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**CBSE Class 12 Geography**  
**NCERT Solutions**  
**Chapter 10**  
**Transport and Communication**

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**1. Choose the right answers of the following from the given options.**

**(i) In how many zones has the Indian Railways system been divided?**

1. 9
2. 12
3. 16
4. 14

**Ans. (3) 16**

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**(ii) Which one of the following is the longest highway of India?**

1. N.H.-1
2. N.H.-6
3. N.H.-7
4. N.H.-8

**Ans. (3) N.H.-7**

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**(iii) On which river and between which two places does the National Water Way No. 1 lie?**

1. The Brahmaputra, Sadiya-Dhubri
2. The Ganga, Haldia-Allahabad
3. West Coast Canal, Kottapuram to Kollam

**Ans. (2) The Ganga, Haldia-Allahabad**

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**(iv) In which of the following year, the first radio programme was broadcast?**

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1. 1911
  2. 1936
  3. 1927
  4. 1923

**Ans. (4) 1923**

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**2. Answer the following questions in about 30 words.**

**(i) Which activity does transportation convey? Name three major modes of transportation.**

**Ans.** Transport is included in tertiary activities. Under this, people and goods are taken from one place to another. There are three types of transport:

1. Land transport—Roads, railways, ropeways and pipelines.
  2. Water transport—Inland waterways, sea routes and ocean routes.
  3. Air transport—National and International.
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**(ii) Discuss advantages and disadvantages of pipeline transportation.**

**Ans. Advantages of pipelines:**

- Pipelines are used to transport liquids and gases such as water, mineral oil and natural gas for uninterrupted flow.
- Pipelines can be laid through difficult terrains as well as underwater.
- It involves very low energy consumption.
- It needs very little maintenance.
- Pipelines are safe and environmental friendly.

**Disadvantages of Pipelines:**

- It is not flexible , i.e.,it can be used only for a few points.
  - Initial construction cost is very high.
  - Its capacity cannot be increased once it is laid.
  - It is difficulty to make security arrangements for pipelines.
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**(iii) What do you mean by 'communication'?**

**Ans.** It means conveyance of information from the place of origin to the place of destination. Human beings have evolved different methods of communication over time. Invention of post-office, telegraph, printing press, telephone, satellite, etc. has made the communication much faster and easier. Development in the field of science and technology has significantly contributed in bringing about revolution in the field of communication. On the basis of scale and quality, the mode of communication can be divided into following categories:

1. Personal Communication System
2. Mass Communication System

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**(iv) Discuss the contribution of Air India and Indian in the air transport of India.**

**Ans.** Air India provides International Air Services for both passengers and cargo traffic. It connects all the continents of the world through its services. In 2005, it carried 12.2 million passengers and 4.8 lakh metric tonnes of cargo. About 52 per cent of the total air traffic was handled only at Mumbai and Delhi airports.

Indian airlines were incorporated in 1953. Now Indian Airlines is known as 'Indian'. The country's largest state-owned domestic carrier, Indian Airlines dropped the word 'Airlines' from its name and is known as 'Indian' with effect from December 8, 2005.

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**3. Answer the following questions in about 150 words.**

**(i) Which are the chief means of transportation in India? Discuss the factors affecting their development.**

**Ans.** The various means of transport available in India are:

- **Road Transport:** In our country, we have a good and large network of roads. Roads can be built even in places where other means of transport are not possible. We have kutchra roads and pucca roads in our country. In villages, most of the roads are kutchra roads. The farmers mostly use bullock-carts to carry the goods to towns and cities. Some farmers have tractors; they attach a trolley with the tractor to carry goods. Some villages are connected with pucca roads. The pucca roads provide the means for

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fast and comfortable travel. The roads in our country connect the towns and cities, even in remote areas like mountains and desert.

- **Rail Transport:** Railways are an important means of land transport. The Indian Railway System is today the largest in Asia and the second largest in the world. The Indian railways carry crores of passengers and heavy and bulky goods from one part of country to another. All the important towns and cities are connected by the railways. Railways provide a cheap and fast means of transport.
- **Water Transport:** Ships and boats are means of water transport. Ships sail in the oceans and seas, carrying all types of goods from one part of the world to another. India has many ports along its long coastline. Steamers and boats sail along big rivers carrying passengers and goods from town to town, along their banks in India. Big rivers like the Ganga and Brahmaputra are used extensively as an inland means of water transport. The backwaters of Kerala are also widely used for water transport.
- **Air Transport:** Aeroplanes are the fastest means of transport. All our major cities are connected to one another and to almost every part of the world through air transport. Air transport has made not only our country but also the entire world very small. Food, medicine, etc., can reach those places where rail and road transport cannot reach. Helicopters and aeroplanes are pressed into service in times of floods, other natural calamities or accidents

**Factors influencing the Development of Transport:** The development of transport in any region is influenced by the following factors:

- (i) **The Historical Factor:** This involves the location and patterns of systems, technological development, institutional development and settlement, and land-use patterns.
- (ii) **The Technological Factor:** The technological characteristics of each major transport mode are considered together with a discussion of the effects of technological advances.
- (iii) **The Physical Factor:** This includes physiographic controls upon route selection, and geological and climatic influences.
- (iv) **The Economic Factor:** The structure and nature of transport costs are examined, together with service quality and methods of pricing and charging.
- (v) **Political and Social Factors:** These include political motives for transport facilities; government involvement in capital, monopolies competition, safety, working conditions and coordination between modes, transport as an employer and social consequences of transport

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developments.

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**(ii) Give a detailed account of the development of railways in India and highlight their importance.**

**Ans.** Indian railway system is the main artery of the country's inland transport. Railways virtually form the lifeline of the country, catering to its needs for large scale movement of traffic, both freight and passenger thereby contributing to the economic growth and also promoting national integration. In fact, railways constitute the backbone of surface transport system in India.

**Development and Growth of Indian Railways:** The first railway line in India was opened for public traffic on 16 April, 1853 between Mumbai and Thane over a distance of 34 km. This line was extended to Kalyan on 1 May, 1854 and to Khopoli on 12 May, 1856. The Khandala-Pune section was opened to traffic on 14 June, 1858.

Meanwhile, the construction of the railway lines was going on in eastern part of the country and the first section of the East Indian Railway, from Haora to Hugli, a distance of 37 km was inaugurated on 15 August, 1854. The Haora-Hugli section was extended to Pundooah on 1 Sept, 1854 and to Raniganj Coal Mines on 3 Feb, 1855. The line from Kanpur to Allahabad was opened in 1859 and the Haora-Khana-Rajmahal section was completed in 1860. Mughal Sarai also appeared on the railway map of India in 1862. In 1860, the Kanpur-Etawah section was opened to traffic and between 1862 and 1866 all the gaps between Howrah and Delhi were filled.

The southern part of the country did not lag behind and got its first 105 km long railway line from Royapuram to Arcot in 1856. This line was extended to Kadalundi (near Calicut) on the west coast in 1861. The Jolar Pettai-Bangalore Cantonment section was opened in 1864.

In 1870, the all-rail route between Kolkata and Mumbai started functioning and the main line from Mughal Sarai to Lahore (now in Pakistan) was completed. In 1871, the Mumbai-Chennai route was also opened. Thus, within a short span of 18 years from 1853 to 1871, most of the important cities of India were connected by rail.

The total route kilometre age in 1870 was 7,680 km which rose to 39,834 km by the turn of 19th century and to 66,234 by 31 March, 1940. As on 15 August 1947, Indian Railways

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consisted of 65,217 km out of which 10,523 km went to Pakistan, leaving India with 54,694 km.

At present India has the second largest railway network in Asia and the fourth largest in the world after the USA (2, 27,736 km), Russia (2, 22,293 km), and China (87,157 km). But India tops world's leading countries with regard to passenger/ kilometre earned.

It is the largest public sector undertaking of the country comprising a vast network of 6,906 stations spread over a route length of 63,122 km with a fleet of 7,681 locomotives, 39,852 passenger service vehicles, 4,904 other coaching vehicles and 2,14,760 wagons as on 31 March, 2003. The growth of Indian Railways has been phenomenal indeed. Another 55 km long rail route-length between Jammu and Udhampur was added to the existing route-length on 13 April, 2005. Built at the cost of Rs. 600 crore, this is an important part of Rs 3,500 crore project of 344 km rail line connecting Jammu Tawi to Baramulla via Katra, Qazigund and Srinagar.

It has the length of 62,915 km with a fleet of 6,909 locomotives, 39,114 coaches, 3,444 electric multiple units and 2, 80,791 wagons. Another 837 km route length is added with the completion of the Konkan railway route. About 13 thousand trains cover a distance of about 14 lakh kilometres and carry over 11 million passengers and one million tonnes of freight per day. These facts make Indian railways a vital transport system in the country.

Of the total freight, over 85 per cent comprises coal, ores, foodgrains, cement and petroleum. A huge army of 15 lakh permanent and 2.5 lakh temporary employees is ceaselessly active in running and maintaining the railways, making it the largest employer of manpower in India.

**Importance:**

1. Railways provide the cheapest and most convenient mode of passenger transport both for long distance and suburban traffic.
2. Railways have played a significant role in development and growth of industries. Growth of textile industry in Mumbai, jute industry in areas surrounding Kolkata, coal industry in Jharkhand, etc is largely due to the development of railway network in these areas. Railways help in supplying raw materials and other facilities to the factory sites and finished goods to the market.
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4. Agriculture also owes its growth to railways to a great extent. Now farmers can sell their agricultural produce to distant places and even sell them in the world market at remunerative prices.

5. Railways are also helpful in removing isolation between cities and countryside and have played a significant role in disseminating innovations and new ideas.

6. Railways are particularly suited to long distance journey and provide a strong medium of national integration.

7. Introduction of super-fast trains and container services in major cities of India have ensured quick movement of men and material.

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**(iii) Describe the role of roads in the economic development of India. Ans. Importance of Roads:**

- Roads play a very important role in the transportation of goods and passengers for short and medium distances.
- It is comparatively easy and cheap to construct and maintain roads.
- Road transport system establishes easy contact between farms, fields, factories and markets and provides door to door service.
- Roads can negotiate high gradients and sharp turns which railways cannot do. As such, roads can be constructed in hilly areas also.
- Roads act as great feeders to railways. Without goods and sufficient roads, railways cannot collect sufficient produce to make their operation successful.
- Road transport is more flexible than the railway transport. Buses and trucks may be stopped anywhere and at anytime on the road for loading and unloading passengers and goods whereas trains stop only at particular stations.
- Perishable commodities like vegetables, fruits and milk are transported more easily and quickly by roads than by railways.

Due to above-mentioned advantages, the road transport has become very popular and its share is constantly increasing.