

For XAT , CMAT , SNAP , MAT , IIFT Exam

TRANSPORTATION

- Transport is a system in which passengers and goods are carried from one place to another. Transport system is considered as the lifeline of a country

AIR TRANSPORT

- The Indian Airlines and Air India are the two airline services run by the government of India
- Domestic Airways fly within the boundaries of a country and International Airways connect major cities of the world.
- Airports Authority of India (AAI) was constituted in 1995. It provides security to Indian Airports
- Pawan-Hans Helicopter Ltd has been providing Helicopter support services to various state governments in India particularly north east India Inter Island, Ferry services in Andaman & Nicobar Islands, services to Lakshadweep Island etc.,

LIST OF INDIAN AIRPORTS (DOMESTIC AND INTERNATIONAL)

Name of the Airport	Location	State/Union Territory
Veer Savarkar International Airport	Port Blair	Andaman and Nicobar Island
Visakhapatnam International Airport	Visakhapatnam	Andhra Pradesh
Rajiv Gandhi International Airport	Hyderabad	Telangana
Lokpriya Gopinath Bardoloi International Airport	Guwahati	Assam
Indira Gandhi International Airport	New Delhi	Delhi
Goa International Airport	Goa	Goa
Sardar Vallabhai Patel International Airport	Ahmedabad	Gujarat
Kempe Gowda International Airport	Bengaluru	Karnataka
Mangalore International Airport	Mangalore	Karnataka
Cochin International Airport	Kochi	Kerala
Calicut International Airport	Kozhikode	Kerala
Trivandrum International Airport	Thiruvananthapuram	Kerala
Chhatrapati Shivaji International Airport	Mumbai	Maharashtra
Dr Babasaheb Ambedkar International Airport	Nagpur	Maharashtra
Bir Tikendrajit International Airport/	Imphal	Manipur

Biju Patnaik International Airport	Bhubaneswar	Odisha
Sri Guru Ram Dass Jee International Airport	Amritsar	Punjab
Jaipur International Airport	Jaipur	Rajasthan
Chennai International Airport	Chennai	Tamil Nadu
Coimbatore International Airport	Coimbatore	Tamil Nadu
Tiruchirapalli International Airport	Tiruchirapalli	Tamil Nadu
Chaudhary Charan Singh International Airport	Lucknow	Uttar Pradesh
Lal Bahadur Shastri Airport	Varanasi	Uttar Pradesh
Netaji Subash Chandra Bose International Airport	Kolkata	West Bengal
Maharana Pratap Airport/ Dabok Airport	Udaipur	Rajasthan
Sheikh ul-Alam International Airport	Srinagar	Jammu & Kashmir
Birsa Munda Airport	Ranchi	Jharkhand
Swami Vivekananda Airport	Raipur	Chhattisgarh
Jai Prakash Narayan International Airport	Patna	Bihar
Dr. Babasaheb Ambedkar International Airport	Nagpur	Maharashtra
Mandakalli Airport	Mysore	Karnataka
Kushok Bakula Rimpochee Airport	Leh	Ladakh
Devi Ahilyabai Holkar international airport	Indore	Madhya Pradesh
Raja Bhoj Airport	Bhopal	Madhya Pradesh

ROAD TRANSPORT IN INDIA

- Roads in India have been classified as National Highways (NH), State Highways (SH), Major District Roads, and Rural Roads
- The National Highways Authority of India (NHAI), which is an autonomous body under the Ministry of Transport, The National Highways Authority of India (NHAI) was operationalized in 1995. The NHAI is responsible for the development, maintenance, and operation of National Highways .The National Highways constitute only 2.7per cent of the total road length, but carry about 40 per cent of the road traffic

- State Highways are constructed and maintained by the state governments.
- Border road and International highways maintained by Central Government
- About 80 per cent of the total road length in India are categorized as rural roads
- District Roads provide connectivity between the district and taluk headquarters with the state highways and national highways. District Roads are constructed and maintained by the Public Works Department of the states
- **NH 44** - 3,745 km (2,327 mi) from Srinagar to Kanyakumari. It is the longest national highway in India
- Golden Quadrilateral comprises the National Highways connecting the four metro cities, Delhi, Mumbai, Chennai and Kolkata. The component has a total length of 5846km
- Other roads: Rural roads, which link rural areas and villages with towns, are classified under this category. These roads received special impetus under the Pradhan Mantri Grameen Sadak Yojana.
- Border Roads: Apart from these, Border Roads Organisation a Government of India undertaking constructs and maintains roads in the bordering areas of the country. This organisation was established in 1960 for the development of the roads of strategic importance in the northern and north-eastern border areas. These roads have improved accessibility in areas of difficult terrain and have helped in the economic development of these area.
- Sher shah suri built the shahi (Royal) road to strengthen and consolidate his empire from the Indus valley to the Sonar valley in Bengal. This road from Kolkata to Peshawar was renamed as Grand Trunk(GT) road during the British period
- **North-South and East-West Corridors:** North South corridor aims at connecting Srinagar in Jammu and Kashmir with Kaniyakumari in Tamil Nadu with 4,076km long road. The East-West corridor has been planned to connect Silchar in Assam with the port town of Porbandar in Gujarat with 3,640km of road length. The two corridors intersect at Jhansi.
- **Golden Quadrilateral:** It comprises construction of 5,846-km long 4/6 lane, high density traffic corridor, to connect India's four big metro cities of Delhi-Mumbai-Chennai- Kolkata. With the construction of Golden Quadrilateral, the time, distance and cost of movement among the mega cities of India will be considerably minimised.

WATERWAYS

- The water transport is of two types- Inland Waterways and Ocean water ways(sea routes).

INLAND NATIONAL WATERWAYS OF INDIA

- Inland Waterways Authority was set up in 1986 for the development, maintenance, and regulation of Inland national waterways in the country
- The total cargo carried by inland waterways is just about 0.1% of the total inland traffic of India

NW Number	River system	Route	Length of NW In KM
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NW – 1	Ganga-Bhagirathi-Hooghly	Prayagraj – Haldia	1620
NW – 2	Brahmaputra	Sadiya-Dhubri	891
NW – 3	West Coast Canal, Champakara Canal and Udyogamandal Canal	Kottapuram – Kollam	205
NW – 4	Krishna and Godavari	Kakinada-Marakkanam	1095
NW – 5	Mahanadi, Brahmini	Magalgarhi to Pradeep and Talcher to Dhamra	623

OCEANIC ROUTES

- Oceanic routes play an important role in the transport sector of India's economy. About 95% of India's foreign trade by volume and 70 percent by value moves through ocean routes.
- Kandla in Kuchchh was the first port developed soon after Independence to ease the volume of trade on the Mumbai port, in the wake of loss of Karachi port to Pakistan after the Partition. Kandla also known as the Deendayal Port, is a tidal port.
- Mumbai is a natural harbour and the biggest port of the country.
- Jawaharlal Nehru Port at Nhava Sheva was developed as a satellite port to relieve the pressure at the Mumbai port. It is the largest container port in India.
- Chennai Port is one of the oldest ports on the eastern coast. It is an artificial harbour built in 1859.
- Visakhapatnam Port in Andhra Pradesh is a land-locked harbour, connected to the sea by a channel cut through solid rock and sand. An outer harbour has been developed for handling iron-ore, petroleum and general cargo.
- Visakhapatnam port is known as Jewel of all port
- India has 13 major port

Port	State	Zone
Kolkata (Haldia)	West Bengal	Eastern Coast
Paradip	Odisha	Eastern Coast
Vishakapatnam	Andhra Pradesh	Eastern Coast
Ennore	Tamil Nadu	Eastern Coast
Chennai	Tamil Nadu	Eastern Coast
Tuticorin Port	Tamil Nadu	Eastern Coast
Kochi	Kerala	Western Coast
Mangalore	Karnataka	Western Coast
Mormugao port	Goa	Western Coast
Jawaharlal Nehru Port	Maharashtra	Western Coast

Mumbai Port	Maharashtra	Western Coast
Kandla	Gujarat	Western Coast
Port Blair port	Andaman and Nicobar	

RAILWAYS

- Railways was introduced to India in 1853
- The first railway line in India between Mumbai to Thane was constructed during the rule of Lord Dalhousie
- The headquarter of Indian Railways is New Delhi.
- The total length of Indian Railways network is 67368 km
- The first sub-urban railway was started in 1925 in Mumbai.
- Konkan Railways line runs parallel to the Arabian Sea
- Gorakhpur railway station has the world's longest railway platform
- Mumbai is the busiest suburban railway network in India
- Vivek Express (Dibrugarh to Kanyakumari) is the longest train route in the Indian Subcontinent
- Ahmedabad Mumbai Central Double Decker Express is the India's first double Decker train
- First female loco pilot of the Indian Railways in India is Surekha Shankar Yadav
- UNESCO World Heritage Sites on Indian Railways are
 1. The Darjeeling Himalayan Railway
 2. The Nilgiri Mountain Railway and
 3. The Kalka-Shimla Railway,
 4. The Chatrapati Shivaji Terminus
- India's first private train is Delhi - Lucknow Tejas Express
- The first Shatabdi Express train was introduced in 1988 between New Delhi and Jhansi Junction
- Shatabdi Express trains were introduced in 1989 to commemorate the 100th anniversary of Jawaharlal Nehru
- Indian Railways was nationalized in 1951
- Uttar Pradesh has the longest route (in kilometers) of railway line in India
- National Rail Museum located in New Delhi
- Northern Railways is the largest zone in terms of route kilometers
- The Maitree Express Running between India with Bangladesh
- Great Indian Peninsula Railway ran the first train from Bori Bunder to Thane in 1853
- The width of broad gauge railway line in India is 5 feet 6 inches
- Siliguri station has all the three gauges viz. broad, metre and narrow
- The world's highest railway bridge in Kashmir being constructed over Chenab river
- India's first rail auto hub will be located in Chennai
- The National Rail and Transportation Institute (NRTI) is India's first and only transportation university located in Vadodara
- The Railway network is divided into 18 zones. The 18 zones and their respective headquarters are given below

Zonal Railways	Headquarters
Central railway	Mumbai CST
Eastern railway	Kolkata
East Central Railway	Hajipur
East Coast Railway	Bhubaneswar
Northern Railway	New Delhi
North Central Railway	Prayagraj
North Eastern Railway	Gorakhpur
North Frontier Railway	Maligaon, Guwahati
North Western Railway	Jaipur
Southern Railway	Chennai
South Central Railway	Secunderabad
South Eastern Railway	Kolkata
South East Central Railway	Bilaspur
South Western Railway	Hubballi
Western Railway	Mumbai
West Central Railway	Jabalpur
Kolkata metro Railway	Kolkata
South Coast Railway	Visakhapatnam

OIL AND GAS PIPELINES

- Pipelines are the most convenient and efficient mode of transporting liquids and gases over long distances. Even solids can also be transported by pipelines after converting them into slurry
- Oil India Limited (OIL) under the administrative set up of the Ministry of Petroleum and Natural Gas is engaged in the exploration, production and transportation of crude oil and natural gas. It was incorporated in 1959 as a company
- Asia's first cross country pipeline covering a distance of 1,157 km was constructed by OIL from Naharkatiya oilfield in Assam to Barauni refinery in Bihar. It was further extended up to Kanpur in 1966