

MIND MAP

Sea and Oceanic routes are used for international trade and are connected through ports.
Major ports are administered by Central government
East Coast Major ports:
Paradip, Visakhapatnam, Chennai, Ennore and Tuticorin

Population composition is characterised by

Age and sex,
Marital status,
Caste & religion,
Language, education, occupation

Oceanic Routes

INDIA
Population,
Transport,
Communication
& Trade

Statutory towns:
3799 – 4041
Census towns
1362 – 3894
Urban agglomeration
384 – 475
Outgrowths
962 – 981

Urbanisation
in Town
2001 – 2011
(in numbers)

Mind mapping factors affecting the demographic trends

Age composition helps us to understand the percentage of

1. The proportion of population
2. Children, less than 15 years of age 29.5%
3. People above 60 years constitute 8.0%.
4. Dependent population (16 – 15 years) 62.5%

1. Eco social environmental system.
2. Increase in human population.
3. Quality of natural resources bio – diversity



POINTS TO REMEMBER

- The growth of population is determined by the birth rate, death rate and migration of people.
- In India the first census was carried out in the year 1872. But the first complete and synchronous census was conducted in 1881.
- Communication is classified into personal and mass communication.
- The population of India as per 2011 census is 1210.19 million.
- Uttar Pradesh is the most populous state of India.
- Sikkim is the least populous state of India.
- In the demographic history of India, the year 1920 - 21 is called the year of Great Demographic Divide.
- The age composition of population refers to the number of people in different age groups in a country.
- The ratio between the economically active and economically inactive of population is termed as Dependency Ratio.
- National Highways Authority of India (NHAI) was established in 1995. It is an autonomous body under the Ministry of Surface Transport.
- The longest National highway is NH - 7 which runs from Varanasi to Kanniyakumari.
- The first train steamed off from Mumbai to Thane in 1853, covering a distance of 34 km.
- Gatiman Express is the fastest operational train in India. It connects New Delhi and Agra and touches 160 km/h. This train takes a travel time of 105 minutes to cover 200 km journey.
- In 2007, the Government of India merged the Air India and Indian Airlines under National Aviation Corporation of India Limited (NACIL).
- The Inland Waterways Authority was set up in 1986.

PLACES AND THEIR IMPORTANCE

- 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 was renamed as **Grand Trunk (GT) road** during the British period. It has 2 segments now: (a) (NH)-1 from Delhi to Amritsar, and (b) NH-2 from Delhi to Kolkata.
- The headquarters of Indian Railways is **New Delhi**.
- The first sub-urban railway was started in 1925 in **Mumbai**.
- The metro in **Kolkata** is the first one in India. It is also called as Mass Rapid Transit System (MRTS).
- **Chennai** becomes the sixth Indian city with metro railway.
- The state of **Meghalaya** has no railway network.
- The major ports in India:
East coast: Kolkata, Paradip, Visakhapatnam, Chennai, Ennore and Tuticorin.
West coast: Kandla, Mumbai, Nhava Seva, New Mangalore, Marmagoa and Kochi.



I. Choose the correct answer:

TEXTUAL QUESTIONS

1. The scientific study of different aspects of population is called
a) Photography b) Demography c) Choreography d) Population density
2. The state with highest literacy rate as per 2011 census is _____.
a) Tamilnadu b) Karnataka c) Kerala d) Uttar Pradesh
3. Human Development is measured in terms of _____.
a) Human Resource Index b) Per Capita index
c) Human Development Index d) UNDP
4. _____ transport provides door to door services.
a) Railways b) Roadways c) Airways d) Waterways
5. The length of Golden Quadrilateral superhighways in India is
a) 5846 km b) 5847 km c) 5849 km d) 5800 km
6. The length of navigable inland waterways in India is
a) 17,500 km b) 5000 km c) 14,500 km d) 1000 km
7. The National Remote Sensing Centre(NRSC) is located at _____.
a) Bengaluru b) Chennai c) Delhi d) Hyderabad
8. The transport useful in the inaccessible areas is
a) Roadways b) Railways c) Airways d) Waterways
9. Which of the following is associated with helicopter service?
a) Air India b) Indian Airlines c) Vayudoot d) Pavan Hans
10. The major import item of India is
a) Cement b) Jewels c) Tea d) Petroleum

ADDITIONAL QUESTIONS

11. The people who are able to read and write are known as
a) literates b) illiterates c) geniuses d) ignorants
12. Workers are placed under _____.
a) two fold categories b) Three fold categories
c) four fold categories d) None of the above
13. The process of society's transformation from rural to urban is known as
a) globalisation b) urbanization c) privatization d) mechanisation
14. Transport system is considered as _____ of a country.
a) Life line b) half line c) Side line d) None of the above
15. Airways are the _____.
a) quickest, costliest, most modern and comfortable
b) slowest, cheapest, ancient and uncomfortable
c) dullest and irritating means of Transport
d) negligible means of Transport



ANSWER

- | | | |
|---|-------------------------------|-------------------------------|
| 1. b) Demography | 2. c) Kerala | 3. c) Human Development Index |
| 4. b) Roadways | 5. a) 5846 km | 6. c) 14,500 km |
| 7. d) Hyderabad | 8. c) Airways | 9. d) Pavan Hans |
| 10. d) Petroleum | 11. a) literates | 12. b) Three fold categories |
| 13. b) urbanization | 14. a) Life line of a country | |
| 15. a) quickest, costliest, most modern and comfortable | | |

II. Fill in the Blanks:



ADDITIONAL QUESTIONS

1. The total number of people residing in a country at a specified period of time is called _____ of that country.
2. The population census happens in an interval of _____ years.
3. The term _____ refers to the way people are spaced over the earth surface.
4. _____ is the most populous state in the country.
5. _____ is the least populous state of India.
6. Most densely populated state of India is _____.
7. The state with least population density is _____.
8. Among the union territories _____ has the highest density of population.
9. _____ is the movement of people across regions and territories.
10. _____ refers to the number of people in different age groups in a country.
11. _____ is defined as the number of females per 1000 male population.
12. The percentage of literate people to the total population is termed as _____.
13. India is the _____ most populous country in the world.
14. The population of India as per 2011 census is _____ million
15. The major urban centres in the country are known as _____.
16. The most urbanised state in India is _____.
17. Transport is essential for _____ of a country.
18. _____ connects India's four metropolitan cities, Delhi – Chennai, Mumbai – Delhi.
19. _____ are multi-lane good quality highways for high speed traffic.
20. _____ are roads that link India with neighbouring countries.



ANSWER

- | | | |
|----------------------------|---------------------------------------|----------------------------|
| 1. Population | 8. Delhi | 14. 1210.19 million |
| 2. 10 | 9. Migration | 15. million cities |
| 3. Population Distribution | 10. The age composition of population | 16. Goa |
| 4. Uttar Pradesh | 11. Sex ratio | 17. economic development |
| 5. Sikkim | 12. literacy rate | 18. Golden quadrilateral |
| 6. Bihar | 13. Second | 19. Express ways |
| 7. Arunachel Pradesh | | 20. International Highways |

III. Match the following:



TEXTUAL QUESTION

A)

1. Border Road Organisation
2. INSAT
3. Mazagaon Dock
4. Urban sprawl
5. Konkan Railways

- a. Satellite communication
b. Impact of Urbanization
c. 1998
d. Mumbai
e. 1960
f. Hyderabad

Ans:

- 1) e
2) a
3) d
4) b
5) c

B)

1. The distribution of population in India
2. Mass migration
3. HDI
4. PWD
5. Roads

- a. Composite Index
b. is quite uneven
c. rural to urban
d. the most universal mode of transport
e. Public Works Department

Ans:

- 1) b
2) c
3) a
4) e
5) d

C)

1. Road density
2. Broad gauge
3. engineering marvel
4. MRTS
5. Pipelines

- a. with a width of 1.676 mtr
b. Konkan Railway
c. Mass Rapid Transit System
d. to connect oil and natural gas fields
e. highest in Kerala and lowest in Jammu & Kashmir

Ans:

- 1) e
2) a
3) b
4) c
5) d

D)

1. Coastal shipping
2. major ports are administered by
3. Hindustan shipyard
4. Air transport facilitates connectivity on a
5. Airports are managed by

- a. the central government
b. transport of bulk goods in India
c. Airports authority of India
d. Vishakapatnam
e. national, regional, international scale

Ans:

- 1) b
2) a
3) d
4) e
5) c



E)	1. Communication 2. QMS 3. STD 4. Mass communication 5. Social media	a. Quick Mail Service b. Print media and electronic media c. interactive computer mediated technology d. involves exchange of information e. Subscribers Trunk Dialling	Ans: 1) d 2) a 3) e 4) b 5) c
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IV. Answer the following in brief:**TEXTUAL QUESTIONS****1. What is Human Development?**

Human development is a process of enlarging the range of people's choice, increasing their opportunities for education, health care, income and empowerment. It covers the full range of human choices from a sound physical environment to economic, social and political freedom.

2. What is migration? State its types.

- It is the movement of people across regions and territories.
- The types of migration are:
 - (1) Internal migration (within a country)
 - (2) International migration (between the countries).

3. Write any four advantages of Railways.

- It promotes national integration by bringing people together.
- It also promotes trade, tourism, education, etc.
- Railways help in the commercialization of the agriculture sector by facilitating the quick movement of perishable goods.
- Its role in transporting raw materials to industries and finished goods to markets is invaluable.

4. Write a note on Pipeline network transport in India.

Pipelines provide a very convenient mode of transport to connect oil and natural gas fields, refineries and to the markets. Solids can also be transported through a pipeline when converted into slurry. The initial cost of laying pipeline is high but subsequent running cost is minimum.

5. State the major Inland waterways of India.

- National Waterway 1: Ganga - Bhagirathi - Hooghly
- National Waterway 2: Brahmaputra - Dhubri - Sadiya
- National Waterway 3: Kollam - Kottapuram in the state of Kerala.

6. What is communication? What are its types?

- Communication is a process that involves exchange of information, thoughts and ideas.
- Communication is categorized into
 - (1) Personal communication and
 - (2) Mass communication.

7. Define "International trade".

Trade carried on between two or more countries is called international trade. It is also called as external trade or foreign trade.



8. State the merits of Roadways.

- Roads play an important role in carrying goods and passengers for short, medium and long distances.
- It is highly suitable for short distance services.
- It is comparatively easy and cheap to construct and maintain roads.
- Road transport system can establish easy contact between farms, fields, factories and markets and can provide door to door transport services.
- They are universal, cost efficient and used by all sections of people in the society.



ADDITIONAL QUESTIONS

9. What are the most fundamental components of human population?

They are its number, composition, distribution and density.

10. What do you mean by the population of the country?

Total number of people residing in a country at a specified period of time is called the 'population' of the country.

11. What is meant by population census?

Population census is the total process of collecting, compiling, analysing or otherwise disseminating demographic economic and social data pertaining at a specific time, of all persons in a country or a well defined part of a country.

12. Mention the uses of population census.

The data collected through the census are used for administration, planning, policy making as well as management and evaluation of various programmes by the government.

13. What does the term Population Distribution refer?

The term Population Distribution refers to the way people are spaced over the earth's surface.

14. Why is the distribution of population of India uneven?

The distribution of population in India is quite uneven because of the vast variation in the availability of resources.

15. What do you understand by population composition? What are the uses of its study?

- Population composition refers to the characteristics such as age, sex, marital status, caste, religion, language, education, occupation, etc.
- The study of composition of population helps us to understand the social, economic and demographic structure of population.

16. Define Sex – ratio.

Sex ratio is defined as the number of females per 1000 male population. This is an important social indicator to measure the extent of equality between males and females in a society at a given time.

17. Write a short note on literacy rate.

- The percentage of literate people to the total population is termed as literacy rate.
- There has been a steady improvement in the literacy levels.
- India's literacy rate as per 2011 census is 74.04%.
- The literacy rate of male is 82.14% and the female is 65.46%.



- Kerala ranks first in the country with a literacy rate of 93.91%. The lowest literacy rate is found in Bihar (63.82%).

18. Explain about the occupational structure.

- Workers are placed under three fold categories in census record. They are main workers, marginal workers and non-workers.
- Main workers: Those who had worked for the major part of the preceding year (at least 6 months or 183 days)
- Marginal workers: Those who worked for less than 6 months.
- Non workers: Those who have not worked at all comes under this classification.

19. Define Population Dynamics.

- Human population dynamics is a field that tracks factors related to changes in the size of population and its characteristics.
- Predicting population changes is an important aspect of population studies.

20. How can the demographic trend affect the society?

- The demographic trends affects the economic, social, and environmental systems.
- An increase in population can affect the quality of natural resources like bio – diversity, air, land, and water.

21. What are the problems of over population?

Over crowding, unemployment, under-employment, low standard of living, malnutrition, mismanagement of natural and agricultural resources, unhealthy environment are some of the problems of over – population.

22. Define urbanization.

- The process of society's transformation from rural to urban is known as urbanization.

23. What are mega cities?

Urban Agglomerations with more than 10 million population each and are known as "Mega Cities" They are Greater Mumbai UA (18.4 million), Delhi UA (16.3 million) and Kolkata UA (14.1million).

24. What are the human development indicators as per UNDP?

- Population trends, health outcomes, education achievements, national income and composition of resources, work and employment, human security, human and capital mobility.
- Supplementary indicators: Perceptions of well being and status of fundamental rights treaties are the human development indicators.

25. Define 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.
- There are 3 major divisions of transport in the world. They are land, water and air.

26. What are the factors responsible for the uneven distribution of population?

Physical factors : Relief, climate, water, natural vegetation, minerals and energy resources.

Socio-economic factors : Religion, culture, political issues, economy, human settlements, transport network, industrialization, urbanization, employment opportunities etc.



27. What is meant by Dependency ratio?

The ratio between the economically active and economically inactive of population is termed as dependency ratio.

28. What are expressways? Give example.

29. What is meant by trade? What are the two types of trade?

- Trade is an act or process of buying, selling or exchanging of goods.
 - Internal trade and international trade are two types of trade.

30. What is meant by balance of trade?

The difference in value between the imports and exports is called balance of trade.

31. Name the major shipyards of India.

There are four major shipyards in India. They are

- i) Hindustan shipyard - Vishakhapatnam
 - ii) Garden Reach workshop - Kolkata
 - iii) Mazagaon dock - Mumbai
 - iv) Kochi shipyard - Kochi

32. Write briefly about the Transport Network in India.

- Transport is one of the most important components of infrastructure and it is essential for economic development of a country especially for a large country like India.
 - India has a good transport network of roads, railways, airways and waterways providing necessary connectivity between different parts of the country.

V. Distinguish between the following:

TEXTUAL QUESTIONS

1. DENSITY OF POPULATION AND GROWTH OF POPULATION

Density of population	Growth of population
1. Population density is a measure of understanding the variation in distribution of population.	Population growth refers to the change in the number of inhabitants of a country during a specific period of time.
2. It is expressed as number of persons per unit area usually per sq.km.	It is expressed in percentage.
3. In India very high density of population is found in Bihar.	Uttar Pradesh is the most populous state in India.
4. Very low density of population is found in Arunachal Pradesh.	Sikkim is the least populous state.



INDIA - POPULATION, TRANSPORT, COMMUNICATION & TRADE

Don

2. PERSONAL COMMUNICATION AND MASS COMMUNICATION

Personal communication	Mass communication
1. The exchange of information between the individuals is called personal communication.	Mass Communication enables millions of people to get the information at the same time.
2. It includes post and telegraph services, telephone, mobile phone, short message services, fax, internet, e-mail, etc.	It includes radio, television, newspapers etc.
3. Personal Communication system enables the user to establish direct contact.	Direct contact is not possible.
4. It helps to send messages.	It helps to create awareness among the people on national policies and programmes.

3. PRINT MEDIA AND ELECTRONIC MEDIA

Print Media	Electronic Media
1. We get information through printed materials.	We get information through electronic gadgets
2. It includes newspapers, journals, books, flyers and magazines.	It includes radio, television and internet.
3. Newspapers carry information on local, national and international events to the people.	It broadcasts programmes related to education, information and entertainment.

4. ROADWAYS AND RAILWAYS

Roadways	Railways
1. Roadways are the cost efficient and most universal mode of transport.	Indian railway system is the main artery of the country's inland transport.
2. Construction and maintenance of roads is cheap.	Construction and maintenance of railroad is costlier.
3. Bulky goods cannot be transported easily.	Bulky goods can be transported easily.
4. It is highly suitable for short distance service.	It is highly suitable for both short and long distance service.
5. Door to door service is possible.	Door to door service is not possible.

5. WATERWAYS AND AIRWAYS

Waterways	Airways
1. Waterway is the oldest and cheapest means of transport.	Airways are the quickest, costliest, most modern and comfortable means of transport.
2. It is most suitable for carrying heavy and bulky materials from one country to another.	They carry passengers, freight and mail.



Waterways	Airways
3. It is a fuel efficient and eco-friendly mode of transport.	It is not fuel efficient.
4. The two types of waterways are inland waterways and ocean waterways.	Domestic Airways and International Airways are the two types of airways.

6. INTERNAL TRADE AND INTERNATIONAL TRADE

Internal Trade	International Trade
1. The trade carried on within the domestic territory of a country is internal trade.	International trade refers to trade carried on between two or more countries.
2. It is also called as Domestic trade or Local trade.	It is also called as External trade or Foreign trade.
3. Land transport (roadways and railways) plays a major role in this trade.	Waterways and Airways plays a vital role in this type of trade.
4. Local currency is used in this trade.	Foreign currency is involved in this trade.



ADDITIONAL QUESTIONS

7. INTERNAL MIGRATION AND INTERNATIONAL MIGRATION

Internal Migration	International Migration
1. The movement of people within a country i.e., between states, districts.	The movement of people from one country to other across the international border.
2. The internal migration does not pose a problem of brain drain.	It is a serious problem of brain drain of highly educated people working for other country's progress.
3. The internal migration is mostly seen in the semi – skilled and unskilled workers in the rural and semi – urban area.	The international migration is mostly seen in the professional and skilled people.
4. The Government may or may not take care about the internal migrants from other states.	The Government provides security to the international migrants through embassies of respective countries.

8. IMPORT AND EXPORT

Import	Export
1. Import means goods and services bought from overseas producers.	Export means goods and services sold for foreign currency.
2. By import we loose foreign exchange.	By export we gain foreign exchange.
3. The major imports of India are petroleum products, pearls, precious stones and semi-precious stones, gold and telecom instruments.	The major exports of India are tea, marine products, ores and minerals, leather products, gems and jewels, sports goods, chemicals and related products, plastics and rubber articles, articles of stones, plaster, cement, asbestos, mica, glass ware, paper and related products, etc.



9. NATIONAL HIGHWAYS AND INTERNATIONAL HIGHWAYS

National highways	International highways
1. National Highways form the most important system of road transportation in India.	These are the roads that link India with neighbouring countries for promoting harmonious relationship with them.
2. These highways are running through length and breadth of the country connecting capitals of states, major ports, rail junctions, industrial and tourist centres.	These roads connect important highways of India with those of the neighbouring countries such as Pakistan, Nepal, Bhutan, Bangladesh and Myanmar.
3. Ministry of Road Transport and Highways of India, is responsible for the development and maintenance of National Highways in India.	These highways have been constructed with an aid from World Bank under an agreement with the Economic and Social Commission for Asia-Pacific (ESCAP).

10. STATE HIGHWAYS AND NATIONAL HIGHWAYS

State Highways	National Highways
1. State highways link important cities, towns and district headquarters within the state and connect them with National highways.	National highways connect capitals of states, major ports, rail junctions, industries and tourist centres.
2. These roads are maintained by the State Public Works Department.	Ministry of Road Transport and Highways of India maintains these roads.
3. Eg: Tirunelveli to Tenkasi road.	Eg: Kasi to Kanniyakumari road.

11. VILAGE ROADS AND DISTRICT ROADS

Village Roads	District Roads
1. Village roads link the different villages with their neighbouring towns.	District roads link district and taluk headquarters with the State highways and National highways.
2. These roads are constructed and maintained by village Panchayats.	These roads are constructed and maintained by State Public Works Department.
3. In India village roads run to a length of 39,35,337 km.	In India district roads run to a length of 5,61,940 km.

VI. Answer in detail:

TEXTUAL QUESTIONS

1. What is urbanization? Explain its impacts.

- The process of society's transformation from rural to urban is known as urbanization.
- The level of urbanization of a place is assessed based on the size of population of the towns and cities and the proportion of population engaged in non agricultural sectors.
- These two are closely linked to the process of industrialization and expansion of the secondary and tertiary sectors of economy.



Impact of Urbanization

- Urbanization and population concentration go hand – in – hand and are closely related to each other.
- A rapid rate of urbanization in a society is taken as an indicator of its economic development.
- Urbanization is increasing rapidly in the developing countries including India.
- Rural to urban migration leads to population explosion in urban areas.
- Metropolitan cities like Mumbai, Kolkata and Delhi have more population than that can accommodate.
- The urban population of India had already crossed the 377million in 2011, which is more than the total population of USA.
- By 2030, more than 50% of India's population is expected to live in urban areas.

2. Explain the importances of satellite communication in India. (any 2 points)

- The use of satellite in getting a continuous and synoptic view of larger area has made this communication system very vital for the country.
- Satellite images are used for weather forecasting, monitoring of natural calamities, surveillance of border areas, etc.
- The communication through satellites emerged as a new era in communication in our country after the establishment of Indian Space Research Organization (ISRO) in 1969.
- Satellite system in India can be grouped into two—the Indian National Satellite System (INSAT) and the Indian Remote Sensing Satellite System (IRS).
- The INSAT, established in 1983, is a multipurpose system for telecommunication, meteorological observation and for various other programs.
- The INSAT series are used for relaying signals to television, telephone, radio, mobile phone.
- It is also useful in weather detection, internet and military applications.
- The INSAT series, GSAT series, KALPANA-1, HAMSAT and EDUSAT are the major communication satellite used for communication purpose.

3. Bring out the Distribution and Density of Population in India.

- The term 'Population Distribution' refers to the way the people are spaced over the earth's surface.
- The distribution of population in India is quite uneven because of the vast variation in the availability of resources.
- Population is mostly concentrated in the regions of industrial centres and the good agricultural lands.
- On the other hand, the areas such as high mountains, arid lands, thickly forested areas and some remote corners are very thinly populated and some areas are even uninhabited.
- Terrain, climate, soil, water bodies, mineral resources, industries, transport and urbanization are the major factors which affect the distribution of population in our country.
- Uttar Pradesh is the most populous state in India.
- Sikkim is the least populous state in India.
- Among the union territories Delhi has the largest population.

**Density of Population:**

- Population density is a better measure of understanding the variation in distribution of population.
- It is expressed as number of persons per unit area usually per sq km. India is one of the most thickly populated ten countries of the world.
- The most densely populated state of India is Bihar and the state with least population density is Arunachal Pradesh.
- Among the union territories, Delhi is the densely populated one with 11,297 per sq.km.,
- Andaman and Nicobar Islands have the lowest density of population.

4. Explain the process of measuring Human Development.

- Dr. Mahabub-ul-haq defined the human development as 'a process of enlarging the range of people's choice, increasing their opportunities for education, health care, income and empowerment'.
- It covers the full range of human choices from a sound physical environment to economic, social and political freedom.

Human Development Indicators (as per UNDP)

- Population trends, health outcomes, education achievements, national income and composition of resources, work and employment, human security, human and capital mobility.
- Supplementary indicators: Perceptions of well being and status of fundamental rights treaties are the human development indicators.

Measuring Human Development:

- Human Development Index (HDI) is a composite index focusing on 3 basic dimensions of human development.
 - i) Health - Life expectancy at birth
 - ii) Education - Expected years of schooling for school age children and average years of schooling for the adult population
 - iii) Income - measured by gross national income and per capita income.

Human Development Classification:

- HDI classifications are based on HDI fixed cut off points, which are derived from the quartiles of distributions of the component indicators.
- The HDI of
 - i) less than 0.550 is used for low human development,
 - ii) 0.550 - 0.699 stands for medium human development,
 - iii) 0.700 - 0.799 for high human development and
 - iv) 0.8 or greater for very high human development.

5. Classify and explain the roadways in India.**Classification of Roads:**

- National Highways (NH): National Highways form the most important system of road transportation in India.
- These highways are connecting capitals of states, major Ports, rail junctions, industrial and tourist centres.
- The total length of the National Highways (NHs) in India is 1,01,011 km. It accounts for 1.8 % of the total road network length in 2016.
- The longest National highway is NH – 7. It runs from Varanasi in Uttar Pradesh to Kanyakumari in Tamil Nadu.



State Highways:

- The state highways are usually roads that link important cities, towns and district headquarters within the state and connect them with national highways or highways of neighbouring states. These roads are administered and financed by state governments.
- State Highway runs to the length of 1, 76,166 km as of 2016.

District 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. The total length of the road of this category is 5,61,940 km(16.81%) in 2016.

Rural Roads:

- Rural roads connectivity is a key component of rural development. These roads are vital for providing links in the rural areas. It links the different villages with their neighbouring towns.
- They are maintained by Village Panchayats.

Border Roads:

- These are the roads of strategic importance in border areas.
- They are constructed and maintained by Border Roads Organization. It was established in 1960 for the development of the roads in the northern and northeastern border areas.
- Border Roads Organization has constructed world's highest road joining Chandigarh and Leh in Ladakh.

Golden Quadrilateral Roads:

These roads have been launched with the purpose of connecting the four metropolital cities Delhi, Kolkata, Chennai and Mumbai.

Expressways:

These roads are multilane good quality road for high speed traffic.
Eg: Mumbai - Pune road.

International Highways:

These roads link India with neighbouring countries for promoting harmonious relationship with them.

ADDITIONAL QUESTIONS

6. Explain the major problems of urbanization in India.

- It creates urban sprawl.
- It causes overcrowding in urban centres.
- It leads to shortage of houses in urban areas.
- It leads to the formation of slums. (eg. Chennai, Mumbai)
- It increases traffic congestion in cities.
- It creates water scarcity in cities.
- It creates drainage problem.
- It poses the problem of solid waste management.
- It increases the rate of crime.



7. **Analyse the pipeline transport.**

- Pipelines provide a very convenient mode of transport to connect oil and natural gas fields, refineries and to the markets.
- In the past, they were used to transport water to cities and industries. Now solids can also be transported through a pipeline when converted into slurry.
- The initial cost of laying pipeline is high but subsequent running cost is minimum.
- It can be laid through difficult terrain as well as under water.
- It ensures steady supply of goods and reduces the transshipment losses and delays.
- Oil field in upper Assam to Kanpur, from Salaya in Gujarat to Jalandhar in Punjab and gas pipeline from the Hazira in Gujarat to Jagadispur in Uttar Pradesh are the 3 important networks of pipeline in the country.

8. **Give an account of Air transport in India.**

- Airways are the quickest, costliest, most modern and comfortable means of transport.
- Air transport facilitates connectivity on a national, regional and international scale.
- Domestic Airways fly within the boundaries of a country and International Airways connect major cities of the world.
- The Indian Airlines and Air India are the 2 Airline services run by the government of India.
- Indian Airlines provides domestic air services.
- Air India provides international air services.
- Presently, there are 19 designated international airports available in the country.
- These airports are managed by Airports Authority of India.

Some of the major Airports in India:

- Netaji Subhash Chandra Bose International Airport, Kolkata,
- Chennai International Airport, Chennai
- Chhatrapati Shivaji International Airport, Mumbai.
- Indra Gandhi International Airport, Delhi.
- Thiruvananthapuram international airport.
- Sardar Vallabh Bhai Patel International Airport, Ahmedabad,
- Bangalore International Airport, Hyderabad, etc.
- Besides these, there are about 80 domestic airports and about 25 civil enclaves at defence air fields.

9. **Explain the concept – Trade.**

- Trade is an important phenomenon that decides the economic growth of a country.
- Trade is an act (or) process of buying, selling or exchanging of goods and services.
- The primitive method of trade was known as the **Barter system** where goods were exchanged for goods.
- Later on, money was introduced as a medium of exchange in buying and selling of goods.
- The difference in value between the imports and exports is called **balance of trade**.
- The situation in which the value of exports exceeds the value of imports is termed as **favourable balance of trade** and the reverse position is termed as **unfavourable balance of trade**.
- Trade can be in general of 2 types: Internal and International.



VII. HOTS:

 TEXTUAL QUESTIONS

1. What could be the reasons for uneven distribution of population in India?

- The term 'population distribution' refers to the way the people are spaced over the earth's surface.
- The distribution of population in India is quite uneven because of the vast variation in the availability of resources.
- Population is mostly concentrated in the regions of industrial centres and good agricultural lands.
- On the other hand, the areas such as high mountains, arid lands, thickly forested areas and some remote corners are very thinly populated.
- Some areas are even uninhabited.
- Terrain, climate, soil, water bodies, mineral resources, industries, transport and urbanization are the major factors which affect the distribution of population in our country.
- Topography, rugged terrain and unfavourable climate conditions are primarily responsible for sparse population in states like Rajasthan and the hill states.
- On the other hand Uttar Pradesh has high density of population.
- Uttar Pradesh is located in the fertile land of the North Indian plains. Fertile soils with good rainfall support an extensive agricultural activity.
- Due to flat plains, the development of various infrastructures facilities like transport and communication has also led to the development of various industries in the state.

2. What are the reasons for the rapid growth of population in India?

- The growth rate of population is an important demographic feature.
- In India, the population growth is rapid. There are several reasons for this.
 - i) High birth rate and rapid decline in death rate.
 - ii) Increased availability of resources
 - iii) Increased medical facilities
 - iv) Agricultural revolution
 - v) Religious attitude towards family planning
 - vi) Social taboos towards family planning

3. The sex ratio in our country is always unfavourable to females. Give reasons.

- Preferential treatment is given to a male child but female children get neglected in most Indian homes.
- The infant mortality rate in India is high and female infant mortality rate is even higher.
- People go through prenatal sex determination test. In case of a girl, they are ready even to abort the child.
- Women generally have lower social, political, and economic status in Indian society.
- We find dowry deaths, opposition to widow remarriage and low nutrition level in Indian women.
- There is lack of social awareness programs among people especially in rural villages.

**4. Find out what are the functions of NHAI.**

- The National Highways Authority of India (NHAI) is an autonomous agency of the government of India which was set up in 1988.
- It is responsible for management of a network over 70,000 km of National Highways in India.
- It is a nodal agency of the Ministry of Road Transport and Highways. NHAI has signed a memorandum of understanding with the Indian Space Research Organisation.
- It is responsible for the development, maintenance, management and operation of National Highway in India.

5. What are the highlights and benefits of the golden quadrilateral highways?

- It is designed as one of the longest highways in the world.
- It is basically a network of highways that connects the 4 major metropolitan cities of the countries in 4 directions.
- Delhi (North) - Chennai (South)
- Kolkatta (East) and Mumbai (West), thereby forming a quadrilateral and hence the name golden quadrilateral
- Launched in 2001, this was the largest highway and a very ambitious project which was undertaken by the National Highways Development project. (NH Dp) and managed by the National Highways Authority of India.
- **Highlights:** It is the largest highways project completed in India and also the 5th longest highway project in the world.
- The over all length of the golden quadrilateral is 5,846 km and it passes through the states of India.

Benefits:

- It provides faster transport networks between major cities and parts and connectivity to major agricultural industrial and cultural centers of India.
- It provides smoother movements of goods and people with in the country.
- It enables industrial development and jobs creation in smaller towns through access to varied markets.
- Farmers are able to transport their produce to major cities and towns for sale and exports and there is less wastage and spoils.

6. Why is air travel preferred in the north eastern states?

Air Travel is preferred in north eastern states. The reasons are

- **Difficult terrain:** In the north east region of India many mountain ranges are present which make it difficult to lay roads or railway tracks.
- **Mighty rivers:** In the regions big rivers with swift flow are present which makes it difficult to construct road and railway track.
- **Dense forest:** Presence of dense forests cover in this area makes it difficult to lay roads or railway tracks.
- **Frequent floods:** These areas receive heavy rainfall. So there is a risk of flooding due to overflow of rivers. This damages the roads and tracks.
- **International border:** This area has international frontiers with Myanmar, Bangladesh and China, So it is safer to travel by air.
- Due to the above reasons it is more favourable to travel by air.





MAP WORK

1. India - Roads



2. India - Sea Routes



Sea Route

Major Ports

Minor ports



3. India - Airways



International Route

Domestic Route



International Airports



Domestic Airports

4. India - Railways





10

Unit Test**UNIT - V – India Population, Transport, Communication and Trade**

Time : 1.00 hr.

Marks : 30

I. Choose the correct answers: $6 \times 1 = 6$

1. The state with highest literacy rate as per 2011 census is _____.
a) Tamilnadu b) Karnataka c) Kerala d) Uttar Pradesh
2. Human Development is measured in terms of
a) Human Resource Index b) Per Capita index
c) Human development index d) UNDP
3. _____ transport provide door to door services.
a) Railways b) Roadways c) Airways d) Waterways
4. The National Remote Sensing Centre (NRSC) is located at _____.
a) Bengaluru b) Chennai c) Delhi d) Hyderabad
5. The major import item of India is
a) Cement b) Jewels c) Tea d) Petroleum
6. Which of the following is associated with helicopter service?
a) Air India b) Indian Airlines c) Vayudoot d) Pavan Hans

II. Give brief answers to the following (ANY FIVE): $5 \times 2 = 10$

1. What is Human development?
2. What is migration? State its types.
3. Write any 4 advantages of railways.
4. Write a note on pipe line network transport in India.
5. State the major inland waterways in India.
6. What is communication? What are its types?
7. Define 'international Trade'.

III. Distinguish between (ANY TWO): $2 \times 2 = 4$

1. Density of Population and Growth of Population.
2. Personal Communication and Mass Communication.
3. Print Media and Electronic Media.
4. Internal trade and International Trade.

IV. Answer the following in a paragraph (any two): $2 \times 5 = 10$

1. What is urbanization? Explain the impacts.
2. Explain the importance of satellite communication.
3. Bring out the distribution and density of population in India.
4. Classify and explain the roadways in India.
5. On the outline map of India mark the following:
 1. Major seaports in India.
 2. Densely populated state of India.
 3. Railway route from Madurai to Kolkata.

