports are connected with each city through highways.
2. In Russia, Moscow is connected by roads to the city of Vladivostak.
3. North American highways link cities of east coasts with that of west coasts.
4. Trans Canadian highway links Vancouver with St. John city.
5. Pan -American highway links cities of South America, Central America, and the United States of America.
6. Golden Quadrangle in India links metropolitan cities.

Q.12 What are border roads? Why they are built?

Ans. Roads laid along international boundaries are called border roads.

They are built for:

- Integrating people in remote areas with major cities
- Providing defence by supplying goods to military camps in border areas.

RAILWAYS

Q.13 State the importance of railways by giving examples.

Ans. The importances are:

1. Railways are cheaper than roadways in carrying heavy goods.
2. They carry large number of passengers over a long distance. For e.g. in European countries railways are important mode of travel use by the people.
3. They link areas of production with areas of consumption for example railway network is dense in coffee growing areas of Brazil.
4. Railways link coastal ports cities to mining areas and inland cities. For e.g. in Chile railways links coastal ports and mining areas.
5. Commuter trains have become very popular in large cities. Such as Metro services in Delhi city.

Q.14 Explain the factors influencing the density of rail network. Also describe the major regions of dense rail network in the world.

Ans. Major Rail network is found in following regions of the world:

- i. The industrial regions have the highest densities of rail network in the world. Europe has one of the most dense rail networks in the world. Belgium has the highest density.
- ii. In Russia, railways account for about 90 per cent of the country's total transport with a very dense network in European west. Moscow is the most important station.
- iii. The most dense rail network is found in the highly industrialised and urbanised region of East Central U.S.A. and adjoining Canada. North America has one of the most extensive rail networks accounting for nearly 40 per cent of the world's total.
- iv. Australia has dense network in New South Wales. New Zealand's railways are mainly in the North Island to serve the farming areas.
- v. In South America, the rail network is the most dense in two regions, namely, the Pampas of Argentina and the coffee growing region of Brazil which

- together account for 40 per cent of South America's total route length. Railways link coastal centres with the mining sites in the interior.
- vi. In Asia, rail network is the densest in the thickly populated areas of Japan, China and India. West Asia is the least developed in rail facilities because of vast deserts and sparsely populated regions.
 - vii. In Africa continent, South Africa has dense network due to the concentration of gold, diamond and copper mining activities.

Trans-Continental Railways

Q.15 What are Trans-Continental Railways? Name any five important transcontinental railways in the world. Give important features of each.

Ans. Trans-continental railways run across the continent and link its two ends. They were constructed for economic and political reasons to facilitate long runs in different directions. The following are the most important of these:

1. **Trans-Siberian Railway line-**
 - a. It is in Russia from St. Petersburg in the west to Vladivostak on the Pacific Ocean in the east passing through Moscow.
 - b. The total length of this line is about 9332 km, longest in Asia.
 - c. It is double track route and electrified railway.
 - d. It connects Russian agro-centres, fur centres.
 - e. It has connecting links with many other countries. Therefore it is regionally very important.
2. **Trans-Canadian Pacific Railway-**
 - a. It is in Canada from Halifax in the east to Vancouver on the west on Pacific Ocean.
 - b. It was constructed in 1886 & its total length is about 7050 km.
 - c. It gained significance because it connect industrial region of Quebec-Montreal with softwood forest region and wheat belt of the Prairies.
 - d. A loop line from it connects the important waterway of Great Lakes. This is the economic artery of Canada.
 - e. Wheat and meat are the important exports on this route.
3. **Australian Trans-Continental Railway -**
 - a. It connects Sydney on the east with Perth on the west coast.
 - b. It runs east-west through the southern part of the Australia.
 - c. It was constructed for the economic development of the region.
4. **Trans-Asiatic Railway line** - this railway line is proposed to be build connecting Istanbul with India and Myanmar.
5. **The Union and Pacific Railway:**
 - a. This rail-line connects New York on the Atlantic Coast to San Francisco on the Pacific Coast.
 - b. The most valuable exports on this route are ores, grain, paper, chemicals and machinery.
6. **The Orient Express:**
 - a. This line runs from Paris to Istanbul.
 - b. The journey time from London to Istanbul by this Express is now reduced to 96 hours as against 10 days by the sea-route.
 - c. The chief exports on this rail-route are cheese, bacon, oats, wine, fruits, and machinery.

WATERWAYS

Q.16 What are the four advantages of water transport?

1. It does not require route construction.
2. The oceans are linked with each other and are open with ships of various sizes.
3. It is the cheapest mode of transport as the friction of water is less than the friction of air and land.
4. It saves energy cost of transportation.
5. Heavy cargo can be easily transported by the waterways.

OCEAN TRANSPORT

Q.17 What are the four advantages of ocean transport in the world?

Ans. **IMPORTANCE:**

1. It is the cheaper means of transporting goods.
2. Oceans offer free highway with no maintenance cost and can be traveled in all directions.
3. The ships are capable of carrying large loads to longer distances.
4. With improvement in its facilities such as refrigeration the efficiency of ocean transport has improved.
5. Use of containers has made cargo handling easier.

Q.18 Which three factors has improved the efficiency of ocean transport in the world?

Ans. The three factors are:

- i. Introduction of refrigerated chambers for transporting perishable goods such as fruits, vegetables, meat.
- ii. Development of specialized ships such as tankers for moving mineral oil and gas.
- iii. Development of passenger liners equipped with radar, wireless and navigation aids.
- iv. Use of containers has made cargo handling at ports easier.

IMPORTANT ROUTES of ocean transport

Q.19 Name the busiest ocean transport in the world. Why it is the most important and busiest route in the world?

Describe important ocean transport route in the world.

Ans. **IMPORTANT ROUTES**

1. North Atlantic route-

- It connects the two most developed continents of the world namely USA and Europe.
- It is the busiest route of the world because foreign trade over this route is greater than that of the rest of the world. Also called Big Trunk Route.
- Important ports are New York, London, Lisbon, and Amsterdam
- Both the coasts have highly advanced ports and harbour facilities.

2. the Mediterranean and the Indian ocean route-

- a. Industrially developed countries of Europe are connected with commercial agriculture regions of south Asian & Australia through the route.
- b. Europe exports machinery and industrial goods to Asian countries and Asian countries export agricultural products and raw material to Europe.
- c. Important centers are Mumbai, Kochin, and Aden.

- d. The volume of trade and traffic between both East and West Africa is on the increase due to the development of the rich natural resources such as gold, diamond, copper, tin, groundnut, oil palm, coffee and fruits.

3. **The Cape of Good Hope-**

- a. It provides link between West Europe and African countries with Brazil, Argentina in South America.
- b. The rich natural resources are exported to the Europe and industrial products are imported by African countries.
- c. The traffic is far less on this route because of the limited development and low population in South America and Africa.

4. **The North Pacific Route-**

- a. It links the western coasts of North America such as Vancouver, Seattle, and Portland with the ports of Asia such as Tokyo, Shanghai, Hong Kong.
- b. All the trade converges at Honolulu.
- c. Food products and manufactured goods are exported to Asia and Asia in turn exports textiles, rubber, raw materials.

SHIPPING CANALS

Q.20 Name two shipping canals in the world. State four features of both.

Ans. The two manmade navigation/shipping canals in the world are:

i. **The Suez Canal route-**

- a. It is man-made waterway in Egypt which connects Port Said on Mediterranean Sea with Port Suez on the Red Sea.
- b. It is the sea level canal without locks & about 160 km long and 11 to 15 m deep.
- c. It was constructed in 1869.
- d. It is a gateway to the Indian Ocean and reduces the distance between Western Europe and South East Asian countries by 6400 km.
- e. It has helped in the development of surrounding countries such as India.
- f. About 100 ships travel daily and each ship takes 10-12 hours to cross this canal. The tolls are so heavy that some find it cheaper to go by the longer Cape Route.

ii. **The Panama Canal-**

- a. It is man-made waterway in Panama Isthmus.
- b. It connects Colon city on Atlantic Ocean in the east with Panama city on Pacific Ocean in the west.
- c. It separates the land mass of North America from South America.
- d. It provides shorter route between east and Far East Asia and Western Europe.
- e. It has six lock systems. Ships cross the canal through these locks.
- f. The economic importance of this canal is less than that of Suez Canal. However, it is vital to the economies of Latin America.
- g. The Canal is about 72 km. long.
- h. It shortens the distance between New York and San Francisco by 13,000 km by sea.

INLAND WATERWAYS

Q.21 Explain the three factors on which the development of inland transport depends.

- Ans. The inland transport depends on three factors for its development. They are:
- i. Width and depth of channel: silt (sand) deposited in the river/channel bed obstructs movement of boats therefore channels having large width and deep bed is suitable for inland transport.
 - ii. Continuity in the flow of water: lack of water due to divergence for irrigation hinders the development of inland transport.
 - iii. Transport technology in use: poor maintenance of inland waterways and inefficient transport restricts its development.

Q.22 Why riverways have lost its advantages in many parts of the world?

Ans. Riverways have lost its advantages due to:

1. Competition from railways.
2. Problem of silt in rivers and canals.
3. Lack of water in the river due to diversion for irrigation.
4. Poor maintenance of river channels.

Q.23 Mention three measures taken to improve the navigability of river channel.

Ans. Despite inherent limitations, many rivers have been modified to enhance their navigability by:

- a. Dredging, removing the silt by machines from the river bed.
- b. Stabilising river banks by concrete.
- c. Building dams and barrages for regulating the flow of water.

Important inland waterways

Q.24 Describe important inland waterways of the world.

Ans. Important inland waterways of the world are:

- i. **The Rhine Waterways:**
 - a. The Rhine River flows through Germany and the Netherlands.
 - b. It is navigable for 700 km from Rotterdam, Netherlands to **Basel** in Switzerland.
 - c. It flows through a rich coalfield and the whole basin has become a prosperous manufacturing area.
 - d. This waterway is the world's most heavily used.
 - e. It connects the industrial areas of Switzerland, Germany, France, Belgium and the Netherlands with the North Atlantic Sea Route.
- ii. **The Danube Waterway:**
 - a. This important Inland waterway serves Eastern Europe.
 - b. The Danube river rises in the Black Forest and flows eastwards through many countries.
- iii. **The Volga Waterway:**
 - a. The Volga is one of the most important waterways in Russia.
 - b. It provides a navigable waterway of 11,200 km up to the Caspian Sea.
- iv. **The Great Lakes - St. Lawrence Seaway:**
 - a. The Great Lakes of North America Superior, Huron Erie and Ontario are connected by Canal to form an inland waterway.
 - b. The estuary of St. Lawrence River, along with the Great Lakes, forms a unique commercial waterway in the northern part of North America.

- c. The ports on this route like Duluth and Buffalo are equipped with all facilities of ocean ports.
- d. As such large oceangoing vessels are able to navigate up the river deep inside the continent to Montreal.
- e. But her goods have to be trans-shipped to smaller vessels due to the presence of rapids. Canals have been constructed up to 3.5 m deep to avoid these.
- f. This has helped in the industrial and economic development of this region.

AIRWAYS

Q.25 Explain the significance of air transport.

Ans. Air transport has brought about a connectivity revolution in the world in following ways:

1. It is the fastest mode of transport.
2. Air transport is used only for high value goods and passengers.
3. Valuable goods can be moved rapidly.
4. It is preferred for long distance travel.
5. It is the easy way to reach inaccessible areas such as mountainous snow fields or inhospitable deserts. In the Himalayan region, the routes are often obstructed due to landslides, avalanches or heavy snow fall. At such times, air travel is the only alternative to reach a place.
6. Airways also have great strategic importance.

REQUIREMENTS FOR THE DEVELOPMENT OF AIR TRANSPORT

1. Airports with wide facilities have to be build.
2. The construction of airports and facilities is very costly therefore airports are built in places where the traffic is large.
3. It requires large arrangements such as hanger, fueling, landing facilities.

Q.26 Name the three major regions having high/dense network of airways?

Ans. The three regions are:

- a. Western Europe: important airports are Rome, London, Berlin.
- b. Eastern United States of America: airports are New York,
- c. Southeast Asia: airports are Singapore, Bangkok.

PIPELINES

Q.27 Name the longest pipeline in the world. Give four advantages of pipelines. Why pipelines are extensively used in the world to transport oil and gas?

Ans. PIPELINES

1. Pipelines are used to transport liquids and gasses such as water, mineral oil and natural gas for uninterrupted flow.
2. Cooking gas or LPG and milk (in New Zealand) is supplied through it.
3. They are used to transport coal mixed with water.
4. Pipelines carry mineral oil from oil fields to refineries.
5. The world's longest pipeline is 'COMECON', which is 4800 km. long. It connects oil fields of Ural and Volga to the East Europe.
6. The famous pipeline of USA is 'Big Inch' which carries mineral oil from Gulf of Mexico to eastern part of USA.

7. The proposed Iran-India via Pakistan international oil and natural gas pipeline will be the longest in the world.

COMMUNICATION- IMPORTANCE

Q.28 Describe the importance of communications.

Ans.

1. Telegraph has helped in the past to colonize American West.
2. Telephone has promoted urbanization of America
3. It has helped in spread of the industries in smaller towns.
4. Now due to telephone many firms have their offices and branches in smaller towns.
5. In developing countries, the use of cell phones, made possible by satellites, is important for rural connectivity.
6. The world has converted into a **global village** because of fast and reliable means of communication.

Q.29 What is internet? State four merits of internet.

Ans. It is an electronic network of computer which connects million of people across the world. It is the result of digitalization of information in which the telecommunication is merged with computers.

MERITS

- a. It is the largest electronic network of the world.
- b. It helps in connecting to the world of knowledge from anywhere in the world.
- c. Electronic commerce is done through internet without going to banks.
- d. It gives access to personal communication through e-mail.

SATELLITE COMMUNICATION- IMPORTANCE:

- a. Satellites has brought changes in the areas of communication by reducing the time and cost of it.
- b. It cost same to communicate over 500 km as it does over 5000 km. it has made long distance communication very efficient and effect.
- c. Through it information on weather, weather forecasting about storm and news is collected effately.

Cyber Space - Internet

Q.30 What is cyberspace?

Ans. Cyberspace is the world of electronic computerised space. In simple words, it is the electronic digital world for communicating. It is also referred to as the Internet. Cyberspace exists everywhere. It may be in an office, sailing boat, flying plane and virtually anywhere.

Q.30 Describe how the modern communications has converted the world into global village.

Ans. The modern communications such as internet has expanded. Billions of people use the Internet each year. Cyberspace has expanded the contemporary economic and social space of humans through e-mail, e-commerce, e-learning and e-governance. Internet together with fax, television and radio will be accessible to more and more people cutting across place and time. It is these modern communication systems that have made the concept of global village a reality.