

# ZONAL INSTITUTE OF EDUCATION AND TRAINING

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## GEOGRAPHY STUDY MATERIAL

CLASS: XII

2023-2024



## **DIRECTOR'S MESSAGE**

It is with profound delight and utmost pride that I announce the publication of our study material for class XII Geography for the session 2023-24. It's my firm belief that access to quality education should know no boundaries, transcending social and economic constraints. Our collective vision is to empower all students with the tools for success and intellectual growth.

With their steadfast dedication PGT Geography of Bangalore, Chennai, Ernakulam & Hyderabad regions of Kendriya Vidyalaya Sangathan have invested their knowledge, expertise, and passion into meticulously crafting these study materials to complement the classroom learning experience of the students. These materials serve as invaluable aids for self-study since they are comprehensive, well-structured, and presented in a manner that is easy to comprehend.

It is with pleasure that I place on record my commendation for the commitment and dedication of the team of teachers which included the Training Associate P.Selvamani from ZIET Mysore who has been the Coordinator of this assignment and all the concerned PGTGeography subject experts from the four feeder regions of ZIET Mysore.

Wishing you all the very best in your academic journey!

**MENAXI JAIN**

**DIRECTOR**

**ZIET, Mysore**

## SUBJECT EXPERTS

S.NO	Name of teacher (Ms/Mr)	Designation	Name Of KV	Region
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06	NIRMALA. E	PGT (Geog)	1 Tambaram	Chennai
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*Co-ordinated by*  
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## COURSE STRUCTURE

CLASS -XII

SUBJECT: GEOGRAPHY

2023-2024

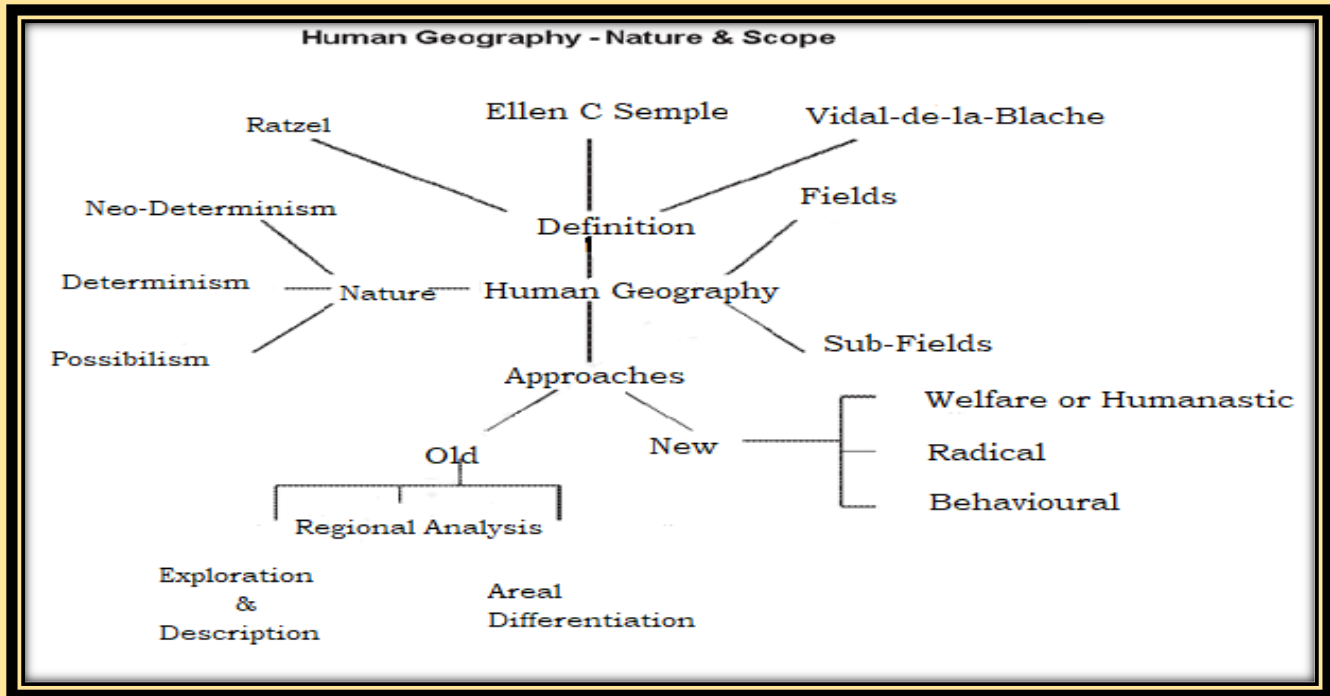
Part	Units	No. of Periods	Marks
<b>A</b>	<b>Fundamentals of Human Geography</b>	<b>90</b>	<b>35 Marks</b>
	Unit 1: Human Geography	07	<b>30</b>
	Unit 2: People	20	
	Unit 3: Human Activities	32	
	Unit 4: Transport, Communication and Trade	26	
	Map Work	05	
<b>B</b>	<b>India: People and Economy</b>	<b>90</b>	<b>35 Marks</b>
	Unit 6: People	15	<b>30</b>
	Unit 7: Human Settlements	10	
	Unit 8: Resources and Development	30	
	Unit 9: Transport, Communication and International Trade	15	
	Unit 10: Geographical Perspective on selected issues and problems	15	
	Map Work	05	<b>5</b>
	Total	<b>180</b>	<b>70 Marks</b>
<b>C</b>	<b>Practical Work in Geography Part II</b>	<b>40</b>	<b>30 Marks</b>
	Unit 1: Processing of Data and Thematic Mapping	25	<b>15</b>
	Unit 2: Spatial Information Technology	15	<b>10</b>
	Practical Record Book and Viva Voce		<b>5</b>

## COURSE CONTENT

<b>Part A:</b>	<b>Fundamentals of Human Geography</b>	<b>90 Periods</b>
<b>Unit 1:</b>	<b>Human Geography: Nature and Scope</b>	<b>07 Periods</b>
<b>Unit 2:</b>	<b>People</b> <ul style="list-style-type: none"> <li>▪ The World Population- distribution, density and growth</li> <li>▪ Population change - Components of population change, Demographic Transition</li> <li>▪ Human development - concept; selected indicators, international comparisons</li> </ul>	<b>20 Periods</b>
<b>Unit 3:</b>	<b>Human Activities</b> <ul style="list-style-type: none"> <li>▪ Primary activities - concept and changing trends; gathering, pastoral, mining, subsistence agriculture, modern agriculture; people engaged in agricultural and allied activities - some examples from selected countries</li> <li>▪ Secondary activities- concept; manufacturing: types - household, small scale, large scale; agro based and mineral based industries;</li> <li>▪ Tertiary activities - concept; trade, transport and tourism; services; people engaged in tertiary activities</li> <li>▪ Quaternary activities- concept; people engaged in quaternary activities - case study from selected countries</li> </ul>	<b>32 Periods</b>
<b>Unit 4:</b>	<b>Transport, Communication and Trade</b> <ul style="list-style-type: none"> <li>▪ Land transport - roads, railways; trans-continental railways Water transport- inland waterways; major ocean routes</li> <li>▪ Air transport- Intercontinental air routes Oil and gas pipelines</li> <li>▪ Satellite communication and cyber space- importance and usage for geographical information; use of GPS</li> <li>▪ International trade- bases and changing patterns; ports as gateways of international trade; role of WTO in international trade</li> </ul>	<b>26 Periods</b>
<b>Map Work on identification of features based on 1-5 units on the outline Physical/Political map of World.</b>		<b>05 Periods</b>

<b>Part B:</b>	<b>India: People and Economy</b>	<b>90 Periods</b>
<b>Unit 6:</b>	<b>People</b> <ul style="list-style-type: none"> <li>▪ Population: distribution, density and growth; composition of population - linguistic, religious; sex, rural-urban and occupational-regional variations in growth of population</li> </ul>	<b>15 Periods</b>
<b>Unit 7:</b>	<b>Human Settlements</b> <ul style="list-style-type: none"> <li>▪ Rural settlements - types and distribution</li> <li>▪ Urban settlements - types, distribution and functional classification</li> </ul>	<b>10 Periods</b>
<b>Unit 8:</b>	<b>Resources and Development</b> <ul style="list-style-type: none"> <li>▪ Land resources- general land use; agricultural land use; geographical conditions and distribution of major crops (Wheat, Rice, Tea, Coffee, Cotton, Jute, Sugarcane and Rubber); agricultural development and problems</li> <li>▪ Water resources-availability and utilization-irrigation, domestic, industrial and other uses; scarcity of water and conservation methods-rain water harvesting and watershed management</li> <li>▪ Mineral and energy resources- distribution of metallic (Iron ore, Copper, Bauxite, Manganese); non-metallic (Mica, Salt) minerals; conventional (Coal, Petroleum, Natural gas and Hydroelectricity) and non-conventional energy sources (solar, wind, biogas) and conservation</li> <li>▪ Planning in India- target group area planning (case study); idea of sustainable development (case study)</li> </ul>	<b>30 Periods</b>
<b>Unit 9:</b>	<b>Transport, Communication and International Trade</b> <ul style="list-style-type: none"> <li>▪ Transport and communication-roads, railways, waterways and airways: oil and gas pipelines; Geographical information and communication net works</li> <li>▪ International trade- changing pattern of India's foreign trade; sea ports and their hinterland and airports</li> </ul>	<b>15 Periods</b>
<b>Unit 10:</b>	<b>Geographical Perspective on selected issues and problems</b> <ul style="list-style-type: none"> <li>▪ Environmental pollution; urban-waste disposal</li> <li>▪ Urbanization, rural-urban migration; problems of slums</li> <li>▪ Land degradation</li> </ul>	<b>15 Periods</b>
<b>Map work on locating and labeling of features based on above units on outline map of India.</b>		<b>05 Periods</b>

**VOLUME-I-FUNDAMENTALS OF HUMAN GEOGRAPHY**  
**CHAPTER 1-HUMAN GEOGRAPHY - NATURE AND SCOPE**



**KEY NOTES**

Geography is a subject which deals about the interaction between man and environment

There are two branches in Geography

- Physical Geography
- Human Geography
- Physical Geography deals with the physical features such as mountains, plains, valley, plateau, atmosphere, Ocean etc.
- Human Geography deals about the mankind spaced over the surface of the earth and their activities

Human Geography is divided into two branches

- Systematic Geography and regional Geography
- Systematic Geography is a study about man and his natural environment

## **Human Geography is defined by various scholars**

- According to Friedrich Ratzel human Geography is the synthetic study of relationship between human Societies and earth surface
- Ellen C Sample says human Geography is the study of the changing relationship between the unarresting man and unstable earth
- Vidal- la -Blache defines human Geography offers a new conception of the interrelationship between earth and man
- A more synthetic knowledge physical governing of the relationship between the living beings

## **Nature of human Geography**

Human Geography is a study about interrelationship between physical environment and socio-cultural environment created by human beings through mutual interaction with each other.

## **Naturalisation Of Humans and Humanisation of Nature**

- Concept of friction and heat helped to discover fire
- A proper understanding of the secrets DNA and genetics enabled to get many ideas in diseases
- Understanding of laws of aerodynamics helped in developing faster planes

## **Environmental Determinism**

- It is a type of interaction between primitive old society or human society and strong forces of nature
- It is known as environmental determinism
- The environment determines human activities at the stage of the level of technology
- When the level of technology was very low the human activity was determined completely by the nature
- In olden days man started to worshipped the nature

## **Possibilism**

- The people begin to understand their environment and the forces of nature with the passage of time
- They created possibilities with the resources obtained from the environment
- Man started to develop the technology and modified the nature
- For example, health resorts on highlands, urban sprawl pastures, plain areas sea port in the coastal areas and satellites



## **Neo determinism or stop and go determinism**

- It was introduced by a scholar namely Griff Taylor
- He introduced this concept between two ideas of environmental determinism and possibilism
- It means that human beings can conquer nature by obeying it
- They have to respond to the red signal and then proceed in their pursuits of development when nature permits the modification
- It means the possibilities can be created within the limits which do not damage the environment
- There is no free run without accidents
- The development should not cause any ozone layer depletion, global Warming and degrading the lands

## **Different thoughts of human Geography**

### ***Welfare or humanistic school of thought***

- Mainly concerned with the different aspects of social well-being of the people
- Aspects like housing, health and education

### ***Radical school of thought***

It concerns to explain the causes of poverty, deprivation and social inequality

### ***Behavioural school of thought***

It laid great emphasis on experience and also on the perception of space by social category based on ethnicity, race and religion etc...

## **Human Geography Through the Corridors of Time**

- Earlier there was little interaction between different societies and the knowledge about each other was limited.
- Travelers and explorers used to share information about the areas of their visits.
- Navigational skills were not developed and voyages were full of dangers.
- The late fifteenth century witnessed attempts of explorations in Europe and slowly the myths and mysteries about countries and people started to open up.
- The colonial period provided impetus to further explorations in order to access the resources of the regions and to obtain information.

## FIELDS AND SUB FIELDS OF HUMAN GEOGRAPHY

Fields of human Geography	Sub fields	Sister disciplines
Social Geography	-----	Social science-sociology
	Behavioural Geography	Psychology
	Geography of social well being	Welfare economics
	Geography of leisure	Sociology
	Cultural Geography	Anthropology
	Gender Geography	Sociology, anthropology, women studies
	Historical Geography	History
	Medical Geography	Epidemiology
Urban Geography	-----	Urban studies and planning
Political Geography	-----	Political science
	Electoral Geography	Psephology
	Military Geography	Military science
Population Geography	-----	Demography
Settlement Geography	-----	Urban and rural planning
Economic Geography	-----	Economics
	Geography of resources	Resource economics
	Geography of Agriculture	Agricultural science
	Geography of industries	Industrial economics
	Geography of marketing	Business studies, economics, commerce
	Geography of tourism	Tourism and travel management
	Geography of international trade	International trade

## MULTIPLE CHOICE QUESTIONS

1. Behavioural school of thought emphasised on which of the following aspects?

- a) Lived experience**
- b) Causes of poverty and social inequality.
- c) Different aspects of social well-being
- d) Housing, health and education

Ans) a) Lived experience

2. Who among the following defined “Human Geography is the study of changing relationship between the un resting man and the unstable Earth”?

- a) Ratzel
- b) Griffith Taylor
- c) Ellen C Semple**
- d) Paul Vidal de la Blache

Ans) Ellen C Semple

3. Who among the following has introduced the concept of Neo-determinism?

- a) Ratzel
- b) Ellen C Semple
- c) Griffith Taylor**
- d) Paul Vidal de La Blache

Ans) Griffith Taylor

4. Who among the following defined “Conception resulting from a more synthetic knowledge of the physical laws governing our earth and of the relations between the living beings which inhabit it”

- a) Paul Vidal de la Blache**
- b) Griffith Taylor
- c) Ratzel
- d) Ellen Semple

Ans) Paul Vidal de la Blache

5. The concept of “Stop and go determinism” was given by

- a) Griffith Taylor**
- b) Ratzel
- c) Vidal de la Blache
- d) Ellen C Semple

Ans) Griffith Taylor

6. Which approach of Human Geography was followed in colonial period?

- a) Areal differentiation
- b) spatial Organisation
- c) Behaviouralism

**d) Regional**

**Ans) Regional**

7. What was the approach followed by Lucian febre and Vidal de la Blache to study human geography?

- a) Environmental determinism

**b) Possibilism**

- c) Neo-determinism
- d) determinism

**Ans) Possibilism**

8. The book 'Geographia Generalis' was written by

**a) Bernard Varentus**

- b) Finch
- c) Trewartha
- d) Ratzel

**Ans) Bernard Varentus**

9. The book which is considered a landmark in history of human geography written by Friedrich

Ratzel.

- a) Geographia Generalis
- b) Anthro-geographie**
- c) Principals of Geographic Humaine
- d) The periplus of the Erithrean Sea

**Ans) Anthro-geographie**

10. In this method, conclusions are reached by the process of reasoning on a given statement.

- a) Inductive method

**b) Deductive method**

- c) Positivism
- d) Humanism

**Ans) Deductive method**

11. The interaction between primitive human societies and strong force of nature was termed as

- a) Possibilism
- b) Neo – determinism**

**c) Environmental determinism**

d) Behaviouralism

Ans) Environmental determinism

12. Nature provides opportunities and human beings make use of these and slowly nature gets

humanised and starts bearing the imprints of human endeavour.

a) Neo-determinism

**b) Possibilism**

c) environmental determinism

d) Behaviouralism

Ans) Possibilism

13. The school of thought that employed Marxian theory to explain the basic cause of poverty,

deprivation and social inequality.

a) Welfare thought

b) Humanistic thought

c) Behavioural school of thought

**d) Radical school**

**of thought**

Ans) Radical school of thought

14. What was the approach followed during Early colonial period?

**a) exploration and description**

b) regional analysis

c) Areal differentiation

d) Spatial organisation

Ans) Exploration and Description

15. The approach of human geography followed between Late 1950s to the late 1960s

**a) Spatial Organisation**

b) Areal differentiation

c) Regional Analysis

d) Exploration and description

Ans) Spatial Organisation

16. \_\_\_\_\_ Geographers describe the state/country' as a 'living organism'.

a) Arab geographers

**b) German geographers**

c) American geographers

d) French geographers

Ans) German geographers

17. \_\_\_\_\_ emphasis on the central and active role of humans in terms of human awareness, human agency and human creativity.

a) Positivism

**b) Humanism**

c) Possibilism

d) Determinism

Ans) Humanism

18. The \_\_\_\_\_ approach focus on who, what, where, why and how?

a) Human approach

**b) Welfare approach**

c) Behavioural approach

d) Humanistic approach

Ans) Welfare approach

19. According to \_\_\_\_\_ “Human geography is a study of the relationship between natural environment and human activities.

**a) D. H. Davis**

b) White and Renner

c) Ratzel

d) Ellen c Semple

Ans) D H Davis

20. The most important factor in the interaction between people and environment

a) Human intelligence

**b) Technology**

c) People’s perception

d) Human brotherhood

Ans) Techno log

## **SHORT ANSWER QUESTIONS**

### **1. Define Human Geography? What does human geography study?**

Ans: Human geography studies the inter-relationship between the physical environment and socio-cultural environment created by human beings through mutual interaction with each other.

Definition 1: “Human geography is the study of “the changing relationship between the un resting man and the unstable earth.”

**Ellen C. Semple**

Definition 2 : Human geography is the synthetic study of relationship between human societies and earth's surface”.

**Ratzel**

**2. Name some sub-fields of human geography.**

ANS) The sub-fields of Human geography

- i) Geography of Leisure
- ii) Gender Geography
- iii) Medical Geography
- iv) Military Geography
- v) Geography of Resources
- vi) Geography of Agriculture

**3. How is human geography related to other social science?**

ANS) i) Human geography attempts to explain the relationship between all elements of human life and the space they occur over.

ii) Thus, human geography assumes a highly inter-disciplinary nature. It develops close interface with other sister disciplines in social science like Psychology, Sociology, Anthropology, Urban studies, Political geography, demography, economics etc. to understand and explain human elements on the surface of the earth.

**4. Explain the concept of determinism or environmental determinism with suitable examples.**

Ans: i) The determinists concept refers that humans are controlled by nature. It supports environment control on human being.

ii) The determinism considers human as a passive agent influenced by the environmental factors.

iii) The environment determines the attitude, decision making and life style of human beings.

iv) This type of interaction between primitive human society and strong forces of nature was termed as environmental determinism.

v) The scholars who supported environmental determinism are Plato, Aristotle, and Ratzel.

EX: Benda's life in the forest of Abujh Maad area of central India.

**5. Explain the concept of Possibilism with suitable examples.**

Ans: The concept of possibilism states that there are no necessities, but possibilities everywhere and man is referred to as a master of these possibilities. Human is

dominant. Man modifies the environment as per his need. The nature provides opportunities and human being make use of these and slowly nature gets humanised and starts bearing the imprints of human endeavour.

The Scholars who supported the concept of Possibilism are Lucian Febvre & Vidal de la Blache.

EX: The life of Kari in the town of Trondheim.

## **6. Explain the concept of Neo-determinism with suitable example.**

**OR**

### **Explain the concept introduced by Griffith Taylor?**

Ans: The concept of Neo-determinism was introduced by Griffith Taylor, an English-born geographer, anthropologist, and world explorer. The concept states that neither there is a situation of absolute necessity (environmental determinism) nor absolute freedom (possibilism). He proposed the middle path (Madhyam Marg) between environmental determinism and possibilism called Neo-determinism or Stop and Go determinism. It tells that the possibilities can be created within the limits which do not harm the nature. It tries to bring the balance between the both and stresses that the geographer's role is essentially that of an advisor and not to interpret the nature plans.

## **7. State six different fields of human geography.**

Ans: There six fields of human geography.

- i) Social Geography
- ii) Urban Geography
- iii) Political Geography
- iv) Population Geography
- v) Settlement Geography
- vi) Economic Geography

### **LONG ANSWER QUESTIONS:**

#### **1. Explain the naturalisation of humans.**

ANS: i) INTERACTION WITH PHYSICAL ENVIRONMENT: Early human being interacts with their physical environment with the available technology, which indicates the level of cultural development.

ii) ENVIRONMENTAL DETERMINISM: This type of interaction between primitive human societies and strong forces of nature is treated as environmental determinism. In this stage humans were greatly influenced by the nature, as the technology was low and the stage of human social development was also primitive.

iii) NATURE DOMINATES: At that stage of very low technological development, human who listened to the nature was afraid of its fury and worshipped it.



iv) **WORSHIP OF NATURE:** In this stage as the nature was powerful, the primitive societies worshipped, revered, and conserved nature.

v) **INTERDEPENDENCE OF HUMAN AND NATURE:** There is a direct dependence of human being on nature for resources which sustain them. The physical environment for such societies become the mother nature.

## **2. Describe the nature and scope of Human Geography.**

Ans: Human Geography aims to study the regional variations of human life on the earth. These are directly or indirectly influenced by physical environment. It studies the relationship of man to his environment. This interaction and relationship between man and environment results in a cultural landscape.

i) Human geography draws on other social sciences in the analyses identified with its sub-fields, such as geography of social well-being, cultural, medical, electoral geography.

ii) Human geography analyses the utilisation of natural resources, their economic structure, industries, transport, communication, and distribution of human settlements.

iii) It analyses the utilisation of natural resources, human settlements, their economic structure, transport, communication, industries etc.

iv) Human geography has a great focus on intangible patterns surrounding human activity and influence on his occupation.

## **3. What are the three approaches of Human Geography?**

**OR**

**Name the approaches introduced in 1970's in human geography. State the main feature of each**

**approach.**

**OR**

**Describe various schools of thought that have developed in Geography**

i) **WELFARE OR HUMANISTIC APPROACH:** was mainly concerned with the different aspects of social well-being of the people. These includes aspects such as housing, health and education. It also lays emphasis on central and active role of humans in terms of human awareness.

ii) **RADICAL APPROACH:** employed Marxian theory to explain the basic cause of poverty, deprivation, and social inequality.

III) **BEHAVIOURAL APPROACH:** laid great emphasis on lived experience and on the perception of space by social categories based on ethnicity, race, and religion, etc.

**4. Technology loosen the shackles of environment on human beings? Explain with examples.**

Ans: Technology plays a great role in determining the cultural development of the society. To develop technology the knowledge about the nature is extremely important. It brings about interaction of human beings with the physical environment. Human beings were able to develop technology after they developed better understanding of the natural laws. Which is evident by

- i) The understanding of concepts of friction and heat helped discover fire.
- ii) The laws of aerodynamics to develop faster planes.
- iii) Understanding the secrets of DNA and genetics enabled us to conquer many diseases.

Hence, the knowledge about the nature is extremely important to develop technology and technology loosens the shackles of environment on human beings.

#### **SOURCE BASED QUESTIONS:**

**1. Read the case study given below and answer the question that follow.**

Benda lives in the wilds of the Abujh Maad area of central India. His village consists of three huts deep in the wilds. Not even birds or stray dogs that usually crowd villages can be seen in these areas. Wearing a small loin cloth and armed with his axe he slowly surveys the penda (forest) where his tribe practices a primitive form of agriculture called shifting cultivation. Benda and his friends burn small patches of forest to clear them for cultivation. The ash is used for making the soil fertile. Benda is happy that the Mahua trees around him are in bloom. How lucky I am to be a part of this beautiful universe, he thinks as he looks up to see the Mahua, Palash and Sal trees that have sheltered him since childhood. Crossing the penda in a gliding motion, Benda makes his way to a stream. As he bends down to scoop up a palmful of water, he remembers to thank Loi-Lugi, the spirit of the forest for allowing him to quench his thirst. Moving on with his friends, Benda chews on succulent leaves and roots. The boys have been trying to collect Gajjhara and Kuchla, from the forest. These are special plants that Benda and his people use. He hopes the spirits of the forest will be kind and lead him to these herbs. These are needed to barter in the madhai or tribal

fair coming up the next full moon. He closes his eyes and tries hard to recall what the elders had taught him about these herbs and the places they are found in. He wishes he had listened more carefully. Suddenly there is a rustling of leaves. Benda and his friends know it is the outsiders who have come searching for them in the wilds. In a single fluid motion Benda and his friends disappear behind the thick canopy of trees and become one with the spirit of the forest.

**a) Where does Benda live?**

Ans) Benda lives in the wilds of Abujh Maad area of central India.

**b) What type of agriculture is practised by Benda and his family?**

Ans) Shifting cultivation

**c) How do they make the soil fertile?**

Ans) They burn small patches of forest. The ash is used to make the soil fertile.

**d) Which God is worshipped by the tribal families living in the forest?**

Ans) Loi-Lugi , the spirit of forest.

**e) What are the special plants that Benda and his people Use?**

Ans) Gajjhara and Kuchla, are the special plants that Benda and his people use.

**f) The life of Benda in the forest shows which concept?**

Ans) Environmental Determinism

**2. Read the case study given below and answer the question that follow.**

Winters in the town of Trondheim mean fierce winds and heavy snow. The skies are dark for months. Kari drives to work in the dark at 8 am. She has special tyres for the winter and keeps the headlights of her powerful car switched on. Her office is artificially heated at a comfortable 23 degrees Celsius. The campus of the university she works in is built under a huge glass dome. This dome keeps the snow out in winter and lets in the sunshine in the summer. The temperature is controlled carefully and there is adequate lighting. Even though fresh vegetables and plants don't grow in such harsh weather, Kari keeps an orchid on her desk and enjoys eating tropical fruits like banana and kiwi. These are flown in from warmer areas regularly. With a click of the mouse, Kari can network with colleagues in New Delhi. She frequently takes a morning flight to London and returns in the evening in time to watch her favourite television serial. Though Kari is fifty-eight years old, she is fitter and looks younger than many thirty-year-olds in other parts of the world.

**a) How is the weather in Trondheim?**

Ans) Fierce winds and heavy snow and dark skies.

**b) How does Kari survive the harsh climate?**

Ans) i) By artificial heating.

Glass dome keeps snow out in winter and lets in the sunshine in the summer.

**c) How does Kari get tropical fruits like banana and Kiwi?**

Ans) They are flown in from warmer areas.

**d) How does Kari look?**

Ans) Though Kari is fifty-eight years old, she is fitter and looks younger than many thirty-year-olds in the other parts of the world.

**e) The life of Kari describes which of the approaches of Human Geography?**

Ans) Possibilism

**ASSERTION AND REASONING:**

**Assertion(A): Human beings interact with their physical environment with the help of technology.**

**Reason (R): It is not important what human beings produce and create but it is extremely important 'with the help of what tools and techniques produce and create'.**

Codes:

- a) Both A & R are true and R is the correct explanation of A
- b) Only A & R are true, but R is not the correct explanation of A
- c) A is true, but R is false
- d) A is false, but R is true

Ans: Both A & R are true and R is the correct explanation of A.

**Assertion(A): Understanding of friction and heat helped the humans in discovering fire.**

**Reason(R) : Technology enables the human overcome the limitations imposed by nature.**

Codes:

- a) Both A & R are true and R is the correct explanation of A
- b) Only A & R are true, but R is not the correct explanation of A
- c) A is true, but R is false
- d) A is false, but R is true

Ans: Both A & R are true and R is the correct explanation of A

## CHAPTER: 2

### THE WORLD POPULATION DISTRIBUTION, DENSITY AND GROWTH

What do you mean by population distribution?

- ✓ It refers to the way people are spaced over the Earth surface
- 90% of the world's population lives in about 10% of its land area
- 10 most populated countries contribute 60% of the world population
- Of these 10 countries, 6 countries are located in Asia
- So, Asia has the largest population in the world

#### **Density of population**

- Density refers total population divided by total area
- More than 200 persons are living in North Eastern part of USA North Western part of Europe, south and Southeast and East Asia
- On the other hand, the population is less in North and South poles, hot and cold desert areas, equatorial areas have less than 1% per Sqkm

Why is population density low in these areas?

Because these areas are not having ideal conditions for life

#### **Factors influencing distribution of population**

- Geographical factors
- Economic factors
- Social and cultural factors

#### **Geographical factors**

- Availability of water
- Landforms
- Climate
- Soils

#### **Availability of water**

- People prefer to live where freshwater is easily available
- Used for various activities
- River valleys have very dense population

## **Landforms**

- Plains, plateau and mountain
- Mountain areas have less population due to unfavourable conditions
- Plains have more population
- Easy for cultivation and to develop infrastructure facilities

## **Climate**

- Due to extreme cold and hot population is less in some areas
- Population is more where ideal climate exists
- Example- Mediterranean region

## **Soil**

- Population is more where fertile soil is found
- Population is less in unfertile soil areas (example desert area)

## **Economic factors**

- Minerals availability
- Urbanization
- Industrialization

## **Minerals**

- It generates employment opportunities in the name of mining activities and industries
- Hence skilled and unskilled people migrate and make the area more densely (example Katanga Zambia copper belt in Africa)

## **Urbanization**

- Cities offer better employment opportunities
- Educational and medical facility
- Better means of transport and communication
- Good Civic amenities
- Attraction of the city life attract the people to the cities

## **Industrialization**

- Industrial belt provides job opportunities and attract large no number of people

- These include not only factory workers but also transport operators, shop keepers bank employees, doctors, teachers and other service providers (example Kobe-Osaka region in Japan)

### **Social and cultural factors**

- Religious and cultural significance
- Peaceful areas attract people

### **Population growth**

- It refers to the change in number of inhabitants of territory during a specific period of time
- The growth is always expressed in percentage

### **Growth of population**

Change of population in particular area in a region

### **Growth rate of population**

This is the change of population expressed in %

### **Natural growth of population**

The rate of increased population between birth rate and death rate of two ends of time of a region

Birth rate- death rate= Natural growth

Actual growth= birth –death + migration-out migration

### **Positive growth of population**

Birth rate is more than the death rate between two ends of time

### **Negative growth of population**

When death rate is more than the birth date between two en of time

### **Components of population change**

**Crude birth rate:** number of live birth/ 1000 person in a year

**Crude death rate:** number of death per/ 1000 persons 2015 in a year

**Migration:** the movement of people from one place to another for various reasons

**Place of origin:** a place from there people move

**Place of destination:** the place where the people reach

**Immigration:** migrants who move into new place

**Emigration:** migrants who move out of a place

### **Two sets of factors of migration**

#### **Push factors and pull factors**

<b>Push Factors</b>	<b>Pull Factors</b>
<ul style="list-style-type: none"><li>• Unemployment</li><li>• Poor Living conditions</li><li>• Political turmoil</li><li>• Unpleasant climate</li><li>• Natural disasters and</li><li>• Socio-economic backwardness</li></ul>	<ul style="list-style-type: none"><li>• Better job opportunities</li><li>• Living conditions</li><li>• Peace and stability</li><li>• Security of life and the property pleasant climate</li></ul>

### **Role of Science and Technology**

- The steam engine replaced human and animal energy
- Mechanized energy of water and wind
- Both led to the development of industries and Agriculture
- Epidemics and other communicable diseases were controlled by medical facilities
- Death rate was totally controlled by the medical facilities

### **Doubling time of world population**

- World population was doubled due to the following reasons
- Settled agriculture
- Industrial revolution
- Technological advancement
- Development of transport and communication

### **Spatial pattern of population change**

- The growth of developed countries is low as compared to developing countries
- There is negative correlation between economic development and population growth



## **Impact of population change**

- Over utilisation of resources
- Leads to diseases like HIV & Aids
- When population declines it leads to the problem in production
- The average life span would be less
- Increased pressure agricultural land
- Problems in developing infrastructure

## **Demography transitional theory**

First stage: birth rate and death rate are high

Why so it is?

- Infant mortality rate high resulting in high fertility rate
- No family planning
- More children for work
- Religious dogma of big families

Why of high death rate

- Attacks of epidemics
- Low quality of food
- No medical facility

### **2nd stage**

- Birthrate remains high
- Death rate decreased rapidly due to medical facilities
- Healthy conditions
- Pure drinking water
- Increased in quality and quantity of food grains
- Low infant mortality

### **Third stage**

- Death rate and birth rate both decreased
- It shows stable population growth

Why is it decreased?

- Family planning
- Industrialization

- Better living conditions
- Incentive for small family
- Women freedom

### **Population control measures**

- Family planning to prevent the child birth
- Improving the women's health
- Propaganda and free availability of contraceptives
- Text disincentive for large families
- Thomas Malthus stated that number of people would increase faster than food supply
- For our sustainability of our resources, we should have control over the population increase

### **MULTIPLE CHOICE QUESTIONS**

1. Who mentioned regarding the population control that preventive checks are better than the physical checks?

- a. Thompson
- b. Thomas Malthus**
- c. Ralph Waldo Emerson
- d. Tailor

2. Which is measured in terms of person's per sq km.?

- a. Growth of population
- b. Immigration of population
- c. Density of population**
- d. Emigration of population

3. Which region were inhabited from early periods in history due to the present climate?

- a. Savannah region
- b. Pampas
- c. Prairie
- d. Mediterranean region**

4. Kobe- Osaka region is in

- a. Japan**
- b. India
- c. Indonesia
- d. Africa

5.Assertion: The annual population growth rate in India is 1.6 %.  
Reason: Some developed countries will take 318 years to double their population.

- a. Assertion (A) correct and reason (R) is incorrect.
- b. Assertion ( A) is incorrect and reason (R) is correct
- c. **Assertion is correct and reason is also correct but it is not the right reason for the Assertion (A)**
- d. None of these is correct.

6.Migrants who are moving to a new place is called -----

- a. Emigration
- b. Immigrants**
- c. Emigrants
- d. Immigration

7.CBR =  $B_i/P \times 1000$ . Here P refers to

- a. Population of an area
- b. Population growth
- c. Population birth
- d. Mid-year population of an area**

8.Who stated "Asia has many places where people are few and few places where people are very many"?

- a. Hartshorne
- b. George B Cressey**
- c. Malthus
- d. None of them

9.What is the demographic transition model?

- a. A graph that plots changes in birth and death rates and migration over time and shows how the population grows in response.
- b. A graph that plots changes in birth and death rates over time and shows how the population grows in response.**
- c. A graph that plots changes in infant mortality and people per doctor over time and shows how the population grows in response.
- d. A graph that plots changes in child mortality and death rates

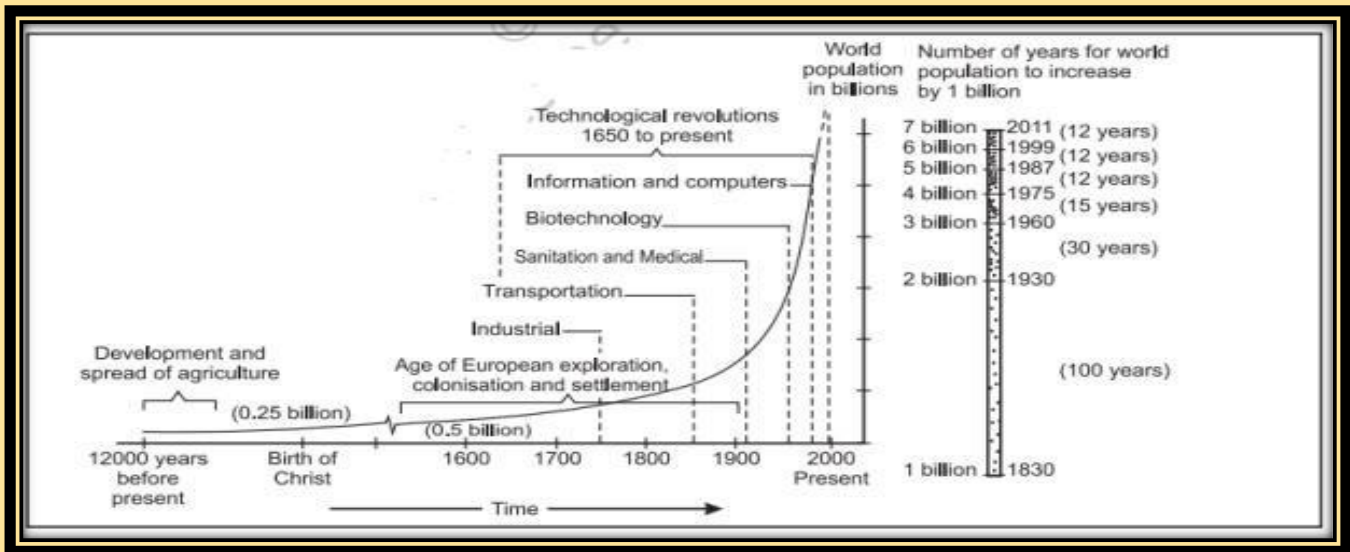
10. Consider the following statements and choose the correct answer

- I. The Kobe-Osaka region of Japan is thickly populated because of the presence of a number of industries.
- II. Industrial belts provide job opportunities and attract large numbers of people

- a. Only I is correct.
- b. Only II is correct
- c. Both the statements are incorrect
- d. **Both statements are correct and statement II correctly explains the statement**

**DIAGRAM BASED QUESTIONS**

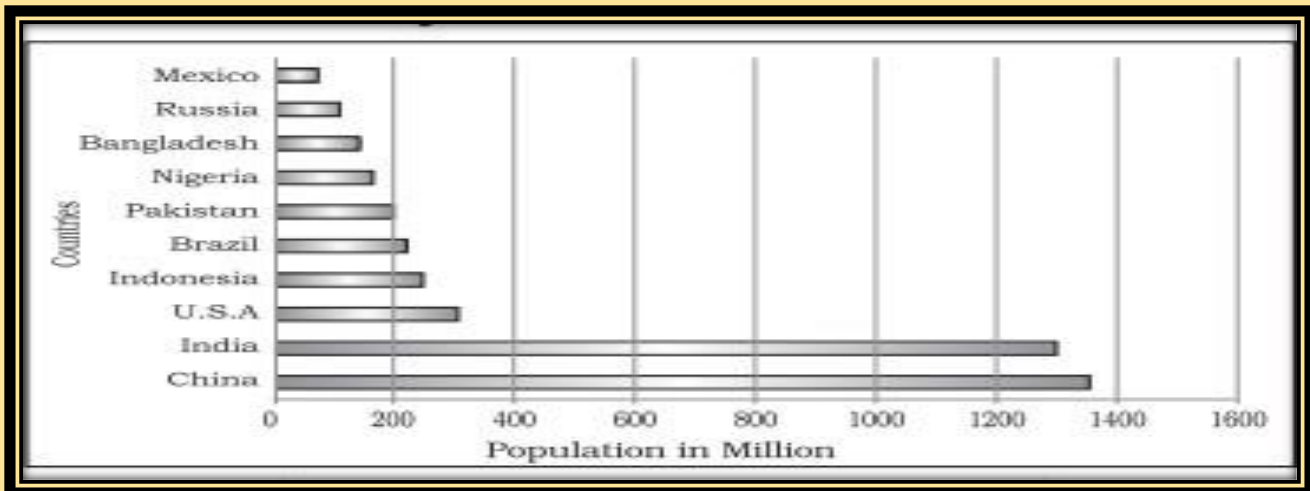
11. Study the graph carefully and answer the questions that follow



- I. When was the stage for rapid population growth set up?
  - a. **During sixteenth century**
  - b. During eighteenth century
  - c. During fifteenth century
  - d. During twentieth century
- II. What was the reason behind the population growth in question 1
  - a. Agricultural development

- b. Industrial revolution
  - c. **Expanding world trade**
  - d. Technological revolution.
- III. When did population explosion take place?
- a. During sixteenth century
  - b. **During eighteenth century**
  - c. During fifteenth century
  - d. During twentieth century
- IV. What was the impact of technological advancement on world population?
- a. **Reduction in birth rate**
  - b. Decrease in population
  - c. Reduction in death rate
  - d. Increase in birth rate

12. Study the graph carefully and answer the questions that follow



A. Among the top ten countries with the highest population, how many countries are located in Asia?

- a. **Six**
- b. Four
- c. Nine
- d. Two

I. How many countries of Africa are included in the top ten most populous countries?

- a. Three
- b. One**
- c. Two
- d. Four

C. Ten most populous countries make up\_\_%of world's populationa.

- a. 65%
- b. 55%
- c. 60%
- d. 50%**

### **SHORT ANSWER QUESTIONS**

1. Why are the people of a country considered its real wealth?

The people of a country are its real wealth because it is they who make use of the country's resources and decide its policies

2. Define the term population distribution

The term population distribution refers to the way people are spaced over the earth's surface

3. What is the meaning of density of population? Explain with examples four geographical factors influencing the distribution of population in the world.

Density of population is the number of people living in a square kilometre of area.

Density of population = population / Area.

#### **Geographical factors influencing distribution of population are**

- Availability of water-people prefers to live in areas where fresh water is easily available. River valleys are therefore the most densely populated areas of the world. Eg- Gangetic plains are densely populated
- Landforms: people prefer living on flat plains and gentle slopes. The mountainous and hilly areas are less populated. Eg- Himalayan region are sparsely populated.
- Climate: Extreme climate is uncomfortable for human habitation. Areas with comfortable climate attract more people. Eg- Mediterranean region is densely populated.

- Soils: Areas which have fertile loamy soils have more people living on them as these can support intense agriculture. Eg- Nile Delta

4. When does the positive growth of population take place?

When the birth rate is more than the death rate between two points of time or when people from other countries migrate permanently to a region positive growth of population takes place

5. Which are the two sets of factors that influence migration in the world? Explain both the set of factors with suitable examples

The two sets of factors that influence migration in the world are

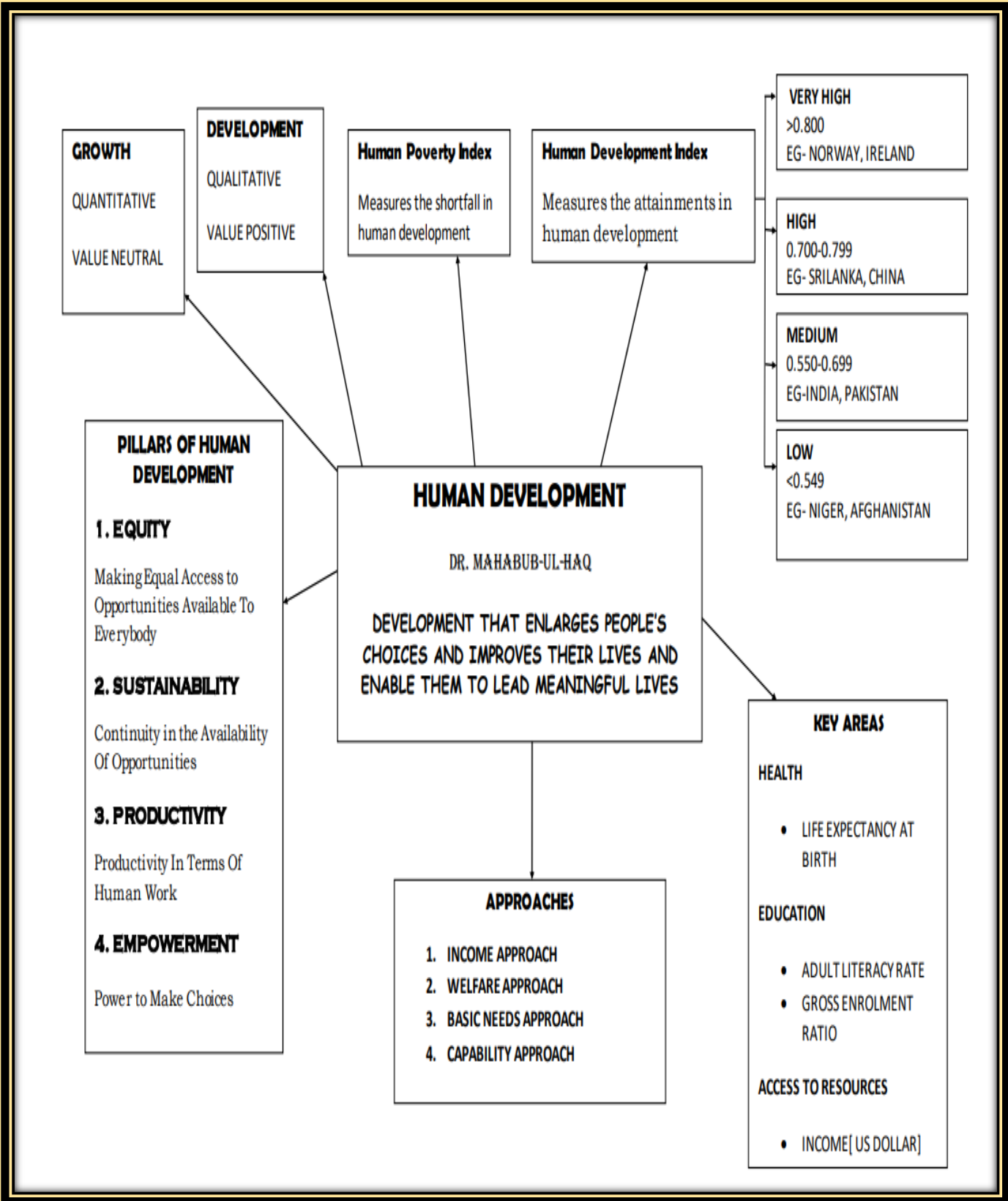
Push factors makes the place of origin seems less attractive- unemployment, poor living conditions, political turmoil, unpleasant climate, natural disasters, epidemics, socio economic backwardness.

Pull factors makes the place of destination seem more attractive than the place of origin - better job opportunities, peace and stability, security of life and property, pleasant climate.

6. What does the Theory of Demographic Transition tell us?

This theory tells us that population of any region changes from high births and high deaths to low births and low deaths as society progresses from rural agrarian and illiterate to urban industrial and literate society.

**CHAPTER- 3**  
**HUMAN DEVELOPMENT**





## **KEY NOTES**

What is meant by human development?

- It is described as the development that enlarges people's choices and improve their life
- people are central to all the development under this concept

Difference between growth and development

- Both are changing over a period of time
- Growth is quantitative and value neutral it
- Has a positive and negative sign
- Development means a qualitative change which is always value positive
- Development occurs when there is a positive change in quality
- Example -development of a city
- The concept of human development was introduced by Dr Mehboob Ul Haq
- According to his point of view the people must have a healthy life
- Chances should be given to develop their talents and skill
- Freedom should to be given to achieve their goals

**Three indicators of human development**

- Long and healthy life
- Gaining knowledge
- Leading a decent life

**The four pillars of human development**

- Equity
- Sustainability
- Productivity
- Empowerment

Equity

- It refers to make equal access to the opportunities available to everyone
- It should be irrespective of their gender, race, income and caste

Sustainability

- It refers to the continuity in the availability of opportunities
- It means each generation must have a small opportunity

- All the resources must be used keeping in mind the future
- Misuse of any resources will create a serious problem in future

### Productivity

- It refers human work
- People must be enriched by building capabilities
- Because human resource is the ultimate resource to develop all other resources
- Therefore efforts are taken to increase their knowledge, providing better health facilities and better work efficiency

### Empowerment

- It is to make choices in power
- Power comes from increasing freedom and providing opportunities
- The policies should be framed for the empowerment of the people
- The weaker section of the society should be focused

### **Approaches to the Human Development**

1. The income approach
2. The welfare approach
3. Basic needs approach
4. Capabilities approach

### Income approach

- It is one of the oldest approaches
- The level of income reflects in the section of society
- Higher level of income the higher level of human development

### Welfare approach

- It refers the targets of all developmental activities
- The government expenditure goes higher on education, health and social amenities
- People are not participants in the development

### Basic needs approach

- Six basic needs are proposed by International Labour Organisation
- Health, education, food, water supply, sanitation and housing
- These basic facilities are assessed to measure the human development

## Capability approach

- It is associated with professor Amartya Sen
- Building human capabilities in the areas of health, education
- Access to resources is the key to increase the human development

## **International comparison**

### Some interesting facts

- Size of the territory and per capita income are not directly related to human development
- Smaller countries have done better than larger countries
- Example -Sri Lanka and Tobago have a higher rank than India in the human development
- Similarly Kerala being a small state in India is better than Punjab and Gujarat
- 

Level of human development	Score in development Index	Number of countries
High	above 0.8	57
Medium	Between 0.5 to 0.499	88
Low	below 0.5	32

**Countries with high index value-** There are 10 countries

Sl.No	Country Name	Sl.No	Country Name
1	Norway	6	Sweden
2	Iceland	7	Switzerland
3	Australia	8	Ireland
4	Luxembourg	9	Belgium
5	Canada	10	United States

Norway tops in human development index in the world

Reasons for high HDI

- Providing better education and health care
- Higher investment on social sector

- Good governance
- Equal distribution of resources

#### Countries with medium index value

- Most of these countries have emerged in the period after the second world war
- Many countries are rapidly improving in human development by adopting more people-oriented policies and reducing social discrimination
- These countries have much higher social diversities
- Many in this group have faced political instability and social uprisings

#### Countries with low Index value

- Political turmoil and social instability
- Civil war
- Famine and high incidence of diseases
- Low education status

### **MULTIPLE CHOICE QUESTIONS**

Q1. Empowerment is the power of ...

- A) Man.
- B) To make choices
- C) To change the environment.
- D) To increase the opportunities

**Ans: B**

Q2. Who introduced the concept of Human developments?

- A) Dr Mahabub -Ul – Haq**
- B) Ratzel
- C) Immanuel Kant
- D) Prof. Amartya Sen

**Ans: A**

Q3. Which one the following is not an approach of Hunan development?

- A) Welfare
- B) Income.
- C) Capability.

D) Equality

**Ans: D**

Q4. Which one of the following is not a pillar of Human development index?

A) Equity

B) Sustainability

**C) Income**

D) Productivity.

Ans: C

Q5. When was the first Human Development Report published by UNDP.

**A) 1990**

B) 1991

C) 1994

D) 1995

Ans: A

Q6. Which one of the following best describe Human development...

A) an increase in size.

**B) A positive change in quality**

C) a negative change in quality

D) A simple change

Ans: B

Q7. Concept of Human development involves the....

A) Life on the surface of the earth

**B) Quality of life of the people**

C) Mans adjustment to the environment

D) How environment dictates the activities of man

Ans: B

Q8. Standard of Living is measured by...

**A) GDP Per capita**

B) GNH per capita

C) GPH per capita

D) HDI

Ans: A

Q9. Countries with high level of human development invest more in

A) Industrial sector

**B) Social sector**

C) Political sector

D) Human sector.

Ans: B

Q10. Making equal access to opportunities available to everyone refers to..

A) Empowerment.

B) Productivity

**C) Equity**

D) Sustainability

Ans: C

### **ASSERTION AND REASONING**

Q1. Assertion India's Human Development Index (HDI) rank in the world is 132.

Reason HDI measures achievement in economic growth, standard of living and mortality rate.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion

**B. Both Assertion and reason are correct but Reason is not the correct explanation for Assertion.**

C. Assertion is correct but reason is incorrect.

D. Both Assertion and reason are incorrect.

Ans-B. Both Assertion and reason are correct but Reason is not the correct explanation for Assertion.

Q2. Assertion Norway is having world's highest Human Development Index (HDI)

Reason HDI measures highest achievement in economic growth, standard of living and life expectancy.

**A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion**

B. Both Assertion and reason are correct but Reason is not the correct explanation for Assertion.

C. Assertion is correct but reason is incorrect.

D. Both Assertion and reason are incorrect.

Ans. A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion

### **SHORT ANSWER QUESTIONS**

1 What are three basic areas of human development?

Ans. The three areas/aspects of human development are: Access to health: Leading a long and healthy life. Access to education: Being able to gain knowledge. Access to resources: Having enough means to be able to live a decent life.

2. What do you understand by the term Human development?

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

3. What are four pillars of human development?

Ans. Equity, Productivity, empowerment, and sustainability are considered to be the four pillars of human development. Human Development can be described as a process of enlarging opportunities, improving their well-being, and livelihood.

4. Why does particular region of the world keep reporting low or high levels of human development? Explain by giving suitable reasons.

Ans. Size of the territory and per capita income are not directly related to human development. Often small countries have done better than larger ones in human development. Similarly, relatively poorer nations have been ranked higher than richer neighbours in terms of human development. Example: Sri Lanka, Trinidad and Tobago have a higher rank than India in the human development index despite having smaller economies.

### **LONG ANSWER TYPE QUESTION**

**Q1 What do equity and sustainability refer to within the concept of human development?**

Ans. Equity refers to making equal access to opportunities available to everybody. The opportunities available to people must be equal irrespective of their gender, race, income and in the Indian case, caste. It aims at providing equal opportunities to all with no special privileges or restriction to any person or group of persons. It is essential for human development to ensure access to resources in order to fulfill choices and lead a meaningful life. For example, in any country, it is interesting to see which group the most of the school dropouts belong to. This should then lead to an understanding of the reasons for such behaviour. In India, a large number of women and persons belonging to socially and economically backward groups drop out of school. This shows how the choices of these groups get limited by not having access to knowledge.

Sustainability can be defined as “using resources in a way that fulfill the needs of present generation without compromising on their availability for future generations.” Sustainability refers to continuity in the availability of opportunities. To have sustainable human development, each generation must have the same opportunities. All environmental, financial and human resources must be used keeping in mind the future. Misuse of any of these resources will lead to fewer opportunities for future generations. Example; If the key resource of coal is being overused by the present generation, it will lead to its paucity in future. When adequate coal will not be available to future generation, the power generation capability will be hindered which in turn will affect several infrastructural, industrial and other activities, which in turn will negatively affect the available choices and quality of life of future generations.



## **Q2. What are the different approaches/ ways of looking at the problem of human development?**

Ans. Some of the important approaches of looking at human development are:

(a) **Income Approach:** This is one of the oldest approaches to human development. Human development is seen as being linked to income. The idea is that the level of income reflects the level of freedom an individual enjoys. Higher the level of income, the higher is the level of human development.

(b) **Welfare Approach:** This approach looks at human beings as beneficiaries or targets of all development activities. The approach argues for higher government expenditure on education, health, social secondary and amenities. People are not participants in development but only passive recipients. The government is responsible for increasing levels of human development by maximising expenditure on welfare.

(c) **Basic Needs Approach:** This approach was initially proposed by the International Labour Organisation (ILO). Six basic needs i.e health, education, food, water supply, sanitation, and housing were identified. The question of human choices is ignored and the emphasis is on the provision of basic needs of defined sections.

d) **Capability Approach:** This approach is associated with Prof. Amartya Sen. Building human capabilities in the areas of health, education and access to resources is the key to increasing human development.

## **Q3. Compare the socio-economic conditions of the people in the countries with different human development levels.**

Ans. High level of human development group has 53 countries. Providing education and healthcare is an important government priority. Countries with higher human development are those where a lot of investment in the social sector has taken place. Altogether, a higher investment in people and good governance has set this group of countries apart from the others. Many of these countries have been the former imperial powers. The degree of social diversity in these countries is not very high. Many of the countries with a high human development score are located in Europe and represent the industrialized western world. Yet there are striking numbers of non-European countries also who have made it to this list.

Countries with medium levels of human development form the largest group. There are 42 countries in the medium level of human development. Most of these are

countries which have emerged in the period after the Second World War. Some countries from this group were former colonies while many others have emerged after the breakup of the erstwhile Soviet Union in 1990. Many of these countries have been rapidly improving their human development score by adopting more people-oriented policies and reducing social discrimination. Most of these countries have a much higher social diversity than the countries with higher human development scores. Many in this group have faced political instability and social uprisings at some point of time in their recent history.

As many as 43 countries record low levels of human development. A large proportion of these are small countries which have been going through political turmoil and social instability in the form of civil war, famine or a high incidence of diseases. There is an urgent need to address the human development requirements of this group through well thought out policies.

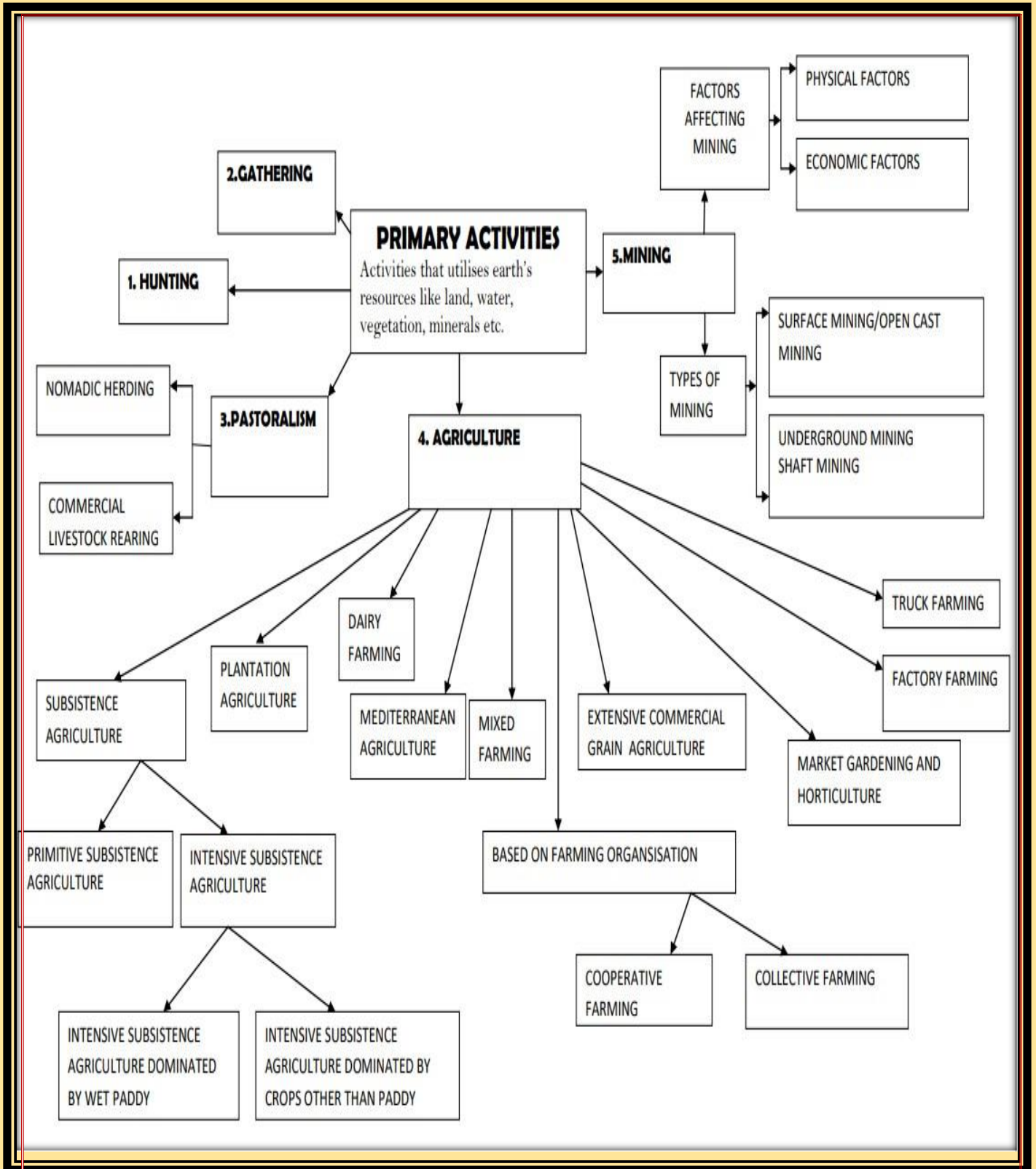
**Q4. “The Human Poverty index is more revealing than the Human Development Index”. Explain with examples.**

Ans. The human development index measures attainments in human development. It reflects what has been achieved in the key areas of human development. Yet it is not the most, reliable measure. This is because it does not say anything about the distribution. The human poverty index is related to the human development index. This, index measures the shortfall in human development. It is a non-income measure. The probability of not surviving till the age of 40, the adult illiteracy rate, the number of people who do not have access to clean water, and the number of small children who are underweight are all taken into account to show the shortfall in human development in any region. Often the human poverty index is more revealing than the human development index. Looking at both these measures of human development together gives an accurate picture of the human development situation in a country.

The ways to measure human development are constantly being refined and newer ways of capturing different elements of human development are being researched. Researchers have found links between the level of corruption or political freedom in a particular region. There is also a discussion regarding a political freedom index and, a listing of the most corrupt countries.

## CHAPTER-4

### PRIMARY ACTIVITIES



## KEY NOTES

What do you mean by primary activities?

- Primary activities are directly related with land and water
- These activities include hunting, gathering, pastoral activities fishing, Forestry, agriculture, mining, quarrying

### **Economic activities**

Human activities which generate income are known as economic activities

Types of economic activities

- Primary activities
- Secondary activities
- Tertiary activities
- Quaternary activities

### **Primary activities**

#### **Hunting and gathering**

- The earliest human beings were depending upon their immediate environment
- They subsisted on animals hunting, gathering edible plants
- They ate animal plush
- Catching fish in the coastal areas
- The earliest people used primitive tools such as arrows, twigs and these tools are made up of stones
- Now the number of animals killed was limited
- The gathering is practiced in regions with horse climatic conditions
- It is done by primitive societies
- They depend upon plants and animals to satisfy their needs for food, shelter and clothing
- It requires very less amount of capital investment and technology
- No surplus is produced

#### **Areas of gathering in the world**

- High latitude zones like northern Canada, Northern Eurasia and southern Chile
- Low latitude zone areas like Amazon Basin, tropical Africa Northern fringe of Australia and interior parts of Southeast Asia

In modern time gathering is market-oriented practice. Justify?

Gatherers collect leaves, barks, nuts of the trees for medicinal uses and they are sold in the market after a small processing

#### Uses of the collected forest products

Products	Uses
Bark	Preparing quinine
Leaves	Preparing beverages, drugs, cosmetics
Nuts	To prepare different foods and oils
Liquid of trunk	Making rubber, gums and resins

### **Pastoralism**

People living in different climatic conditions domesticate animals and they are totally depending upon geographical environment

#### Nomadic herding

- People move from one place to another along with their cattle
- The movement is depending upon the quality of pastures and water
- Territory is confined

Pastoral nomadism is practiced in three major regions

- Area extending from Atlantic shore in the North Africa East words Arabian Peninsula China and Central China
- The second region is Tundra region Eurasia
- The third region is South West Africa and island of Madagascar
- The process of migration from mountain areas to plain area during winter and plain area to mountain area in summer is known as *transhumance*
- Example- Gujjar, Bakarwal, Gaddis, Bhotiyas in India

#### Commercial livestock rearing

- It is well organised and capital intensive
- It is practiced in permanent ranches
- Ranches cover large areas and they are divided into different parcels
- Only one type of animal is reared
- Important animals are sheep, cattle, goats, and horses
- It is scientifically maintained and its products are exported to many countries
- Importance is given on breeding and genetic improvement

- Countries are New Zealand, Australia, Argentina and United States of America

## **Agriculture**

### Types of agriculture

- Subsistence agriculture
- Primitive subsistence agriculture
- Intensive subsistence agriculture

### Subsistence agriculture

- Subsistence agriculture is one in which the farmers consume all or nearly so of the products locally grown
- Primitive subsistence agriculture
- Another name is shifting agriculture
- It is widely practiced in tribal areas of tropics particularly in Africa south and central America and south east Asia
- The vegetation is usually cleared by fire and ashes of the vegetation is used to add the fertility
- Hence it is called *slash and burn* agriculture
- The patches are very small and cultivation is done by primitive tools
- As soon as the soil fertility gets over the family members move to other areas and clear the patches and start cultivation
- It is practiced in tropical forest areas

### Problems of shifting cultivation

- Soil becomes infertile
- It leads to soil erosion
- Yield is very less

### Intensive subsistence agriculture

#### Two types

- Dominated by wet paddy cultivation
- Dominated by crops other than paddy

#### **Dominated by the paddy cultivation**

- Rice is the dominant crop
- Fields are very small due to high density of population
- Farmers work with the help of family members
- Machinery is limited and manual labour are more
- Farm yard manure is used (cow dung)
- Yield per unit area is high

### **Dominated by crops other than paddy**

- Different crops are cultivated due to different geographical factors
- Wheat, soya bean, barley and sorghum
- In India wheat is grown in western part of Indo- Gangetic plain
- Millets are grown in dry parts of western and southern India

### **Plantation agriculture**

- Introduced by the Europeans in the colonies situated in the tropics
- Example- tea, coffee, cocoa, rubber, cotton, oil palm sugar cane bananas and pineapples

### **Important characteristics**

- It is a mono cropping system
- Farming is done with scientific methods and require large investment
- Skilled and unskilled labour are required
- Cheap labour is also required
- Good means of transport and communication is required
- The British developed tea gardens in India and Sri Lanka, rubber plantation in Malaysia and sugar cane in west Indies

### **Extensive commercial grain cultivation**

- It is practiced in the interior parts of semi-arid lands of the mid latitude
- Wheat is the principal crop
- Other crops like corn barley oats are also grown
- It is completely mechanised cultivation
- It is practiced in Eurasian steppes, Canadian Highlands American prairies, the pampas of Argentina, the Wales of South Africa and New Zealand

### **Mixed farming**

- It is found in the highly developed parts of the world
- Example- North Western Europe, Eastern North America parts of Eurasia and temperate latitudes of southern continents
- The farm size is moderate and crops are mixed with wheat barley, oats, maize fodder and root crops
- Crop rotation and intercropping play an important role in maintaining soil fertility

- Animals are reared with crop cultivation is to give extra income
- It requires very high capital to purchase from machineries buildings, chemical fertilizers and green manure
- Special skill and expertisation are required to the farmers

### **Dairy farming**

- It is highly capital intensive
- Capital is required for constructing animal sheds, storage facilities, fodder feeding and milchig machines
- Emphasis is given on cattle breeding healthcare and veterinary services
- There is no off season during the year
- Practiced mainly near the urban and industrial centres
- Needs good means of transport, refrigeration and other important facilities
- Main regions are North Western Europe, Cannada, South Eastern Australia, New Zealand and Tasmania

### **Mediterranean agriculture**

- It is practiced on either side of the Mediterranean Sea (Europe and North Africa)
- The viticulture is the other name (grape cultivation)
- The high quality of best wine is produced with the distinctive flavours from the high quality of grapes
- Also produce olive and figs
- Fruits and vegetables are grown in winters when there is the great demand in European countries and North American markets

### **Market gardening and horticulture**

- Cultivation of high value crops such as fruits, vegetables flowers
- Farms are very small and are located near urban areas
- It is a labour and capital oriented
- Importance is given on use of irrigation HYV seeds, fertilizers, insecticides, greenhouse and artificial heating in cold region
- It is developed in thickly populated industrial area of North Western Europe, Northeastern parts of USA and the Mediterranean region
- The regions where farmers specialise in vegetables only is known as truck farming

### **What do you mean by truck farming?**

- The truck covers the distance between market area and garden area overnight



### **Co-operative Farming**

- A group of farmers form a cooperative society for more efficient and profitable farming
- It is very much successful in western European countries like Denmark, Sweden, and Italy
- The movement has been very successful in Denmark
- There every farmer is a member

### **Collective farming**

- It was introduced in Soviet Union to improve efficiency in farming activities and to boost agricultural production for self sufficiency
- The farmers pool all the resources like land, livestock and labour
- However, they can keep a small piece of land for family use
- Yearly target is fixed by the government and output is sold at fixed price
- The farmers have to pay tax to the government

### **Mining**

Factors affecting mining activity

#### **Physical factors**

- It includes the size, grade and the mode of occurrence of the deposits

#### **Economic factors**

- It includes the demand for the mineral, technology available capital to develop infrastructure labour and transport cost

#### **Types of mining**

I.Surface mining (open cast mining)

II.Underground mining (closed mining)

- When the ore lies deep below the surface underground mining method (shaft method) has to be used
- Minerals are extracted through the pipes or passages to the surface
- It requires lift, drills, haulage vehicles, ventilation system

#### **Problems of closed mining**

- It is very risky
- Chances for poisonous gases
- Fire accident and flood
- Roof collapse

## MULTIPLE CHOICE QUESTIONS

1. Human activities which generate income are known as -

- a) **Economic activities**
- b) social service
- c) Non – economic activities
- d) All of the above

2. People engaged in primary activities are called -

- a) White collar worker
- b) Red collar worker
- c) Pink collar worker
- d) **Brown collar worker**

3. Which activities are directly depended on environment?

- a) **Primary activities**
- b) Secondary activities
- c) Tertiary activities
- d) Quaternary activities

4. Which is the oldest economic activity?

- a) Hunting
- b) Gathering
- c) Trade
- d) **Both (a) and (b)**

5. Chicle is made from the milky juice of

- a) Sugarcane
- b) Cocoa
- c) **Zapota**
- d) None

6. Which activity is known as domestication of animals?

- a) Agriculture
- b) Hunting
- c) **Pastoralism**
- d) Nomadic

7. What causes the decline in the number of pastoral nomads?

- a) Imposition of political boundaries

- b) Settlement plans
- c) Harsh climatic conditions
- d) Both (a) and (b)**

8. Which type of pastoralism is more organised and capital intensive?

- a) Pastoral nomadism
- b) Commercial Livestock Rearing**
- c) Nomadism
- d) Dairy farming

9. Primary activities do not include

- a) Hunting and Gathering
- b) pastoral activities, Fishing, Forestry
- c) Mining
- d) Food Processing**

10. Per Capita Production is low in

- a) Hunting and gathering
- b) Commercial Livestock rearing
- c) Mixed farming
- d) Plantation Agriculture

11. Hunting and Gathering is not practiced in

- a) north Canada**
- b) Amazon Forest
- c) Equatorial Africa
- d) East China

12. Which one of the following is not matching

- a) Llama   Tibet & Andes
- b) Reindeer   Antarctica
- c) Sheep   Sahara
- d) Cattle   Tropical Africa

13. Transhumance practiced in which region

- a) Tundra region
- b) Western Europe
- c) Sahara desert
- d) Australia

14. Complete the following matching

- a) North East India      Jhum Cultivation
- b) Central America      Milpa
- c) Indonesia      Ladang
- d) Sri Lanka      Chena

15. Coffee plantation is also known as Fazendas in

- a) India
- b) Brazil
- c) Cuba
- d) Argentina

### Short answer type Questions

Question 1.

Which was the first activity carried out by human beings?

Answer:

Hunting and gathering are then oldest activities carried out by human beings.

Question 2.

Who are the red collar workers?

Answer:

People engaged in primary activities are called red collar workers due to the outdoor nature of their work.

Question 3.

Why do the products from gathering activities cannot compete in the world market?

Answer:

Products of these activities cannot compete in the world market as

- Synthetic products of better quality and lower prices have replaced many items supplied by gatherers in the tropical forests, unable to face competition.
- As it is a low technology subsistence activity not much surplus is there.

Question 4.

Which factors affect the choice of animals in different regions of nomadic herding?

Answer:

People living in different climatic conditions domesticate animals found in those

regions. They move from one place to another along with their livestock, depending upon the amount and quality of water and pastures.

Question 5.

Why is the number of pastoral nomads decreasing?

Answer:

Number of pastoral nomads have been decreasing and the areas under them are shrinking because of

- imposition of political boundaries
- new settlement plans by different countries.

Question 6.

What are the other names of primitive subsistence agriculture?

Answer:

Shifting cultivation and slash and burn agriculture.

Question 7.

What is shifting agriculture known as in the following?

(i) Central America and Mexico

(ii) Indonesia and Malaysia

(iii) North-east India.

Answer:

- Central America and Mexico —Milpa
- Indonesia and Malaysia—Ladang
- North East India—Slash and burn (Jhumming).

Question 8.

What is the plantation crop of Brazil? What is the name given to the plantation farms?

Answer:

The plantation crop of Brazil is coffee and the farms are called Fazendas.

Question 9.

Define viticulture.

Answer:

Viticulture is grape cultivation which is speciality of Mediterranean region.

Question 10.

Define truck farming.

Answer:

It is the type of farming where farmers specialize in and grow vegetables only. The distance of truck farms from the market is governed by the distance a truck can cover overnight.

Question 11.

Define factory farming.

Answer:

Factory farming is a modern development in the industrial regions of West Europe where livestock specially poultry and cattle rearing is done in stalls and pens and fed on manufactured feedstuff and carefully supervised against diseases.

Question 12.

Which country first introduced collective farming?

Answer:

Erstwhile Soviet Union, under the socialist regime first introduced collective farming.

Question 13.

Name two countries where cooperative farming is successful.

Answer:

Cooperative farming has been very successful in Denmark, Netherlands, Belgium, Sweden and Italy. (Any two)

Question 14.

Define mining.

Answer:

Mining is a primary activity which involves the extraction of minerals from surface or beneath the surface of the earth's crust for further processing.

Question 15.

Define primary activity.

Answer:

All the economic activities which are directly dependent on nature are primary activities. They refer to the utilization of Earth's resources such as land, water,

vegetation, building materials and minerals, etc. It includes hunting gathering, pastoralism, fishing, lumbering, forestry, agriculture and mining.

Question 16.

What do you mean by economic activities?

Answer:

Human activities which generate income are known as economic activities.

Economic activities are broadly grouped into four categories:

- Primary Activities
- Secondary Activities
- Tertiary Activities
- Quaternary Activities

### **Long Answer Type Questions**

1. Explain any five characteristics of extensive commercial grain cultivation practised in the world?

Ans. The main characteristics of extensive commercial grain cultivation are as follows:

- It is more organized
- Capital intensive
- Practiced in permanent ranches
- Larger areas and divided into parcels
- Animals are moved from one parcel to another
- Number of animals are kept based on capacity of the pasture
- Animals are sheep, cattle, goats and horses and products are meat, wool, hides and skin
- Practiced in New Zealand, Australia, Argentina, Uruguay and USA.

2. Classify intensive subsistence agriculture into two categories practised in the world. How are they different from each other? Explain

Ans. Classification of intensive subsistence agriculture: -

- A. Intensive subsistence agriculture dominated by wet paddy cultivation.
- B. Intensive subsistence agriculture dominated by crops other than paddy.

Intensive subsistence agriculture dominated by wet paddy cultivation	Intensive subsistence agriculture dominated by crops other than paddy.
<ul style="list-style-type: none"> <li>• Rice is the dominant crop.</li> <li>• Land holdings are very small due to high density of population.</li> <li>• Work is done with manual labour</li> <li>• Farmyard manure is used to maintain soil fertility.</li> </ul>	<ul style="list-style-type: none"> <li>• Wheat, soybean, barley and sorghum are grown.</li> <li>• Land holdings are big.</li> <li>• Machinery deployed for cultivation.</li> <li>• Fertilizers and pesticides are used</li> </ul>

3. Explain any three features of underground mining methods in different countries of the world

Ans. The three features of underground mining methods in different countries of the world.

- a. Vertical shafts to be sunk
- b. Minerals are extracted and sent to surface
- c. It requires specialized drills, lifts, haulage vehicles, ventilation systems
- d. This method is risky poisonous gases, fires, floods and caving leads to accidents
- e. It requires large investment

4. "Dairy farming is the most advanced and efficient type of rearing of milch animals in the world." Analyse the statement with examples?

Ans. It is true that dairy farming is the most advanced and efficient type of rearing of milch animals in the world. This is because it is highly capital as well as labour intensive. For example, animal sheds, storage facilities for fodder, feeding and milching machines add to the cost of dairy farming. Special emphasis is laid on cattle breeding, healthcare and veterinary services.

It is labour intensive also due to the caring, feeding and milching processes involved. The developed means of transportation, refrigeration, pasteurisation and other preservation processes are used to increase the duration of storage of various dairy products. Thus, due to these specialized operations, dairy farming is very advanced and efficient form of rearing activity.

5. "There is low yield per acre but high yield per person in the interior parts of semi-arid lands of the mid latitudes in the world." Support the statement with suitable examples?



Ans. The interior parts of semi-arid lands of the mid latitudes in the world are the areas where extensive commercial grain cultivation takes place.

Here the size of farms is very large and population is in small number. That is why entire operations of cultivation right from ploughing to harvesting is mechanized. Therefore, yield per person is high as the number of people working in farms is less and lots of machines are used. However, the size of the farms are very large due to which per acre production or yield is low even though the total production is high. This type of agriculture is practiced in Eurasian Steppes, Canadian and American Prairies, Pampas of Argentina, Velds of South Africa, Australian Downs and the Canterbury Plains of New Zealand. Wheat is the principal crop and other crops are corn, barley, oats and rye

6. Describe any five characteristics of the economic activities of hunting and gathering practiced in the world?

Ans. Characteristics of hunting and gathering practised in the world are as follows:

- Gathering and hunting are the well-known oldest economic activities.
- Gathering is practiced in region with harsh climate conditions. It often involves primitive societies, which extract both plants and animals for food, shelter and clothing.
- People living in very cold and extremely hot climates, survive on hunting.
- The early man used stone, tools, twigs or arrows, so animals were hunted in limited numbers. Now due to excessive and illegal hunting (poaching), many species have become extinct or endangered.
- Gatherers collect valuable plants, leaves, bark of trees. Gatherers also collect medicinal trees. After simple processing, they sell the products in the markets.
- Gathering requires a small amount of capital investment and operates at a very low level of technology

7. Explain any five features of nomadic herding in world?

Ans . Nomadic herding is also called pastoral nomadism. It basically primitive subsistence activity, in which depend upon animals for food, clothing, tools and transport.

Characteristics of nomadic herding are as follows:

- They move from one place to other place with their livestock in search of quality pastures and water. Each nomadic community occupies a well identified territory as a matter of tradition.

- Different variety of animals are reared in different regions of the world e.g. in Tropical Africa, cattle are most important livestock; in the hilly areas of Tibet and Andes, Yak and Llamas and in Arctic and Sub-Arctic areas, Reindeer is the most important livestock.
- Movement in search of pastures is undertaken either over vast grassland or mountainous regions. Movement from plains to mountains in summer season and vice-versa is called transhumance.
- It is practiced by tribes such as Gujjars, Bakkerwals and Gaddis in the mountain region of Himalayas where the move from plain to mountains in summers and from mountain to plains in winters.
- Now-a-days, number of pastoral nomads are declining and their areas are also reducing in size due to imposition of political boundaries and new settlement plans by different countries.

8. Define the term commercial livestock rearing. Explain any four characteristics?

Ans. Commercial livestock rearing is a specialised activity in which only one type of animal is reared for products such as meat, wool, hides, which are processed, packed and exported.

The five characteristics of commercial livestock rearing are as follows:

- It is more organized
- Capital intensive
- Practiced in permanent ranches
- Larger areas and divided in to parcels
- Animals are moved from one parcel to another
- Number of animals are kept based on capacity of the pasture
- Animals are sheep, cattle, goats and horses and products are meat, wool, hides and skin
- Practiced in New Zealand, Australia Argentina Uruguay and USA.

9. Define the term 'mixed farming'. Explain any four characteristics of mixed farming practised in the world

Ans. Mixed farming refers to the primary activity in which animal husbandry is practised along with crop cultivation. Important animals are cattle, sheep, pigs and poultry animals.

The characteristics of this type of activity are:

- High capital expenditure on constructing farms, buildings and buying various machineries for agriculture and animal husbandry.
- In this type of activity, chemical fertilizers and green manures are used on a large scale. Farmers require skills and expertise in this farming.

- Fodder crops are important components of mixed farming as they are used to feed animals.
- The farms in mixed farming are moderate in size.
- Inter-cropping and crop rotation are used here for growing crops such as wheat, barley, oats, rye, maize etc.
- This is practiced in highly developed regions of the world. For example, North Western Europe, Eastern North America, Eurasia and Temperate latitudes of Southern Continents.

10. What is the importance of dairy farming? Why is it mainly practised near urban and industrial centres of the world? Explain two reasons

Ans. Dairy farming is most efficient and modernised type of rearing milch animals. The milch animals such as cows and buffaloes are used to extract milk and produce dairy products.

It is because of the following reasons:

- It is capital intensive and it requires large investments.
- Animal sheds, storage facilities for fodder, feeding and milchig machines are required in this type of farming. So, it is very efficient form of agriculture.
- Cattle breeding, healthcare and veterinary services are given more attention in this type of farming.
- It is highly labour intensive too as it requires extensive care in feeding and milchig.
- Dairy products are stored by the processes of refrigeration, pasteurization and other preservation processes. These processes are highly advanced and efficient.
- Reasons for its Concentration Near urban areas Dairy farming is mainly practiced near urban and industrial centres because of following reasons:
- These regions provide ready markets for fresh milk and dairy products.
- High income groups reside in the urban areas which creates high demand for these products. Milk and dairy products are perishable goods and need to be transported soon. So, to reduce the time of transportation, the farms are located near urban centers

11. Differentiate between co-operative farming and collective farming?

Co-operative farming	Collective farming
<p>Co-operative farming takes place when farmers pool their resources voluntarily for efficient and profitable farming.</p> <p>In co-operative farming, farmers have individual ownership of the resources. Co-operative societies help farmers in buying farm inputs on favourable terms.</p> <p>Co-operative societies also help the farmers in selling the farm products profitably.</p> <p>Co-operative farming has been successful in many European countries and that is why, it is practiced in many other countries of the world.</p>	<p>Collective farming takes place when there is social ownership of means of production.</p> <p>In collective farming, farmers pool all their resources, though they are allowed to keep very small piece of land for their own use.</p> <p>In collective farming, all farm inputs are provided by the government.</p> <p>In collective farming, farm products are sold to the state at a fixed price. It was introduced in erstwhile Soviet Union in order to improve the inefficiency of previous method of agriculture.</p>

12. Discuss the important characteristic features of plantation agriculture. Name a few important plantation crops from different countries ?

Originally introduced by the Europeans in colonies situated in the tropics, plantation agriculture is distinct from other kinds of agricultural practices because of its specific features.

The characteristic features of this type of farming are:

- Profit oriented large-scale production system
- Large estates and plantations
- Huge capital investment
- Totally market oriented
- Scientific method of cultivation
- Cheap and large skilled labour supply
- Monoculture
- It is a link between agriculture and industry.
- They are provided with well-developed transportation facilities where raw material provided by them is processed.
- Important Plantation Crops:
- The French established cocoa and coffee plantations in West Africa.

- The British set up
- Large tea gardeners in India and Sri Lanka
- Rubber plantations in Malaysia and
- Sugarcane and banana plantations in West Indies.
- Spanish and Americans invested heavily in coconut and sugarcane plantations in the Philippines.
- The Dutch once had monopoly over in sugarcane plantation in Indonesia. Some coffee fazendas (large plantations) in Brazil are still managed by Europeans.

**Source based questions:**

Depending on the mode of occurrence and the nature of the ore, mining is of two types: surface and underground mining. The surface mining is the easiest and the cheapest way of mining as minerals that occur close to the surface. Overhead costs such as safety precautions and equipment is relatively low in this method. When the ore lies deep below the surface, underground mining method has to be used. In this method, vertical shafts have to be sunk, from where underground galleries radiate to reach the minerals. Minerals are extracted and transported to the surface through these passages. It requires specially designed lifts, drills, haulage vehicles, ventilation system for safety and efficient movement of people and material. This method is risky.

1. Which type of mining is also known as open-cast mining?

- a) Underground mining
- b) Shaft mining
- c) Surface mining
- d) Sea bed mining

Ans. C

2. In which type of mining the output is large and rapid?

- a) Underground mining
- b) Opencast mining
- c) Shaft mining
- d) None of the above

Ans. B

3. What type of accidents can occur in underground mining?

- a) Poisonous gases
- b) fires
- c) floods
- d) All of the above

Ans. D

4. Why developed countries are retreating from mining?

- a) large labor force
- b) Striving for higher standard of living
- c) High labour costs
- d) Fatal accidents

Ans. C

### **Assertion and Reasoning Questions**

1. Consider the following statements and choose the correct answer1. Commercial grain cultivation is practiced in the interior parts of semi-arid lands of the mid-latitudes.

2. There is high yield per acre but low yield per person.

Options

- a) Only 1 is correct.
- b) Only 2 is correct
- c) Both the statements are incorrect
- d) Both statements are correct and statement 2 correctly explains the statement

Ans. A

2.Consider the following statements an choose the correct answer

1. Dairy farming is highly capital intensive.

2. Animal sheds, storage facilities for fodder, feeding and milchig machines add to the cost of dairy farming.

Options

- a) Only 1 is correct.
- b) Only 2 is correct
- c) Both the statements are incorrect
- d) Both statements are correct and statement 2 correctly explains the statement

Ans. D

3.Consider the following statements and choose the correct answer

1. Market gardening and horticulture is practiced near urban areas

2. High income group of consumers are located in urban areas.

Options

- a) Only 1 is correct.
- b) Only 2 is correct
- c) Both the statements are incorrect
- d) Both statements are correct and statement 2 correctly explains the statement

Ans. D

4. Consider the following statements and choose the correct answer

1. The regions where farmers specialise in vegetables only, the farming is known as truck farming.
2. The distance of truck farms from the market is governed by the distance that a truck can cover overnight, hence the name truck farming.

Options

- a) Only 1 is correct.
- b) Only 2 is correct
- c) Both the statements are incorrect
- d) Both statements are correct and statement 2 correctly explains the statement

Ans. D

5. Consider the following statements and choose the correct answer

1. Collective farming or the model of Kolkhoz was introduced in erstwhile Soviet Union
2. To improve upon the inefficiency of the previous methods of agriculture and to boost agricultural production for self-sufficiency.

Options

- a) Only 1 is correct.
- b) Only 2 is correct
- c) Both the statements are incorrect
- d) Both statements are correct and statement 2 correctly explains the statement

Ans. D

6. Consider the following statements and choose the correct answer

1. The surface mining also known as open-cast mining is the easiest and the cheapest way of mining minerals that occur close to the surface.
2. Surface mining is risky.

Options

- a) Only 1 is correct.
- b) Only 2 is correct
- c) Both the statements are incorrect
- d) Both statements are correct and statement 2 correctly explains the statement.

Ans. A

### Diagram Based Questions

1. Study the diagram given below and answer the questions that follows



1. Identify the picture and give suitable title to it.
2. What is transhumance?
3. Name the tribes of India who practice transhumance.

1. Pastoral nomadism

2. The process of migration from plain areas to pastures on mountains during summers and again from mountain pastures to plain areas during winters is known as transhumance.

3. Gujjars, Bakarwals, Gaddis and Bhotiyas





1. Name the type of agriculture introduced by Europeans.
2. What are Fazendas?
3. Name a few important crops of this type of agriculture.

1. Plantation agriculture
2. Coffee plantation in Brazil
3. Tea, Coffee, Rubber, Sugarcane

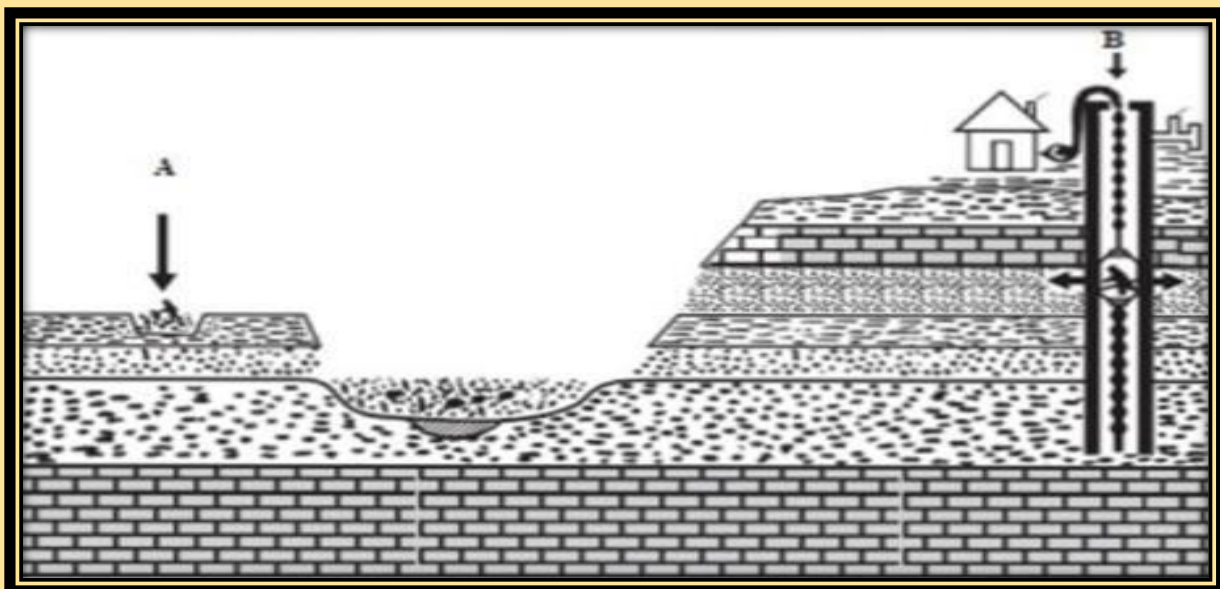


1. How will you define the type of farming shown in the picture?
2. Why is it practiced near urban and industrial centers?
3. What factors makes it a costly activity?
4. What all are given special emphasis in this activity?

1. Dairy farming
2. High income consumers are located in such areas
3. Animal sheds, storage facilities for fodder, feeding and milchig machines
4. Special emphasis is laid on cattle breeding, health care and veterinary services



1. Viticulture is the speciality of which type of agriculture?
  2. What are the various uses of grapes in this region ?
  3. What are the other important crops of this agriculture?
  4. Which parts of the world have greater demands for fruits and vegetables grown in this region?
1. Mediterranean agriculture
  2. Wine, making raisins and currants
  3. Figs and olives
  4. European and north America

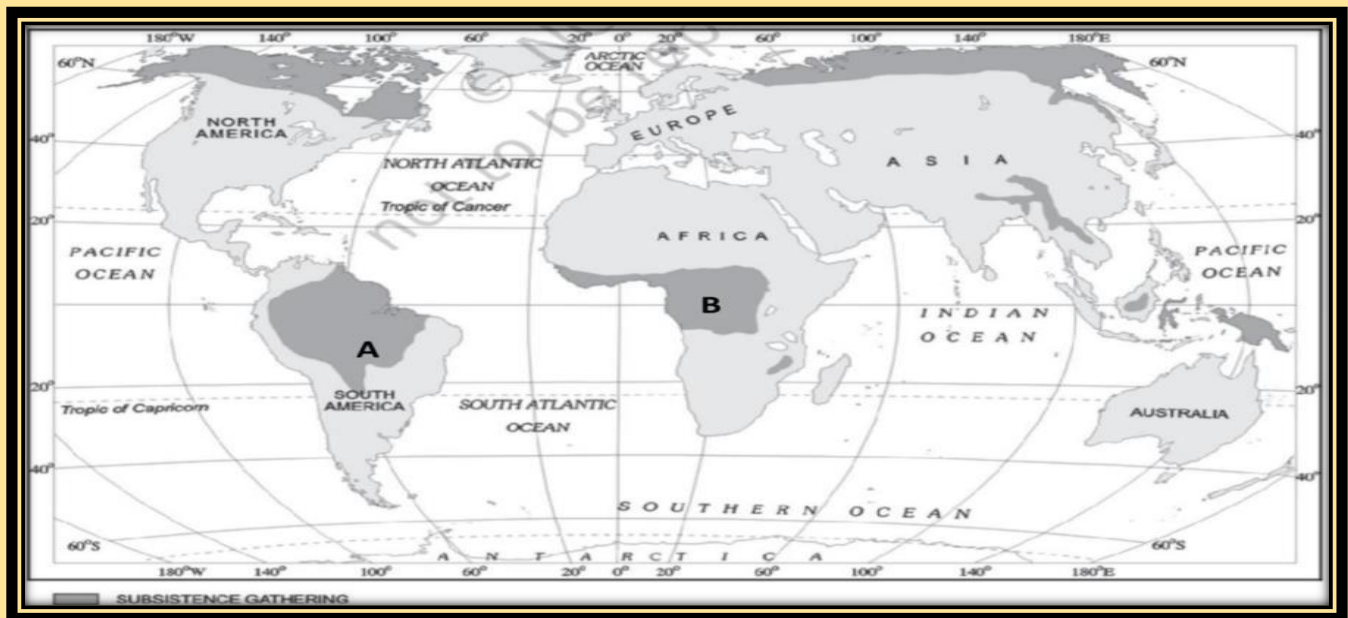


1. Identify the diagram and give suitable title to it.
2. What type of mining activities are shown as A and B.
3. Which type of mining is the most dangerous?
4. In which type of mining the output is large and rapid?
5. Why developed countries are retreating from mining?
6. State the two groups of factors which affect the profitability of mining.

1. Methods of mining
2. A- surface mining B- underground mining
3. Underground mining
4. Surface mining
5. High labour cost
6. Physical and economic factors

### Map Based Questions

1. Identify and name the areas of subsistence gathering marked as A and B
- Areas of subsistence gathering



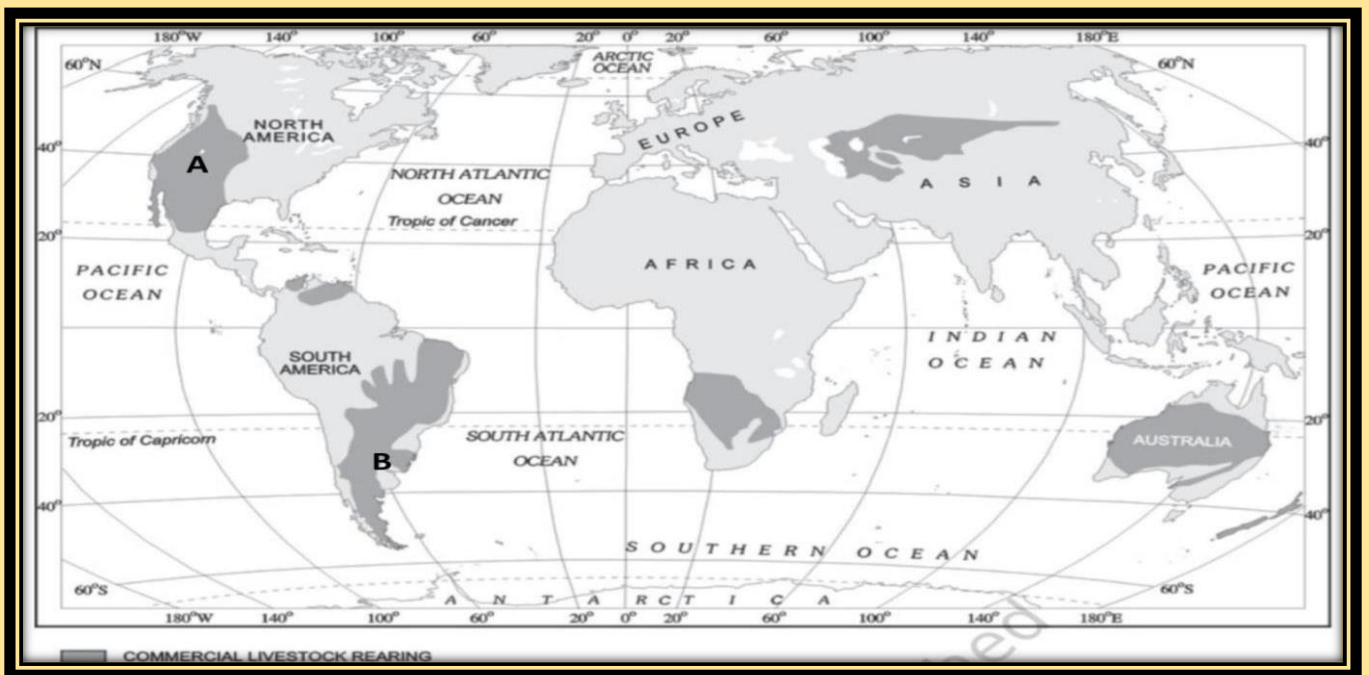
- Areas of subsistence gathering
- A. Amazon Basin
  - B. Tropical

2. Identify and name the areas of nomadic herding marked as A, B and C



Areas of nomadic herding  
A. South – West Africa  
B. Tundra region of Eurasia

3.. Identify the areas of commercial Livestock Rearing marked as A and B

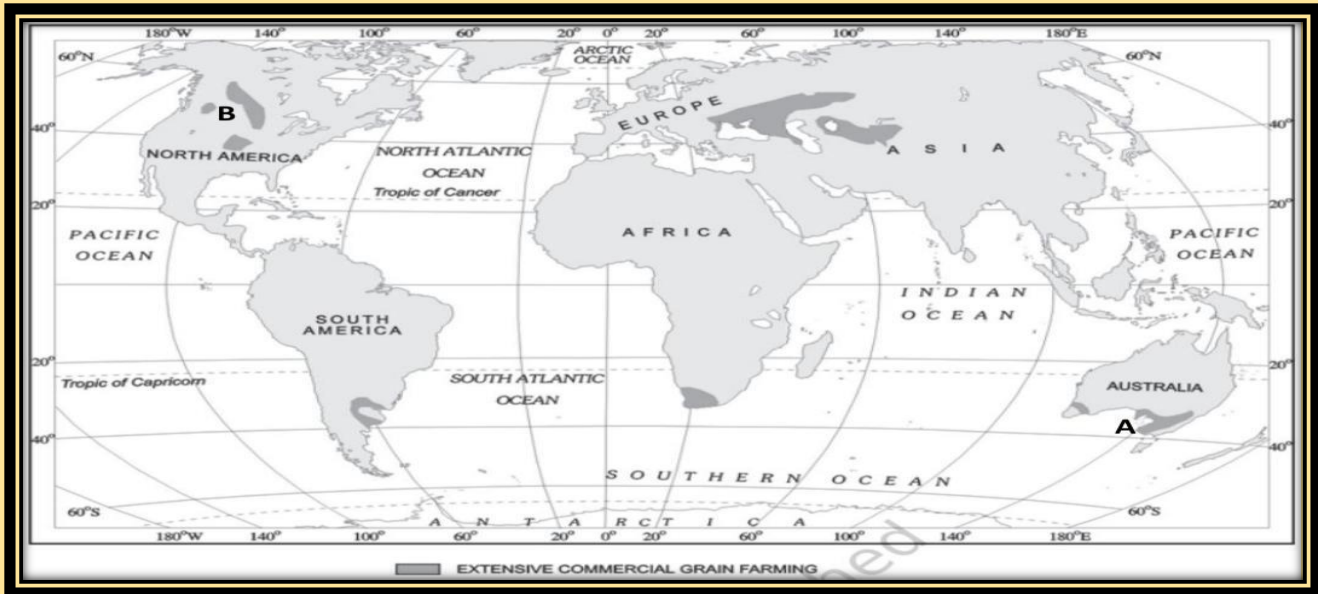


Areas of commercial Livestock Rearing

A. United States of America

B. Uruguay

4. Identify and name the areas of extensive commercial grain farming marked as A and B

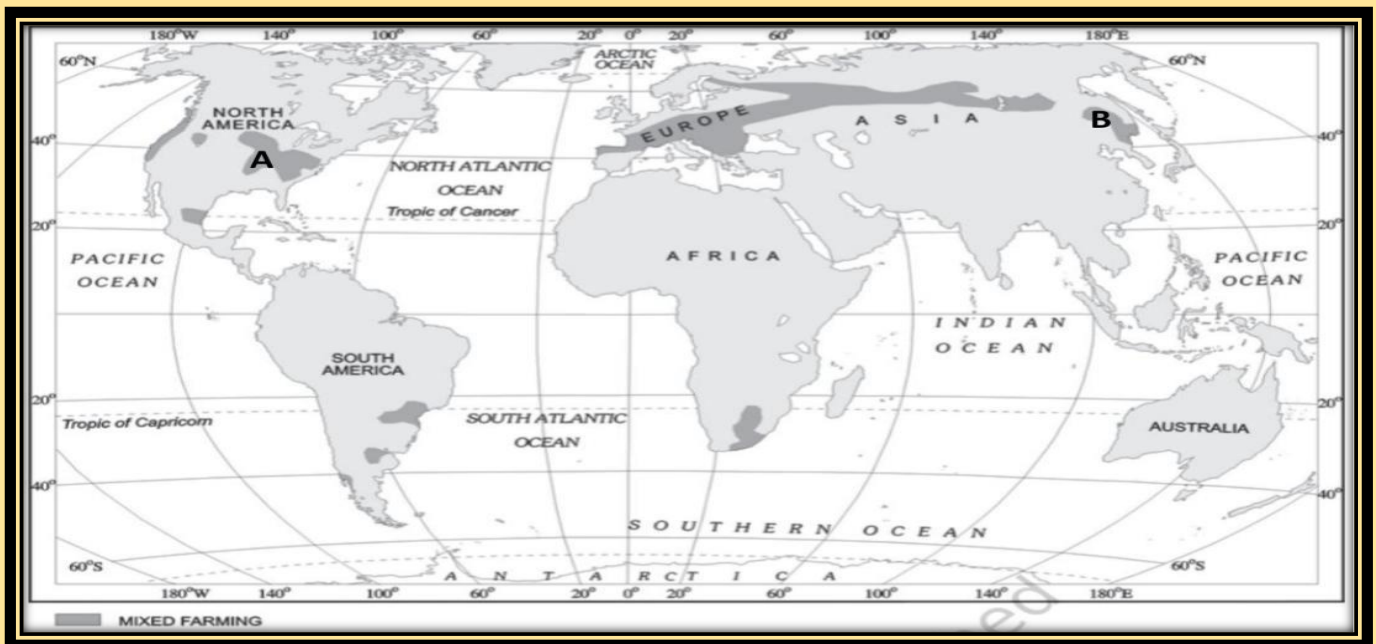


Areas of extensive commercial grain farming

A. Australian Downs

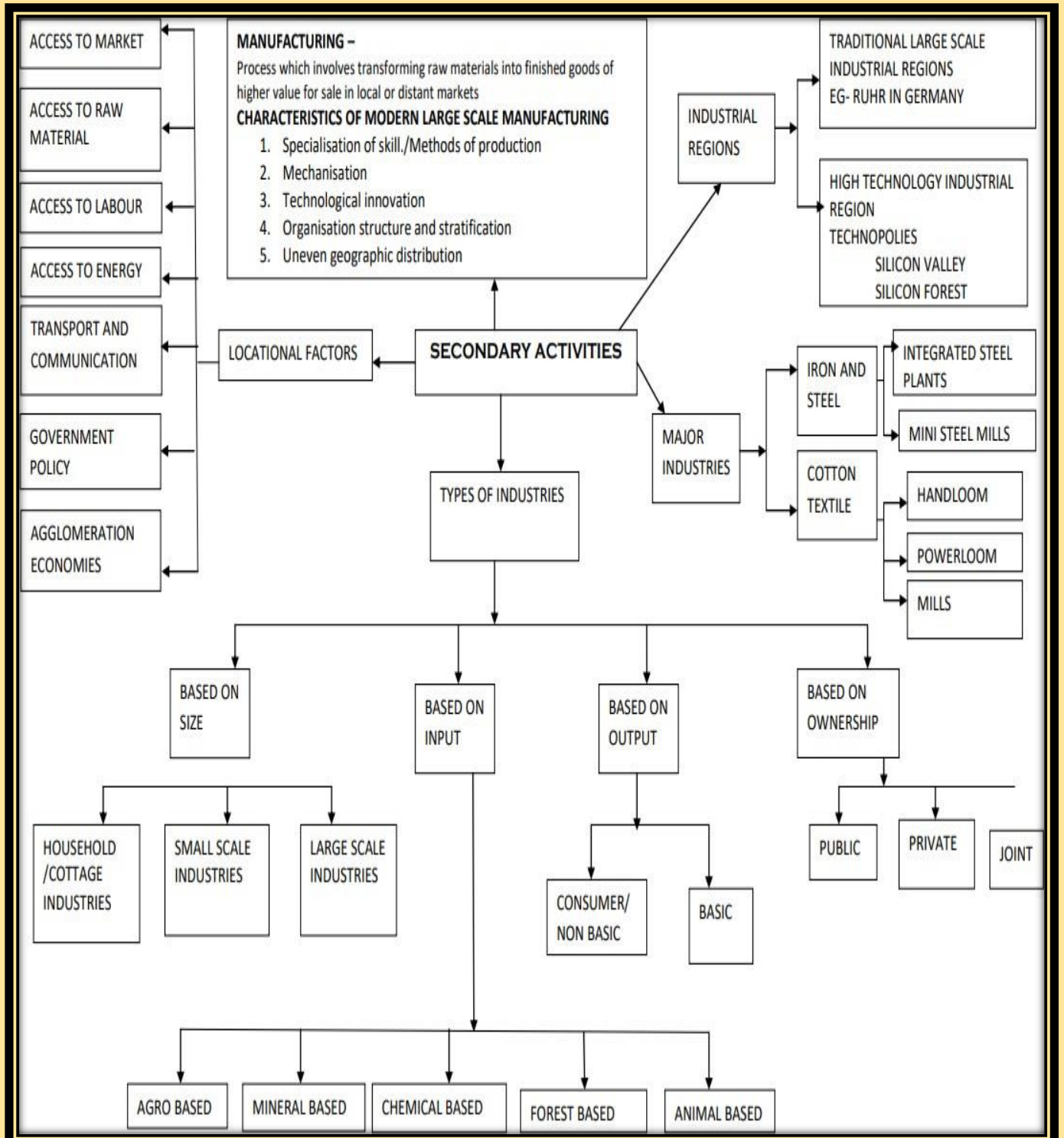
B. Canadian and American Prairies

Identify and name the areas of mixed farming marked as A and B.



- Areas of mixed farming
- A. Eastern
- B. Parts of Eurasia

**CHAPTER: 5**  
**SECONDARY ACTIVITIES**



## KEY NOTES

### Manufacturing

- It refers to the process of changing raw materials into finished products.
- Manufacturing involves a full array of production from handicrafts to moulding iron and steel and stamping out plastic toys to assembling delicate computer components or space vehicles.

In each of these processes, the common characteristics are

- The application of power,
- Mass production of identical products and
- Specialized labour in factory settings for the production of standardized commodities.

### **CHARACTERISTICS OF MODERN LARGE-SCALE MANUFACTURING:**

Modern large-scale manufacturing has the following characteristics:

Specialisation of Skills/Methods of Production

- Under the 'craft' method factories produce only a few pieces which are made-to-order.
- So, the costs are high.
- On the other hand, mass production involves production of large quantities of standardized parts by each worker performing only one task repeatedly.

Mechanization:

- Mechanization refers to using gadgets which accomplish tasks.
- Automation (without aid of human thinking during the manufacturing process) is the advanced stage of mechanisation.
- Automatic factories with feedback and closed loop computer control systems where machines are developed to 'think', have sprung up all over the world.

Technological Innovation:

- Technological innovations through research and development strategy
- An important aspect of modern manufacturing for quality control, eliminating waste and inefficiency, and combating pollution.

### **Organisational Structure and Stratification:**

Modern manufacturing is characterised by:

- (i) a complex machine technology
- (ii) extreme specialisation and division of labour
- (iii) vast capital
- (iv) large organisations

(v) executive bureaucracy.

Uneven Geographic Distribution

Major concentrations of modern manufacturing have flourished in a few number of places.

**LOCATION OF INDUSTRY:**

- The location of industry at a particular place is governed by a large number of geographical and non-geographical factors.
- Industries maximise profits by reducing costs.
- Thus, industries should be located at points where the production costs are minimum.

**FOLLOWING FACTORS INFLUENCE the location of industry at particular places:**

**Access to Market**

- Areas that provide large markets for finished industrial goods like developed areas of Europe, America, Japan, Australia, South Asia have huge concentration of industries.

**Access to Raw Material**

- Industries based on cheap, bulky and weight-losing materials (ores) like steel, sugar are based close to sources of raw materials.
- Similarly, processing of dairy products, perishable foods and agro based are done near the sources of raw materials.

**Access to Labour Supply**

- Industries are located where there is availability of skilled labour.
- Some types of manufacturing still require skilled labour.

**Access to Source of Energy**

- Industries which use more power are located nearer to the source of energy supply such as iron and steel industries.
- Energy is most essential to run machines in industries.
- The main power resources are coal, petroleum, hydroelectricity, natural gas and nuclear energy.

**Access to Transportation and Communication Facilities**

- Industries are located in places that have efficient transportation facilities and communication services for the exchange and management of information.

**Access to Agglomeration Economies**

- Agglomeration economies refer to the benefits derived from the linkages that exist between different industries.
- The small industries or ancillary units like to operate near leader industries to benefit from nearness to big or basic industries.



## **Government Policy**

- For the balanced economic development, governments promote various regions by setting up industries in a particular link between industrial areas.

### **FOOT LOOSE INDUSTRIES:**

- Foot loose industries can be located in a wide variety of places.
- They are not dependent on any specific raw material, weight losing or otherwise.
- They largely depend on component parts which can be obtained anywhere.
- They produce in small quantity and also employ a small labour force.
- These are generally not polluting industries.
- The important factor in their location is accessibility by road network.

### **CLASSIFICATION OF INDUSTRIES:**

#### **A. BASED ON SIZE**

##### **➤ Cottage/House Hold**

##### **➤ Small Scale**

##### **➤ Large Scale**

##### **➤ Cottage/House Hold Industries:**

- It is the smallest manufacturing unit.
- The artisans use local raw materials and simple tools to produce everyday goods in their homes with the help of their family members or part time labour.
- Finished products may be for consumption in the same household or, for sale in local (village) markets, or, for barter.
- Capital and transportation do not wield much influence as this type of manufacturing has low Commercial significance and most of the tools are devised locally.

##### **Small Scale Manufacturing:**

- Small scale manufacturing is distinguished from household industries by its production techniques and place of manufacture (a workshop outside the home/cottage of the producer).
- This type of manufacturing uses local raw material, simple power-driven machines and semi-skilled labour.
- It provides employment and raises local purchasing power.
- Therefore, countries like India, China, Indonesia and Brazil, etc. have developed labour-intensive small-scale manufacturing in order to provide employment to their population.

##### **Large Scale Manufacturing:**

- Large scale manufacturing involves a large market, various raw materials, enormous energy, specialised workers, advanced technology, assembly-line mass production and large capital.

- This kind of manufacturing developed in the last 200 years, in the United Kingdom, north-eastern U.S.A. and Europe.

- Now it has diffused to almost all over the world.

On the basis of the system of large-scale manufacturing, the world's major industrial regions may be grouped under two broad types,

(i) Traditional large-scale industrial regions which are thickly clustered in a few more developed countries.

(ii) High-technology large scale industrial regions which have diffused to less developed countries

### **B. BASED ON INPUT/RAWMATERIAL**

- Agro Based

- Mineral Based

- Chemical Based

- Forest Based

- Animal Based

#### **Agro based Industries:**

- Agro processing involves the processing of raw materials from the field and the farm into finished products for rural and urban markets.

- Major agro-processing industries are food processing, sugar, pickles, fruits juices, beverages (tea, coffee and cocoa), spices and oils fats and textiles (cotton, jute, silk), rubber, etc.

#### **Food Processing**

- Agro processing includes canning, producing cream, fruit processing and confectionery.

- While some preserving techniques, such as drying, fermenting and pickling, have been known since ancient times, these had limited applications to cater to the pre-Industrial Revolution demands.

#### **Mineral based Industries**

- These industries use minerals as a raw material.

- Some industries use ferrous metallic minerals which contain ferrous (iron), such as iron and steel industries but some use non-ferrous metallic minerals, such as aluminium, copper and jewellery industries.

- Many industries use non-metallic minerals such as cement and pottery industries.

#### **Chemical based Industries**

- Such industries use natural chemical minerals, e.g., mineral-oil (petroleum) is used in petrochemical industry.

- Salts, sulphur and potash industries also use natural minerals.

- Chemical industries are also based on raw materials obtained from wood and coal.

- Synthetic fibre, plastic, etc. are other examples of chemical based industries.

### **Forest based Industries**

- The forests provide many major and minor products which are used as raw material.
- Timber for furniture industry, wood, bamboo and grass for paper industry, lac for lac industries come from forests.

### **Animal based Industries**

- Leather for leather industry and wool for woollen textiles are obtained from animals.
- Besides, ivory is also obtained from elephant's tusks.

### **C. BASED ON OUTPUT/PRODUCT**

- Basic Industries
- Consumer Industries

#### **Basic Industries**

- The raw material for such machines and tools is iron and steel which is itself an industry.
- The industry whose products are used to make other goods by using them as raw materials are basic industries.

#### **The consumer goods industries**

- The consumer goods industries produced goods which are consumed by consumers directly.

### **D. BASED ON OWNERSHIP**

- Public Sector
- Private Sector
- Joint Sector

#### **Public Sector Industries**

- These industries are owned and managed by governments.
- In India, there were a number of Public Sector Undertakings (PSUs).
- Socialist countries have many state-owned industries.
- Mixed economies have both Public and Private sector enterprises.

#### **Private Sector Industries**

- These industries are owned by individual investors.
- These are managed by private organisations.
- In capitalist countries, industries are generally owned privately.

#### **Joint Sector Industries**

These industries are managed by joint stock companies or sometimes the private and public sectors together establish and manage the industries.

### **TRADITIONAL LARGE-SCALE INDUSTRIAL REGIONS:**

- These are based on heavy industry, often located near coal-fields and engaged in metal smelting, heavy engineering, chemical manufacture or textile production.
- These industries are now known as smokestack industries.

Characteristic features of traditional industrial regions

- High proportion of employment in manufacturing industry.
- High-density housing, often of inferior type, and poor services.
- Unattractive environment, for example, pollution, waste heaps, and so on.
- Problems of unemployment, emigration and derelict land areas caused by closure of factories because of a worldwide fall in demand.

### **THE RUHR COAL-FIELD, GERMANY**

- This has been one of the major industrial regions of Europe for a long time.
- Coal and iron and steel formed the basis of the economy, but as the demand for coal declined, the industry started shrinking.
- Even after the iron ore was exhausted, the industry remained, using imported ore brought by waterways to the Ruhr.
- The Ruhr region is responsible for 80 per cent of Germany's total steel production.
- Changes in the industrial structure have led to the decay of some areas, and there are problems of industrial waste and pollution.

'New Ruhr' landscape.

- The future prosperity of the Ruhr is based less on the products of coal and steel, for which it was initially famous, and more on the new industries like the huge Opel car assembly plant, new chemical plants, universities.
- Out-of-town shopping centres have appeared resulting in a 'New Ruhr' landscape.

### **CONCEPT OF HIGH TECHNOLOGY INDUSTRY**

- Latest generation manufacturing unit
- Application of R&D unit
- Professional workers (white collar) share large group
- Highly skilled specialists (blue collar) are also working
- Robotics are used in assembly line
- Computer Aided Design is used
- Electronic controls
- Neatly spaced, low modern dispersed office plant and lab buildings
- Planned business parks for high-tech industries.
- High-tech industries which are regionally concentrated, self-sustained and highly specialised are called Technopolis.
- Silicon Valley in San Francisco and silicon forest near Seattle are techno polies

## **IRON AND STEEL INDUSTRY:**

- The iron and steel industry forms the base of all other industries and, therefore, it is called a basic industry.
- It is basic because it provides raw material for other industries such as machine tools used for further production.
- It may also be called a heavy industry because it uses large quantities of bulky raw materials and its products are also heavy Process of Production
- Iron is extracted from iron ore by smelting in a blast furnace with carbon (coke) and limestone.
- The molten iron is cooled and moulded to form pig iron which is used for converting into steel by adding strengthening materials like manganese.

## **LARGE INTEGRATED STEEL AND MINI STEEL MILLS**

The large integrated steel industry is traditionally located close to the sources of raw materials

– iron ore, coal, manganese and limestone – or at places where these could be easily brought, e.g., near ports.

But in mini steel mills access to markets is more important than inputs.

- These are less expensive to build and operate and can be located near markets because of the abundance of scrap metal, which is the main input.

Traditionally, most of the steel was produced at large integrated plants, but mini mills are limited to just one-step process – steelmaking – and are gaining ground.

## **COTTON TEXTILE INDUSTRY**

- Cotton textile industry has three sub-sectors i.e., handloom, power loom and mill sectors.
- Handloom sector is labour-intensive and provides employment to semi-skilled workers.
- It requires small capital investment.
- This sector involves spinning, weaving and finishing of the fabrics.
- The power loom sector introduces machines and becomes less labour intensive and the volume of production increases.
- Cotton textile mill sector is highly capital intensive and produces fine clothes in bulk.
- Cotton textile manufacturing requires good quality cotton as raw material.
- India, China, U.S.A, Pakistan, Uzbekistan, Egypt produce more than half of the world's raw cotton

### **MULTIPLE CHOICE QUESTIONS**

Q 1. Which one of the following statements is wrong?

- (a) Cheap water transport has facilitated the jute mill industry along the Hugli.
- (b) Sugar, cotton textiles and vegetable oils are footloose industries.
- (c) The development of hydro-electricity and petroleum reduced, to a great extent, the importance of coal energy as a locational factor for industry.
- (d) Port towns in India have attracted industries.

Ans. (b) Sugar, cotton textiles and vegetable oils are footloose industries.

Q 2. In which one of the following types of economy are the factors of production owned individually?

- (a) Capitalist
- (b) Mixed
- (c) Socialist
- (d) None

Ans (a) Capitalist

Q 3. Which one of the following types of industries produces raw materials for other industries?

- (a) Cottage industries
- (b) Small-scale industries
- (c) Basic industries
- (d) Footloose industries

Ans. (c) Basic industries

Q 4. Which one of the following pairs is correctly matched?

- (a) Automobile industry ... Los Angeles
- (b) Ship building industry... Lusaka
- (c) Air craft industry ... Florence
- (d) Iron and steel industry ... Pittsburgh

Ans. (d) Iron and steel industry ... Pittsburgh

Q 5. Modern industry or organisation is not characterised by:

- A. Large quantity of labourers
- B. Mass production
- C. Use of machinery
- D. Mini complexes

Ans. A. Large quantity of labourers

Q 6. Which centre is known as Rust Bowl of USA?

- A. Pittsburgh
- B. Chicago
- C. Great Lake
- D. Belfast

Ans.A. Pittsburgh

Q 7. Manufacturing Industry is considered in which Activities?

Options:

- A. Primary
- B. Secondary
- C. Tertiary
- D. Quaternary

Answer Secondary

Q 8. Which of the following industry is agro based industry?

Options:

- A. Leather
- B. Cement
- C. Cotton
- D. Iron & Steel Industry

Ans. A. Leather

Q 9. The Ruhr coal field lies in which country?

Options:

- A. UK
- B. USA
- C. France
- D. Germany

Answer D. Germany

### **SHORT ANSWER QUESTIONS**

Q 10. Give the meaning of the high-tech industry. State any two characteristics of this industry.

Ans. High technology is the latest generation of manufacturing activities. It is best understood as the application of intensive research and development efforts leading to the manufacturing products of an advanced scientific and engineering character.

Characteristics of the High-tech Industry are:

1. Professional (white collar) workers make-up a large share of the total workforce and greatly outnumber the actual production (blue collar) workers.

2. These industries are neatly spaced, low, modern, dispersed, office plant lab buildings rather than massive assembly structures.

Q 11. Explain any three characteristics of modern large-scale manufacturing in the world

Ans. The characteristics of modern large scale manufacturing industries are as follows:

1. Complicated Organisation Modern large scale industrial processes consist of multiple activities to run the industries.
2. Specialised and Skilled Labour The specialised and skilled labour is required in the modern manufacturing industries. Thus, skilled manpower is increasing.
3. Use of Power Resources These industries widely use huge power to run heavy machines in the production process

Q12. Explain any three characteristics of foot loose industries.

Ans. The characteristics of foot loose industries. are as follows:

1. Foot loose industries can be established at any place, because their location is not affected by any particular raw material, whether it is weight-losing or otherwise. These industries are affected by component parts and they are available at all places.
2. These industries produce their products in small numbers and they do not require a large labour force.
3. These industries emit less or no pollution. Thus, they are ecofriendly. Road network plays an important role in their location.

Q 13. How are technological innovations an important aspect of modern manufacturing industries? Explain any three aspects in this regard.

Ans. Technological innovations through research and development strategies are an important aspect of modern manufacturing for quality control, eliminating waste and inefficiency and combating pollution.

Three aspects in this regard are as under:

- Complex machine technology is needed so that high quality goods are produced at less time.
- It requires vast capital so that machines with the latest technology can be used in manufacturing.
- Extreme specialisation and division of labour is required, that can work efficiently on the machines.



Q 14. Classify industries of the world on the basis of ownership into three groups. State the main features of each group.

Ans. On the basis of ownership, the industries of the world can be classified in the following ways:

**Public Sector** In this type, the ownership and management of an industry is in the hand of the state. Mainly concerned with social welfare.

**Private Sector** An individual or a corporate body owns and manages industries that belong to the private sector. Mainly concerned with profit. **Joint Sector Industries** that are jointly owned and managed by the private and government sector are called joint sector industries. Mainly concerned with public sector development.

### **LONG ANSWER QUESTIONS**

Q 15. Explain five factors that influence the industrial location in the world.

#### **Access to Market:**

Market refers to the people for whom goods are manufactured. Market affects the location of an industry. A manufacturing unit is established near the market area. Areas having more population are big markets for manufactured goods, as compared to areas having less population. Apart from it, areas having a population with more purchasing power also have a big market.

#### **Access to Raw Material**

: Industries that use heavy, bulky and weight-losing raw materials are established near the source of raw material. For e.g., in sugar industries, sugarcane is a perishable and weight-losing raw material. To reduce the transport cost, industries are located near a source of raw material.

#### **Access to Sources of Energy:**

Industries using more power and energy are established near the source of energy, e.g., aluminium industry.

#### **Access to Transportation and Communication**

Industries are located in areas that have an efficient transport network to get the raw material from various regions and supply manufactured goods to market.

Communication network is also needed to communicate with the consumers. Thus, transport and communication are important factors that affect the location of an industry.

#### **Government Policies**

Favourable government policies that promote industrialisation is also important in deciding the location of an industry.

Q 16. Define the term manufacturing. Explain any four features of small-scale manufacturing.

Ans. Manufacturing means to make by hand, however now it includes goods made by machines. It is essentially a process which involves transforming raw materials into finished goods for higher value for sale in local or distant markets.

The four features of small-scale manufacturing are as follows: It differs from household industries and large-scale industries by its production techniques and place.

- This type of manufacturing uses local raw material, simple power-driven machines and semi-skilled labour.
- It provides employment and raises local purchasing power.
- These manufacturing units have developed labour intensive techniques in order to provide employment to their population.

Q 17. Classify manufacturing industries on the basis of size into three categories and explain the important characteristics of each type.

The four features of small-scale manufacturing are as follows:

- It differs from household industries and large-scale industries by its production techniques and place.
- This type of manufacturing uses local raw material, simple power-driven machines and semi-skilled labour.
- It provides employment and raises local purchasing power.
- These manufacturing units have developed labour intensive techniques in order to provide employment to their population.

On the basis of their size, industries are classified into the following:

**Cottage Manufacturing**

- It is the smallest manufacturing unit.
- The artisans use local raw materials.
- Part time labour or artisan's family members produce everyday goods in their homes with the help of simple tools.
- Finished goods may be used for consumption in the same household or for sale in the local market.

**Large Scale Manufacturing**

- It requires a large market.
- It needs enormous energy and various raw materials.
- It also requires specialised workers, advanced technology, assembly line mass production and huge capital.
- Now, it has diffused to almost all over the world

Q 18. Explain the role of power and raw material in the location of heavy industries in India.

Ans. Power All the Industries require energy as they are run by energy such as cotton textile and Iron and steel Industries.

1. Power provides the motive force for machines.
2. Its supply has to be ensured before the location of any Industry.
3. Certain Industries like aluminium and synthetic nitrogen manufacturing industries tend to be located near sources of power.

Raw material Industries are located in those areas where the raw material is available near to the industry.

Role of raw material is as follows:

1. Industries using weight-losing raw materials are located in the regions where the raw material is located.
2. Sugar mills, pulp industries, copper smelting and pig iron industries are located near their raw material.
3. Most of the iron and steel industries are located near coal fields or near sources of iron ore.

Q 19. Explain the significance of the iron and steel industry of India giving three points.

Ans. Iron and the steel industry is basic to the industrial development of the country. The development of the iron and steel industry opened the doors to the rapid industrial development in India.

The main significance of the iron and steel industry are:

1. Almost all sectors of the Indian Industry depend heavily on the iron and steel industry for their basic infrastructure.
2. It provides the raw material for other industries such as machine tools used for further production.
3. Iron and steel provide a base for all other industries, so it is called a basic industry.

### **SOURCE BASED QUESTION**

Foot loose industries can be located in a wide variety of places. They are not dependent on any specific raw material, weight losing or otherwise. They largely depend on component parts which can be obtained anywhere. They produce in small quantity and also employ a small labour force. These are generally not polluting industries. The important factor in their location is accessibility by road network.

ANSWER THE FOLLOWING QUESTIONS:

**i) Footloose industries require**

- a) Small labour force
- b) Large labour force
- c) Large capital
- d) None of these

**ii) The most important factor in their location is**

- a) Specific Raw material
- b) Accessibility by Raw Network
- c) Produce in large quantity
- d) None of these

**iii) Which of these is not a feature in footloose industry**

- a) These are not polluting industries
- b) They produce in large quantities
- c) They are not depended on specific raw material
- d) None of these

**Answer: i) a, ii) b, iii) b**

**SECTION-C MAP WORK**

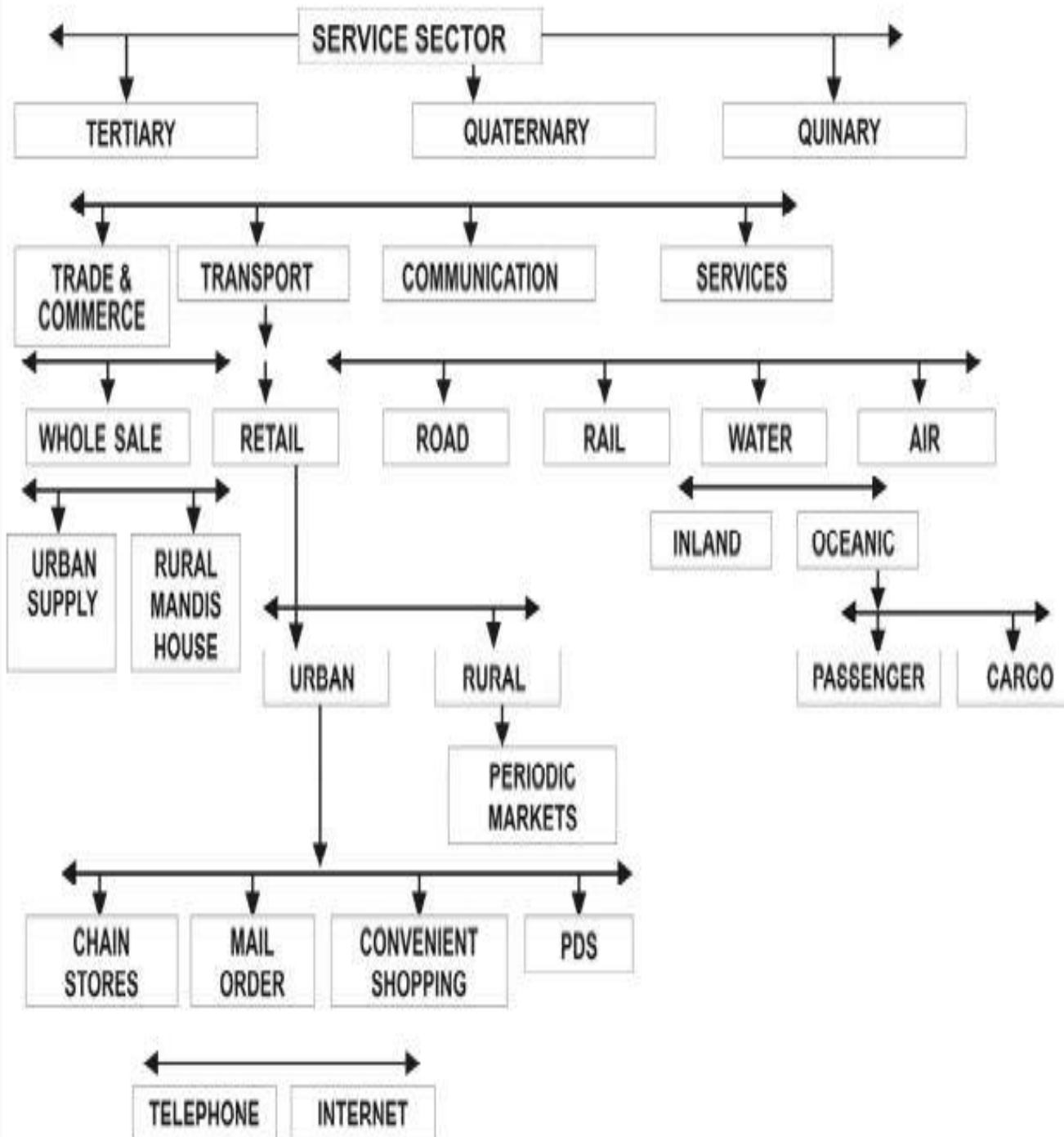
Show the following on the outline political map of the world-

- A. Ruhr coal field (Germany)
- B. Technopolis- Silicon Valley (San Francisco)
- C. Rust bowl of U.S.A (Pittsburg)
- D. Technopolis-silicon forest (Seattle)
- E. Appalachian region



**CHAPTER-6**  
**TERTIARY AND QUATERNARY ACTIVITIES.**

**TYPES OF TERTIARY ACTIVITIES**



## KEY NOTES

### Tertiary activities

- Tertiary activities are related to the service sector
- Example- doctors, teachers, plumber, electrician, technician, launderer, barber, shop keeper, driver, publisher etc...

### Types of tertiary activities

- Trade
- Transport
- communication
- Services

### Trade

- Trade is essentially buying and selling of items produced elsewhere
- The place where trade is carried out is known as trading centres
- They are acting as collection and distribution centres

### Types of trading centres

- Rural Marketing
- Urban Marketing
- Periodic Marketing

### Rural marketing

- Found nearby rural areas
- The trading centres are mostly rudimentary type
- Collection is done in rural area and distributed to the people
- Mandis (wholesale market) are available
- Rural based things are collected and distributed

### Urban marketing centres

- Widely specialised in urban services
- Goods are sold from ordinary to sophisticated
- Many manufactured goods are available
- Service oriented people like doctors, lawyers, consultants dentist are available
- Areas are familiar in one particular item (example- jewellery textiles)

### Periodic markets

- It is found in rural area where there is no regular markets
- Organised in different temporal intervals

- People assemble from the surrounding areas to purchase the goods
- It may be weekly, bi weekly markets
- Markets are held on specified dates and move from one place to another
- The shopkeepers also move as per the specified dates

#### Retail trading

- The sale of goods is directly to the consumers
- Margin free market, supermarket and chain stores are the different types
- Street peddling is done by sellers who carry goods from door to door
- Others use trucks, hand pulled carts, auto rickshaws to sell goods
- Teleshopping is quite common today
- Payment is done either in advance or cash down at urban areas
- Vending machines supply goods by entering our requirements

#### Wholesale trading

- Business is done through intermediary merchants and dealers without turning to retailing
- Bulk buying and selling reduces the price
- Retailers take their stocks from wholesalers and dealers
- They also get goods on credit from wholesalers

#### Different types of stores

##### Consumer cooperative store

- Organised by the consumers under the Cooperative department
- These stores deal in all consumer items
- Members get special discount on the purchase

##### Departmental stores

- The heads of departmental stores have the authority to buy different commodities for sale
- They supervise their functioning

##### Chain stores

- They purchase goods most economically often directly from the manufacturers and farmers
- They follow very sophisticated techniques in buying and selling
- Skilled specialist conduct experiments in one store and extent the benefits to the next in the chain
- They even advance loans to the farmers on the assurance that the agricultural produce will be sold to them in mass

## Transport

- Carry goods and passengers from one place to another

Transport distance can be measured as

- Kilometre distance: actual distance of the route length
- Time distance: time taken to travel on a particular route

Cost distance: it is expense incurred to travel in the same route

Network and accessibility

Network: it is a system in which different places are linked together

Node: it is the meeting point of two or more routes

Link: every road that joins two nodes is called link

People do different types of services

## Physical labour

- Physical labours migrate from rural areas to urban areas in search of employment and totally unskilled
- Gardner, Barber, housekeeping workers
- Example- Mumbai Dabbawala

## Mental labour

Teachers, executives, lawyers, doctors

## Tertiary activities

- In developed countries higher number of employments is in service sector
- Example- in USA 75% of workers are engaged in tertiary sector
- The trend of employment in this sector has been increased in developed countries
- In developing or underdeveloped countries, it is almost decreasing due to employment share in primary sectors



These lines are drawn on a map to join places having equal in terms of the time taken to reach them

## Factors affecting transport

### Demand

- It is influenced by the size of population
- The large of the population size the greater the demand for transport

### Routes

It is a depending upon the location of cities, towns, villages, industrial centres, raw materials, pattern of trade, natural landscape, type of climate and funds available for overcoming obstacles along the length of the routes

### Communication

- It is transmission of words and messages, facts and ideas
- It is carried out by hand, birds, animals, Canal, Road, rail, air
- That is why all forms of transport are referred as the lines of communication

### Telecommunications

Radio, television, mass media, newspaper

### Services

People do different types of services

### Physical labour

- Physical labours migrate from rural areas to urban areas in search of employment and totally unskilled
- Gardner, Barber, housekeeping workers
- Example- Mumbai Dabbawala

### Mental labour

Teachers, executives, lawyers, doctors

### **Tertiary activities**

- In developed countries higher number of employments is in service sector
- Example- in USA 75% of workers are engaged in tertiary sector

- The trend of employment in this sector has been increased in developed countries
- In developing or underdeveloped countries, it is almost decreasing due to employment share in primary sectors

Some selected examples

### Tourism

- India is one of the largest countries in medical tourism
- Tourism has become the world single largest activity
- 40% of the total GDP comes from this field
- It provides accommodation, meal, transport, entertainment and special shops serving to the tourist
- Tourism fasters the growth of infrastructure, Industries, retail trading and craft Industries
- It is seasonal because vacation period is depending on favourable weather conditions

### Tourist regions

- Mediterranean Coast and the West Coast of India
- Winter sports regions found in Mountain areas
- Scenic landscape
- National parks
- Historic towns
- Cultural and heritage sites

### Tourist attractions

#### Climate

- Mediterranean region has become an important tourist spot
- Because the Mediterranean climate offers almost higher temperature than the other parts of Europe
- Lots of sunshine and low rainfall throughout the peak holiday season

#### Landscape

- Mountains, lakes, seacoast, and landscape

## Culture and economy

- Ethnic and local customs
- Tourist place which offers very cheap rate
- Home stay
- Example-Goa, Madikeri and Coorg in Karnataka

## Factors affecting tourism

- Demand
- Transport

## **Medical Services for Overseas patients in India**

- When medical service is combined with international tourism activity it is commonly known as medical tourism
- India is the leading country emerged in medical tourism

## Reasons

- World class hospitals located in Metropolitan cities
- Treatment cost is cheap and affordable
- Dedicated service of the doctors and nurses in the hospital
- Homely environment In Hospital
- Better means of transport systems

## Leading countries in medical tourism

- India
- Thailand
- Singapore and
- Malaysia

## Beyond medical tourism

- Outsourcing of medical test and data interpretation is also done through Outsourcing
- Interpretation is done for MRI scan and ultrasound test for improving quality result

## **Quaternary activities**

It involves the following

- The collection, production, dissemination or production of information

- Quaternary involves research & development
- It is advanced form of services with highly specialised knowledge

### **Quinary activities**

- The highest level of decision makers or policymakers perform this
- It focuses on the creation, rearrangement and interpretation of new and existing ideas
  
- Data interpretation and use of new technologies are often called *gold colour* professions
- Example- business executives, government officials, scientist financial and legal consultant

### Importance of quinary activities

- Opening up of a large number of call centres
- Created new jobs for the skilled people
- It is boon to the countries where cheap and skilled workers are available
- Migration can be controlled
- Outsourcing countries are facing residence problem from job seeking youths

### What is meant by outsourcing?

Outsourcing is a process in which work is given to an outside agency to improve efficiency in work and to reduce the cost

### The Digital Divide

- It is a gap between developing countries and developed countries to provide access to information and communication technology
- Developed countries have gone for ahead in information technology

### **MULTIPLE CHOICE QUESTION**

1. Choose the right answer from the four alternatives given below:

Which one of the following is a tertiary activity?

- (a) Farming
- (b) Trading
- (c) Weaving
- (d) Hunting

Answer:

(b) Trading

2. Which one of the following activities is NOT a secondary sector activity?

(a) Iron Smelting

(b) Catching Fish

(c) Making Garments

(d) Basket Weaving

Answer:

(b) Catching Fish

3. Which one of the following sectors provides most of the employment in Delhi, Mumbai, Chennai and Kolkata?

(a) Primary

(b) Secondary

(c) Quaternary

(d) Service

Answer:

(d) Service

4. Which activities that involve high degrees and level of innovations are known as:

(a) Secondary activities

(b) Quaternary activities

(c) Quinary activities

(d) Primary activities

Answer:

(c) Quinary activities

5. Which one of the following activities is related to quaternary sector?

(a) Manufacturing computers

(b) Paper and Raw pulp production

(c) University teaching

(d) Printing books

Answer:

(c) University teaching

6. Which one of the following statements is not true?

(a) Outsourcing reduces costs and increases efficiency

b) At times engineering and manufacturing jobs can also be outsourced

(c) BPOs have better business opportunities as compared to KPOs.

(d) There may be dissatisfaction among job seekers in the countries that outsource the job.

Answer:

(c) BPOs have better business opportunities as compared to KPOs.

### **SOURCE BASED QUESTION**

1) Types of Tertiary Activities There are four types of tertiary activities. They are trade, transport, communication and services. These include provision of services in exchange of payments. Trade and commerce Trade and commerce is essentially buying and selling of items produced elsewhere. The collection and distribution points where trading takes place are called trading centres. These centres are divided into: Rural Marketing Centres They are quasi urban and cater to local needs and areas. Most of these have mandis (wholesale markets) and retail markets. These markets are held on specified dates and shopkeepers move from one place to another. Urban Marketing Centres These markets sell ordinary as well as specialised goods and services, e.g., markets for labour, housing, semi or finished products. Services of educational institutions and professionals like teachers, doctors, lawyers also develop. Retail Trading In this type of trading, goods are directly sold to consumers. This trading is done through fixed establishments or stores, small In rural areas, there are periodic markets that may be weekly or bi-weekly and people from the nearby areas meet their demands shops, consumer cooperatives, big departmental stores and chain stores. The chain stores buy commodities in bulk and then hire skilled specialists for executive tasks. Street peddling, handcarts, trucks,

door-to-door, mail order, telephone and Internet are examples of non-store retail trading. Wholesale Trading Here bulk buying takes place directly from the manufacturer by numerous intermediary merchants. The merchants/ wholesalers extend credit to retailers.

1. What are the types of tertiary activities mentioned in the passage?

A) There are four types of tertiary activities. They are trade, transport, communication and services

2. What is trade and commerce?

A) Trade and commerce are essentially buying and selling of items produced elsewhere.

3. What are rural marketing and urban marketing centres?

A) In rural areas, there are periodic markets that may be weekly or bi-weekly and people from the nearby areas meet their demands. Urban Marketing Centres These markets sell ordinary as well as specialised goods and services, e.g., markets for labour, housing, semi or finished products. Services of educational institutions and professionals like teachers, doctors, lawyers also develop.

4. Who extends credit to retailers in wholesale trading?

The merchants/ wholesalers extend credit to retailers

2) Transport is a tertiary activity in which people, materials and manufactured goods are physically carried from one place to another. While selecting the mode of transport, distance, time and cost are seen. Distance can be measured as km distance, time taken to travel particular route as time distance, expense of travelling on a route as cost distance. Factors Affecting Transport Demand and routes are two major factors which affect transport services. Demand Transport depends on the size of population and standard of living of people. The larger the population size, the greater is the demand for transport. Route, It refers to the transport network depend on location of cities, towns, villages, industrial centres, availability of raw materials, nature of landscape, type of climate, availability of funds, etc. Network A network is a well-developed transport system that is made up of nodes and links. A node is a meeting point of two or more routes and every road that joins any two nodes is called a link. Communication services involve in the transmission of words, messages, facts

and ideas. The development of transport facilitated communication as messages were carried by hand, animals, boat, road, rail and air. But new technology has made communication independent of transport, such as mobiles, telephony and satellites. Some of the communication services are discussed below: Telecommunications The development of modern technology has revolutionised communication and it has become direct and instantaneous, e.g., telegraph, morse code and telex in last century and now satellites, mobile, telephony, etc are used. Mass Media Communication means through which messages could be sent to vast audiences around the world are called mass media, e.g., radio, television, newspapers, etc. The Internet has revolutionised the global communication. Services There are different levels at which services are provided and availed. Some are meant for industry, some for people, and some for both industry and people i.e., transport. Services can be divided into three sub-categories. They are: Low Order Services It includes common and widespread services like grocery shops, laundries, etc. Domestic Services It includes housekeepers, cooks and gardeners which migrate from rural areas in search of employment. High Order Services These are specialised and less common like accountants, consultants and physicians. Some services are supervised and/or regulated by government like making, maintaining highways, bridges, firefighting departments, education, healthcare, etc. Thus, services are present in organised sector that is government owned or big corporations. Some are present in unorganised sector like low order and domestic services. Mumbai's dabbawala in India is one such service of unorganised sector

1. What are the factors that affect transport demand?

A) Demand Transport depends on the size of population and standard of living of people. The larger the population size, the greater is the demand for transport

2. What factors determine the route of a transport network?

A). Route It refers to the transport network depend on location of cities, towns, villages, industrial centres, availability of raw materials, nature of landscape, type of climate, availability of funds, etc. Network A network is a well-developed transport system that is made up of nodes and links.

3. What are some examples of high order services?

A) . High Order Services These are specialised and less common like accountants, consultants and physicians. Some services are supervised and/or regulated by



government like making, maintaining highways, bridges, firefighting departments, education, healthcare, etc.

3) Earlier more number of people were employed in the primary and secondary sector as these sectors provided more jobs. But, now there has been a shift of jobs to tertiary or service sector. In developed countries, a higher percentage of workers are employed in providing services as compared to less developed countries. Some Selected Examples Some of the selected examples that are related to the people engaged in tertiary activities are as follows: Tourism is part of service sector that refers to travel undertaken for purpose of recreation rather than business. This industry generates jobs as people are engaged in providing accommodation, meals, transport, entertainment, infrastructure retail trading and crafts. Tourist Regions Tourism can be seasonal or throughout the year like warmer places around the Mediterranean coast, West coast of India during winters, mountains in summers or winter spots regions found mainly in mountainous areas. Historic towns, religious places, heritage sites offer tourism throughout the year. Factors Affecting Tourism The rise in tourism industry is due to increased demand for it which is thus influenced by improvement in standard of living and increased leisure time. Another factor is

improvement in transportation that has made travel easier and destinations reachable. Tourist Attractions Tourist attractions are specific features of a place that attract people. These are as follows: Climate In winter holidays, areas having warm sunny weather is preferred like beaches in Southern Europe, so it attracts more number of tourists there. Landscape Mountains, lakes, spectacular sea coasts and landscapes not completely altered by man are good tourist attractions. History and Art Ancient or picturesque towns, archaeological sites, historically important places having castles and palaces attract tourists. Culture and Economy Areas having rich cultures attract people as they go there to experience ethnic and local customs. Places giving economic benefits are also attractions such as cheap home stays in Goa, Madikeri and Coorg in Karnataka. Medical Services for Overseas Patients in India Medical services or tourism takes place when medical treatment is combined with international tourism activity. People from developed countries like US are visiting India for medical tourism or services. C. Quaternary Activities The activities related to knowledge oriented, involving collection, production and dissemination of information come under quaternary activities. They centre around research development and may involve specialised knowledge and technical skills. Software developers, mutual fund managers, doctors, accounting, brokerage firms are some

examples of quaternary activities. They can be outsourced even as these are not tied to resources or affected by the environment or markets. This sector has replaced primary and secondary sector and absorbs half of the population in developed economies.

1. What is the main reason for the shift in employment from the primary and secondary sectors to the tertiary or service sector?

A) This is because tertiary industry generates jobs as people are engaged in providing accommodation, meals, transport, entertainment, infrastructure retail trading and crafts.

2. How does medical tourism benefit countries like India and other countries where it takes place?

A) Medical Services for Overseas Patients in India Medical services or tourism takes place when medical treatment is combined with international tourism activity. People from developed countries like US are visiting India for medical tourism or services.

3. How does the quaternary sector contribute to the employment rate in developed economies?

A) The activities related to knowledge oriented, involving collection, production and dissemination of information come under quaternary activities. They centre around research development and may involve specialised knowledge and technical skills. Software developers, mutual fund managers, doctors, accounting, brokerage firms are some examples of quaternary activities

### **Short answer question**

Answer the following questions in about 30 words:

Question 1. Define tertiary activity.

Tertiary activities are related to the service sector. Man power is an important component of service sector as most of the tertiary activities are performed by skilled labour, professionally trained experts and consultants. These services require theoretically knowledge and practical training.

Question 2. What are the types of tertiary activities?

The types of tertiary activities are:

- Trade and commerce
- Transport
- Communication
- Services

Question 3. Explain retail-trading service.

This is the business activity concerned with the sale of goods directly to the consumers. Most of the retail trading take place in fixed establishments or stores solely devoted to selling. It includes small shops, consumer cooperatives, chain stores, departmental stores. Street peddling, handcarts, trucks, door-to-door, mail-order, telephone, automatic vending machines and internet are examples of non-store retail selling.

Question 4. Describe quaternary services.

Quaternary activities centre around research, development and may be seen as an advanced form of services involving specialised knowledge, technical skills, and administrative competence. The Quaternary Sector along with the Tertiary Sector has replaced all primary and secondary employment as the basis for economic growth.

Question 5. Name the fastest emerging countries of medical tourism in the world.

India, Thailand, Singapore, Malaysia are the fastest emerging countries of medical tourism in the world.

Question 6. What is digital divide?

Opportunities emerging from the Information and Communication Technology based development is unevenly distributed across the globe. There are wide ranging economic, political and social differences among countries. Digital divide is the difference in opportunities available to people at different places arising because of differential availability of information and communication infrastructure.

Question 7. Define trade.

Trade is essentially buying and selling of items produced elsewhere. All the services in wholesale and retail trading or commerce are specifically intended for profit.

Question 8. Give examples of rural marketing centres.

Examples of rural marketing centres involve mandis, periodic markets, which may be weekly, biweekly, monthly, annually.

Question 9. What are periodic markets?

Periodic markets in rural areas are found where there are no regular markets, and local periodic, markets are organized at different time intervals may be weekly, biweekly etc. These markets are held on specified dates and move from one place to another.

Question 10. What is the typical characteristic of urban marketing centre?

Urban marketing centres have widely specialised urban services providing ordinary goods and services to specialized goods as per the demand.

### **Long Answers**

1. Discuss the significance and growth of the service sector in modern economic development.

Services occur at many different levels. Some are geared to industry, some to people; and some to both industry and people, e.g., the transport systems. Low-order services, such as grocery, shops and laundries, are more common and widespread than high-order services or more specialized ones like those of accountants, consultants and physicians. Services are provided to individual consumers who can afford to pay for them. For example, the gardener, the launderers and the barber do primarily physical labour. Teacher, lawyers, physicians, musicians and others perform mental labour.

2. Explain in detail the significance of transport and communication services.

Transport is a service or facility by which persons, manufactured goods, and property are physically carried from one location to another. It is an organised industry created to satisfy man's basic need of mobility. Modern society requires speedy and efficient transport systems to assist in the production, distribution and consumption of goods. At every stage in this complex system, the value of the material is significantly enhanced by transportation. Transport activities are essential to carry out trade services. Transportation is also essential for defence purpose. It links different parts of country with each other and with other countries as well, which increases national and global linkage. It also links rural areas with urban areas and helps in ushering

development even in rural and backward areas. It makes more places suitable for setting up industries and hence helps, in increasing job opportunities.

Communication services involve the transmission of words and messages, facts and ideas. Human beings have used different methods long-distance communications of which the telegraph and the telephone were important. Even today, the telephone is the most commonly used mode. In developing countries, the use of cell phones, made possible by satellites, is important for rural connectivity. These allow large quantities of data to be transmitted rapidly, securely, and are virtually error-free. With the digitization of information in the 1990's, telecommunication slowly merged with computers to form integrated networks termed as Internet.

Communication through satellites emerged as a new area in communication technology. These have rendered the unit cost and time of communication invariant in terms of distance. Cyberspace exists everywhere. It may be in an office, sailing boat, flying plane and virtually anywhere. As billions use the Internet each year, cyberspace will expand 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 along with transportation that has made the concept of global village a reality.

### 3. Define consumer cooperative, departmental stores & chain stores.

**Consumer cooperatives:** A cooperative business which is owned by its consumers for mutual sharing of benefit, after setting aside money for investment, is known as consumer cooperative. Consumer cooperatives often take form of the retail outlets which are owned and managed by their consumers.

**Departmental stores:** Departmental stores are large retail establishments which have large collection of variety of goods, all organised under specific department heads. A distinct feature of this kind of retail establishment is the organizing of separate departments, under same roof to facilitate buying, customer service, merchandising and control.

**Chain Stores:** These are retail stores owned by a single firm and spread over vast geographical areas across nation or worldwide. Chain stores are usually

characterized by similar service and infrastructural environment, involving similar architecture, store design, layout and choice of products.

#### ASSERTION AND REASON

1.Assertion: Man power is an important component of the service sector.

Reason: Most of the tertiary activities are performed by skilled labour, professionally trained experts and consultants.

A) Both the Assertion and the Reason are correct but the Reason is not the correct explanation of the assertion.

2.Assertion: Transport distance can be measured as km distance or actual distance of route length particular route and cost distance or the expense of travelling on a route.

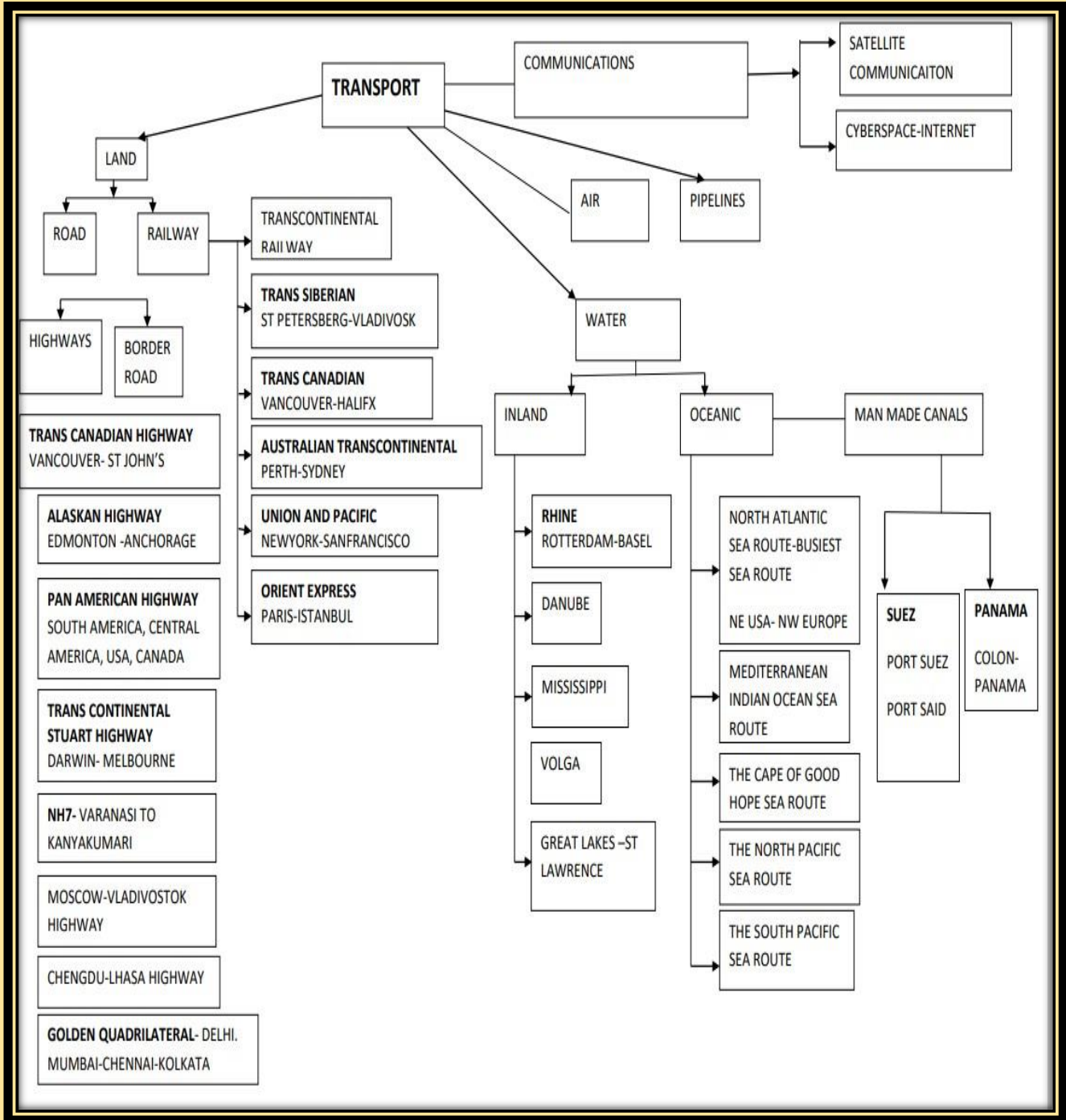
Reason: In selecting the mode of transport, distance in terms of time or cost is the determining factor.

A) In selecting the mode of transport, distance in terms of time or cost is the determining factor.

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## CHAPTER-7

### TRANSPORT AND COMMUNICATION



## KEY NOTES

### Modes of transport

- Land transport: Rail transport & Road transport
- Water transport: Inland and overseas
- Air transport
- Pipeline transport

### Land transport

#### Advantages of Land transport

- Door to door service
- It connects industrial areas with the raw material centres
- Cheaper for short distance
- Road can be constructed anywhere on land
- Maintenance cost moderate

#### Disadvantages of Land transport

- Costly for long distance
- Does not provide basic amenities like railway
- Maintenance cost is too high in mountain and desert areas
- Fuel consumption is more
- Traffic jam in city area
- Road accident is quite common

#### Advantages of rail transport

- It is more convenient for long distance
- Cheaper for long distance and it has all basic amenities
- Bulky material can be transported for long distance at a stretch
- Large number of passengers can be carried in one time
- It plays major role to mobilize army soldiers during emergency period and natural calamities

#### Disadvantages of railway transport

- It is not convenient for short distance as it is costly
- It is not flexible
- Accidents are more common
- Transshipment is a main problem



- Train theft and maintenance are the major problems
- It is not suitable to construct in mountain and inaccessible areas

### Water transport

#### Advantages of water transport

- It is very cheap due to less friction
- There is no need of any road construction
- It is suitable for transporting perishable goods like fruits and vegetables
- Heavy and bulky materials can be transported easily

#### Disadvantage of water transport

- Initial cost of construction of Port is too high
- The maintenance of port needs extra skill and care
- Oil leakage in the sea water causes destruction in marine ecosystem
- Dredging (removal of silt) in the canal areas requires huge capital

### Distribution of land transport

#### Railway transport

- The first public railway line was opened in between Stockton to Darlington in Northern England
- It opened up Continental interior for commercial farming mining and manufacturing in USA
- Invention of steam engine had made revolution in this transport

#### Distribution of Railways

- In the world, the densest railway network is found in Europe with multiple tracks
- In Belgium for every 6.5 square kilometre area there is one kilometre of railway
- London, Paris, Brussels, Milan and Warsaw are very important Railway junctions
- Here passenger traffic is greater than goods
- Underground railway connects London with Paris
- Trans Continental Railway lines of Europe have lost their importance due to more flexible transport system of Airway and Roadways
- Russia has 90% of its transport done through Railways
- Moscow is the most important node

- Moscow also has underground Railways and travel is carried out mostly to the industries by railways only
- In North America most of the bulky cargo like grains Timber and machinery are sent by railways  
East Central USA and Canada have the densest railway network
- Canadian Railway are under the public sector
- The pampas of Argentina and the coffee estates of Brazil account 40% of South America's total railway length
- Chile connects coastal centres with the mines

### Trans Continental Railway

It runs across the continent and links two ends

### Trans-Siberian Railway

- It runs in Russia from St Petersburg in the west to Vladivostok on the Pacific coast in the east passing through Moscow
- It is Asia's longest double tracked Railway
- It runs across the mountains Ob and Yenisei River and it connects important agro and fur centres

### Trans Canadian Railways

- The total length is 7050 km
- It runs from Halifax in the east to Vancouver on the Pacific through Montreal, Ottawa, Winnipeg and Calgary

### Economic importance

It connects the Quebec - Montreal industrial region with the wheat belt of prairies and the coniferous forest region in the north

- This line is the economic artery of Canada

### The Union and Pacific Railways

- It connects New York on the Atlantic coast to San Francisco on the Pacific coast passing through Cleveland, Chicago, Omaha
- The most valuable export on this route is ores, paper Chemicals and heavy machinery items

### The Australian Trans -Continental Railway

- It runs in Australia from Perth on the West Coast to Sydney on the east coast
- It passes through Broken Hill and port Augusta
- It is connected to Adelaide and Alice spring

#### The Orient Express

- It runs from Paris to Istanbul
- Today this railway line has reduced more than 96 hours of travel compared to 10 full days by ship route

#### Road

- Metal Road
- Unmetalled Road
- The quality of roads varies from place to place
- It is mainly because of expenditure
- In developed countries good quality roads are seen and provide long distance link
- Interstate highway for speedy moment

#### Highways

- High ways are metal roads connecting distant places
- They are constructed in a manner for unobstructed vehicle moment
- The 80 m wide with the separate traffic lanes, bridges, flyovers and dual carriage ways to facilitate uninterrupted traffic flow

#### Distribution of highways

- The world total motorable road length is only 15 million, in which North America alone accounts 33%
- Highest road density and highest number of registered vehicles are in this continent

#### The Trans Canadian highway

It links Vancouver in British Colombia with St. John city in Newfoundland

#### Alaskan Highway

Links Edmonton in Canada and anchorage in Alaska

## Pan American highway

It connects the highway of South America, Central America and USA and Canada

## The Tran-Continental Stuart Highway

- It connects Darwin with Melbourne
- In Russia roads are not that much connected like the development of Railways
- In Indian National Highway connecting Varanasi to Kanyakumari is the longest highway
- Golden Quadrilateral of super Expressway connects four important cities like New Delhi, Kolkata, Chennai, Bangalore and Mumbai

## Border roads

- Roads laid in international boundaries are called border roads
- It plays a major role for defence personal

## Water transport

### Important sea routes

- North Atlantic Sea route
- The Mediterranean Indian ocean sea route
- The cape of good hope route
- The north Pacific Sea route

## North Atlantic Sea route

- It links North Eastern USA and North Western Europe
- It is called BIG TRUNK route
- One fourth of the world foreign trade moves on this route
- Important ports are Colombo, Mumbai, Aden and Singapore
- After the construction of Suez Canal distance and time has been greatly reduced

## The Mediterranean Indian ocean route

- It links Western Europe with west Africa south Africa Southeast Asia Australia and New Zealand

- Rich natural resources like gold diamond copper tin groundnut oil palm and fruits are the main cargo on this route

#### The Cape of Good Hope Sea route

- It connects countries of Western Europe and west African countries with Brazil Argentina and Uruguay
- Trade along this route is comparatively less

#### The north Pacific Sea route

- Ports on West Coast of North America are connected with those of Asia through the north Pacific route

#### The South Pacific Sea route

- It connects West Europe and North America with Australia and New Zealand and scattered pacific islands

#### Shipping canals

##### Panama shipping Canal

- It is constructed across the Panama Isthmus between Panama City and Colon by the US government
- It connects the Atlantic Ocean in the East and Pacific Ocean in the west
- Total length is 72 km
- Wide is 12 km and it has 6 lock systems
- It has shortened the distance between New York and San Francisco by 13000 km
- The distance between Western Europe and West Coast of USA has been drastically reduced

##### The Suez Canal

- It was made in 1869 in Egypt
- It lies between port said and port Suez connecting the Mediterranean Sea with Red Sea
- This Canal has reduced the sea route distance considerably between South East Asia and European countries
- Total length is 160 kilometre and has 15 meters depth
- More than 100 ships move up and down daily
- It takes around 12 hours to cross this canal

- But the ships have to pay very heavy toll to use the canal

#### Inland waterways

- Rivers, canals, lakes and coastal areas have been important waterways since long time
- Boats and steamers are used as means of transport for cargo and passengers
- The development of navigability depends upon the width and depth of the Canal, continuity in the water flow and technology is used

#### The Rhine waterway

- It flows through Germany and Netherlands
- It is navigable for a distance of 700 km
- River Ruhr joins this river and flows through a rich coal field
- Dusseldorf is the port here and is the most heavily used water way
- More than 20000 ocean going vessels and 200000 inland vessels going up and down every year
- This river way connects Switzerland Germany France Belgium and Netherlands with the North Atlantic Sea route

#### The Danube waterway

- It Rises in the black forest and flows down towards the east covering several countries
- Vessels are carrying wheat Timber maize and heavy machinery

#### The Volga water way

- It is one of the prominent water ways in Russia
- It has 11200 km long navigable waterways
- It empties itself into Caspian Sea

#### The Great Lakes St Lawrence Seaway

- North America superior Huron, Erie and Ontario are which form an inland waterway
- The mouth of river St Lawrence and the Great Lakes form commercial waterway in North America
- Duluth and buffalo are important ports on this route

## The Mississippi waterway

- It connects the interior parts of the USA with the Gulf of Mexico in the south

## Air transport

- The fastest means of transport
- It is very costly
- It is preferred by the passengers for long distance travel
- It is the only means of transport to reach inaccessible areas
- It has brought about the connectivity revolution in the world

## Intercontinental air routes

- In the Northern hemisphere there is a distinct east-west belt of Intercontinental aircraft
- Dense network exists in Eastern USA Western Europe and Southeast Asia
- Asia and USA alone accounts for about 60% of the Airways of the world
- The important International Airport New York London Paris Frankfurt Rome Mumbai New Delhi Singapore Tokyo and Chicago
- Africa and South America part of Russia do not have standard air travel services due to thin population and lack of economic development

## Pipeline transport

- Pipelines are used extensively to transport liquids and gases such as water petroleum and natural gas for an uninterrupted flow
- Water is supplied through pipeline is familiar to all of us
- Cooking gas LPG is supplied through pipeline in many parts of the world
- Pipeline can also be used to transport liquefied coal
- In New Zealand milk is being transported through pipeline from farm area to the factories
- BIG INCH pipeline of USA is famous pipeline which carries mineral oil from the wells of Gulf of Mexico to the north eastern part
- Another important pipeline is COME CON
- It connects oil wells of the Ural and the Volga regions to the countries of east Europe

## Communication

- The Telegraph and the Telephone were the most commonly used long distance communication system

- In the early part of the 20th century the American Telegraph and Telephone Company had Monopoly over the countries telephone industry
- Many different countries started their main offices in cities and branches in towns
- Satellite communication
- More than 1000 million people living in over 100 countries communicate with one another through the Internet
- Satellite communication has influenced human lives immensely
- USA and USSR pioneered space research in 1970s
- Artificial satellites are sent up to orbit the earth and keep in touch with the station scattered all over the world
- Our country also made giant effort in satellite Communication
- On 19th April 1979 we launched Aryabhata, Rohini in 1980. INSAT 1B made long distance communication television and radio very easy and effective
- Even weather forecasting is done with the help of the satellites

#### Internet

- Cyberspace is the natural environment in which Electronic Communication takes place
- The world wide web encompasses cyberspace
- In this world electronic digital communication information is available over computer networks without physically moving the sender of the receiver
- Electronic network has spread all over at an unprecedented speed
- In 1995 only less than 50 million people used the Internet but in 2008 it went up to 40 million and in 2005 it went over 1 billion and in 2010 it went over two billion
- Initially the Internet users were only in developed countries but today all developing countries have joined
- People in India, China, Germany, Japan, USA and UK are in the forefront in the use of the Internet

#### **MULTIPLE CHOICE QUESTIONS**

1. Which element is not sent through communication?

(a) Views (b) Ideas (c) Messages **(d) Passengers**

2.. What is the length of the Golden Quadrilateral highway?



(a) 3,846 km (b) 4,846 km **(c) 5,846 km** (d) 6,846 km

3. What were the important waterways since immemorial?

(a) Rivers (b) Canals (c) coastal areas **(d) All the above**

4. What are used for means of transportation for cargo & passengers

(a) Boats (b) Streamers (c) Only (a) (d) **Both (a) & (b)**

5. What are the only means of transportation in dense forest

(a) Canals (b) Sea **(c) Rivers** (d) All the above

6. What can be transported through Inland waterways

(a) Coal (b) Cement (c) Timber & Metallic ores **(d) All the above**

7. In ancient India, what were the main highways of transportation?

(a) Seaways (b) Roadways (c) Riverways (d) Railways

8. Why Riverways lost its importance?

(a) Competition from Railways (b) Poor maintenance (c) Only (a) **(d) Both (a) & (b)**

9. What is the fastest & costliest mode of transportation

(a) Roadways (b) Waterways (c) Railways **(d) Airways**

10. Why Airways is so important

(a) For travelling long distances (b) Transporting valuable cargo

(c) For reaching inaccessible areas **(d) All the above**

11. What is the only alternative to reach a place where Landslides, Avalanches or heavy snowfall is common

(a) Airways (b) Roadways (c) Waterways (d) Railways

12. What is the main motive to use pipelines

(a) Transport liquids (b) Petroleum (c) Natural gas **(d) All the above**

13. How many people are connected through Internet

(a) 4 billion **(b) 1000 million** (c) 100 million (d) 500 million

14 . When was the Aryabhata satellite launched  
(a)14 February 1979 (b)21 June 1979 (c)19 April 1979@ (d)2 October 1979

15 . What is Cyber space  
(a)Electronic computerised space (b)Satellite communication **(c)Only (a)**  
(d)Both (a) & (b)

16. Majority of Internet user are in  
(a) USA & India (b) China & Japan (c)Germany (d)All the above@

17.How the human being depend upon transport and communication?  
a. For the high living standard and quality of life b. For exchange and trade of commodities  
c. For linking producing centres to consumer centres **d. All of the above**

18. The significance of a mode of transport depends on-  
a. The type of goods and services to be transported  
b. Cost of transport and the mode available  
c. The number of passengers transported  
**d. All the above**

19. Transport and communication may be categorised as-  
**a. Service industry** b. Secondary activities c. unorganised industry  
d. Quaternary services

20. The Trans–Continental Stuart Highway runs between:  
**a. Darwin and Melbourne** b. Edmonton and Anchorage  
c. Vancouver and St. John’s City d. Chengdu and Lhasa

21. Make the correct pairs from the following and choose the correct option from the given codes.

MODE OF TRANSPORT

- I Air Transport
- II Rail Transport

SIGNIFICANCE

- International movement of goods is handled
- for door-to-door services

III Ocean Freighters

IV Road Transport

Most suited for large volumes of bulky material  
for High value, light and perishable goods.

CODES-

I	II	III	IV
a. 3	4	2	1
b. 1	2	3	4
c. 4	3	2	1
d. 3	2	1	4

22. The first public railway line was opened in 1825 in northern England between which of the following places?

- a. **Between Stockton and Darlington**      b. Between Stockton and Birmingham  
c. Between Darlington and Dortmund      d. Between Darlington and Birmingham

23. Due to the invention of which of the following, road transport revolutionised in terms of its quality and vehicles plying over them?

- a. Steam engine      b. Electric engine  
c. **Internal combustion engine**      d. All of the above

24. In which of the following countries overland transport still takes place by human porters or carts drawn or pushed by humans?

- a. China and Malaysia      b. India and USA  
c. China and India      d. China and Japan

25. In Which of the following continent highest road density and highest number of vehicles are registered?

- a. Western Europe      b. Africa      c. Australia      d. **Northern America**

26. Which of the following highway links Edmonton in Canada to Anchorage in Alaska?

- a. **Alaskan Highway**      b. Trans Canadian Highway  
c. Pan American Highway      d. None of the above

27. Which of the following reason is responsible for the less importance of roadways as compared to railways?

- a. Vast industrial regions
- b. Vast geographical area**
- c. Dense population
- d. Less numbers of highways and low quality of roads

28. Which of the following is considered as the hub for a dense highway network developed in the industrialised region to the west of Urals in Russia?

- a. Moscow**
- b. Vladivostok
- c. Ural
- d. Berkhoysk

29. Which of the following is the longest highway of India?

- a. National Highway No. 4
- b. National Highway No. 7@
- c. National Highway No. 9
- d. National Highway No. 15

30. Which of the following is the chief feature of Border Roads?

- a. Integrate people in remote areas with major cities.
- b. Provide defence
- c. Almost all countries have such roads to transport goods to border villages and military camps.
- d. All of the above**

31. Which of the following pair is not matched correctly

**REGIONS**

**FEATURES**

- |                           |                                      |
|---------------------------|--------------------------------------|
| a. Europe                 | Densest railway network of the world |
| b. Japan                  | Daily passenger trains               |
| c. Trans-Siberian Railway | <b>Connect London to Paris</b>       |
| d. Moscow                 | An important headquarter of railway  |

32. Which of the following continent has one of the most extensive rail networks?

- a. North America**
- b. Europe
- c. South America
- d. Asia

33. In which of the following regions of South America, the dense rail network is found?

- a. Pampas of Argentina
- b. Coffee growing region of Brazil
- c. Mining areas of Chile
- d. **Only (a) and (b)**

34. Which of the following reasons are responsible for the construction of Trans-Continental Railways?

- a. **Due to economic and political reasons@**
- b. Due to economic and geographical reasons
- c. To encourage harmony and brotherhood among different countries
- d. Due to geographical and political regions

35. Which of the following is the longest and important railway in the world?

- a. Trans-Canadian Railway
- b. Trans-Siberian Railway@**
- c. The Union and Pacific Railway
- d. The Orient Express

36. Which of the following are the terminal stations connecting the Union and Pacific Railway?

- a. New York and Cleveland
- b. San Francisco and Chicago
- c. New York and San Francisco**
- d. New York and Chicago

37. Which of the following terminal stations connect Trans-Canadian Railway?

- a. Halifax and Vancouver@**
- b. New York and San Francisco
- c. Halifax and Montreal
- d. Calgary and Vancouver

38. The journey time from London to Istanbul has reduced a lot as compared to sea route due to which of the following railway line?

- a. Trans-Siberian Railway
- b. Orient Express@**
- c. The Union and Pacific Railway
- d. None of the above

39. Due to which of the following reason, water transport is more advantageous?

- a. It is much cheaper because the friction of water is far less than that of land
- b. It does not require route construction
- c. The oceans are linked with each other and are negotiable with ships of various sizes
- d. All of the above**

40. The busiest sea route also known as the 'Big Trunk Route' is which among the following?

- a. The Mediterranean-Indian Ocean Sea route
- b. The North Atlantic Sea route**
- c. The Cape of Good Hope Sea route
- d. The South Atlantic Sea route

41. Which of the following factor is responsible for the low traffic on the south Atlantic Sea route as compared to the South Atlantic Ocean Sea route?

- a. Low population and limited development in South America and Africa
- b. Production of same commodities and availability of same resources as well in South America and Africa
- c. Low level of technology
- d. Both (a) and (b)**

42. Which of the following sea route serves more countries and people than any other route?

- a. The Mediterranean-Indian Ocean Sea route**
- b. The Northern Atlantic Sea route
- c. The North Pacific Sea route
- d. The South Pacific Sea route

43. Which of the following is an important port located on the South Pacific Sea route?

- a. Singapore
- c. Hong Kong
- b. Honolulu**
- d. Shanghai

44. Match the Column I with Column II and choose the correct option with the help Codes

COLUMN I

I Suez Canal

II Panama Canal

III Rhine waterway

IV Volga waterway

COLUMN II

Russia

Dusseldorf Port

United States of America

A sea level canal without locks

- |    | I | II | III | IV |
|----|---|----|-----|----|
| a. | 1 | 2  | 3   | 4  |
| b. | 3 | 2  | 1   | 4  |
| c. | 4 | 3  | 2   | 1  |
| d. | 4 | 2  | 1   | 3  |

## SHORT ANSWER QUESTIONS

1. Which country of the world has the highest road density?

Japan has the highest road density in the world.

2. Why is west Asia the least developed in rail facilities? Explain one reason.

West Asia is the least developed in rail facilities because of vast deserts and sparsely populated regions.

3. Define the term 'Transport network'.

Several places (nodes) joined together by a series of routes (links) to form a pattern is called transport network.

4. In which country are motorways called 'autobahns'?

Motorways are called autobahns in Germany.

5. Mention the busiest ocean route of the world. OR Which is the busiest sea route in the world?

The North Atlantic Sea route also called Big Trunk route is the busiest ocean route of the world.

6. Name the seaports on each end of Suez Canal.

In the North, it is Port Said in the Mediterranean Sea and in the South, it is Port

Suez in Red Sea.

7. Define the term road density.

Road density is defined as the total length of road per 100 sq km.

8. What is the meaning of cyberspace?

Cyberspace is the world of electronic computerized space. It is also called the Internet. In other words, it is the means to communicate and access information over computer networks.

9. Name the most important inland waterway of Germany.

The Rhine waterway is the most important inland waterway of Germany. This waterway is the most heavily used at the world level.

10. Name the terminal stations of 'Australian trans-continental railway.'  
Perth and Sydney are the terminal stations of 'Australian trans-continental railway.'

11. Which highway connects North America and South America?  
The Pan American highway connects the countries of South America, Central America and North America.

12. Name the navigational canal that serves as a gateway of commerce for both the continents of Asia and Europe.  
The canal that serves as a gateway is the Suez Canal.

13. Give the significance of river St Lawrence as an inland waterway.  
A unique commercial waterway is formed by the estuary of St Lawrence River and the Great Lakes in the Northern part of North America. The ports on this route are equipped with all facilities of ocean ports. In this way, the inland waterway has become an important commercial waterway.

14. Name the terminal stations of the orient express railway.  
Paris and Istanbul are the two terminal stations of the orient express railway.

15. Name the terminal stations of Australian Trans-continental railway.  
The terminal stations of Australian Trans-continental railway are Sydney and Perth.

16. Name the terminal stations of longest railway route in the world.  
The longest railway in the world is Trans-Siberian railway and its terminal stations are Vladivostok and St Petersburg.

17. Which is the famous petroleum pipeline' of USA?  
The famous petroleum pipeline of USA is called Big Inch.



### 3 Marks Questions

1. Describe any three advantages of water transport in the world.

Advantages of water transport/oceanic routes are as follows:

- There is no need to construct ocean routes so that the cost is saved.
- Because of the less friction of water as compared to land, it is a much cheaper mode of transport.
- Compared to land and air ocean transport is a cheaper means for carrying of bulky materials over long distances.

2. Explain any three points of the economic significance of 'Trans- Siberian railway'.

The Trans-Siberian railway runs from St Petersburg in the West to Vladivostok on the Pacific coast in the East.

- It is Asia's most important route. Economic significance of Trans-Siberian railway is as follows:
- It links the Asian region with the West European markets.
- It runs across the Ural Mountains where Chita is an agro centre and Irkutsk is a fur centre.
- It has several other connecting links to the South with other important cities of Asia.

3. What is cyberspace? Describe any two advantages of the Internet.

- Cyberspace is the world of electronic digital space.
- It is a digital world used as a means to communicate or access information over computer networks.

Advantages of the Internet are as follows:

- The Internet has widened the economic and social space of humans through e-mail, e-commerce, e-learning and e-governance.
- Internet as a modern communication system has made the concept of the global village a reality.

4. Why is the Rhine the world's most heavily used waterway? Explain any three reasons.

The Rhine is the world's most heavily used waterway due to following reasons:

- It is the world's heavily used waterway with more than 20,000 ocean-going ships and 200,000 inland vessels exchange their cargo in this route.

- Huge tonnage moves along this stretch of the waterway.
  - The river Rhine is navigable for 700 km from Rotterdam in the Netherlands to Basel in Switzerland.
5. Mention the famous oil pipeline in the USA. How are pipelines one of the most convenient modes of transport?
- There is a dense network of oil pipelines in the USA which run from the producing areas to consuming areas.
  - Big Inch carries petroleum from the oil wells of the Gulf of Mexico to the North-Eastern states.
  - Pipelines are one of the most convenient modes of transport as they are used extensively to transport liquids and gases such as water, petroleum, oil and natural gas.
  - They can carry liquid and gaseous materials for a long distance without any interruption or delays.
  - The pipelines directly link the producing areas to the consuming areas. So, they are one of the most convenient modes of transport.

### **LONG ANSWER QUESTIONS**

1. Classify means of communication on the basis of scale and quality into two categories. Explain any two characteristics of each category.

Communication services involve the transmission of words and messages, facts and ideas. It means the conveyance of information from the place of origin to the place of destination through a channel.

- On the basis of scale and quality communication services can be divided into the following types:
- Personal Communication Personal means of communication convey information between two people only. For example, postal services, telephone, telegraph and fax services, internet, etc. Its major characteristics are:
- It conveys information between two people only.
- It is a very fast and efficient way of communication.

- Mass Communication Radio and television help to relay news, pictures and information to vast audiences around the world and hence, they are termed as mass media. Its major characteristics are:
- It conveys information to large audiences.
- They are vital for advertising and entertainment.

2. 'The Suez and the Panama Canal are two vital man-made navigation canals which serve as the gateways of commerce for both the Eastern and Western worlds.' In light of this statement, explain the economic significance of these two canals. OR

Name the vital man-made shipping canal linking the Mediterranean Sea and the Red Sea. Write any four characteristics of this canal.

- The Suez and the Panama Canal are the two vital man-made navigation canals.
- Suez Canal links the Mediterranean Sea and the Red Sea. It was constructed in 1869. It is the vital man-made shipping canal which acts as a linkage between the Eastern and Western world.

Following are the main characteristics of the Suez Canal:

- Suez Canal links Port Said in the North and Port Suez in the South connecting the Mediterranean Sea and Red Sea.
- It reduced the sea route distance between Liverpool and Colombo as compared to the Cape of Good Hope route.
- It opens a new route to the Indian Ocean for the Europeans
- It has no locks.
- It is 160 km long.
- The depth of the Suez Canal is 10 mts deep

Panama Canal connects the Atlantic Ocean with the Pacific.

- It is an artificial 48-mile waterway.

Following are the main Characteristics of the Panama Canal:

- Panama Canal links Colon on the Atlantic Ocean to Panama in the Pacific Ocean.

- It shortens the distance between New York and San Francisco by 13,000 km by sea.
- The distance between Western Europe and the West coast of the USA is also shortened.
- This canal is about 72 km long and involves a deep cutting for a length of 12 km.
- It has six lock systems and ships cross the different level through these lock systems.
- Both the canals are economically significant as they have cut down the sea route by many thousand kilometres.
- The ships can now reach faster and hence more trade is possible. Though, the economic significance of the Panama Canal is less than the Suez Canal.

3. 'Trans- Canadian railway line is considered as the economic artery of Canada.'

Support the statement with suitable examples,

The Trans-Canadian railway line is considered the economic artery of Canada due to the following reasons:

- This railway line covers a distance of 7,050 km running from Halifax in the East to Vancouver on the Pacific coast.
- It connects important cities of Montreal, Ottawa, Winnipeg and Calgary.
- It connects the Quebec-Montreal industrial region with the wheat belt of the Prairie region, thus gaining economic significance.
- This line also connects the coniferous forest region in the North to Quebec-Montreal and the Prairies. All these regions have become complementary to each other.
- A loop line from Winnipeg to Thunder Bay (Lake Superior) connects this rail line with one of the important waterways in the world.

4. "The Rhine waterways is the world's most heavily used inland waterway". "In the light of this statement, examine the significance of the waterway.

- It is the world's heavily used waterway with more than 20,000 ocean-going ships and 200,0 inland vessels exchange their cargo in this route.
- Huge tonnage moves along this stretch of the waterway.
- The river Rhine is navigable for 700 km from Rotterdam in the Netherlands to Basel in Switzerland.

- It flows through a rich coalfield which has made the whole region prosperous manufacturing area.
- The waterway links the industrial areas of Germany, France, Switzerland, Belgium, the Netherlands with North Atlantic Sea routes.

5. Explain the importance of 'communication services' in the world.

- Communication connects the people living in different parts of the world, due to which trade is possible.
- Communication through Optic Fibre Cables allows large quantities of data to be transmitted rapidly, securely and are virtually error-free.
- Communication through satellites has connected around 1000 million people in more than 100 countries.
- Cyberspace or the Internet is the latest technology for accessing information over computer networks.
- New technologies have connected people and it is very easy to send or receive messages, information. This has made the concept of the global village a reality.

6. Which means of transport is extensively used for carrying water, petroleum, natural gas and other liquids? Describe the network of this means of transport in the world.

The means of transport used extensively for carrying water, petroleum, natural gas and other liquids is pipeline transport.

- There is a dense network of pipelines in the USA which runs from the producing areas to the consuming areas. - Big Inch.
- Pipelines are used extensively to connect oil wells to ports and the refineries or domestic markets.
- The longest proposed international oil and natural gas pipeline' will pass through Iran, India and Pakistan.
- In New Zealand, milk is being supplied through pipelines from farms to factories.
- In Europe, Russia and West Asia, oil wells are linked to refineries through pipelines.
- Turkmenistan in Central Asia has extended pipelines to Iran and also to parts of India.

7. Describe the journey of development of land transport from the days of humans as carriers and the cableways of today,

Land transport refers to the movement of goods and services that takes place overland by way of road or rails.

- In earlier days, humans themselves were carriers. People were carried on palanquin (palki/doli).
- Later animals were used as beasts of burden as on mules, horses and camels.
- With the invention of the wheel, carts and wagons were made that facilitated land transport.
- The revolution in transport came about only after the invention of the steam engine. The first railway line was started in 1825 in Northern England and railways became the most popular and fastest mode of transportation.
- The invention of the internal combustion engine revolutionised road transport in terms of road quality and vehicles playing over them. Among the newer development inland transportation are pipelines, ropeways and cableways.

8. Name the longest Trans-Continental railway in the world. Describe its any four features.

- The longest Trans-Continental railway of the world is Trans-Siberian railway
- The Trans-Siberian railways run from St Petersburg in the West to Vladivostok on the Pacific coast in the East. It is Asia's most important route.
- It links the Asian region with the West European market.
- It runs across the Ural Mountains where Chita is an agro centre and Irkutsk, a fur centre.
- There are several connecting links to the South.

9. Which shipping canal links the Atlantic Ocean and the Pacific Ocean? Explain its any four characteristics.

The canal that links the Atlantic and Pacific Ocean is the Panama Canal.

- Panama Canal links Colon on the Atlantic Ocean to Panama in the Pacific Ocean.
- It shortens the distance between New York and San Francisco by 13,000 km by sea.

- The distance between Western Europe and the West coast of the USA is also shortened.
- This canal is about 72 km long and involves a deep cutting for a length of 12 km.
- It has six lock systems and ships cross the different level through these lock systems.
- Both the canals are economically significant as they have cut down the sea route by many thousand kilometres.
- The ships can now reach faster and hence more trade is possible.
- the economic significance of the Panama Canal is less than the Suez Canal.

10. What is the importance of railways as a mode of land transport? Explain any four main features of the railway network in Europe. OR explain any five characteristics of rail transport in Europe.

- Railways cover long distances and they are ideal for the transportation of bulky goods.
- A large number of people also travel by railways.
- They also form the connecting link between the ocean vessels, barges, boats, motor trucks and pipelines.

Following are the characteristics of rail transport in Europe:

- Most of the railways in Europe is double or multiple tracked.
- The total length of railway line in Europe is 440,0 km.
- Belgium has the highest railway density of 1 km of a railway for every 6.5 sq km area.
- In many countries of Europe, passenger transport is more important than freight.

11. Which is the longest trans-continental railway in North America? Describe it's any four features.

The longest trans-continental railway of North America is Trans-Canadian railway.

- The Trans-Canadian railway line is considered the economic artery of Canada due to the following reasons:
  - This railway line covers a distance of 7,050 km running from Halifax in the East to Vancouver on the Pacific coast.
  - It connects important cities of Montreal, Ottawa, Winnipeg and Calgary.
  - It connects the Quebec-Montreal industrial region with the wheat belt of the Prairie region, thus gaining economic significance.

- This line also connects the coniferous forest region in the North to Quebec-Montreal and the Prairies. All these regions have become complementary to each other.
- A loop line from Winnipeg to Thunder Bay (Lake Superior) connects this rail line with one of the important waterways in the world.

12. State any three characteristics of water transport. Why is traffic far less on the Cape of Good Hope route?

Three characteristics of water transport are as follows:

- Water transportation does not require route construction.
- The oceans are linked with each other and offer smooth routes travelable in all directions with fewer maintenance costs.
- It is a cheaper means of transportation because the friction of water is less than that of the land and energy cost is lower.
- Very heavy cargo like coal, cement, timber and metallic ores can be transported through inland waterways.
- The reasons for the less traffic on the Cape of Good Hope route are as follows:
  - There are limited development and population in South America and Africa, so demand is less.
  - Both South America and Africa have similar products and resources.
  - Large scale industries are only present in South-Eastern Brazil and Plata estuary.
  - There is little traffic on the route which links Rio-de Janeiro and Cape Town.

13. Which continent has the highest road density? Why do traffic congestions occur on road? Explain any three measures to solve the problem of traffic congestion.

- North America has the highest road density. About 33% of the world's total motorable road length is present in North America. North America accounts for the highest number of vehicles as compared to Europe.
- There is a problem of chronic traffic congestion in most of the cities of the world. The congestion occurs because of the failure of the road networks in meeting the demands of traffic. In recent years, the traffic on roads has substantially increased. Peaks and troughs of traffic flow on roads at different times of the day.



The measures to solve the problem of traffic congestion are as follows:

- The parking fee should be high.
- Mass Rapid Transit (MRT) system should be developed.
- The public bus services should be improved.
- Expressways should be developed to facilitate smooth traffic flow.

14. Explain the merits and demerits of road transport in the world.

Merits of road transport are:

- It is the most economical mode for short distances as compared to railways.
- It offers door-to-door services.
- It is best suited for the transportation of perishable and breakable goods.
- Construction of the road is comparatively cheaper and easy.
- In road transport, it is very easy to monitor vehicles and goods.

Following are the demerits of road transport:

- Road transport is not sustainable in all seasons.
- Unmetalled roads become unmotorable during the rainy season. Metalled ones are also damaged by floods.
- Road construction is very difficult in mountainous or desert areas.
- The maintenance of roads requires heavy expenditure.
- Goods are susceptible to damage through careless driving.
- Transport is subject to traffic delay in the case of road transport.

15. Explain the significance of each of the transport and communication services available in the world.

- Road Transport It is a cheaper and faster mode of transport over short distances and for door-to-door services.
- Railways It is best suited for bulky goods and passengers for long distances.
- Water Transport It is the cheapest mode of transport because of less friction of water. Ocean routes are cheaper for carrying of bulky material from one continent to another.
- Air Transport is the fastest means of transportation. It is best suited for long distance travel and worldwide transportation of valuable cargo.
- Pipelines It is used to carry liquids and gases from the producing areas to the consuming areas.

Significance of various communication services are as follows:

- Satellite Communication In contemporary time, satellites communication has become very important with the Internet as the largest electronic network

on the planet connecting about 1000 million people in more than 100 countries.

- Cyber Space-Internet This electronic network has spread unprecedentedly the number of users from 400 million in AD 2000 to over two billion in 2010. It has brought people from different parts of the world closer to each other.

16.Name the principal mode of transportation in the world which is used for carrying liquid and gaseous materials only. Mention any four characteristics of this mode of transportation.

- The principal mode used for carrying liquid and gaseous material is pipeline transport.
- The means of transport used extensively for carrying water, petroleum, natural gas and other liquids is pipeline transport.
- There is a dense network of pipelines in the USA which runs from the producing areas to the consuming areas. - Big Inch.
- Pipelines are used extensively to connect oil wells to ports and the refineries or domestic markets. The longest proposed international oil and natural gas pipeline' will pass through Iran, India and Pakistan.
- In New Zealand, milk is being supplied through pipelines from farms to factories.
- In Europe, Russia and West Asia, oil wells are linked to refineries through pipelines.
- Turkmenistan in Central Asia has extended pipelines to Iran and also to parts of India.

17.What is the significance of inland waterways? Explain the three factors responsible for the development of inland waterways in the world.

- Inland waterways consist of rivers, lakes, canals and streams linking the coastal areas.
- They have been used as waterways from time immemorial.
- Inland waterways are important for domestic and international transport and trade.
- Many rivers are modified to make inland waterways possible in different developed countries.
- The significance of inland waterways has been rising.

The three factors responsible for the development of inland waterways in the world are:

- Navigability This means the width and depth of the channel that makes navigation possible.
- Water Flow Another factor is the continuous flow of water throughout the year so that ships, boats can easily move in the waterways.
- Transport Technology Development of proper technology so that very heavy cargo like coal, timber, metallic ores can also be easily transported through inland waterways.

18. What are the highways? Explain the significance of highways with examples from different continents, -

- Highways are metalled roads constructed for uninterrupted vehicular movement.
- Highways link even city and port town in developed countries.
- North America Highways link the cities located on the Pacific coast with those of the Atlantic coast. Highway density is very high in North America, about 0.65 km per sq km.
- The Pan-American Highway connects the countries of, South America, Central America and USA.

Europe

- In Europe, there is a well-developed network of highways, but faces competition from railways and waterways.
- In Russia, important industrial regions are linked through highways.
- The Moscow-Vladivostok highway serves the region and it is one of the important highways of Russia.
- All the major cities in China are linked through the highways.
- In India, highways are connecting the major towns and cities. NH7 is the longest in the country which connects Varanasi and Kanyakumari.
- In Africa, Algiers in the North is connected to Conakry in Guinea and Cairo is connected to Cape town through highways.

19. What is the importance of roads? Explain any three reasons for the existence of good quality roads in the developed countries.

- Roads are an integral part of the transport system of a country.

- They play a significant role in achieving national development and contributing to the overall performance and social functioning of the community.
- Freight transport by road is gaining importance because it offers door-to-door service.
- Road plays a very important role in the socio-economic development of the country and becomes the backbone of strong economies and dynamic societies.
- Therefore, it is legitimate and indispensable to safeguard industry and plays a crucial role in everyone's life by meeting the demand for the sustainable mobility of both people and goods.
- Road construction and its maintenance require heavy expenditure. The developed countries have resources to meet this kind of expenditure.

### **SOURCE BASED QUESTIONS**

1. Study the given paragraph and answer the following questions:

The principal modes of world transportation, as already mentioned are land, water, air and pipelines. These are used for inter-regional and intra-regional transport, and each one (except pipelines) carries both passengers and freight. The significance of a mode depends on the type of goods and services to be transported, costs of transport and the mode available. International movement of goods is handled by ocean freighters. Road transport is cheaper and faster over short distances and for door-to-door services. Railways are most suited for large volumes of bulky materials over long distance within a country. High-value, light and perishable goods are best moved by airways. In a well-managed transport system, these various modes complement each other.

1. Most of the movement of goods and services takes place over:

a. **Land**    b. water,    c. air,    d. pipelines

2. The mode of transport which is most economical over short distances are:

a. Airways,    b. railways    c. **roadways**    d. ropeways

3. Out of the following, which mode of transportation does not require route construction?

a. Land,    b. Air,    **c. Water,**    d. Pipelines

4. The mode of transportation which can be used to reach inaccessible areas is:

a. Railways,    b. roadways,    c. cableways,    **d. airways**

2. Study the given and answer the following questions.

Cyberspace is the world of electronic computerized space. It is encompassed by the Internet such as the World Wide Web (www). In simple words, it is the electronic digital world for communicating or accessing information over computer networks without physical movement of the sender and the receiver... It is also referred to as the Internet.

Cyberspace exists everywhere. It may be in an office, sailing boat, flying plane and virtually anywhere. The speed at which this electronic network has spread is unprecedented in human history. There were less than 50 million Internet users in 1995, about 400 million in 2000 A.D. and over two billion in 2010. In the last few years there has been a shift among global users from U.S.A. to the developing countries. The percentage share of U.S.A. has dropped from 66 in 1995 to only 25 in 2005. Now the majority of the world's users are in U.S.A., U.K., Germany, Japan, China and India.

1. The accessing information over cyber space does not include:
  - a. Physical movement of the sender@
  - b. Communication
  - b. Social and economic networking
  - d. E-governance
2. The number of internet users in 2010 is
  - a. 400 million,
  - b. 500 million,
  - c. 1000million,
  - d. 2000 million@
3. The 25%age of the worlds's internet users of the world belongs to:
  - a. Germany,
  - b. China,
  - c. India,
  - d. USA
4. The reason for unprecedented spread of cyber space is :
  - a. Affordability,
  - b. accessibility
  - c. both (i) and (ii)
  - d. neither (i) nor (ii)

3. Study the given and answer the following questions.

With the invention of the wheel, the use of carts and wagons became important. The revolution in transport came about only after the invention of the steam engine in the eighteenth century. Perhaps the first public railway line was opened in 1825 between Stockton and Darlington in northern England and then onwards, railways 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 in U.S.A. The invention of the internal combustion engine revolutionized road transport in terms of road quality and vehicles (motor cars and trucks) plying over them. Among the newer developments in land transportation are pipelines, ropeways and cableways. Liquids like mineral oil, water, sludge and

sewers are transported by pipelines. The great freight carriers are the railways, ocean vessels, barges, boats and motor trucks and pipelines.

1. Name the continent with the densest rail network in the world.

a. Asia, b. Australia, c. **Europe**, d. South America

The means of transport which is usually found on steep mountain slope are:

a. Pipelines, b. roadways, c. railways **d. ropeways**

3. Mules are preferred as pack animals in the regions of:

a. Rainforests, b. high altitudes c. permafrost, d. none of these

4. West Asia has the least developed, rail transport due to:

a. Dense population, b. Vast deserts, **c. concentration of mining sites**  
d. mountainous regions

### **ASSERTION AND REASONING**

1. Assertion (A): Road transport is highly preferred in India.

Reason (R): It is cheapest means of transportation.

A Both A and R are true. R is the correct reason for A.

B Both A and R are true. R is not the correct reason for A.

C A is true. R is false.

D A is false but R is true.

Solution

The correct option is C A is true. R is false.

The Indian railway network is vast and railways is the cheapest means of transportation. However, roads are the dominant mode of transportation in India. Roads carry almost 87% of the country's passenger traffic and more than 60% of its freight. Road transport is highly preferred because it is easily available, affordable, and adaptable to one's needs.

Consider the following statements and choose the correct answer from the given options.

1. In the Himalayan region, the routes are often obstructed due to landslides, avalanches, or Heavy snowfall.

2. Air travel is the only alternative to reach such places.

Options-

a. Only statement 1 is correct

- b. Only statement 2 is correct
- c. Both 1 and 2 are correct@
- d. Both 1 and 2 are incorrect

**MAP BASED QUESTIONS**

1. Study the map given below carefully and answer the questions that follow.



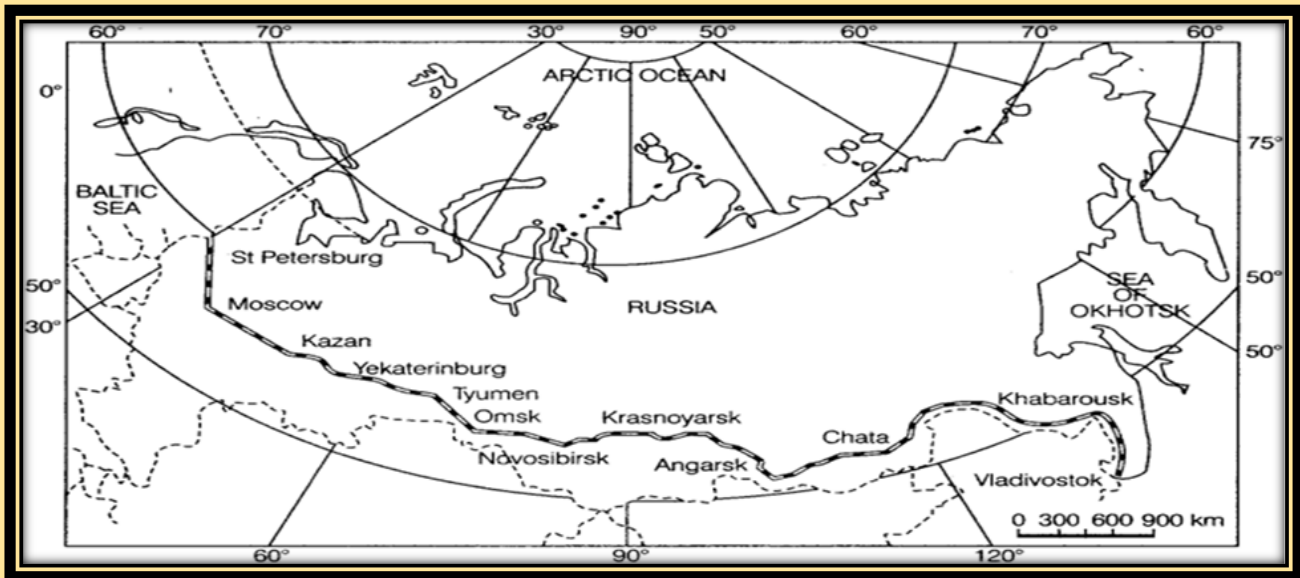
(i) Identify and name the canal shown in the map. – Panama Canal

(ii) Write any four characteristics of this canal.

Four characteristics of this canal are:

- This connects the Atlantic Ocean with the Pacific Ocean.
- The canal cuts across the Isthmus of Panama and is a key conduit for international maritime trade.
- It is an artificial 48-mile waterway.
- It reduces the time for ships to travel between the Atlantic and Pacific Ocean.

2. Study the map and answer the questions that follow.



(i) Identify and name the railway line shown on the map.

Trans-Siberian railway line is shown on the map

(ii) Name the continents linked by this rail route.

It connects Asia and Europe

(iii) Explain how this railway line is helpful for the promotion of trade in this region?

This railway line runs across the Ural Mountain and connects agro centres like Chita and Irkutsk.

It also acts as a linkage between different manufacturing centres.

3. Study the map and answer the questions that follow.





- (i) Name the railway line shown on this map.
- (ii) Name the terminal station of this railway along the Atlantic coast.
- (iii) Why is this railway line known as the economic artery of the country through which it passes?

**OR**

- (i) Name the Trans-continental railway shown on the map. - Trans-Canadian railway.
- (ii) Name the terminal stations of this railway line.

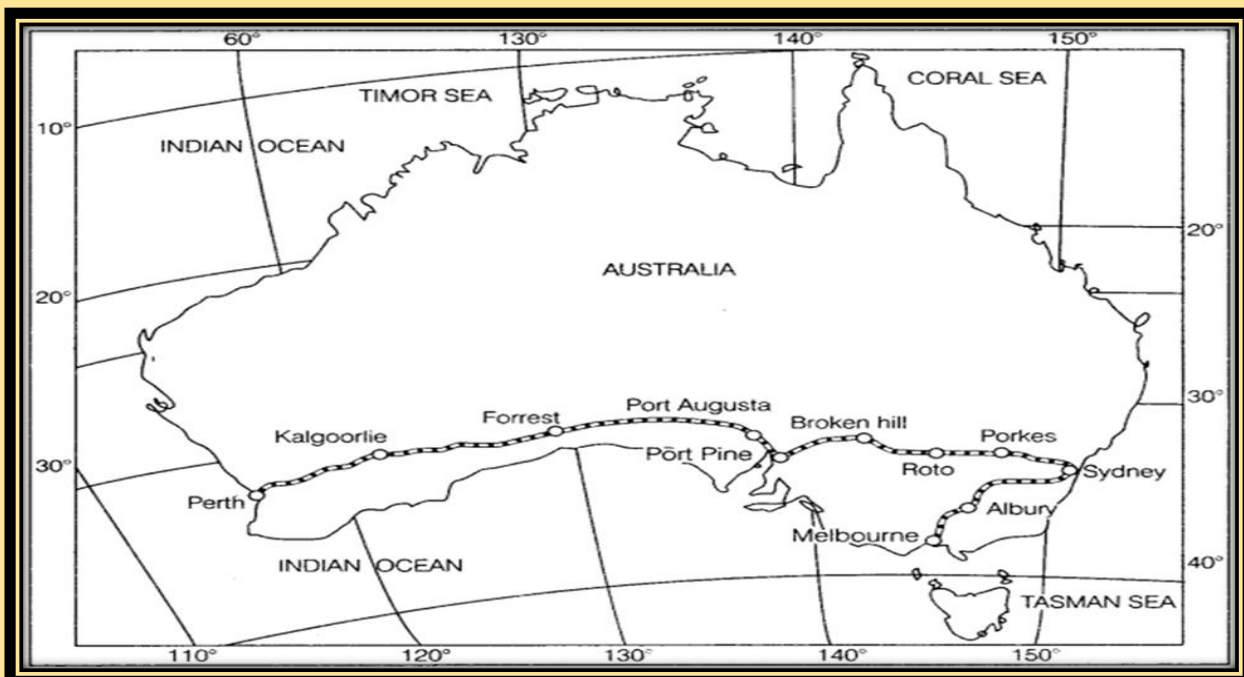
Halifax is the terminal station in the east along the Atlantic coast and Vancouver is the terminal station in the west along Pacific Coast

- (iii) Mention any two characteristics of this railway line.

It connects the Quebec-Montreal Industrial region with the wheat belt of the Prairie region and the Coniferous forest regions in the North. A loop line from Winnipeg to Thunder Bay connects this line with one of the important waterways. That's why is it called economic artery of Canada.

It is 7050 km long rail line in Canada. It connects the industrial region to a wheat belt.

4. Study the given map and answer the questions that follow,



- (i) Name the railway line shown in the given map. - Australian Trans-Continental railway line
- (ii) Which are the two terminal stations of this railway line?  
Perth and Sydney are two terminal stations of Australian Trans-Continental railway line.
- (iii) Name the ports located on the coast of Spencer Gulf through which this railway line passes,  
Perth and Sydney are two terminal stations of Australian Trans-Continental railway line.  
Port Augusta and Port Pine are two ports located on the coast of the Spencer Gulf through which this railway line passes.

5. Study the given map and answer the questions that follow.



- (i) Name the inland waterway shown in the given map. - The Rhine waterway**
- (ii) How has this inland waterway been a boon in the development of the countries through which it passes? Explain.  
It is a boon in the development of the countries through which it passes because of the following reasons:  
It flows through Germany and the Netherlands.

It is navigable up to 700 km.

It flows through a rich coalfield and makes the white basin prosperous manufacturing area.

6. Study the map and answer the questions that follow.



(i) Name the shipping canal – Panama Canal

(ii) Name the oceans linked by this canal. \_ Atlantic and Pacific Ocean

(iii) Name the country which has constructed this canal. USA

(iv) Why is this canal mostly used by the USA?

This canal is constructed by the US Government to shorten the distance between New York and San Francisco which is 12,000 km apart by sea.

(v) Why does this canal have a lock system?

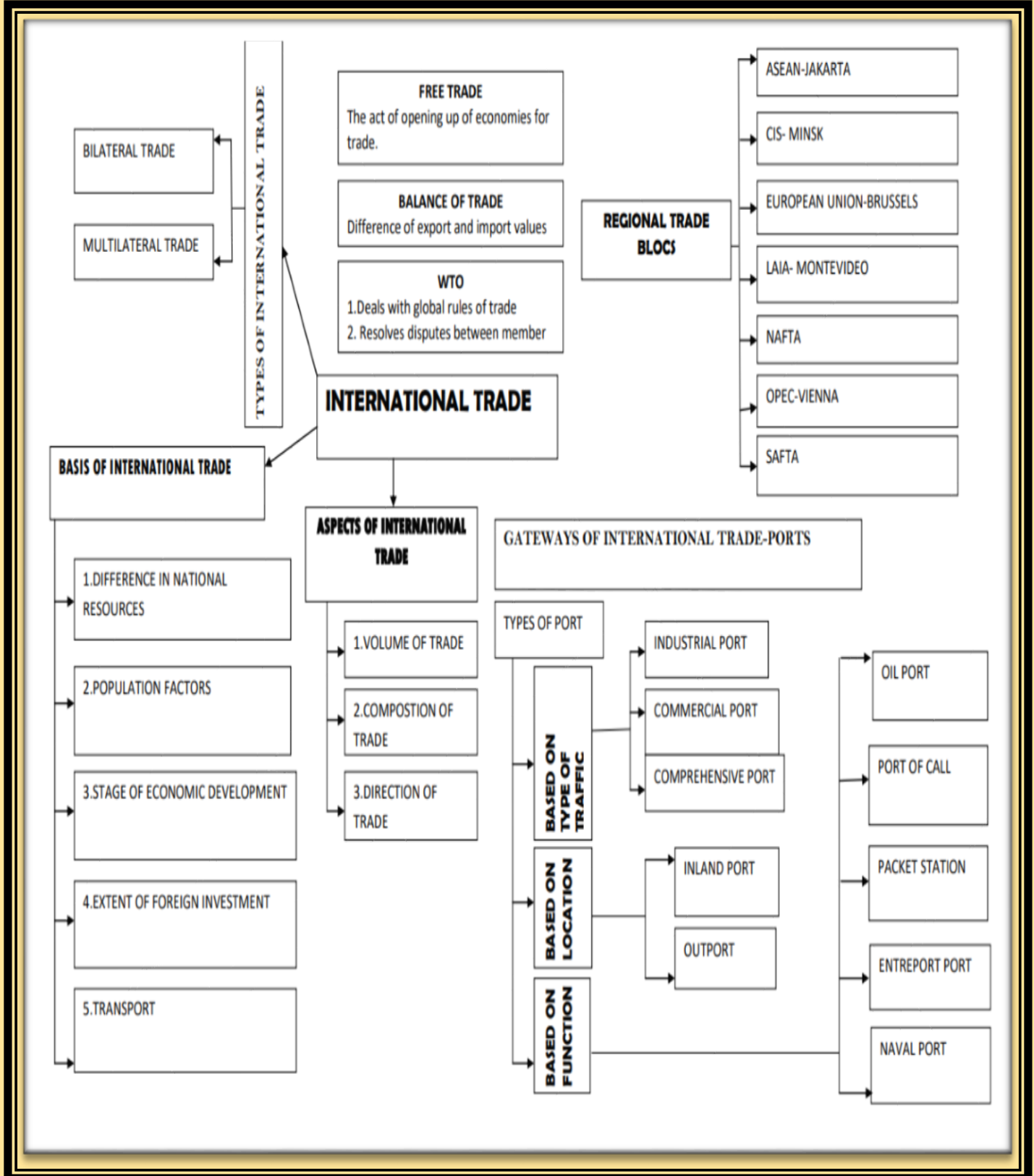
The canal is at a higher elevation from sea level and it is made across mountain ranges

7. Study the given map and answer the following:



1. What does the given map represent? – Suez Canal
  2. Name the terminal ports. - Port Said, Port Suez
  3. Name the seas connected. - Red Sea Mediterranean Sea
  4. Mention the features of Suez Canal.
    - Its length is 160km
    - Its depth is 11 to 15 mts
    - It takes 10-12 hours to travel
    - It reduces the distance between Liverpool and Colombo compared to the Cape of Good Hope route.
-

## CHAPTER -8 INTERNATIONAL TRADE



## KEY NOTES

What do you mean by trade?

- Trade is essentially buying and selling of items produced elsewhere

### Types of trade

International trade

- National trade
- International trade
- International trade is the exchange of goods and services among countries across National boundaries
- Countries need to trade to obtain commodities which they cannot produce or they can purchase at lower price

National trade

- Trade is carried out within the country

Barter system

- It is the system of direct exchange of goods instead of money or currency
- it was in practice in olden days

History of international trade

- In ancient times transporting goods over long distance was very risky due to theft
- Hence trade was restricted to local markets
- People then spent most of their resources on basic necessities like food and clothes
- Only the rich people bought jewellery, costly dresses and this resulted in trade of luxurious items
- The well-known Silk Route from Rome to China was very famous in ancient period
- Traders took the silk route to bring Chinese silk Roman wool and precious metals from India Russia and Central Asia
- After the disintegration of Roman Empire European commerce grew up during 12th and 13th centuries
- European colonies began in the 15 century and trade also grew with it

- Slave trade was emerged
- The Portuguese the Spanish and the British traders captured African natives and took them to newly discovered America
- They were forced to work on the plantation gardens
- Slave trade flourished for over 200 years
- Slave trade was abolished first in Denmark in 1792 in Great Britain in 1807 in 1808 in USA
- After the industrial revolution demand of raw materials was increased
- So industrialized nations began to import raw material and exported finished products to the non-industrialized countries
- Thus, the trade was developed

#### Why international trade?

- Specialization of goods
- Benefits the world economy
- Specialization of the goods can give rise to the trade
- It gives comparative advantage complementary and transferability of goods and services
- Mutual benefits to the trading partners

#### Bases of international trade

##### Difference in national resources

- Geological structure
- Mineral resources availability
- Climate -example different crops are cultivated in different regions

##### Population factors

##### Cultural factors

- Example China is famous for porcelain products for carpet Iran, North Africa for leather goods

##### Size of population

- Large population have great volume of internal trade
- High standard of living cannot be expected of a population that leads- to -hand to mouth life

### Stage of economic development

- Agriculture based countries export agro products and import manufactured goods
- Industrilised countries export machinery items and import grains

### Extent of foreign investment

- Developed countries invest capital on poor countries to import food materials and Minerals and create market for their own finished products
- Thus, trade is developed between developing and developed countries

### Transport

- In the past days due to the lack of proper transport facilities trade was confined in the local market only
- When railways waterways and airways developed trade also increased
- With the introduction of refrigerator containers trade increased much more

### Important aspects or components of international trade

- Volume of trade
- Composition of trade
- Direction of trade

### Volume of trade

- Volume of trade is measured by the tonnage of goods traded
- It means the total value of goods and services traded in particular period

### Composition of trade

- It refers the types of goods and services entering the world market
- Importance of manufacturing goods has increased over the years
- It is due to the fast growth of manufacturing industries and then the reduction in tariff barriers especially under GATT
- A number of primary products such as coal cotton rubber and oil have lost importance in recent years
- Petroleum occupies one of the most important places in international trade

### Direction of trade

- Until the 18th century manufactured and high value sophisticated goods were exported from the present days developing countries to Europe



- But now the direction of trade is changed
- In 19th century manufactured from Europe were exchanged for food stuffs and raw materials from three Southern continents
- But at present the developing countries are able to compete with the developed countries in manufacturing goods

### Types of international trade

#### Bilateral trade

- It is the exchange of commodities between two countries
  - One country provides raw materials or energy in exchange for a manufactured goods

#### Multilateral trade

- It is exchange of goods and services among a number of countries

#### Balance of trade

- The difference in value between imports and exports

#### Negative trade

- If import value exceeds export it is known as unfavourable or negative trade

#### Positive trade or favourable trade

- If the value of exports exceeds imports it is known as favourable trade or positive trade

#### Free trade

- Free trade or trade liberalization is opening up economies of countries for trading
- Tariffs, taxes etc... are brought down or totally removed and free flow of goods and services to other countries is allowed

#### Impact of free trade

- Free trade and globalisation adversely affect domestic traders of developing countries
- The rich countries will dump their goods at cheaper prices which will adversely affect the producers within the developing country

What do you mean by dumping?

- Selling a product in two countries at different prices is called dumping
- For example- China products are sold in Indian market

### **World Trade Organisations**

- It is an international body which frames rules and regulations for global trade
- It was set up in 1995
- At present it has 159 member countries
- Its headquarters is in Geneva in Switzerland
- WTO is the only international organisation dealing with the global rules of trade between nations
- It sets the rules for the global trading system and resolves disputes between its member nations

### **Criticism against WTO**

- It is argued that free trade does not make ordinary people lives more prosperous
  - It is actually widening the gap between rich and poor by making rich countries more rich
  - This is because the influential nations in the WTO focus of their own commerce
- Another important criticism is, it does not give any importance to child labour, workers rights and environmental degradation

### **Regional trade blocs**

Regional trade blocs have come up in order to encourage trade between countries with geographic proximity, similarity and complementary in trading items and to curb restrictions on trade of developing world

### **Problems related with international trade**

- Trading at local level affects every aspect of life
- Production will go up but natural resources will be exhausted soon. Even marine life may be depleted
- Forest will be cleared for all other purposes
- Different industries taken up by multinational corporations will go on expanding the pollution
- If they are interested only in making profit nothing will be done to protect the environment
- It would lead to serious future problem

## Gateways of international trade

- Ports and harbours are the main gate ways to international trade
- Men and material move from one place to another through ports and harbours
- Ships are docked in ports and harbours which provide loading unloading and storage facilities

Ports are called the gate ways of international trade. Why?

- It is a Gateway from land to sea or from sea to land
- Coast provide facilities such as docking, unloading etc...
- It handles exports and imports of different countries
- Imports are sent to Hinterland of a port
- Travellers pass from one part to another part of the world

Types of port on the basis of location

- Inland port
- Outport

Inland port

- They are situated away from the sea and connected to the sea through a river or a canal
- Example- Manchester connected to the sea by a canal  
Memphis on the river Mississippi  
Kolkata port on the river Hooghly

Outport

- Deep water port and built away from the actual port
- They receive large ships which cannot enter the port because of their large size
- Athens port is an example
- Based on specialized function
- Oil port
- Port of call
- Packet stations
- Entre port
- Navel port

Oil port

- Tanker ports and refinery ports are two types

- Their main function is processing and shipping oil
- Abadan in Persia is an example

#### Port of call

- This port is used for refilling, watering and replenishing food stocks
- Aden and Singapore are the examples

#### Packet stations

- They are also known as ferry ports
- They carry passengers and mail across short distances
- Dover in English canal in England is an example

#### Entrepot ports

- They are the collection centres for goods from different countries
- Singapore and Rotterdam in Europe are examples

#### Naval port

- It is for serving warship only
- Repair workshops are also available
- Cochin and Karwar in India are the naval port

<b>MULTIPLE CHOICE QUESTIONS</b>	
1	The exchange of goods and services among countries across national boundaries <b>is</b> known as ----- a. Internal trade b. Balance of trade c. international trade d. Favourable trade Ans. (c)
2	----- is the initial form of trade in primitive societies, where direct exchange of goods took place. a. Slave trade b. Local trade c. Market system d. Barter system Ans. (d)
3	In which of the following fairs of India barter system is still practiced? a. Jon beel Mela b. Kumbha Mela c. Pushkar Mela d. Nau Chandī Fair Ans. (a)
4	The difficulties of barter system were overcome by the introduction of ----- -- (a) Silver (b) trade (c) Gold (d) Money Ans. (d)
5	Which of the following pair of countries were connected by Silk route?

	<p>a. China and Italy b. China and Rome  b. China and Central Asia d. China and Greece  Ans. (b)</p>				
6	<p>Which of the following factors was responsible for flourishing trade between Europe and Asia in twelfth and thirteenth Century?  a. Disintegration of Roman empire  b. Development of large navigational ships  c. Favourable climate  d. Both (a) and (b)  Ans. (d)</p>				
7	<p>Which of the following trade came into existence in 15 Century AD with the beginning of European imperialism?  a. Slave Trade b. Silk trade c. Trade of raw material only d. Trade of finished products  Ans. (a)</p>				
8	<p>Which one of the following is the basis of international trade?  a. Variation in human resource  b. Specialisation in production  c. Availability of mineral resources  d. All of the above  Ans. (b)</p>				
9	<p>Which of the following factor is most required for participating in international trade by a nation?  a. Efficient transport and communication system  b. Production of various commodities  c. Well-developed network of industries  d. Educated human resources  Ans. (a)</p>				
10	<p>Which one of the following factors creates diversity among the national resources?  a. Physical configuration  b. Relief and soil  c. Variations found in climate  d. All of the above  Ans. (d)</p>				
11	<p>Which of the following pair is not matched correctly?</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;">COUNTRY</th> <th style="width: 50%; text-align: center;">PRODUCTS</th> </tr> </thead> <tbody> <tr> <td style="height: 20px;"></td> <td style="height: 20px;"></td> </tr> </tbody> </table>	COUNTRY	PRODUCTS		
COUNTRY	PRODUCTS				

	<p>a. China b. Iran c. Northern America d. Indonesia</p> <p>Porcelain and Brocade Software technology Leather work Batik clothes</p>
	Ans.(b)
1 2	<p>Consider and evaluate the following statements and choose the correct answer with the help of given options.</p> <p>I. Densely populated countries have large volume of internal trade but little external trade</p> <p>II. Most of the agricultural and industrial production of these countries consumed in the local market due to large size of population.</p> <p>Options-</p> <p>a. Only statement II is correct b. Both the statements I and II are correct but statement II does not explain statement I correctly c. Both the statements are true and statement II correctly explains statement I d. Both the statements are incorrect</p> <p>Ans. (c)</p>
1 3	<p>Most of the world's great ports are classified as -----</p> <p>a. Comprehensive ports b. Commercial ports c. Naval ports d. Industrial ports</p> <p>Ans. (a)</p>
1 4	<p>Which of the following commodity was not traded for a long distance due to inefficient mode of transport during ancient time?</p> <p>a. Gems b. Silk c. Grains d. Spices</p> <p>Ans. (c)</p>
1 5	<p>Fifteenth century onwards, the European colonialism began and along with trade of exotic commodities, a new form of trade emerged which was called --</p> <p>-----</p> <p>a. Barter system b. Slave trade c. Silk Route d. Wholesale Trade</p> <p>Ans. (b)</p>
1 6	<p>The act of opening up economies for trading is known as -----</p> <p>a. Globalization b. Free trade c. Balance of trade d. Retail trading</p> <p>Ans. (b)</p>
1 7	<p>Which of the following statement is true in reference to trade balance?</p> <p>a. If import value exceeds export value, then trade balance of a country is negative or unfavourable</p>

	<p>b. If export value is comparatively more than import value then trade balance of the country will be observed as favourable or positive</p> <p>c. Negative balance of trade would ultimately lead to exhaustion of its financial reserves</p> <p>d. All of the above</p> <p>Ans. (d)</p>
1 8	<p>In which of the following year the General Agreement on Trade and Tariff was transformed into WTO?</p> <p>a. June 1995      b. January 1995    c. January 1996    d. December 1995</p> <p>Ans. (b)</p>
1 9	<p>Which of the following point clearly explains the status of 'Free trade'?</p> <p>a. Bringing down trade barriers like tariffs</p> <p>b. Trade liberalisation allows goods and services from everywhere to compete with domestic products and services</p> <p>c. Let free trade to be limited to developed countries only</p> <p>d. Only (a) and (b)</p> <p>Ans. (d)</p>
2 0	<p>To fulfill which of the following aim, the General Agreement on Trade and Tariff was transformed in to World Trade Organisation (WTO)?</p> <p>a. For the promotion of free and fair trade amongst nation</p> <p>b. To increase more trade and commerce for the developed countries</p> <p>c. To create competitive feelings amongst developed and developing countries</p> <p>d. All of the above</p> <p>Ans. (a)</p>
2 1	<p>Consider the following statements and choose the correct one from the given options:</p> <p>I. The WTO has been criticised and opposed by those who are worried about the effects of Free trade and economic globalisation</p> <p>II. Free trade does not make ordinary people's lives more prosperous</p> <p>Options-</p> <p>a. Only statement I is correct</p> <p>b. Both the statements are true and statement II correctly present the reason for statement I</p> <p>c. Only Statement II is correct</p> <p>d. Both the statements I and II are incorrect</p> <p>Ans. (b)</p>
2 2	<p>Where is the headquarters of WTO located?</p> <p>a. Geneva, Switzerland    b. London, UK    c. New York, USA    d. Tokyo, Japan</p>

	Ans. (a)																																										
2 3	The practice of selling a commodity in two countries at a price that differs for reasons not related to costs is called ----- a. Trading b. business c. Exporting d. dumping. Ans. (d)																																										
2 4	Match the ports with their functions and choose the correct option. <table border="1"> <thead> <tr> <th>Port (A)</th> <th>Function (B)</th> </tr> </thead> <tbody> <tr> <td>a. Oil Port</td> <td>1.Kochi</td> </tr> <tr> <td>b. Ports of Call</td> <td>2.Tripoli</td> </tr> <tr> <td>c. Packet Stations</td> <td>3.Rotterdam</td> </tr> <tr> <td>d. Entrepot Port</td> <td>4.Dover</td> </tr> <tr> <td>e. Naval Port</td> <td>5..Aden</td> </tr> </tbody> </table> <p>CODES</p> <table> <tr> <td></td> <td>a</td> <td>b</td> <td>c</td> <td>d</td> <td>e</td> </tr> <tr> <td>(A)</td> <td>4</td> <td>2</td> <td>5</td> <td>3</td> <td>1</td> </tr> <tr> <td>(B)</td> <td>2</td> <td>5</td> <td>4</td> <td>3</td> <td>1</td> </tr> <tr> <td>(C)</td> <td>3</td> <td>4</td> <td>5</td> <td>1</td> <td>2</td> </tr> <tr> <td>(D)</td> <td>4</td> <td>5</td> <td>1</td> <td>2</td> <td>3</td> </tr> </table> <p>Ans. (B)</p>	Port (A)	Function (B)	a. Oil Port	1.Kochi	b. Ports of Call	2.Tripoli	c. Packet Stations	3.Rotterdam	d. Entrepot Port	4.Dover	e. Naval Port	5..Aden		a	b	c	d	e	(A)	4	2	5	3	1	(B)	2	5	4	3	1	(C)	3	4	5	1	2	(D)	4	5	1	2	3
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(C)	3	4	5	1	2																																						
(D)	4	5	1	2	3																																						
2 5	The word salary comes from the Latin word Salarium which means payment by ----- a. Money b. Salt. c. Wage d. Income Ans. (b)																																										
<b>SHORT ANSWER QUESTIONS:</b>																																											
1	<b>Mention any two problems of barter system of trade.</b> Inability to make deferred payments, Lack of common measure value, Difficulty in storage of goods, Lack of double coincidence of wants.																																										
2	<b>“The difference in national resources is the basis of international trade.”</b> <b>Analyse the statement.</b> Difference in national resources: The world’s national resources are unevenly distributed because of differences in their physical make up i.e. geology, relief soil and climate. (a) Geological structure: It determines the mineral resource base and topographical differences ensure diversity of crops and animals raised.																																										



	<p>Lowlands have greater agricultural potential. Mountains attract tourists and promote tourism.</p> <p>(b) Mineral resources: They are unevenly distributed the world over. The availability of mineral resources provides the basis for industrial development.</p> <p>(c) Climate: It influences the type of flora and fauna that can survive in a given region. It also ensures diversity in the range of various products, e.g. wool production can take place in cold regions, bananas, rubber and cocoa can grow in tropical regions</p>
3	<p><b>Explain how international trade is mutually beneficial to the nations.</b> Undertaking international trade is mutually beneficial to nations If it leads to</p> <ul style="list-style-type: none"> <li>- regional specialisation,</li> <li>-higher level of production,</li> <li>-better standard of living,</li> <li>-worldwide availability of goods and services,</li> <li>-equalisation of prices and wages and diffusion of knowledge and culture.</li> </ul>
4	<p><b>Explain how international trade can prove to be detrimental to the nations.</b> International trade can prove to be detrimental to nations- If it leads to dependence on other countries, uneven levels of development, exploitation, and commercial rivalry leading to wars. Global trade affects many aspects of life; it can impact everything from the environment to health and well-being of the people around the world. As countries compete to trade more, production and the use of natural resources spiral up, resources get used up faster than they can be replenished.</p>
5	<p><b>What are the two types of ports based on their location? Give one example for each one.</b> <b><u>Inland Ports:</u></b> These ports are located away from the sea coast. They are linked to the sea through a river or a canal. Such ports are accessible to flat bottom ships or barges. For example: Kolkata is located on the river Hoogli, a branch of the river Ganga.</p>

	<p><b>Out Ports:</b>  These are deep water ports built away from the actual ports.  These serve the parent ports by receiving those ships which are unable to approach them due to their large size.  For example, is Athens and its out port Piraeus in Greece.</p>
6	<p><b>“Seaports are the gateways of the international trade.” Justify the statement.</b>  The chief gateways of the world of international trade are the harbours and ports.  Cargoes and travelers pass from one part of the world to another through these ports.  The ports provide facilities of docking, loading, unloading and the storage facilities for cargo.  The importance of a port is judged by the size of cargo and the number of ships handled.  The quantity of cargo handled by a port is an indicator of the level of development of its hinterland.</p>
7	<p><b>What are the two types of ports based on the cargo handled?</b>  <b>Types of port according to cargo handled:</b>  <b>(i) Industrial Ports:</b> These ports specialise in bulk cargo-like grain, sugar, ore, oil, chemicals and similar materials.  <b>(ii) Commercial Ports:</b> These ports handle general cargo-packaged products and manufactured good. These ports also handle passenger traffic.  <b>(iii) Comprehensive Ports:</b> Such ports handle bulk and general cargo in large volumes.  <b>Most of the world’s great ports are classified as comprehensive ports.</b></p>
8	<p><b>What is balance of trade? What are its two types?</b>  <b>Balance of trade</b> refers to the difference between the value of import and export.  <b>Two types:</b>  <b>Positive or favourable balance of trade.</b>  <b>Negative or unfavourable balance of trade.</b></p> <p>If the value of imports is more than the value of a country’s exports, the country has <b>negative or unfavourable balance of trade.</b>  If the value of exports is more than the value of imports, then the country has a <b>positive or favourable balance of trade.</b></p>
9	<p><b>What are the two types of international trade?</b>  International trade may be categorised into two types:</p>

	<p><b>Bilateral trade</b></p> <p><b>Multi-lateral trade</b></p> <p><b>Bilateral trade:</b> Bilateral trade is done by two countries with each other. They enter into agreement to trade specified commodities amongst them.</p> <p><b>Multi-lateral trade:</b> multi-lateral trade is conducted with many trading countries. The same country can trade with a number of other countries.</p>
10	<p><b>What is free trade? What are its advantages?</b></p> <p>The act of opening up economies for trading is known as <b>free trade or trade liberalisation</b>.</p> <p>This is done by bringing down trade barriers like tariffs.</p> <p>Trade liberalisation allows goods and services from everywhere to with domestic products and services.</p>
	<p><b>LONG ANSWER QUESTIONS</b></p>
1	<p><b>“Globalisation along with free trade can adversely affect the economies of developing countries”. Support the statement.</b></p> <ul style="list-style-type: none"> <li>• Globalisation affects the economies of developing countries.</li> <li>• Developed countries are not giving equal playing field.</li> <li>• They impose conditions which are unfavourable.</li> <li>• With the development of transport and communication systems ,</li> <li>• Goods and services can travel faster and farther than ever before.</li> <li>• But free trade allows rich countries enter the markets.</li> <li>• Allow the developed countries to keep their own markets protected from foreign products.</li> <li>• Countries also need to be cautious about dumped goods;</li> <li>• Along with free trade dumped goods of cheaper prices can harm the domestic producers.</li> </ul>
2	<p><b>Why does International Trade Exist?</b></p> <ul style="list-style-type: none"> <li>• International trade is the result of specialisation in production.</li> <li>• It benefits the world economy if different countries practise specialisation and division of labour in the production of commodities or provision of services.</li> <li>• Each kind of specialisation can give rise to trade.</li> <li>• Thus, international trade is based on the principle of comparative advantage, complementarity and transferability of goods and services and in principle, should be mutually beneficial to the trading partners.</li> <li>• In modern times, trade is the basis of the world’s economic organisation and is related to the foreign policy of nations.</li> </ul>

- With well-developed transportation and communication systems, no country is willing to forego the benefits derived from participation in international trade.

**What is the role of the World Trade Organisation as an international organisation? Why has the World Trade Organisation been criticised by some countries?**

- WTO is the only international organisation dealing with the global rules of trade between nations.
- It sets the rules for the global trading system
- And resolves disputes between its member nations.
- WTO also covers trade in services, such as telecommunication and banking, and others issues such as intellectual rights.

**Arguments against WTO :**

- It is argued that free trade does not make ordinary people's lives more prosperous.
- It is actually widening the gulf between rich and poor by making rich countries richer.
- This is because the influential nations in the WTO focus on their own commercial interests. Moreover, many developed countries have not fully opened their markets to products from developing countries.
- It is also argued that issues of health, worker's rights, child labour and environment are ignored.

**4 What are the five types of ports based on their functions? Give one example for each one.**

**Types of port on the basis of specialised functions:**

**Oil Ports:**

- These ports deal in the processing and shipping of oil.
- Some of these are tanker ports and some are refinery ports.
- Tripoli in Lebanon are tanker ports.
- Abadan on the Gulf of Persia is a refinery port.

**Ports of Call:**

- These are the ports which originally developed as calling points on main sea routes
- Where ships used to anchor for refueling, watering and taking food items. Later on, they developed into commercial ports.
- Aden, Honolulu and Singapore are good examples.

**Packet Station:**

- These are also known as ferry ports.
- These packet stations are exclusively concerned with the transportation of passengers and mail across water bodies covering short distances.
- e.g. Dover in England and Calais in France across the English Channel.

**Entrepot Ports:**

- These are collection centres
- Where the goods are brought from different countries for export.
- Singapore is an entrepot for Asia.

**Naval Ports:**

- These are ports which have only strategic importance.
- These ports serve warships and have repair workshops for them.
- Kochi and Karwar are examples of such ports in India.

**SOURCE BASED QUESTIONS**

1

**Read the passage and answer the following questions:**

In ancient times, transporting goods over long distances was risky, hence trade was restricted to local markets. People then spent most of their resources on basic necessities – food and clothes. Only the rich people bought jewelry, costly dresses and this resulted in trade of luxury items.

The Silk Route is an early example of long-distance trade connecting Rome to China – along the 6,000 km route. The traders transported Chinese silk, Roman wool and precious metals and many other high value commodities from intermediate points in India, Persia and Central Asia.

After the disintegration of the Roman Empire, European commerce grew during twelfth and thirteenth century with the development of ocean-going warships trade between Europe and Asia grew and the Americas were discovered.

Fifteenth century onwards, the European colonialism began and along with trade of exotic commodities, a new form of trade emerged which was called slave trade. The Portuguese, Dutch, Spaniards, and British captured African natives and forcefully transported them to the newly discovered Americas for their labour in the plantations. Slave trade was a lucrative business for more than two hundred years till it was abolished in Denmark in 1792, Great Britain in 1807 and United States in 1808

1. “Trade was restricted to local markets only in ancient times”. Give one reason.
2. Which were the items transported through silk route?
3. What do you mean by the term slave trade?
4. When was slave trade abolished in Great Britain?

**Answers:**

1. In ancient times, transporting goods over long distances was risky, hence trade was restricted to local markets
2. The traders transported Chinese silk, Roman wool and precious metals and many other high value commodities from intermediate points in India, Persia and Central Asia.
3. Fifteenth century onwards, the European colonialism began and along with trade of exotic commodities, a new form of trade emerged which was called slave trade
4. The slave trade was abolished in Great Britain in 1807.

2. **Read the passage and answer the following questions:**

International trade is the result of specialisation in production. It benefits the world economy if different countries practise specialisation and division of labour in the production of commodities or provision of services. Each kind of specialisation can give rise to trade. Thus, international trade is based on the principle of comparative advantage, complementarity and transferability of goods and services and in principle, should be mutually beneficial to the trading partners.

In modern times, trade is the basis of the world's economic organisation and is related to the foreign policy of nations. With well-developed transportation and communication systems, no country is willing to forego the benefits derived from participation in international trade.

1. What is international trade?
2. Why do we need international trade?
3. Write any two principles of International trade?
4. Why is every country is willing to participate in International trade ?

**Answers:**

1. International trade is the exchange of goods and services among countries across national boundaries
2. It benefits the world economy if different countries practise specialisation and division of labour in the production of commodities or provision of services.
3. International trade is based on the principle of comparative advantage, complementarity and transferability of goods and services.
4. In modern times, trade is the basis of the world's economic organisation and is related to the foreign policy of nations. So, with well-developed

transportation and communication systems, no country is willing to forego the benefits derived from participation in international trade.

3. **Read the passage and answer the following questions:**

Undertaking international trade is mutually beneficial to nations if it leads to regional specialisation, higher level of production, better standard of living, worldwide availability of goods and services, equalisation of prices and wages and diffusion of knowledge and culture.

International trade can prove to be detrimental to nations if it leads to dependence on other countries, uneven levels of development, exploitation, and commercial rivalry leading to wars. Global trade affects many aspects of life; it can impact everything from the environment to health and well-being of the people around the world. As countries compete to trade more, production and the use of natural resources spiral up, resources get used up faster than they can be replenished. As a result, marine life is also depleting fast, forests are being cut down and river basins sold off to private drinking water companies.

Multinational corporations trading in oil, gas mining, pharmaceuticals and agri-business keep expanding their operations at all costs creating more pollution – their mode of work does not follow the norms of sustainable development. If organisations are geared only towards profit making, and environmental and health concerns are not addressed, then it could lead to serious implications in the future

1. Write any two advantages of international trade.
2. Mention any two economic problems faced by some countries due to International trade.
3. What is sustainable development?
4. What are two environmental problems faced by some countries due to International trade?

**Answers:**

1. Advantages of international trade.

Regional specialization Higher level of production better standard of living  
World wide availability of goods and services and Equalization of prices and wages

Diffusion of knowledge and culture

2. It leads to dependence on other countries, uneven levels of development, exploitation, and commercial rivalry leading to wars.

3. The development that ensures the resource for future generation and without damaging the environment

4. Pollution, Depletion of resources.

**ASSERTION AND REASON QUESTIONS:**

1 Assertion: The act of opening up economies for trading is known as free trade or trade liberalisation.  
Reason: This is done by bringing down trade barriers like tariffs.  
(a) A and R are true and R is the correct explanation of A.  
(b) A and R true but R is not the correct explanation of A.  
(c) A is false but R is true.  
(d) A is true but R is false  
Ans. (a)

2 Assertion: Bilateral trade is done by two countries with each other  
Reason: The country may also grant the status of the “Most Favored Nation” (MFN) on some of the trading partners.  
(a) A and R are true and R is the correct explanation of A.  
(b) A and R true but R is not the correct explanation of A.  
(c) A is false but R is true.  
(d) A is true but R is false  
Ans. (b)

3 Assertion: Globalisation along with free trade can adversely affect the economies of developing countries  
Reason: These countries are given equal playing field by imposing conditions which are favourable.  
(a) A and R are true and R is the correct explanation of A.  
(b) A and R true but R is not the correct explanation of A.  
(c) A is false but R is true.  
(d) A is true but R is false  
Ans. (d)

4 Assertion: WTO is actually widening the gulf between rich and poor by making rich countries richer.  
Reason: Many developed countries have not fully opened their markets to products from developing countries  
(a) A and R are true and R is the correct explanation of A.  
(b) A and R true but R is not the correct explanation of A.  
(c) A is false but R is true.  
(d) A is true but R is false  
Ans. (a)

5 Assertion: International trade can prove to be detrimental to nations.  
Reason: It leads to regional specialisation, higher level of production, better standard of living,



- a) A and R are true and R is the correct explanation of A.
- (b) A and R true but R is not the correct explanation of A.
- (c) A is false but R is true.
- (d) A is true but R is false

Ans. (b)

**TABULAR COLUMN BASED QUESTION**

- 1 **Read the table given below and answer the following questions:  
World Imports and Exports (in millions of US dollars)**

	1955	1965	1975	1985	1995	2005	2015
Exports Total Merchandise	95000	190000	877000	1954000	5162000	10393000	15583232
Imports Total Merchandise	99000	199000	912000	2015000	5292000	10753000	15628204

- 1.1. Calculate the balance of trade in 2005.
- 1.2. Why do you think that the volume of trade has increased over the decade?
- 1.3. What had been the growth in the import during the year 2005 over the year 1955?

Ans. 1.1. 360000(10753000-10393000)

1.2. (a) Growth in manufacturing sector.

(b) Growth in Service sector.

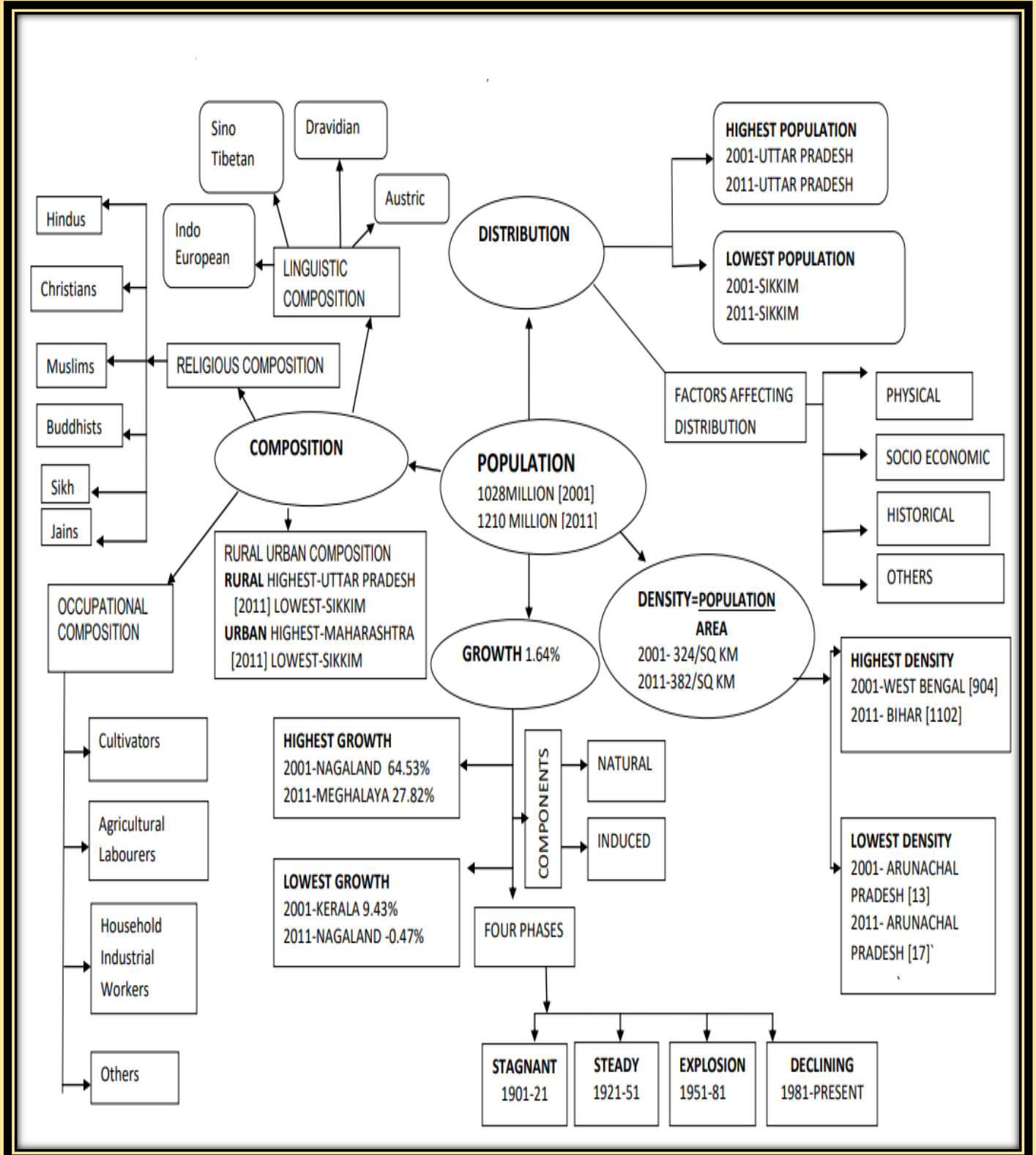
(c) Specialization in agriculture and in other sectors.

.1.3 Approximately 108 times (10753000 ÷ 99000)

# VOLUME II

## Chapter 1

### POPULATION-DISTRIBUTION, DENSITY, GROWTH AND COMPOSITION



## KEY NOTES

- ~ Population of India[2001]-1028 million
- ~ Second most populous country after china
- ~ Census-means of collecting population data
- ~ Census held every 10 years
- ~ First complete census conducted in 1881

## DISTRIBUTION OF POPULATION

India-uneven pattern of population distribution

- ~ Highest population –Uttar Pradesh
- ~ Smallest population-Sikkim
- ~ States with large area but less population
  - ◆ Jammu and Kashmir
  - ◆ Arunachal Pradesh
  - ◆ Uttarakhand

## FACTORS INFLUENCING POPULATION DISTRIBUTION

1. Climate
2. Availability of water
3. Evolution of settled agriculture and agri development
4. Development of transport network
5. Industrialization
6. Urbanisation

- \* North Indian plains, deltas and coastal plains have higher proportion of population. River plains and coastal areas have remained the regions of larger population concentration because of an early history of human settlement and development of transport network.
- \* The urban regions of Delhi, Mumbai, Kolkata, Bangalore, Pune, Ahmedabad, Chennai and Jaipur have high concentration of population due to industrial development and urbanisation drawing a large number of rural urban migrants.
- \* Development of irrigation (Rajasthan), availability of mineral and energy resources (Jharkhand) and development of transport network (peninsular states) have resulted in moderate to high proportion of population in areas which were previously very thinly populated.

## Density of population

- ~ Density of population of india-382 persons per sq km (2011)
- ~ Highest density

1. Bihar[1102 persons per sq km]
2. West bengal1029 persons per sq km]

3. Kerala [859 persons per sq km]

~ Lowest density- Arunachal Pradesh [17 persons per sq km]

- \* The hill states of the Himalayan region and NE states[excluding Assam] have relatively low densities
- \* Union territories [excluding Andaman and Nicobar Islands] have very high densities of population
- \* National capita territory of delhi-11297 persons/km2
  - ♣ Population density = population/area
  - ♣ Physiological density= total population/ net cultivated area
  - ♣ Agricultural density = total agricultural population/net cultivable area
  - ♣ Agricultural population=cultivators, agricultural labourer's and their family members.

### Growth of population

- ~ Growth of population is the change in the number of people living in a particular area between two points of time
- ~ 2 components of population growth
  - Natural-determined by birth and death rate
  - Induced=determined by volume of inward and outward movement of people
- ~ The annual growth rate of India's population is 1.64%

### Phases of growth of Indian population

#### Phase I 1901-1921

- Period of stagnant or stationary phase
- Growth rate was very low
- 1911-1921 negative growth rate
- 1921-demographic divide[diseases, world war, famine]
- High birth rate, high death rate
- Poor health and medical services
- Illiteracy of people
- Inefficient distribution system of food and other necessities

### Phase II 1921-51

- Period of steady growth
- Decrease in mortality rate [improvement in health and sanitation]
- Improved distribution system [improvement in transport and communication]
- Higher birth rate

### Phase III 1951-81

- Period of population explosion
- High fertility rate
- Rapid fall in mortality rate
- Annual growth rate of population 2.2%
- Improved living condition [developmental activities through centralized planning process]
- Increased international migration [Tibet, Bangladesh, Nepal]

### Phase IV 1981-present

- Population growth slowing down
- Birth rate decreasing
  - Increase in the mean age at marriage
  - Education of female

~ By 2025 India's population-1350 million

### Regional variation in population growth

- ~ Low growth rate[less than 20%]- Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Orissa, Pondicherry, Goa.
- ~ High growth rate [20-25%] – Gujarat Maharashtra, Rajasthan, Punjab, Haryana, Uttar Pradesh, Uttaranchal, Madhya Pradesh, Sikkim, Assam, west Bengal, Bihar, Chhattisgarh, Jharkhand.
- ~ Share of adolescents [2011]-20.9%
  - ◆ Male-52.7%
  - ◆ Female 47.3%

### Adolescents- challenges for the society

- ~ Lower age at marriage
- ~ Illiteracy[female]
- ~ School dropouts
- ~ Low intake of nutrients
- ~ High rate of maternal mortality of adolescent mothers
- ~ High rates of HIV/Aids
- ~ Physical and mental disability
- ~ Drug abuse and alcoholism

~ Juvenile delinquency/commitment of crime.

The national youth policy

- Launched in February 2014
- Vision- to empower the youth of the country to achieve their full potential and through them enable India to find its rightful place in the community of nations.
- Youth 15 – 29 years

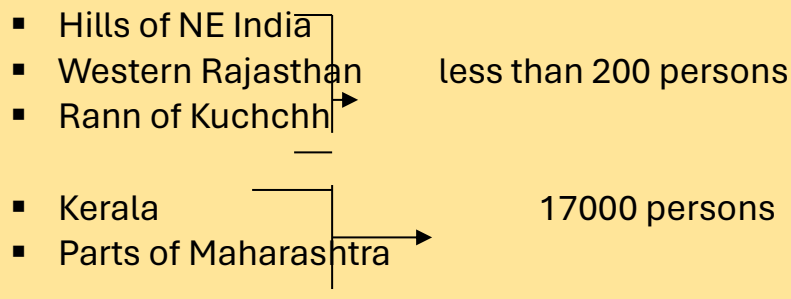
National policy of skill development and entrepreneurship 2015

- ✓ To provide an umbrella framework to all skilling activities being carried out in the country and to align these to common standards and link skilling with demand centres

Population composition

Rural urban composition

- ~ 68.8% of total population lives in villages.
- ~ India has 640867 villages of which 93.2% are inhabited
- ~ Distribution of rural population is not uniform
- ~ Bihar and Sikkim have very high % of rural population
- ~ Goa and Maharashtra have only little over half of their population in villages
- ~ UT has smaller proportion of rural population (except Dadra & Nagar Haveli)
- ~ There is variation in size of villages



- ~ Factors regulating concentration of rural population
  - Relative degree of urbanization
  - Extent of rural urban migration
- ~ Urban population in India is low 31.16%
- ~ Urban population growth rate increasing
  - Reason (1) enhanced economic development
  - (2) Improvement in health & hygienic conditions
- ~ Increase in urban population in UT's
  - Socio economic development of urban areas

- Increased rate of rural urban migration
- ~ Rural urban migration more in
  - Main road links and railroads in the north Indian plains
  - Industrial areas around Kolkata, Mumbai, Bangalore, Mysore, Madurai, Coimbatore, Ahmedabad, Surat, Delhi, Kanpur, Ludhiana, Jalandhar
- ~ Urbanization low in
  - Non- irrigated western Rajasthan
  - Remote tribal areas of NE
  - Flood prone areas of peninsular India

### Linguistic composition

- ~ India is a land of linguistic diversity
- ~ 179 languages, 544 dialects
- ~ 22 scheduled languages
- ~ Highest percentage of speakers-Hindi
- ~ Smallest- Sanskrit, Bodo, Manipuri
- ~

### Linguistic classification

Family	% speakers	Languages	Speech Areas
Austric	1.38%	<ul style="list-style-type: none"> <li>• Mon Khmer,</li> <li>• Khasi</li> <li>• Nicobarese</li> <li>• Munda</li> </ul>	<ul style="list-style-type: none"> <li>• Meghalaya</li> <li>• Nicobar islands</li> <li>• Jharkhand</li> </ul>
Dravidian	20.0%	<ul style="list-style-type: none"> <li>* Tamil</li> <li>* Kannada</li> <li>* Malayalam</li> <li>* Telgu</li> </ul>	<ul style="list-style-type: none"> <li>* Tamilnadu</li> <li>* Karnataka</li> <li>* Kerala</li> <li>* Andhra pradesh</li> </ul>
Sino Tibetan	0.85%	<ul style="list-style-type: none"> <li>• Bhutia</li> <li>• Kinnauri</li> <li>• Aka</li> <li>• Dafla</li> <li>• Abor</li> </ul>	<ul style="list-style-type: none"> <li>• Tibeto Himalayan</li> <li>• Arunachal Pradesh</li> <li>• Nagaland</li> </ul>

		<ul style="list-style-type: none"> <li>• Bodo</li> <li>• Naga</li> <li>• Kuku</li> </ul>	
Indo-European	73.0%	<ul style="list-style-type: none"> <li>• Hindi</li> <li>• Punjabi</li> <li>• Gujarati</li> <li>• Assamese</li> <li>• Marathi</li> <li>• Kashmiri</li> <li>• Oriya</li> <li>• Bengali</li> </ul>	<ul style="list-style-type: none"> <li>• Northern states</li> <li>• Gujarat</li> <li>• Maharashtra</li> </ul>

### Religious composition

Religion	Percentage	Areas
Hindus	79.8	<ul style="list-style-type: none"> <li>• Himachal Pradesh</li> <li>• Orissa</li> <li>• Chattisgarh</li> </ul>
Muslims	14.2	<ul style="list-style-type: none"> <li>◆ Jammu and Kashmir</li> <li>◆ Certain districts of west Bengal, Kerala, Uttar Pradesh</li> <li>◆ Delhi</li> <li>◆ Lakshadweep</li> </ul>
Christians	2.3	<ul style="list-style-type: none"> <li>* Western coast around Goa</li> <li>* Kerala</li> <li>* Meghalaya</li> <li>* Mizoram</li> <li>* Nagaland</li> </ul>
Sikhs	1.7	<ul style="list-style-type: none"> <li>• Punjab</li> <li>• Haryana</li> <li>• Delhi</li> </ul>
Buddhist	0.7	<ul style="list-style-type: none"> <li>* Maharashtra</li> <li>* Sikkim</li> <li>* Arunachal Pradesh</li> </ul>



Jains	0.4	<ul style="list-style-type: none"> <li>◆ Rajasthan</li> <li>◆ Gujarat</li> <li>◆ Maharashtra</li> </ul>
Others	0.7	
Religion not stated	0.2	

### Occupational composition

- ~ According to economic status
  - Main worker- a person who works for atleast 183 days in a year.
  - Marginal worker-a person who works for less than 183 days in a year
  - Non- worker- one who does not work for earning his livelihood at any time during the year.
- ~ Proportion of workers=39%
- ~ Non workers=61%
- ~ Worker participation rate- the percentage of workers main worker+marginal workers in total population
- ~ Work participation rate= $\frac{\text{total workers [main worker+marginal workers]}}{\text{total population}} \times 100$
- ~ The work participation rate tends to be higher in the areas of lower levels of economic development since number of manual workers is needed to perform the subsistence or near subsistence economic activities.

### Occupational categories

- ~ Cultivators
- ~ Agricultural labourers 54.6%
- ~ Household industrial workers- 3.8%
- ~ Other workers [other industries, trade, commerce, construction, repair] = 41.6%
- ~ Male workers outnumber female workers in all 3 sectors-primary, secondary and tertiary
- ~ Female workers high in primary sector
- ~ Workers in agricultural sector has shown a decline [58.2% in 2001 to 54.6% in 2011]
- ~ Large share of
  - ~ Cultivators-Himachal Pradesh
    - Nagaland
  - ~ Agricultural labourers-Bihar

- Andhra Pradesh
- ~ Other services- Delhi
  - Chandigarh
  - Pondicherry
- Reasons---
  - Limited farming land
  - Large scale urbanization/industrialization

1	The period of steady population growth was of a. 1921-1951 b. 1911-1921 c. 1901-1911 d. 1931-1941	a
2	Which one of the following states has the highest density of population? a. Uttar Pradesh b. West Bengal c. Bihar d. Greater Mumbai	c
3	The average density of population of India (2011) is persons per km. a. 216 b. 382 c. 221 d. 328	b
4	According to Census 2011, what percentage of population belongs to adolescent age [10-19 years]? a. 19.2% b. 19.5% c. 20.9% d. 21.6%	c
5	Identify the formula to calculate the Physiological density a. Total population /total agriculture population b. Total population/ Net cultivated area c. Net Cultivated area/ total population d. Net Cultivable area / Total agricultural population	b
6	The first population census in India was conducted in... a. 1872 b. 1875 c. 1880	a

	d. 1890	
7	<p>According to census 2011, annual population growth rate of our country was...?</p> <ul style="list-style-type: none"> <li>a. 2.1%</li> <li>b. 2.3%</li> <li>c. 1.8%</li> <li>d. 1.64%</li> </ul>	d
8	<p>According to National Youth Policy – 2014, which age range is called ‘youth’ population?</p> <ul style="list-style-type: none"> <li>a. 14-20 years</li> <li>b. 15-25 years</li> <li>c. 15-59 years</li> <li>d. 15-29 years</li> </ul>	d
9	<p>The ratio between total agricultural population and net cultivable area is called as..</p> <ul style="list-style-type: none"> <li>a. Arithmetic Density</li> <li>b. Physiological Density</li> <li>c. Agricultural Density</li> <li>d. None of these</li> </ul>	c
10	<p>Growth of population is the change in the number of people living in a particular area between two points of time. Its rate is expressed in percentage. Population growth has two components namely; natural and induced. While the natural growth is analysed by assessing the crude birth and death rates, the induced components are explained by the volume of inward and outward movement of people in any given area. However, in the present chapter, we will only discuss the natural growth of India’s population. The decadal and annual growth rates of population in India are both very high and steadily increasing over time. The annual growth rate of India’s population is 1.64 per cent (2011). The growth rate of population in India over the last one century has been caused by annual birth rate and death rate and rate of migration and thereby shows different trends.</p> <p>I. What is the annual growth rate of India’s population as per 2011 census?</p> <ul style="list-style-type: none"> <li>a. 1.15</li> <li>b. 1.64</li> <li>c. 1.9</li> <li>d. 2.3</li> </ul>	B  C

	<p>II. Which of the following is used to analyse the induced component of the population growth of India?</p> <p>a. Crude birth-rate  b. Crude death rate  c. Volume of inward movement of people in a given area.  d. Both a and b.</p> <p>III. The decadal growth rate of population rate of India is :</p> <p>a. very high  b. steadily increasing  c. decreasing  d. both a and b</p> <p>IV. The growth rate of population in India has been the cause of :</p> <p>a. Annual birth rate  b. Annual death rate  c. Rate of Migration  d. all of these.</p>	<p>B</p> <p>d</p>
11	<p>Consider the following statements and choose the correct answer</p> <p>I. India has a highly uneven pattern of population distribution.  II. The North Indian Plains, deltas and Coastal Plains have higher proportion of population than the interior districts of southern and central Indian States, Himalayas, some of the north eastern and the western states.</p> <p>a. Only I is correct.  b. Only II is correct  c.Both the statements are incorrect  d.Both statements are correct and statement II correctly explains the statement</p>	d
12	<p>Consider the following statements and choose the correct answer</p> <p>I. The urban regions of Mumbai have high concentration of population.  II. Industrial development and urbanisation draws a large number of rural-urban migrants.</p> <p>a. Only I s correct.  b. Only II is correct  c. Both the statements are incorrect  d. Both statements are correct and statement II correctly explains the statement</p>	d
13	<p>Consider the following statements, establish the cause-and-effect relationship and choose the correct answer from the given options</p>	C

	<p>I. In the post 1981, the growth rate of country's population though remained high, has started slowing down gradually.</p> <p>II. A downward trend of crude birth rate is held responsible for such a population growth.</p> <p>a. Only statement I is true</p> <p>b. Only statement II is true</p> <p>c. Both the statements are true and statement II presents the valid cause for statement I</p> <p>d. Both the statement are irrelevant</p>	
14	<p>Which of the following features is not related with the phase IV of population growth in India?</p> <p>a. Increase in age at marriage</p> <p>b. Increment in standard of living</p> <p>c. Improvement in women's education</p> <p>d. Improvement in income</p>	D
15	<p>In the year 2015, a policy was formulated for the adolescents to give them proper guidance and the better development of their talent</p> <p>a. Skill development and entrepreneurship</p> <p>b. Universalisation of education</p> <p>c. Rejuvenation of schools</p> <p>d. None of the above</p>	a
16	<p>Consider the following statements and explain the cause-and-effect relationship between these two by choosing correct answer from the given options</p> <p>I. The areas which were previously very thinly populated have now become the regions of Medium to high concentration of population</p> <p>II. Development of irrigation, availability of minerals and energy resources and the development of network of transport is mainly responsible for it</p> <p>a. Only statement I is true</p> <p>b. Only statement II is true</p> <p>c. Both the statements are correct and the statement II correctly explains the statement I</p> <p>d. Above both the statements are incorrect</p>	C
17	<p>In which category of occupation highest population engaged?</p> <p>a. Household industries workers</p> <p>b. Cultivators and Agriculture labourers</p>	b

	c. Other workers d. none of the above	
18	Which of the following state/UT have highest percentage of cultivators? a. Himachal Pradesh b. Bihar c. Uttar Pradesh d. Punjab	a
19	Which state in India has the lowest population density according to census 2011? a. Manipur b. Rajasthan c. Sikkim d. Arunachal Pradesh	d
20	Jains are found in the urban areas of mainly....? a. Rajasthan, Gujarat and Maharashtra b. Bihar, UP, Rajasthan c. Gujarat, Himachal Pradesh, Karnataka d. Haryana, Gujarat, Madhya Pradesh	a
21	Buddhist population has highest population in the state of ....? a. Karnataka b. Maharashtra c. UP d. Arunachal Pradesh	b
22	Which one of the following is the largest linguistic group of India? a. Sino – Tibetan b. Indo – Aryan  c. Austric d. Dravidian	b
23	Which of the following is the largest religious minority in India? a. Christian b. Sikh c. Buddhist d. Muslim	d
24	Assertion (A):Population data are collected through census operation held every 10 years in our country.	c

	<p>Reason(R):India has a highly even pattern of population distribution.</p> <p>a. Both A and R are true and R is the correct explanation of A.  b. Both A and R are true but R is NOT the correct explanation of A.  c. A is true but R is false.  d. A is false and R is true.</p>	
25	<p>Assertion (A): The decades 1921-1951 are referred to as the period of steady population growth.</p> <p>Reason(R): Improvement in health and sanitation brought down the mortality rate.</p> <p>a. Both A and R are true and R is the correct explanation of A.  b. Both A and R are true but R is NOT the correct explanation of A.  c. A is true but R is false.  d. A is false and R is true.</p>	a

### Source based questions

1	<p>Growth of population is the change in the number of people living in a particular area between two points of time. Its rate is expressed in percentage. Population growth has two components namely; natural and induced. While the natural growth is analysed by assessing the crude birth and death rates, the induced components are explained by the volume of inward and outward movement of people in any given area. However, in the present chapter, we will only discuss the natural growth of India's population. The decadal and annual growth rates of population in India are both very high and steadily increasing over time. The annual growth rate of India's population is 1.64 per cent (2011) The growth rate of population in India over the last one century has been caused by annual birth rate and death rate and rate of migration and thereby shows different trends</p> <p>1. How is the growth of population expressed?</p> <p>a. Percentage  b. Area  c. Absolute numbers  d. None of the above</p> <p>2 ----- refers to the difference between the number of live births and the number of deaths occurring in a year</p>	A
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	<p>a. Growth of population b. Natural growth rate c. Natural death rate d. Crude birth rate</p> <p>3 -----gives an overview of the total population growth in a particular decade</p> <p>a. Annual growth rate b. Decadal growth rate c. Induced growth rate d. None of the above</p> <p>4 What was the annual growth rate of India as per 2011 census?</p> <p>a. 1.64 percent b. 1.66 percent c. 2.56 percent d. 1.65 percent</p>	<p>B</p> <p>B</p> <p>A</p>
<p>2</p>	<p>The National Youth Policy (NYP–2014) launched in February 2014 proposes a holistic ‘vision’ for the youth of India, which is “To empower the youth of the country to achieve their full potential, and through them enable India to find its rightful place in the community of nations”. The NYP–2014 has defined ‘youth’ as persons in the age group of 15–29 years. The Government of India also formulated the National Policy for Skill Development and Entrepreneurship in 2015 to provide an umbrella framework to all skilling activities being carried out within the country, and to align these to common standards and link skilling with demand centres.</p> <p>1 When was the national youth policy launched?</p> <p>a. 2013 b. 2014 c. 2015 d. 2016</p> <p>2 What was the main thrust of national youth policy?</p> <p>a. To stop gender discrimination b. To discourage child labour c. Empower the youth in terms of their effective participation in decision making d. None of the above</p> <p>3 Which age group has been defined as youth?</p> <p>a. 14-19 years b. 15-59 years</p>	<p>B</p> <p>C</p> <p>C</p>



- c. 15-29 years
- d. 10-19 years

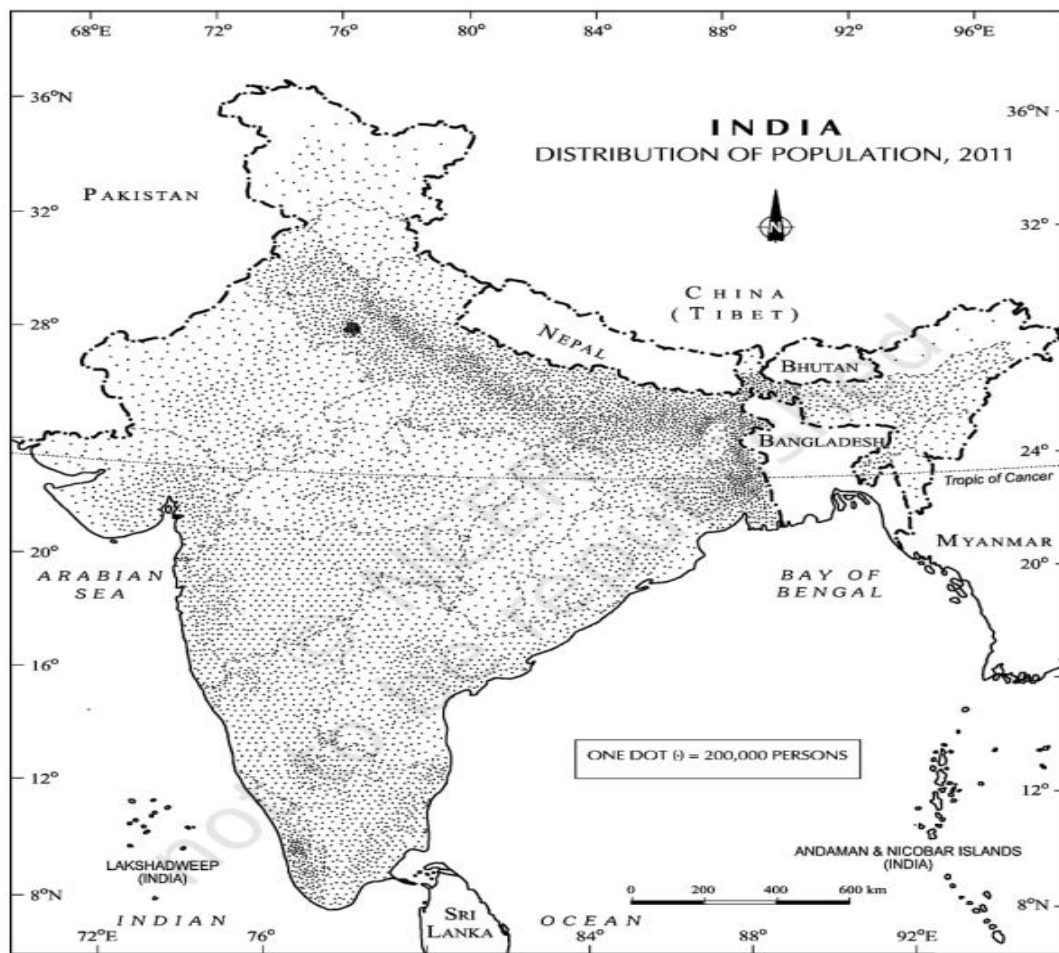
4 When did the government of India formulate the national policy for skill development and entrepreneurship?

- a. 2015
- b. 2016
- c. 2014
- d. 2017

A

### Data/diagram-based questions

1

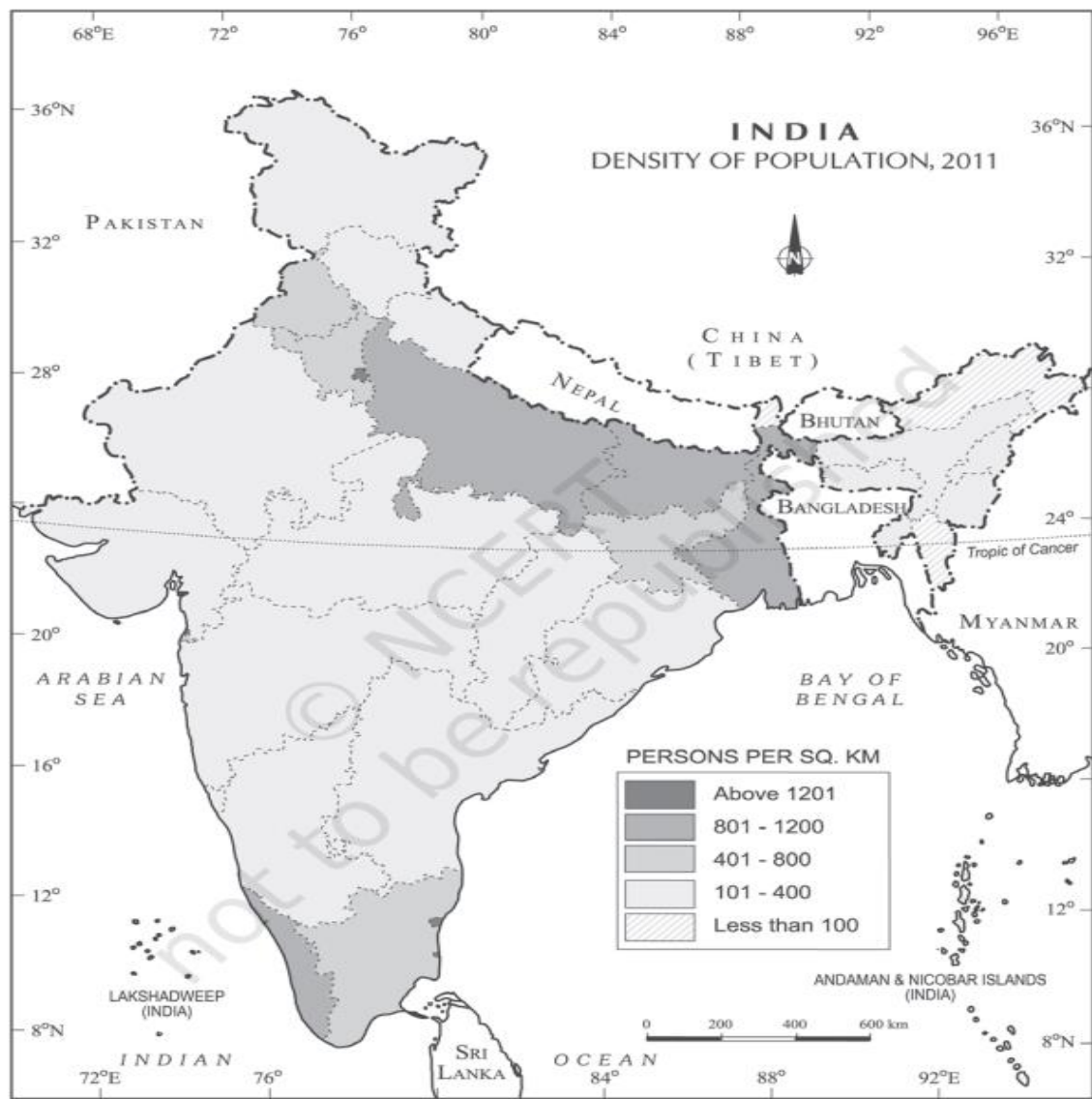


**Name the states with highest and lowest population.**

Highest population-Uttar Pradesh

Lowest population- Sikkim

2



**Name the union territory having the highest density of population. State also its population density according to the given map**

*Delhi, above 1201 persons per sq km*

**Name any two states having density of population from 801 to 1000 persons per sq km**

*Bihar, West Bengal, Kerala, Uttar Pradesh*

**Name any two states which have population density from 401 to 600 persons per sq km**

*Punjab, Haryana, Tamil Nadu, Jharkhand*

**Name the Southern state which has the highest population density. Give one reason for its highest density.**

Kerala [this state is more urbanized and most of the population is engaged in tertiary sector]

**Name two eastern states which have the highest population density. Give one reason for its highest density.**

West Bengal and Bihar

Fertile land and good irrigational facilities have enhanced the agricultural development

**Name three Northern states having density of population less than 200 persons per sq. Km.**

Jammu Kashmir, Himachal Pradesh and Uttarakhand

Rugged topography is responsible for low density

3

**Table 1.1 : Decadal Growth Rates in India, 1901-2011**

Census Years	Total Population	Growth Rate*	
		Absolute Number	% of Growth
1901	238396327	-----	-----
1911	252093390	(+) 13697063	(+) 5.75
1921	251321213	(-) 772117	(-) 0.31
1931	278977238	(+) 27656025	(+) 11.60
1941	318660580	(+) 39683342	(+) 14.22
1951	361088090	(+) 42420485	(+) 13.31
1961	439234771	(+) 77682873	(+) 21.51
1971	548159652	(+) 108924881	(+) 24.80
1981	683329097	(+) 135169445	(+) 24.66
1991	846302688	(+) 162973591	(+) 23.85
2001	1028610328	(+) 182307640	(+) 21.54
2011**	1210193422	(+) 181583094	(+) 17.64

\* Decadal growth rate:  $g = \frac{P_2 - P_1}{P_1} \times 100$

where  $P_1$  = population of the base year  
 $P_2$  = population of the present year

\*\* Source : Census of India, 2011 (Provisional)

**Which decade has shown the negative trend of growth rate of population?**

1911-1921

**Mention any two decades in which the percentage decadal growth has shown the regular downward trend.**

1971-1981

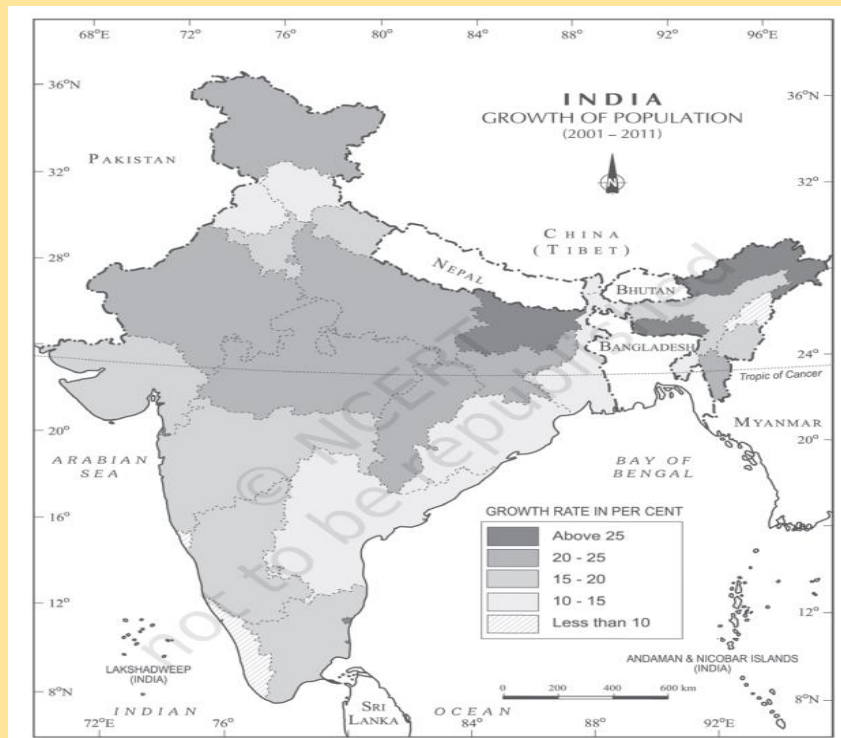
1981-1991

1991-2001

2001-2011

**Explain any two reasons for the declining trend in the population growth rate.**

- Increase in the mean age at marriage.
- Improved quality of life.
- Improvement in the education of females
- Opting family planning programmes.



**Name the states which have a high growth rate.**

Bihar, Meghalaya, Arunachal Pradesh

- **Write down the name of the states which have a very low (less than 10%) growth rate.**

Nagaland, Goa, Kerala

## Short answer questions

1	<p><b>How is agricultural density of population different from physiological density of population?</b></p> <p>Agricultural density is the total agricultural population / net cultivable area whereas physiological density is the total population / net cultivated area</p>
2	<p><b>“The period from 1901 to 1921 is referred to as a stagnant phase of India’s population growth.” Substantiate the statement</b></p> <p>Stagnant Phase of (1901 to 1921)</p> <ul style="list-style-type: none"><li>~ The growth population is very low.</li><li>~ Negative growth was recorded between. 1911-1921.</li><li>~ High birth rate and high death rate.</li><li>~ Poor health and medical services</li></ul>
3	<p><b>How many languages and dialects are there in India?</b></p> <p>179 languages and 544 dialects</p>
4	<p><b>Among the scheduled languages which languages have highest and smallest percentage of speakers?</b></p> <p><i>Highest percentage of speakers-Hindi</i> <i>Smallest- Sanskrit ,Bodo, Manipuri</i></p>
5	<p><b>“India is a land of linguistic diversity.” Support the statement.</b></p> <p>India is a land of linguistic diversity due to the following: As per Linguistic Survey of India 1928, there were 179 languages and 544 dialects.</p> <p>There are many scheduled languages (22) and a number of non-scheduled languages.</p> <p>Among the scheduled languages, the speakers of Hindi have the highest percentage.</p> <p>The smallest language groups are Sanskrit, Manipuri, Bodo speakers.</p> <p>The linguistic regions do not have clearly marked boundaries.</p>
6	<p><b>Name the two states which have higher percentage of Hindu population.</b></p> <p>Himachal Pradesh Orissa Chattisgarh</p>

7	<p><b>Which religious community occupies the second place in the total population of India? Name a state and a union territory where the people of this community are in majority.</b></p> <p><i>Muslims</i>  <i>State- Jammu and Kashmir</i>  <i>Union territory-Lakshadweep</i></p>
8	<p><b>Which is the smallest religious community in India? Name the three states where this community is mainly concentrated.</b></p> <p><i>Jains</i>  <i>Rajasthan, Gujarat, Maharashtra</i></p>
9	<p><b>How much percentage of people speaks Dravidian languages.</b></p> <p>20%</p>
10	<p><b>What are the challenges for the society with regard to adolescents?</b></p> <ul style="list-style-type: none"> <li>~ <i>Lower age at marriage</i></li> <li>~ <i>Illiteracy[female]</i></li> <li>~ <i>School dropouts</i></li> <li>~ <i>Low intake of nutrients</i></li> <li>~ <i>High rate of maternal mortality of adolescent mothers</i></li> <li>~ <i>High rates of HIV/Aids</i></li> <li>~ <i>Physical and mental disability</i></li> <li>~ <i>Drug abuse and alcoholism</i></li> <li>~ <i>Juvenile delinquency/committence of crime.</i></li> </ul>
11	<p><b>When was national youth policy launched by government of India? Write down the main agenda of national youth policy.</b></p> <p>The National Youth Policy (NYP–2014) launched in February 2014 proposes a holistic ‘vision’ for the youth of India, which is “To empower the youth of the country to achieve their full potential, and through them enable India to find its rightful place in the community of nations”.</p>

### Long answer questions

1	<p><b>How are physical and economic factors responsible for uneven distribution of population in India? Explain with examples</b></p>
---	---

Physical factors

1. Terrain

Eg. Hill region [low population] plains [high population]

2. Climate

Eg- high altitude region-extreme climate [low population]

Coastal and plain region- equable climate[high population]

3. Availability of water

Eg- availability of water-Rajasthan [low population]

Along the Ganga basin[high population]

4. Availability of minerals or energy resources

Eg- Chottanagpur plateau [high population]

Economic factors

1. Development of agriculture

Eg- indo Gangetic plain [high population]

2. Development of irrigation[Punjab, Haryana, west UP]

3. Development of transport network[northern plain]

4. Industrialisation

Eg- Bombay-Pune-Ahmedabad region, Chennai-Bangalore-Coimbatore region

5. Urbanisation

Eg- metropolitan and other major cities-Mumbai, Kolkata, Delhi and NCR

**2 Explain the spatial distribution of population density in India**

*Spatial Variation:*

~ Very low: Arunachal Pradesh 17 persons/sq. km.

~ Low: The hill states of Himalayan region and North Eastern states including Assam.

~ Moderate: Gujarat, Andhra Pradesh, Haryana

~ High: West Bengal, Bihar, Uttar Pradesh, Kerala, Tamil Nadu

~ Very High: Delhi

~ the density of population in India is [382] persons per sq km

~ the spatial variation of population density in the country ranges from as low as [17] per sq km in Arunachal Pradesh to 11297persons per sq km in the national capital territory of Delhi

- ~ *high density states are Bihar west Bengal, Uttar Pradesh Kerala and Tamil Nadu*
- ~ *Assam Gujarat Andhra Pradesh Haryana Jharkhand Orissa have moderate density*
- ~ *hill states of Himalaya and north eastern states on India [excluding Assam] have relatively low density*

**3**

**How are main workers different from marginal workers? Explain the four occupational categories as categorised by the Census of India.**

Main worker is a person who works for at least 183 days in a year, on the other hand, a marginal worker works for less than 183 days in a year.

Occupational Categories:

- (i) **Cultivators:** The people who possess the agricultural land and are engaged with cultivation activity.
- (ii) **Agricultural Labourers:** People who are engaged with farm-based activities/ cultivation to earn the wages.
- (iii) **Household Industrial Workers:** People engaged with cottage industries, generally as house entity.
- (iv) **Other Workers:** Workers in Non household industries/ trade/ commerce/ construction repair and other services.

**4**

**Explain the four phases of demographic growth.**

Phase I 1901-1921

- *Period of stagnant or stationary phase*
- *Growth rate was very low*
- *1911-1921 negative growth rate*
- *1921-demographic divide [diseases, world war, famine]*
- *High birth rate, high death rate*
- *Poor health and medical services*
- *Illiteracy of people*
- *Inefficient distribution system of food and other necessities*

Phase II 1921-51

- *Period of steady growth*
- *Decrease in mortality rate [improvement in health and sanitation]*
- *Improved distribution system [improvement in transport and communication]*
- *Higher birth rate*



Phase III 1951-81

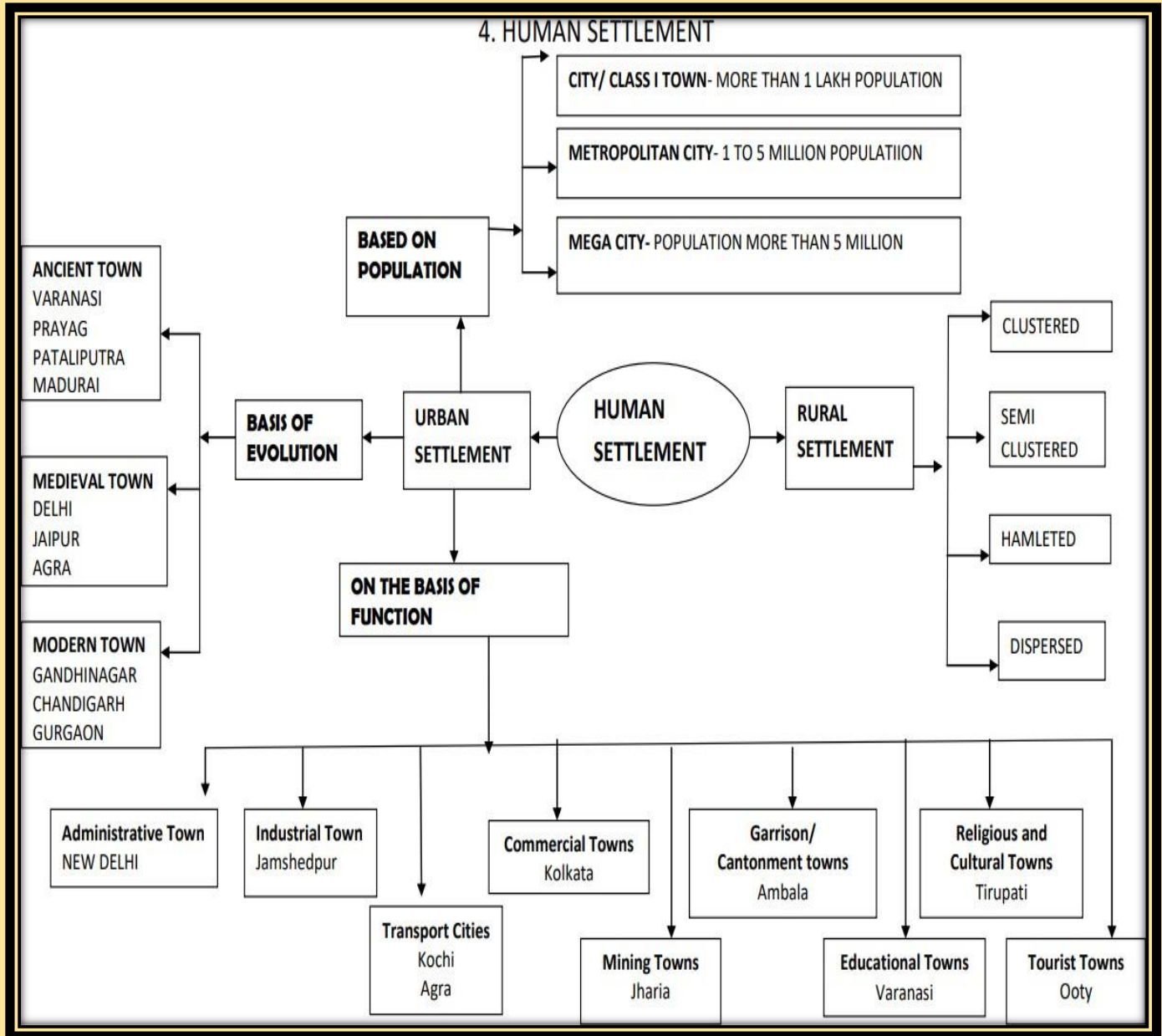
- *Period of population explosion*
- *High fertility rate*
- *Rapid fall in mortality rate*
- *Annual growth rate of population 2.2%*
- *Improved living condition [developmental activities through centralized planning process]*
- *Increased international migration [Tibet, Bangladesh, Nepal]*

Phase IV 1981-present

- *Population growth slowing down*
- *Birth rate decreasing*
  - *Increase in the mean age at marriage*
  - *Education of female*

## Chapter -2

### HUMAN SETTLEMENT



#### KEY NOTES

Cluster of dwellings of any type or size where human beings live

- They vary in size from hamlet to metropolitan cities,
- they may be small and large closed or spaced
- they may practice primary / secondary/ tertiary activities

## DIFFERENCE BETWEEN RURAL AND URBAN SETTLEMENTS

RURAL	URBAN
<ul style="list-style-type: none"><li>a. Primary occupation</li><li>b. Provide raw material</li><li>b. Produce food</li><li>c. Low-income</li><li>d. Low density</li><li>e. Spaced</li></ul>	<ul style="list-style-type: none"><li>Other than primary</li><li>Process the raw material</li><li>provide services</li><li>High income</li><li>High density</li></ul>

### TYPES OF RURAL SETTLEMENT

#### CLUSTERED SETTLEMENTS

- Compact and closely built houses
- Living area is different from surrounding farms
- Recognizable pattern
- Different shapes such as geometric rectangular, radial, linear,
- Sometimes defence may cause shape of the settlement
- Availability of water also decides the shape

#### SEMI-CLUSTERED SETTLEMENTS

- Formed due to result from tendency of clustered in restricted area of dispersed settlement
- Segregation of large settlement may also cause
- Some may be forced to live separately from the main village
- Dominance group live in the center of the village
- People of lower strata live in out skirt of the village
- Most common in Gujarat. Rajasthan

#### HAMLETED SETTLEMENTS

- Physically separated and located in different place having common name

- They are locally called panna, para Palli, Nagla, Dhani
- They are motivated by social and ethnic factors
- Found mostly in middle and lower Ganga valley

#### DISPERSED SETTLEMENTS

- They are isolated huts or hamlets
- Located on hills or agricultural lands
- It is due to nature of terrain, and land resource, water
- Found in Meghalaya, Uttaranchal, HP, Kerala.

#### URBAN SETTLEMENTS

- Compact and large in size
- Non-Agriculture, eco, admin activities
- Exchange of goods and services
- Directly linked with rural settlements

#### EVOLUTION OF CITIES

##### **Ancient towns**

- having historical background spanning over 2000 years  
most of them developed as religious and cultural centres
- Varanasi is one of the important towns among these
- Prayag (Allahabad) Patliputra (Patna) Madurai or some other examples

##### **Medieval towns**

- Developed as headquarters of principalities and kingdoms
- these towns were developed on the ruins of ancient towns  
like forts
- important towns are Delhi, Hyderabad, Jaipur, Lucknow, Agra and  
Nagpur

##### **Modern towns**

- the British and other Europeans have developed number of towns in  
India
- starting their foothold on coastal locations
- they first developed some trading port such as Surat, Daman, Goa
- Pondicherry etc
- later they developed principal nodes of Mumbai, Chennai and Kolkata

- they established administrative centres, hill towns as summer resorts and made them as military areas

**Administrative towns**

- after independence a large number of towns were developed as administrative headquarters example Chandigarh, Bhubaneswar, Gandhinagar and Dispur

**URBANISATION IN INDIA**

1. % of urbanization in India is 28%
2. Urbanization developed 11-fold during 20th century
3. It is due to development of planned cities

**CLASSIFICATION OF TOWNS ON THE BASIS OF POPULATION SIZE**

Cities	Population size
CLASS I	>100000
CLASS II	50000-99999
CLASS III	20,000- 49,999
CLASS IV	10,000-19,999
CLASS V	5000-9,999
CLASS VI	< 5000

**URBAN AGGLOMERATION:**

1. Town and its adjoining urban outgrowths
2. Two or more towns with or without their outgrowth
3. The city and one or more adjoining towns
  - Ex . Out growth: railway colony, university, port area, military cantonment
  - According to 2001 census there were 423 first class towns and 35 metro cities in India six of them are mega cities grater Mumbai is the largest city in India

## **FUNCTIONAL CLASSIFICATION OF TOWNS**

- Administrative towns: All capitals of states with national capital
- Industrial towns: Mumbai, Salem, Coimbatore, Modinagar, Jamshedpur
- Transport towns: Kandla, Cochin, Vizak
- Commercial towns: Satna, Kolkata
- Mining towns: Digboi, Raniganj, Jharia
- Garrison cantonment towns: Ambala, Mhow, Jalandhar
- Educational towns: Pilani, Aligarh, Varanasi
- Religious cultural towns: Amritsar, Varanasi, Tirupati
- Tourist towns: Shimla, Mussori, Nainital

**Q1. Which is the most ancient town in India?**

- (A) Hyderabad
- (B) Varanasi
- (C) Agra
- (D) Chennai

**Q2. Which of the following types of rural settlements is found in the fertile alluvial plains?**

- (A) Clustered
- (B) Semi-clustered
- (C) Hamleted
- (D) Dispersed

**Q3. Panna, Para, Palli, Nagla and Dhani are examples of:**

- (A) Clustered settlement
- (B) Helmeted settlement
- (C) Compact settlement
- (D) Dispersed settlement

**Q4. Towns and cities specialising in trade and commerce are known as \_\_\_\_\_ towns.**

- (A) Trade
- (B) Commercial
- (C) Commerce
- (D) Port

**Q5. Raniganj, Jharia, Digboi, Ankleshwar, Singrauli are:**

- (A) Mining towns
- (B) Social towns
- (C) Garrison
- (D) Religious town

**Q6. Which of the following is not an ancient town?**

- (A) Varanasi
- (B) Madurai
- (C) Hyderabad
- (D) Patna

**Q7. Ghaziabad, Rohtak, Gurugram and Faridabad are:**

- (A) Rural areas
- (B) Satellite cities
- (C) Urban cities
- (D) None of the Above

**Q8. Which of the 'urban agglomeration' having the highest share of immigration population in India.**

- (A) Chandigarh
- (B) Amritsar
- (C) Greater Mumbai

(D) Chennai

**Q9. Which of the following is not true about urbanisation in India?**

(A) The level of urbanisation is measured in terms of percentage of urban population to total population.

(B) The level of urbanisation in India in 2011 was 31.16 per cent.

(C) Total urban population has increased eight-fold during the twentieth century.

(D) Enlargement of urban centres and emergence of new towns have played a significant role in the growth of urban population and urbanisation in the country.

**Q10 Name the town that is not located on the banks of a river.**

(A) Kolkata

(B) Agra

(C) Bhopal

(D) Patna

**Q11. Which of the following are famous transport cities?**

(A) Kandla and Kochchi

(B) Raniganj and Jharia

(C) Chandigarh and New Delhi

(D) Jalandhar and Ambala

**Q12. Arrange the following categories of towns in a sequence order according to their development in India.**

**(i) Kolkata**

**(ii) Chandigarh**

**(iii) Madurai**

**(iv) Hyderabad**

Options:

(A) i, iv, iii, ii



(B) iv, i ,iii, ii

(C) ii, iv, i, iii

(D) iii, iv, i ,ii

**Q13. Which one of the following groups of cities has been arranged in the sequence of their rank i.e 1,2,3and 4 in terms of population size?**

(A) Greater Mumbai, Bengaluru, Kolkata, Chennai

(B) Delhi, Greater Mumbai, Chennai, Kolkata

(C) Kolkata, Greater Mumbai, Chennai, Kolkata

(D) Greater Mumbai, Delhi, Kolkata, Chennai

**Q14. Which one of the following is not the part of the definition of a town as per the Census of India ?**

A) Population density of 400 p/km<sup>2</sup>

B) More than 75% of the population engaged in primary sector.

C) Population size of more than 5000 persons.

D) Presence of municipality, corporation etc.

**Q15. In which one of the following environments does one expect the presence of dispersed rural settlements?**

(A) Alluvial plains of Ganga

(B) Arid and semi-arid regions of Rajasthan

(C) Lower valleys of Himalayas.

(D) Forests and hills in north-east

**Q16. Consider the following features and choose the correct title after associating them.**

**I. More often such a pattern may also result from segregation or fragmentation of large compact village.**

**II. The land- owning and dominant community occupies the central part of the main village**

whereas people of lower strata of society and menial workers settle on the outer flanks of the village.

**III.They are found in Gujarat plains and some parts of Rajasthan.**

- (A) Helmeted Settlement
- (B) Semi-clustered or fragmented
- (C) Clustered Settlements
- (D) Isolated Settlement

**Q17. Consider the statement and answer the following :**

**Statement I - The cities are not static in their function and the functions change due to their dynamic nature.**

**Statement II - The functions get so intertwined that the city can be easily categorised in a particular functional class.**

- (A) Only statement I is correct.
- (B) Only statement II is correct.
- (C) Both the statement I and II are correct.
- (D) Both the statement I and II are incorrect.

**Q18. Match the Column I (Types of settlements) with Column II (Areas) and make correct pairs with the help of given codes.**

**COLUMN I**

**COLUMN II**

**(TYPES OF SETTLEMENTS)**

**(AREAS)**

**I Clustered, agglomerated and nucleated  
of**

**1. Chhattisgarh and lower valleys  
Himalayas**

**II Semi – clustered or fragmented**

**2. Meghalaya Uttaranchal and  
Himachal Pradesh**

**III Hamleted**

**3. Fertile alluvial plains**

**IV Dispersed or isolated  
Rajasthan**

**4. Gujarat plain and parts of**

**CODES**

(A) I- 3 , II-4 , III-1 , IV-2

(B) I-1, II-2, III- 3 , IV-4

(C) I-4, II- 3, III-2, IV-1

(D) I-3 , II-4 , III-2, IV-1

**Q19. Which of the following is known as a satellite town of Delhi?**

(A) Ghaziabad

(B) Rohtak

(C) Gurgaon

(D) All of the above

**Q20. Which of the following statement is not true regarding the ‘Smart City Mission’?**

(A) To promote cities that provide core infrastructure, a clean and sustainable environment and

give a decent quality of life to its citizens.

(B) Control migration and increase in employment

(C) To apply smart solutions to infrastructure to infrastructure and services in order to make them

better.

(D) Use of fewer resources, providing cheaper services and focus on sustainable and inclusive

development.

**Q21. Assertion (A): Clustered village is a universal feature in the northern plains.**

**Reason (R): Clustered villages are found in areas of level and fertile land. Major portion of the population is landless; hence they are bound to live together.**

A) Both assertion and reason are correct and reason is the correct explanation of assertion

B) Both assertion and reason are correct but reason is not the correct explanation for assertion.

C) Assertion is correct but reason is incorrect.

D) Both assertion and reason are incorrect.

**Q22. Assertion (A): Settlements range from a hamlet to metropolitan cities**

**Reason (R): Settlements vary in size and type.**

A) Both assertion and reason are correct and reason is the correct explanation of assertion

B) Both assertion and reason are correct but reason is not the correct explanation for assertion.

C) Assertion is correct but reason is incorrect.

D) Both assertion and reason are incorrect.

**Q23. Assertion (A): The economic character and social structure of settlements changes and so do its ecology and technology.**

**Reason (R): The sparsely located small settlements are called villages, specialising in secondary and tertiary activities.**

A) Both assertion and reason are correct and reason is the correct explanation of assertion

B) Both assertion and reason are correct but reason is not the correct explanation for assertion.

C) Assertion is correct but reason is incorrect.

D) Both assertion and reason are incorrect.

**Q24. Assertion (A): The objective of the Smart Cities Mission is to promote cities that provide core infrastructure, a clean and sustainable environment and give a decent quality of life to its citizens.**

**Reason (R): One of the features of Smart Cities is to apply smart solutions to infrastructure and services in order to make them better.**

A) Both assertion and reason are correct and reason is the correct explanation of assertion

B) Both assertion and reason are correct but reason is not the correct explanation for assertion.

C) Assertion is correct but reason is incorrect.

D) Both assertion and reason are incorrect.

**Q25. Assertion (A): Relations among urban people are informal.**

**Reason (R): Urban areas have lots of infrastructure facilities.**

A) Both assertion and reason are correct and reason is the correct explanation of assertion

B) Both assertion and reason are correct but reason is not the correct explanation for assertion.

C) Assertion is correct but reason is incorrect.

D) Both assertion and reason are incorrect.

**ANSWER KEY**

Q NO	CORRECT OPTION	Q NO	CORRECT OPTION
1	B	14	B
2	A	15	D
3	B	16	B
4	B	17	A
5	A	18	A
6	C	19	D
7	B	20	B
8	C	21	A
9	C	22	A
10	C	23	C
11	A	24	B
12	D	25	B
13	D		

**SHORT ANSWER**

**Q1. Define human settlements.**

Ans: Human settlement means cluster of dwellings of any type or size where human beings live. It involves grouping of people and apportioning of territory as a resource base.

**Q2. What are the factors responsible for the settlement patterns in different physical environments?**

Ans: There are various factors and conditions responsible for having different types of rural settlements in India. These include:

- physical features – nature of terrain, altitude, climate and availability of water
- cultural and ethnic factors – social structure, caste and religion
- security factors – defence against thefts and robberies. Guided by these factors rural settlements in India can broadly.

**Q3. Write three differences between rural settlements and urban settlements.**

Ans: i. The rural settlements derive their life support or basic economic needs from land based primary economic activities, whereas, urban settlements, depend on processing of raw materials

and manufacturing of finished goods on the one hand and a variety of services on the other.

ii. Cities act as nodes of economic growth, provide goods and services not only to urban dwellers but also to the people of the rural settlements in their hinterlands in return for food and raw materials from rural areas.

iii. Rural people are less mobile and therefore, social relations among them are intimate. In urban areas, on the other hand, way of life is complex and fast, and social relations are formal.

**Q4. “Compact or clustered village is a universal feature in the northern plains”. Give reasons.**

Answer: Compact or clustered village is a universal feature in the northern plains due to following reasons:

- Level and fertile land
- More labour force

- Abundant supply of water for various activities
- Social security
- Better transportation facilities
- Major portion of the population is landless; hence they are bound to live together.

**Q5. What are the main factors for the location of villages in desert regions?**

Answer: Desert regions are characterized by aridity that is lack of water, hence scanty vegetation which is xerophytic in nature. Main factor in the desert for settlement patterns is supply of water. In Rajasthan in India there tend to be clustered settlements around oasis and other regions of water availability. Since these are the only few regions where water is available, therefore settlement around the water source become clustered and is the main driving force for habitation.

**Q6. Write three differences between clustered and dispersed settlements of India.**

**Clustered settlements**

- (i) These settlements are found in fertile plains.
- (ii) Streets are not well drained.
- (iii) Houses are close to each other and their size is small.

**Dispersed settlements**

- (i) These settlements are found in hilly regions or desert areas.
- (ii) Settlements are neat and clean with drainage arrangements.
- (iii) Houses are big and are located at gaps.

**Q7. Name the towns that have developed in India after independence?**

Ans: Modern towns have developed in India after independence. The British and other Europeans have developed a number of towns in India. They first developed some trading ports such as Surat, Daman, Goa.

**Q8. Can one imagine the presence of only one-function town? Why do the cities become multi-functional?**

Ans: Towns and cities are generally classified on the basis of the functions they perform. No town performs a single function, rather they are classified on the basis of the dominant function they perform.

Even specialised cities, as they grow into metropolises become multifunctional wherein industry, business, administration, transport, etc. become important. The functions get so intertwined that the city cannot be categorised in a particular functional class. Due to varying needs of human beings all the people of a town cannot be engaged in a single activity.

Even if a town is a garrison town, basic trade activities must be carried out to provide the residents with the articles of day-to-day need, food items etc. To support the dominant activity of the town, the ancillary activities start emerging.

**Q9. How can we measured the level of urbanisation ?**

Ans: The level of urbanisation is measured in terms of percentage of urban population to total population. The level of urbanisation in India in 2011 was 31.16 per cent, which is quite low in comparison to developed countries.

**Q10. What are the objectives of smart city mission ?**

Ans: The objective of the Smart Cities Mission is to promote cities that provide core infrastructure, a clean and sustainable environment and give a decent quality of life to its citizens. s. One of the features of Smart Cities is to apply smart solutions to infrastructure and services in order to make them better. For example, making areas less vulnerable to disasters, using fewer resources and providing cheaper services.

**LONG ANSWER TYPE**

**Q1. Discuss the features of different types of rural settlements.**

In India compact or clustered village of a few hundred houses is common, particularly in the northern plains. But there are areas, with other forms of rural settlements. There are various factors and conditions responsible for having different types of rural settlements in India.

**1.Clustered Settlements:** (i)The clustered rural settlement is a compact or closely built. up area of houses.



(ii) Here the general living area is distinct and separated from the surrounding farms, barns and pastures.

(iii) The closely built-up area and its intervening streets give rise to pattern or geometric shape, such as rectangular, radial, linear, etc

(iv) People live in compact village for security or defence reasons, such as in the Bundelkhand region of central India and in Nagaland. In Rajasthan, scarcity of water has necessitated compact settlement for maximum utilisation of available water resources.

**2. Semi-Clustered Settlements:** Semi-clustered or fragmented settlements may result from tendency of clustering in a restricted area of dispersed settlement.

In this case, one or more sections of the village society choose or is forced to live a little away from the main cluster or village.

Generally, the land-owning and dominant community occupies the central part of the main village, whereas people of lower strata of society and menial workers settle on the outer flanks of the village.

**3. Hamleted Settlements:** This settlement is fragmented into several units physically separated from each other bearing a common name.

These units are locally • called panna, para, palli, nagla, dhani, etc. in various parts of the country.

This segmentation of a large village is often due to social and ethnic factors.

**4. Dispersed Settlements:** Dispersed or isolated settlement pattern in India appears in the form of isolated huts or hamlets of few huts in remote jungles, or on small hills with farms or pasture on the slopes.

Extreme dispersion of settlement is often caused by extremely fragmented nature of the terrain and land resource base of habitable areas.

**Q2. Discuss the classification of Indian towns on the basis of their evolution in different periods. Also give their features.**

The classification of Indian towns on the basis of their evolution in different periods are as follows

### **a. Ancient Towns:**

- i. The number of towns in India have a historical background spanning over 2000 years. Most of them have developed as religious or cultural centres.
- ii. One of the important towns among the ancient towns is Varanasi.
- iii. Examples of ancient towns: Prayag (Allahabad) Pataliputra (Patna), Madurai.

### **b. Medieval Towns:**

- i. In the medieval period there are about 100 existing towns.
- ii. Most of them are headquarters of kingdoms and principalities. These are fort towns which came up on the ruins of ancient towns.

### **c. Modern Towns:**

- i. In India, European and British and European developed Modern Towns.
- ii. Starting their foothold on coastal locations they first developed some trading ports such as Surat, Daman and Diu, Goa, Pondicherry, etc.
- iii. Then the British consolidated their hold around three principal modern towns Mumbai (Bombay), Chennai (Madras) and Kolkata (Calcutta) and built them in British style.
- iv. Rapidly extending their domination either directly or through control over the princely states they established their administrative centres, hill towns as summer resorts and added administrative, new civil and military areas to them.
- v. Towns based on modern industries also evolved after 1850. Example: Jamshedpur.

### **Q3. Describe functional classification of town.**

Ans: Functional Classification of Towns On the basis of dominant or specialised functions, Indian cities and towns can be broadly classified as follows:

- Administrative towns and cities-Towns supporting administrative headquarters of higher order are administrative towns, such as Chandigarh, New Delhi, Bhopal, Shillong, Guwahati, Imphal, Srinagar, Gandhinagar, Jaipur Chennai, etc.
- Industrial towns- Industries constitute prime motive force of these cities such as Mumbai, Salem, Coimbatore, Modinagar, Jamshedpur, Hugli, Bhilai, etc.

- **Transport Cities**-They may be ports primarily engaged in export and import activities such as Kandla, Kochi, Kozhikode, Vishakhapatnam, etc. or hubs of transport such as Agra, Dhulia, Mughal Sarai, Itarsi, Katni, etc.
- **Commercial towns**-Towns and cities specialising in trade and commerce are kept in this class. Kolkata, Saharanpur, Satna, etc. are some examples.
- **Mining towns**- These towns have developed in mineral rich areas such as Raniganj, Jharia, Digboi, Ankaleshwar, Singrauli, etc.
- **Garrison Cantonment towns**- These towns emerged as garrison towns such as Ambala, Jalandhar, Mhow, Babina, Udhampur, etc.
- **Educational towns**- Starting as centres of education, some of the towns have grown into major campus towns such as Roorkee, Varanasi, Aligarh, Pilani, Allahabad etc.
- **Religious and cultural towns**- Varanasi, Mathura, Amritsar, Madurai, Puri, Ajmer, Pushkar, Tirupati, Kurukshetra, Haridwar, Ujjain came to prominence due to their religious/cultural Significance.

### **SOURCE BASED QUESTIONS**

**Q26 Read the passage carefully and answer the questions that follows:**

Human Settlement means cluster of dwellings of any type or size where human beings live. For this purpose, people may erect houses and other structures and command some area or territory as their economic support-base. Thus, the process of settlement inherently involves grouping of people and apportioning of territory as their resource base.

Settlements vary in size and type. They range from a hamlet to metropolitan cities. With size, the economic character and social structure of settlements changes and so do its ecology and technology. Settlements could be small and sparsely spaced; they may also be large and closely spaced. The sparsely located small settlements are called villages, specialising in agriculture or other primary activities. On the other hand, there are fewer but larger settlements which are termed as urban settlements specialising in secondary and tertiary activities

**Q26.1 Which of the following define human settlement?**

(A) Cluster of dwellings of particular type or size only where human beings live.

- (B) Cluster of dwellings of any type or size where human beings live .
- (C) people may or may not erect houses and other structures to live.
- (D) All of the above.

**Q26.2 Which of the following is the smallest human settlement?**

- (A) Mega city
- (B) Metropolis
- (C) Hamlet
- (D) Village

**Q26.3 Which of the following is not characteristics of a villages?**

- (A) They are small in size.
- (B) They are sparsely spaced.
- (C) Specialising in agriculture.
- (D) Most of the people engaged in service sector.

**Q26.4 What are the specialising economic activities of urban settlements?**

- (A) Primary and secondary activities.
- (B) Secondary and tertiary activities.
- (C) Primary and tertiary activities.
- (D) None of the above.

**Q27. Read the passage carefully and answer the questions that follows:**

**Ancient Towns** There are number of towns in India having historical background spanning over 2000 years. Most of them developed as religious and cultural centres. Varanasi is one of the important towns among these. Prayag (Allahabad), Pataliputra (Patna), Madurai are some other examples of ancient towns in the country.

**Medieval Towns** About 100 of the existing towns have their roots in the medieval period. Most of them developed as headquarters of principalities and kingdoms. These are fort towns which came up on the ruins of ancient towns. Important among them are Delhi, Hyderabad, Jaipur, Lucknow, Agra and Nagpur.

Modern Towns - The British and other Europeans have developed a number of towns in India. Starting their foothold on coastal locations, they first developed some trading ports such as Surat, Daman, Goa, Pondicherry, etc. The British later consolidated their hold around three principal nodes – Mumbai (Bombay), Chennai (Madras), and Kolkata (Calcutta) – and built them in the British style. Rapidly extending their domination either directly or through control over the princely states, they established their administrative centres, hill towns as summer resorts, and added new civil, administrative and military areas to them. Towns based on modern industries also evolved after 1850. Jamshedpur can be cited as an example.

**Q27.1 Which of the following features is related with urban areas?**

- (A) People are less dynamic
- (B) social relations among people are intimate
- (C) Way of life is complex and fast
- (D) Urban people get goods and services from rural areas in return for food and raw material.

**Q27.2 Most of the ancient towns developed as..**

- (A) Trade centres.
- (B) Transport nodes.
- (C) Religious and cultural centres.
- (D) Education and recreation centres.

**Q27.3 Which of the following ancient town located in Bihar ?**

- (A) Prayag
- (B) Pataliputra
- (C) Madurai
- (D) Varanasi

**Q27.4 Which of the following town based on modern industries?**

- (A) Jamshedpur
- (B) Mumbai

(C) Kolkata

(D) Surat

**Q28 India – Trends of Urbanisation 1901-2011**

**Table 2.1 : India – Trends of Urbanisation 1901-2011**

Year	Number of Towns/UAs	Urban Population (in Thousands)	% of Total Population	Decennial Growth (%)
1901	1,827	25,851.9	10.84	—
1911	1,815	25,941.6	10.29	0.35
1921	1,949	28,086.2	11.18	8.27
1931	2,072	33,456.0	11.99	19.12
1941	2,250	44,153.3	13.86	31.97
1951	2,843	62,443.7	17.29	41.42
1961	2,365	78,936.6	17.97	26.41
1971	2,590	1,09,114	19.91	38.23
1981	3,378	1,59,463	23.34	46.14
1991	4,689	2,17,611	25.71	36.47
2001	5,161	2,85,355	27.78	31.13
2011*	6,171	3,77,000	31.16	31.08

\*Source: Census of India, 2011 <http://www.censusindia.gov.in> (Provisional)

**Q28.1 Which of the following decade have lowest growth rate of urban population?**

(A) 1901-1911

(B) 1911-1921

(C) 1921-1931

(D) 1931-1941.

**Q28.2 In which year number of towns/Urban agglomerations have reached maximum?**

- (A) 1901
- (B) 1981
- (C) 2001
- (D) 2011

**Q28.3 In which year growth rate of urban population was highest?**

- (A) 1941
- (B) 1951
- (C) 1981
- (D) 1991

**Q28.4 How is the level of urbanisation measured?**

- (A) In terms of rural population to urban population.
- (B) In terms of percentage of urban population to total population.
- (C) Difference between rural population and urban population.
- (D) All of the above.

**Q29. Read the passage carefully and answer the questions that follows:**

The clustered rural settlement is a compact or closely built-up area of houses. In this type of village, the general living area is distinct and separated from the surrounding farms, barns and pastures. The closely built-up area and its intervening streets present some recognisable pattern or geometric shape, such as rectangular, radial, linear, etc. Such settlements are generally found in fertile alluvial plains and in the north-eastern states. Sometimes, people live in compact village for security or defence reasons, such as in the Bundelkhand region of central India and in Nagaland. In Rajasthan, scarcity of water has necessitated compact settlement for maximum utilisation of available water resources.

**Q29.1 Which of the following features is not related with clustered rural settlements?**

- (A) Closely built-up area.
- (B) Living area is distinct.

(C) Area is separated from the surrounding farms, barns and pastures.

(D) Found in Meghalaya, Uttarakhand and Himachal Pradesh.

**Q29.2 Which of the following shape of pattern not found in clustered rural settlements?**

(A) Rectangular

(B) Circular

(C) Radial

(D) Linear

**Q29.3 What is the main reason people living in compact village ?**

(A) Security

(B) Trade

(C) Transport

(D) Culture

**Q29.4 What necessitated compact settlement in Rajasthan?**

(A) Maximum utilisation of available land resources.

(B) Maximum utilisation of available forest resources.

(C) Maximum utilisation of available water resources.

(D) All of the above

**Q30. Read the passage carefully and answer the questions that follows:**

The rural settlements derive their life support or basic economic needs from land based primary economic activities, whereas, urban settlements, depend on processing of raw materials and manufacturing of finished goods on the one hand and a variety of services on the other.

Cities act as nodes of economic growth, provide goods and services not only to urban dwellers but also to the people of the rural settlements in their hinterlands in return for food and raw materials. This functional relationship between the urban and rural settlements takes place through transport and communication network.



Rural and urban settlements differ in terms of social relationship, attitude and outlook. Rural people are less mobile and therefore, social relations among them are intimate. In urban areas, on the other hand, way of life is complex and fast, and social relations are formal.

**Q30.1 The rural settlements derive their life support from....**

- (A) Primary activities
- (B) Secondary activities
- (C) Tertiary activities.
- (D) Quaternary activities

**Q30.2 The functional relationship between the urban and rural settlements takes place through...**

- (A) Agriculture and industry
- (B) Transport and communication network.
- (C) Mining and service
- (D) Forestry and Industry

**Q30.3 Which of the following is not true about the people of rural settlements?**

- (A) people are less mobile
- (B) social relations are intimate
- (C) Way of life is complex and fast
- (D) Engaged in primary activity mostly.

**Q31. Read the passage carefully and answer the questions that follows:**

Many towns and cities perform specialised services. Some towns and cities specialise in certain functions and they are known for some specific activities, products or services. However, each town performs a number of functions.

Towns supporting administrative headquarters of higher order are administrative towns, such as Chandigarh, New Delhi, Bhopal, Shillong, Guwahati, Imphal, Srinagar, Gandhinagar, Jaipur, Chennai, etc. Industries constitute prime motive force

of these cities, such as Mumbai, Salem, Coimbatore, Modinagar, Jamshedpur, Hugli, Bhilai, etc. Transport Cities may be ports primarily

engaged in export and import activities such as Kandla, Kochchi, Kozhikode, Vishakhapatnam, etc., or hubs of inland transport, such as Agra, Dhulia, Mughalsarai, Itarsi, Katni, etc. Towns and cities specialising in trade and commerce are kept in this class. Kolkata, Saharanpur, Satna, etc., are some examples. Mining towns have developed in mineral rich areas such as Raniganj, Jharia, Digboi, Ankaleshwar, Singrauli, etc. Starting as centres of education, some of the towns have grown into major campus towns, such as Roorkee, Varanasi, Aligarh, Pilani, Allahabad, etc

**Q31.1 Which of the following town mainly performs administrative functions?**

- (A) Modinagar
- (B) Katni
- (C) Bhubaneswar
- (D) Dhanbad

**Q31.2 What constitute prime motive force for Modinagar to develop as town?**

- (A) Industries
- (B) Agriculture
- (C) Trade
- (D) Education

**Q31.3 Which of the following town has developed due to dominance of transport network?**

- (A) Delhi
- (B) Kochchi
- (C) Raniganj
- (D) Pilani

**Q31.4 Which of the following town has grown as a major educational town?**

- (A) Jharia

(B) Madurai

(C) Roorkee

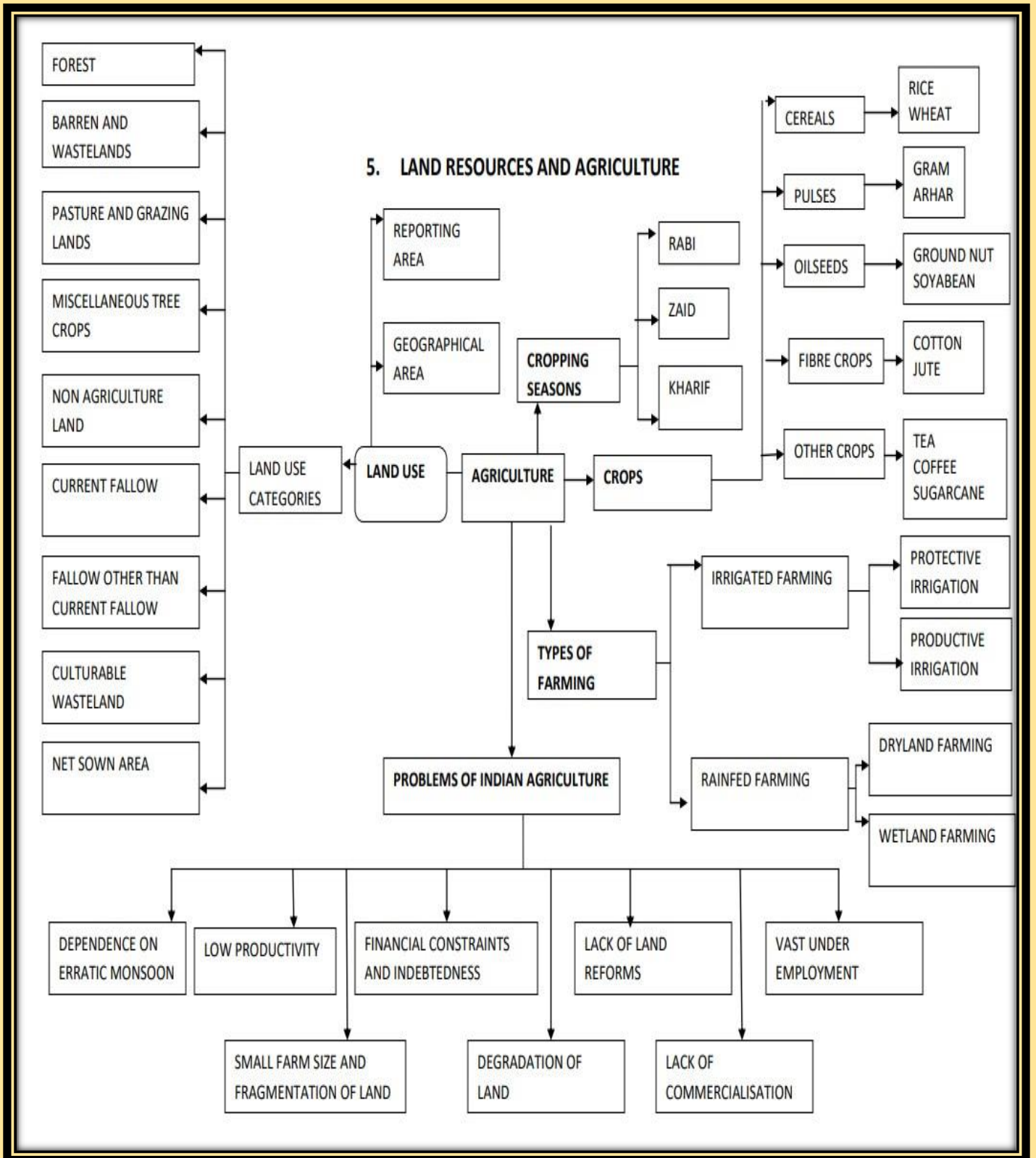
(D) Katni

**SOURCE BASED**

Q NO	CORRECT OPTION	Q NO	CORRECT OPTION
26.1	B	29.1	D
26.2	C	29.2	B
26.3	D	29.3	A
26.4	B	29.4	C
27.1	C	30.1	A
27.2	C	30.2	B
27.3	B	30.3	C
27.4	A	31.1	C
28.1	A	31.2	A
28.2	D	31.3	B
28.3	C	31.4	C
28.4	B		

**CHAPTER -5**

## LAND USE AND AGRICULTURAL RESOURCES



## **Key notes**

What do you mean by resources?

- It means anything which fulfil the need of human wants is known as resources

## **Land Use Categories in India**

- Land is used for various purposes like constructing roads, buildings playground, Park etc...

The land – use categories are maintained in the land revenue records of India as

### Forest

- Area is covered with forest

### Land put to non-agricultural uses

- Land under settlement, construction of roads, canals, Industries shops etc

### Barren And Wastelands

- Not used for cultivation
- Example Barren hilly terrains, desert lands, ravines etc...

### Area under permanent pastures and grazing lands

- Used mainly for grazing cattle
- Most of this type of land is owned by village panchayat and the government

### Area under miscellaneous tree crops and groves

- The land under orchards and fruit trees

### Culturable waste land

- Land which is left uncultivated for more than 5 years

### Current fallow

- This is the land which is left without cultivation for one or less than one agricultural year

### Fallow other than current fallow

- This is also a cultivable land which is left uncultivated for more than a year but less than 5 years

### Net sown area

- The actual use of land for cultivation in a year

## **Land Use Changes In India**

### Three Types of economic changes affect land use

- The size of the economy
- The composition of the economy
- The contribution of the agricultural activities

### The size of the economy

- Increasing population, increasing income, modern technology and associated activities make the economic grow
- As a result demand for land increases with time
- So even a waste land or Barren land begin to be used somehow or other

### The composition of the economy

- There is a fast growth in secondary and tertiary sectors than the agricultural sector
- So the land for agriculture use gradually decreases
- Such sudden shift is more evident in urban areas
- A lot of agricultural land is being used for constructing multi storage complexes

### The contribution of Agricultural activities

- Even though the contribution of the agricultural activities comes down, demand for agricultural production does not come down
- This is mainly because of ever growing population
- Moreover, the agricultural sector has to feed the large number of people goes on increasing day by day

Three categories that have undergone increase and four categories have declined

- Area under non-agricultural uses
- Area under forests

- Current fallow lands  
Non-agricultural use area shows the maximum rate of increase
- It depends on the contributions from Industrial and service sectors
- Expansion of area under Urban and rural settlements also helped this increase
- So, area under non-agricultural uses increases by reducing waste land and agricultural land
- Increase in forest area is due to the increase in the area demarcated as forest and not as actual forest cover
- Rainfall variations and cropping cycle variations have led to the increase in fallow land

The four categories that have registered a decline

- Barren and waste land
- Culturable waste land
- Area under pastures and tree crops
- Net area sown
  - As the pressure on land increased both from the agricultural and non-agricultural sectors, the wastelands and cultural wastelands have witnessed decline over time
  - The decline in net sown area is due to the increases in area under non-agricultural use
  - Example- building construction on agricultural land
  - The decline in land under pasture and grazing land is due to the expansion of cultivation on common pasture lands.

### **Common property resources (CPR)**

It can be broadly classified based on its ownership

- Private land and
- Common property resources
- Private land is owned by an individual or a group of individuals
- Common property resources or owned by the state and it is exclusively for the community
- Common property resources provide fodder for the livestock and fuel for the house holds along with other Minor products like fruits nuts, fibre, medicinal plants etc...

- Common property is also important for women as most of the fodder and fuel collection is done by them in rural areas

What do you mean by common property?

- It is a community's natural resource where every member has the right of access and usage with the specified obligations without anybody having property rights over them

Examples-Community Forest, pasture lands, village water bodies

### **Agricultural land use in India**

- Agriculture is purely land based activity different from secondary or tertiary activities
- If the people have no access to land especially in rural areas it means they are very poor
- Quality of land is very important for agriculture
- If the land is not fertile the farmers who work on the land will get low yield
- In rural areas land ownership has a social value
- The land is often offered as security for loans

### **Cropping intensity**

It refers to optimum or maximum utilisation of cultivable land

It can be calculated as

Cropping Intensity =  $\frac{\text{Gross Cropped Area}}{\text{Net Sown Area}} \times 100$

Net Sown Area

### **Cropping Seasons In India**

- Kharif
- Rabi
- Zaid
- *The kharif season* largely coincides with the Southwest monsoon
- Tropical crops such as rice, cotton, jute, Jowar, Bajra, and tur are cultivated
- *The rabi season* begins with the onset of winter in October - November and ends in March – April
- The low temperature conditions during this season facilitates the cultivation of temperate and subtropical crops such as wheat, gram and mustard
- *Zaid* is a short duration summer cropping Season beginning after harvesting of Rabi crops



- The cultivation of watermelon, cucumber, vegetables and fodder crops during the season is done on irrigated land
- However, this type of distinction in the cropping season does not exist in the southern part of the country
- Here the temperature is high enough to grow tropical crops during any period in the year provided the soil moisture is available

## **Types of farming**

It can be classified into two types

- Irrigated farming
- Rainfed farming

Irrigated farming has two types

I Irrigation for protection

I.Irrigation for production

- Protective irrigation is to protect the crops from adverse effects of dryness
- The soil might lose its moisture and we increase it by watering the plants
- In productive irrigation we provide sufficient soil moisture to achieve high productivity
- In this we have to use more water than in the protective irrigation

## Rainfed cropping

It has two types

I.Dry land farming

II.Wetland farming

The regions have the annual rainfall less than 75 cm have dryland farming

- Year drought resistant crops like Ragi, Bajra, mong, gram and fodder crops are cultivated
- Formers follow the system of rainwater harvesting and soil moisture conservation technique

In wetland farming farmers grow water intensive crops like rice, jute and sugarcane

- The rainfall is in excess of soil moisture requirement of plans during rainy season
- These regions may face flood and soil erosion hazards

## **cropping patterns**

### Food grains

#### Rice

- More than 3000 varieties of rice are found and cultivated in tropical areas
- India is the second largest producer after China and it produces 22% of the total world production
- It is cultivated in kharif season
- West Bengal, Punjab, Andhra Pradesh, Tamil Nadu are the producers
- In West Bengal farmers grow three crops of rice called 'aus' 'aman' and 'boro'
- In Punjab and Haryana it was introduced due to Green Revolution
- The yield of this crop is very low in the areas of Madhya Pradesh Chhattisgarh and Orissa
- In Punjab and Haryana yield is high due to improved varieties of seeds, high usage of fertilizers and pesticides and successful pest control

#### Wheat

- Second most important cereal crop after rice
- Cultivation is done during winter and it is a Rabi crop
- 85% of the total area is concentrated in north and Central regions
- Uttar Pradesh, Punjab, Haryana, Rajasthan and Madhya Pradesh are five leading producers
- The yield level is very high in Punjab and Haryana due to green revolution

#### Jowar

- Maharashtra is the leading producer followed by Karnataka, Madhya Pradesh and Andhra Pradesh
- Maharashtra alone produces more than 50% of the total production
- It is a kharif crop and is cultivated in Rabi season in southern states

#### Bajra

- It is cultivated in hot and dry climatic conditions in north eastern and western parts of the country
- The leading producers are Maharashtra, Gujarat, Uttar Pradesh, Rajasthan and Haryana
- Being a rain-fed crop yield level is very low in Rajasthan

- Yield has increased during recent years in Haryana and Gujarat due to introduction of drought resistant varieties and expansion of irrigation

### Maize

- It is food as well as fodder crop
- Grown under semi-arid climate conditions
- It grows well even in inferior soil
- It is not concentrated in any specific seasons
- Leading producers are Madhya Pradesh, Andhra Pradesh Karnataka, Rajasthan and Uttar Pradesh

### Pulses

- Vegetarian food and it has rich sources of proteins
  - These are legume crops which increase the natural fertility of soils through nitrogen fixation
  - It is largely concentrated in dry lands of Deccan and Central plateau and North Western part of the country
  - Being rainfed crops of dry lands yield fluctuates year to year

### Gram

Gram it is cultivated in subtropical areas

- Just one or two light showers are sufficient to grow this crop successfully
- Madhya Pradesh, Uttar Pradesh, Maharashtra, Andhra Pradesh and Rajasthan are the main producers

### Tur (Arhar)

- It is a second important pulse crop
- It is also known as Red gram or pigeon pea
- It is cultivated in rainfed areas of Central and Southern states of the country
- Maharashtra alone contributes about one third of the total production
- Other leading producers are Uttar Pradesh, Karnataka, Gujarat and Madhya Pradesh

### Oil Seeds

Groundnut, Rapeseed, Mustard, Soyabean and Sunflower are the main oilseed crops

### Groundnut

- India produces about 17% the total of crop production in the world
- It is largely rainfed kharif crops
- But in southern India it is cultivated during rabi season as well
- Gujarat, Tamil Nadu, Andhra Pradesh, Karnataka and Maharashtra are the leading producers
- The yield of groundnut is comparatively high in Tamilnadu

### Rapeseed and Mustard

- They are tropical crops cultivated during Rabi season in North Western and Central parts of India
- The yield fluctuates year to year
- But with expansion of irrigation and improvement in seed technology yield is improved and stabilized to certain extent
- Rajasthan contributes 1/3 production and other producers are Uttar Pradesh, Haryana, West Bengal and Madhya Pradesh

### Other Oilseeds

- Soyabean and sun flower are important oil seeds
- Soyabean is mostly grown in Madhya Pradesh and Maharashtra
- Sunflower cultivation is concentrated in Karnataka, Andhra Pradesh and adjoining areas of Maharashtra

### Fibre crops

#### Cotton

- Tropical crop
- Grows in kharif season
- Long staple cotton is called 'narma'
- It is cultivated in North Western part of India
- Requires clear sky during flowering stages
- India ranks 4th in the world in production after China USA and Pakistan
- Occupies about 4.7% of the total cropped area Maharashtra, Gujarat, Andhra Pradesh, Madhya Pradesh and Haryana are the leading producers

#### Jute

- India is a second number in production
- It occupies. 5% of the total cropped area

- Requires 80% of relative humidity and plenty of water
- Cultivated as cash crop in West Bengal
- West Bengal, Bihar, Assam are the leading producers

## Other crops

### Sugarcane

- It is a tropical crop
- Largely concentrated in Uttar Pradesh (Indo-gangetic) Plains
- In southern India it is cultivated in Maharashtra and Gujarat
- India is the second largest producer after Brazil
- 2.4% of the cropped area is under sugarcane cultivation India produces 23% of sugarcane in the world
- Uttar Pradesh, Maharashtra, Karnataka, Tamil Nadu and Andhra Pradesh are the leading producers

### Tea

- It is grown over undulating topography
- Cultivated well in drained soil
- Humid and sub humid climate is required
- Plantation started first in 1840 in Brahmaputra valley
- It is also cultivated on the lower slopes of Nilgiri and Cardamom Hills in Western Ghats
- India is a leading producer accounts for about 28% of total production in the world
- At present India ranks third among tea exporting countries after Sri Lanka and China
- Assam is the leading producer after West Bengal and Tamil Nadu

### Coffee

- It is the tropical plantation crop
- Its seeds are roasted, ground and used for preparing a beverage
- There are three varieties 'Arabica', 'Robusta' and 'Liberica'
- In India only superior quality coffee is grown
- India produces only 4.3% coffee in the world
- Ranks 6th place after Brazil, Vietnam, Colombia, Indonesia, and Mexico
- It is cultivated on the Highlands of Western Ghats in Karnataka, Kerala, and Tamil Nadu
- Karnataka is the leading producer

## Agricultural Development in India

### Strategy Of Development

The following strategies were followed after independence to increase food grains

- Switching over from Cash crop to food crop
- Intensification of cropping over already cultivated land
- Increasing cultivated area by bringing cultivable and under plough
- Introduction of intensive agricultural district programme and intensive agricultural area programme
- Using new seed varieties of wheat and rice
- Adopting new method of irrigation
- Green revolution was introduced

### Growth Of Agricultural Output and Technology

- Production and yield of rice and wheat has increased for many times
- Production of sugarcane oil seeds and cotton has also increased
- Expansion of irrigation, use of high yielding variety of seeds chemical fertilizers, pesticides and farm machinery
- Modern agricultural Technology has diffused very fast in various areas of the country
- Consumption of chemical fertilizers has increased by 15 times
- Net irrigated area is also increased

### Problems of Indian agriculture

- Dependence on unpredictable monsoon
- Low productivity
- Constraints of financial resources and indepthness
- Lack of land reforms
- Small farm size and fragmentation of land holdings
- Lack of commercialization
- Vast underemployment in rural areas
- Degradation of cultivable lands

## MULTIPLE CHOICE QUESTIONS

1. Match the column I with column II and choose the correct answer with the help of given codes.

TYPES OF AGRICULTURE	FEATURES
I. Protective irrigation farming	Practice various measures of soil moisture conservation and rain water harvesting.
II. Productive irrigation farming	2. Stress on growing various water intensive crops
III. Wet land farming	3. To protect the crops from adverse effects of soil moisture deficiency
IV. Dry land farming	4. To provide sufficient soil moisture in the cropping season to achieve high productivity.

CODES:

- (A) I-4, II-3, III-1, IV-2
- (B) I-1, II-2, III-3, IV-4
- (C) I-3, II-1, III-2, IV-4
- (D) I-3, II-4, III-2, IV-1

**ANS-D**

2. Which of the following department maintain the Land-use records?

- (A) Forest department
- (B) Revenue department
- (C) Geological survey of India
- (D) Statistical department of India

**ANS-B**

**3. Which of the following department is responsible to measure the geographical area of administrative units in India?**

- (A) Indian Space Research Organization
- (B) Survey of India
- (C) Planning commission of India
- (D) None of the above

**ANS-B**

**4. Which of the following formula of cropping intensity is correct?**

- (A)  $GCA/NSAx100$
- (B)  $NSA/GCAx100$
- (C)  $GCA/NSAx1000$
- (D)  $GCA/NSA$

**ANS-A**

**5. Which of the following is not a kharif crop?**

- (A) Rice
- (B) Rapeseeds
- (C) Cotton
- (D) Maize

**ANS-B**

**6. 'Barani' is another of which of the following type of agriculture?**

- (A) Rain fed agriculture
- (B) Irrigated agriculture
- (C) Dry land agriculture
- (D) None of the above

**ANS-A**

**7. Which of these correctly defines barren and wastelands?**



- (A) Land which is left uncultivated for more than 5 years
- (B) Land which cannot be brought under cultivation with the use of current technology
- (C) Physical extent of a land on which crops are sown
- (D) Lands under orchards and fruit trees

**ANS-B**

**8. Which of these is a rabi crop in northern India?**

- 1. Rice
  - 2. Cotton
  - 3. Wheat
  - 4. Gram
  - 5. mustard
- (A) 1 and 2
  - (B) 1,2,3,4 and 5
  - (C) 2,3 and 5
  - (D) 3,4 and 5

**ANS-D**

**9 'Aus, aman, and boro' are varieties of which crop?**

- (A) Wheat
- (B) Rice
- (C) Pulses
- (D) oilseeds

**ANS-B**

**10. Which of these is/are true regarding the agricultural development in India after independence?**

1. Switching over from cash crops to food crops
2. Intensification of cropping over already cultivated land
3. Increasing cultivated area by bringing cultivable and fallow land under plough.

- (A) 1 and 2  
(B) Only 1  
(C) Only 2  
(D) 1,2 and 3

**ANS-D**

**11. Tea is mainly grown in which of these regions in India?**

- 1) Slopes of Nilgiris
- 2) Cardamom hills
- 3) Darjeeling hills

- (A) 1,2 and 3  
(B) 2 and 3  
(C) 1 and 3  
(D) 1 and 2

**ANS-A**

**12. Arrange the following states in sequence as per their position in the production of wheat?**

1. Uttar Pradesh
2. Punjab
3. Haryana
4. Madhya Pradesh

- (A) 1,2,3,& 4  
(B) 3,2,4&1

(C) 1,4,2&3

(D) 2,4,3&1

**ANS-C**

**13. Which of these is/are true about cropping seasons in India ?**

I. There are three distinct crop seasons in the northern and interior parts of country.

II. The kharif season largely coincides with Southwest Monsoon under which the cultivation of tropical crops, such as rice, cotton, jute, jowar, bajra and tur is possible.

III. The rabi season begins with the onset of winter in October-November and ends in March-April.

(A) I, II and III

(B) Only I

(C) Only II

(D) I, and II

**ANS-A**

**14. Which of these is not true regarding pulses cultivation in India ?**

(A) Pulses are a very important ingredient of vegetarian food as these are rich sources of proteins.

(B) These are legume crops which increase the natural fertility of soils through nitrogen fixation.

(C) India is a leading producer of pulses in the world.

(D) The cultivation of pulses in the country is largely concentrated in the North-eastern parts of India.

**ANS-D**

### **SHORT TYPE QUESTIONS**

**1. Differentiate between barren and wasteland and culturable wasteland.**

**Barren and Wasteland**

a) Barren and wasteland refers to that land which cannot be brought under cultivation practises even with the use of present technology.

b) It is the land which is depleted due to land degradation or other natural factors.  
Eg. Ravines of Chambal.

### **Culturable Wasteland—**

(a) Culturable wasteland is the land, which is left fallow for more than 5 years

(b) It can be brought under cultivation with present reclamation technologies.

### **2.Distinguish between net sown area and gross cropped area?**

**Net Sown Area-**(a)The physical extent of land in which crops are sown and harvested in a year is known as the net sown area. This is the area actually cultivated

account multiple cropping

b) Does not take into

**Gross**

**Cropped Area**(a) The total area cultivated once, twice, or multiple times in a year is the gross cropped area b) Multiple cropping is taken into account

### **3.What is the difference between dryland and wetland farming?**

**Dryland Farming**(a) In India it is confined to areas with rainfall of less than 75 cm in a year. Rainfall is less than the total moisture requirement of the soil. b) These areas face problems of drought(c) Methods of water conservation are used also water harvesting is carried out. d) Hardy and drought resistant crops like Jowar, Bajra, Gram are grown. e) Practised in areas like Northern Madhya Pradesh and Rajasthan

#### **Wetland Farming**

(a) Rainfall is more than the total moisture requirement of the soil during rainy season. (b) Problems of flash flood and soil erosion are faced(c)

Aquaculture is practiced in these areas due to excess of water. d) Water intensive crops like rice, sugarcane and jute are grown(e) Practised in rainier parts of Bihar and West Bengal.

### **4.Why is the strategy of increasing cropping intensity important in a country like India?**

The strategy of increasing crop intensity aims at increasing the productivity of a

piece of land by increasing the number of times it is cultivated in a year. It aims at increasing the productivity of agriculture by increasing the productivity of already cultivated area. It is important for country like India where there is dearth of land so it is difficult to bring new pieces of land under cultivation to meet the ever-increasing demand of rising population.

### **5.How do you measure total cultivable land?**

Total cultivable land is the entire land which can be cultivated either in the current state or after reclaiming it through the available technologies. It is a sum of total culturable wasteland, Fallow other than current fallow, current fallow and net sown area.

### **6.Compare the features of productive and protective irrigation.**

**Protective Irrigation:**(1) To protect crops from adverse effects of soil moisture deficiency. (2) To provide soil moisture to maximum possible area. (3) To supplement rain fed irrigation.

**Productive Irrigation** (1) To provide sufficient soil moisture in the cropping season to achieve high productivity. (2) The water input in per unit area of cultivated land is higher than protective irrigation. (3) To grow various water intensive crops such as rice, sugarcane etc.

## **LONG ANSWER QUESTIONS**

### **1.What are the different types of environmental problems of land resources in India?**

Land resources in India are faced with multiple issues that lead to decline in their productivity. The causes are both environmental and related to malpractices. The main environmental issues confronting Indian resources are:

#### **(1) Dependence on Erratic Monsoon:**

Irrigation covers only about 33 per cent of the cultivated area in India. The crop production in rest of the cultivated land directly depends on rainfall. Poor monsoon adversely affects the supply of canal water for irrigation.

## **(2) Low productivity:**

The yield of the crops in the country is low in comparison to the international level. Indian agriculture is also very low in comparison to international level. The vast rainfed areas of the country, particularly drylands, which mostly grow coarse cereals, pulses and oilseeds, have very low yields.

## **(3) Degradation of Cultivable Land:**

One of the serious problems that arises out of faulty strategy of irrigation and agricultural development is degradation of land resources. It leads to depletion of soil fertility. In irrigated areas a large tract of agricultural land lost its fertility due to alkalinisation and salinisation of soils and waterlogging. Excessive use of chemicals such as insecticides and pesticides has led to their concentration in toxic amounts in the soil profile.

## **2. What are the important strategies for agricultural development followed in the post-independence period in India?**

Indian agricultural economy was largely subsistence in nature before Independence. During partition about one-third of the irrigated land in undivided India went to Pakistan. After Independence, the (A) immediate goal of the Government was to increase foodgrains production

1. switching over from cash crops to food crops
2. intensification of cropping over already cultivated land; and
3. increasing cultivated area by bringing cultivable and fallow land under plough.

(B) Later, Intensive Agricultural District Programme (IADP) and Intensive Agricultural Area Programme (IAAP) were launched. But two consecutive droughts during mid-1960s resulted in food crisis in the country.

(3) New seed varieties of wheat (Mexico) and rice (Philippines) known as high yielding varieties (HYVs) were available for cultivation by mid-1960s.

(4) along with chemical fertilizers in irrigated areas of Punjab, Haryana, Western Uttar Pradesh, Andhra Pradesh and Gujarat leading fast agricultural growth. This spurt of agricultural growth came to be known as 'Green Revolution'.

(5) The Planning Commission of India focused its attention on the problems of agriculture in rained areas in 1980s.

### **3. Which four categories witnessed a decline in land use? Why?**

The four categories that have registered a decline are barren and wasteland, culturable wasteland, area under pastures and tree crops and fallow lands. The following explanations can be given for the declining trends:

(a) As the pressure on land increased, both from the agricultural and non-agricultural sectors, the wastelands and culturable wastelands have witnessed decline over time.

(b) The decline in land under pastures and grazing lands can be explained by pressure from agricultural land. Illegal encroachment due to expansion of cultivation on common pasture lands is largely responsible for this decline.

### **4. “Low productivity and fragmentation of land holding are the major problems of Indian agriculture”. Suggest and explain measures to overcome these problems. (HOTS)**

Answer: Measures to overcome the problems of low productivity and are as follows:

1. To aware all the farmers about new technologies like the use of improved implements, seeds, chemicals, manures, etc.
2. Double cropping, better rotation of crops, fighting plant, diseases and pests, etc should be given due emphasis. Different sources of irrigation should be provided to all farmers.
3. Timely soil testing should be done in rural areas by establishing soil testing labs.
4. Institutional credit or loan facilities should be provided to all farmers at low-interest rates, for e.g. Kisan credit card scheme.

Measures to overcome the problems of fragmentation of land holdings are as follows:

1. Big areas of land which are laying waste can be reclaimed and made fit for cultivation.

2.Co-operative farming can be helpful to check the sub-division and fragmentation of holding. This farming would result in the adoption of modern technology on so-called big farms. In this way, agriculture will become a profitable occupation through economies of large-scale farming.

3.There should be framed a new agricultural policy to improve this situation.

4.The stress of population on land should be reduced.

**5“Land use in a region to a large extent is influenced by nature economic activities carried out in that region”. Support the statement by giving three examples from India,**

Ans-Increasing population pressure on land is one of the major reasons which is responsible for the decline in land under pasture and grazing area.

There are three types of economic changes that affected the land use in India which are as follows:

1. As the population increases the size of the economy also increases. High population pressurises land resources and force people to utilise every piece of land. Thus, marginal lands and barren wastelands would be used to support the population.
2. When the composition of an economy changes it also changes the land uses because different sectors use the land for different purposes, e.g. when agricultural area decreases the area under other categories like the area under non-agriculture use increases.
3. With the compositional change in economy and change in land use, an area under agriculture declines, but it does not reduce the population pressure on agriculture land.

**4.What are the advantages of common property resources?**

CPR's provide fodder for the livestock and fuel for the households.

(a)It provides products like fruits, nuts, fibre, medical plants, etc.



(b) It provides livelihood of the landless and marginal farmers and other weaker sections. They depend on income from their livestock due to limited access to land.

(c) CPR's are also important for women to collect most of the fodder and fuel in rural areas.

## **SOURCE BASED QUESTIONS**

### **1. Read the following passage and answer the questions that follow:**

Land, according to its ownership, can broadly be classified under two broad heads – private land and common property resources (CPRs). While the former is owned by an individual or a group of individuals, the latter is owned by the state meant for the use of the community. CPRs provide fodder for the livestock and fuel for the households along with other minor forest products like fruits, nuts, fibre, medicinal plants, etc. In rural areas, such land is of particular relevance for the livelihood of the landless and marginal farmers and other weaker sections since many of them depend on income from their livestock due to the fact that they have limited access to land. CPRs also are important for women as most of the fodder and fuel collection is done by them in rural areas. They have to devote long hours in collecting fuel and fodder from a degraded area of CPR. CPRs can be defined as a community's natural resource, where every member has the right of access and usage with specified obligations, without anybody having property rights over them. Community forests, pasture lands, village water bodies and other public spaces where a group larger than a household or family unit exercises rights of use and carries responsibility of management are examples of CPRs.

#### **1.1 Which of the following is true about common property resources (CPRs) ?**

- (A) It is owned by an individual.
- (B) It is owned by group of individual.
- (C) It is owned by the state meant for the use of the community.
- (D) It is owned by women.

#### **1.2 The marginalised sections can obtain which of the following products from CPRs?**

- (A) Medicines

- (B) Fruits
- (C) Fodder
- (D) All of these

**1.3 Which of the following is not coming under the common property resources?**

- (A) Community forests
- (B) Pasture land
- (C) Agricultural land
- (D) Village water bodies

**1.4 How CPRs are important for rural women?**

- (A) Collect fuel and fodder
- (B) Cultivate crops
- (C) Grow vegetables
- (D) None of the above

**2. Read the following passage and answer the questions that follow:**

Agricultural production stagnated during the late 1950s. To overcome this problem, Intensive Agricultural District Programme (IADP) and Intensive Agricultural Area Programme (IAAP) were launched. But two consecutive droughts during the mid-1960s resulted in a food crisis in the country. Consequently, the food grains were imported from other countries. New seed varieties of wheat (Mexico) and rice (Philippines) known as high yielding varieties (HYVs) were available for cultivation by the mid-1960s. India took advantage of this and introduced package technology comprising HYVs, along with chemical fertilisers in irrigated areas of Punjab, Haryana, Western Uttar Pradesh, Andhra Pradesh and Gujarat. Assured supply of soil moisture through irrigation was a basic prerequisite for the success of this new agricultural technology. This strategy of agricultural

development paid dividends instantly and increased the food grains production at a very fast rate. This spurt of agricultural growth came to be known as 'Green Revolution'. This also gave fillip to the development of a large number of agro-inputs, agro-processing industries and small-scale industries. This strategy of agricultural development made the country self-reliant in food grain production. But the green revolution was initially confined to irrigated areas only. This led to regional disparities in agricultural development in the country till the seventies, after which the technology spread to the Eastern and Central parts of the country. The Planning Commission of India focused its attention on the problems of agriculture in rainfed areas in 1980s. It initiated agro-climatic planning in 1988 to induce regionally balanced agricultural development in the country. It also emphasised the need for diversification of agriculture and harnessing of resources for development of dairy farming, poultry, horticulture, livestock rearing and aquaculture. Initiation of the policy of liberalisation and free market economy in the 1990s is likely to influence the course of development of Indian agriculture.

2.1 Which of the following programmes were launched by government to overcome stagnated agricultural production in late 1950s ?

- (A) ITDP & DAAP
- (B) IADP & IAAP
- (C) HADP & ITDP
- (D) SFDA & MFDA

**2.2 New seed varieties of wheat & rice were bought from which of the following countries?**

- (A) Japan & Australia
- (B) Sri Lanka & Maldives
- (C) Mexico & Philippines

(D) Russia & USA

**2.3 Which of the following statement is/are not true about Green Revolution?**

I. Green Revolution made the country self-reliant in food grain production.

II. Green revolution was initially confined to North-eastern areas only.

III. Green revolution helps in the development of agro-processing industries and small-scale industries.

(A) Only statement I

(B) Only statement II

(C) Statement I & II

(D) Statement I, II & III

**2.4 Which of the following were given emphasis by the planning commission for the diversification of Indian agriculture?**

(A) Dairy farming and poultry

(B) Horticulture

(C) livestock rearing and aquaculture

(D) All of the above

**3. Read the following passage and answer the question that follows:**

Rice is a staple food for the overwhelming majority of the population in India. Though it is considered to be a crop of tropical humid areas, it has about 3,000 varieties which are grown in different agro-climatic regions. These are successfully grown from sea level to about 2,000 m altitude and from humid areas in eastern India to dry but irrigated areas of Punjab, Haryana, western U.P. and northern Rajasthan. In southern states and West Bengal, the climatic conditions allow the cultivation of two or three crops of rice in an agricultural year. In West Bengal farmers grow three crops of rice called 'aus', 'aman' and 'boro'. But in the Himalayas and north-western parts of the country, it is grown as a kharif crop during the southwest Monsoon season. India

contributes 21.6 percent of rice production in the world and ranked second after China in 2016. About one-fourth of the total cropped area in the country is under rice cultivation. West Bengal, Punjab and Uttar Pradesh were the leading rice producing states in the country in 2009-10. The yield level of rice is high in Punjab, Tamil Nadu, Haryana, Andhra Pradesh, Telangana, West Bengal and Kerala. In the first four of these states almost the entire land under rice cultivation is irrigated. Punjab and Haryana are not traditional rice growing areas. Rice cultivation in the irrigated areas of Punjab and Haryana was introduced in the 1970s following the Green Revolution. Genetically improved varieties of seed, relatively high usage of fertilisers and pesticides and lower levels of susceptibility of the crop to pests due to dry climatic conditions are responsible for higher yield of rice in this region. The yield of this crop is very low in rainfed areas of Madhya Pradesh, Chhattisgarh and Odisha.

**3.1 What is the rank of India in terms of rice production in the world?**

- (A) First
- (B) Second
- (C) Third
- (D) Fourth

**3.2 Which is the staple food crop of most of the people of India ?**

- (A) Rice
- (B) Wheat
- (C) Maize
- (D) Millets

**3.3 In the Himalayan region and north - western parts of the country, rice is grown**

**during which of the following season?**

- (A) Rabi

- (B) Kharif
- (C) Zaid
- (D) Spring

**3.4 The yield of rice is high in which of the following states?**

- (A) Chhattisgarh
- (B) Odisha
- (C) Punjab
- (D) Madhya Pradesh

**4. Read the following passage and answer the questions that follow:**

The nature of problems faced by Indian agriculture varies according to agro-ecological and historical experiences of its different regions. Hence, most of the agricultural problems in the country are region specific. Yet, there are some problems which are common and range from physical constraints to institutional hindrances. Irrigation covers only about 33 percent of the cultivated area in India. The crop production in the rest of the cultivated land directly depends on rainfall. Poor performance of south-west Monsoon also adversely affects the supply of canal water for irrigation. On the other hand, the rainfall in Rajasthan and other drought prone areas is too meagre and highly unreliable. Even the areas receiving high annual rainfall experience considerable fluctuations. This makes them vulnerable to both droughts and floods. Drought is a common phenomenon in the low rainfall areas which may also experience occasional floods. The

flash floods in dry lands of Maharashtra, Gujarat, and Rajasthan in 2006 and 2017 are examples of this phenomenon. Droughts and floods continue to be a twin menace in Indian agriculture. The yield of the crops in the country is low in comparison to the international level. Per hectare output of most of the crops such as rice, wheat, cotton and oilseeds in India is much lower than that of U.S.A., Russia

and Japan. Because of the very high pressure on the land resources, the labour productivity in Indian agriculture is also very low in comparison to international level. The vast rainfed areas of the country, particularly drylands which mostly grow coarse cereals, pulses and oilseeds have very low yields. The inputs of modern agriculture are very expensive. This resource intensive approach has become unmanageable for marginal and small farmers as they have very meagre or no savings to invest in agriculture. To tide over these difficulties, most of such farmers have resorted to availing credit from various institutions and money lenders. Crop failures and low returns from agriculture have forced them to fall in the trap of indebtedness. After independence, land reforms were accorded priority, but these reforms were not implemented effectively due to lack of strong political will. Most of the state governments avoided taking politically tough decisions which went against strong political lobbies of landlords. Lack of implementation of land reforms has resulted in continuation of iniquitous distribution of cultivable land which is detrimental to agricultural development.

**4.1 Which of the following are two major problems of Indian agriculture?**

- (A) Floods and droughts
- (B) Debt and poverty
- (C) Low yield and lack of seeds
- (D) Crop failure and low return

**4.2 Which of the following crops are grown in the rainfed areas?**

- (A) Oilseeds
- (B) Cereal crops
- (C) Pulses
- (D) All of the above

**4.3 Land reforms were not implemented effectively because of which of the following reasons?**

- (A) Resistance of people
- (B) Lack of political will
- (C) Lack of money for buying inputs
- (D) International trade

**4.4 Which of the following regions of India is vulnerable to both floods and droughts?**

- (A) Odisha
- (B) Madhya Pradesh
- (C) Rajasthan
- (D) Assam

**SOURCE BASED**

Q NO	CORRECT OPTION	Q NO	CORRECT OPTION
1.1	C	3.1	B
1.2	D	3.2	A
1.3	C	3.3	B
1.4	A	3.4	C
2.1	B	4.1	A
2.2	C	4.2	D
2.3	B	4.3	B
2.4	A	4.4	C

**ASSERTIONS AND REASONING**

1. Assertion(A) Most of the farmers have resorted to availing credit from various institutions and money lenders but crop failures and low returns from agriculture have forced them to fall in the trap of indebtedness.



Reason(R) The resource intensive approach of modern expensive agriculture has become unmanageable for marginal and small farmers due to very meagre or no saving to invest in agriculture.

- (A) Both A and R are true and R is the correct explanation of A
- (B) Both A and R are true but R is not the correct explanation of A
- (C) A is true but R is false
- (D) A is false but R is true.

**ANS-A**

**2. Assertion-(A) - The contribution of agriculture has increased over time whereas pressure on land for agriculture has declined.**

**Reason -(R)- The number of people in India is increasing day by day.**

- (A) Both A and R are true and R is the correct explanation of A
- (B) Both A and R are true but R is not the correct explanation of A
- (C) A is true but R is false
- (D) A is false but R is true.

**ANS-D**

**3. Assertion-(A) - As per the land use data of 1950-51 to 2014-15, there has been an increase in area under forest.**

**Reason -(R) - These are an increase in demarcated areas under forest rather than an actual increase in forest cover.**

- (A) Both A and R are true and R is the correct explanation of A
- (B) Both A and R are true but R is not the correct explanation of A
- (C) A is true but R is false
- (D) A is false but R is true.

**ANS-A**

**4. Assertion-(A) - Intensive use of chemical fertilisers on cultivable land has reduced the fertility of soil in India.**

**Reason -(R) - Unregulated and over irrigation has created problems of alkalisation and salinisation and waterlogging in irrigated cultivated areas of India.**

- (A) Both A and R are true and R is the correct explanation of A
- (B) Both A and R are true but R is not the correct explanation of A
- (C) A is true but R is false
- (D) A is false but R is true.

**ANS-B**

**5. Assertion-(A) - The yield of the crops in the country is low in comparison to the international level.**

**Reason -(R) - A large number of farmers produce crops to sell in the market.**

- (A) Both A and R are true and R is the correct explanation of A
- (B) Both A and R are true but R is not the correct explanation of A
- (C) A is true but R is false
- (D) A is false but R is true.

**ANS-C**

**6. Consider the following statement and choose the correct answer with the help of given options.**

**I. During 1950-51 to 2014-15, the trend of current fallow fluctuates a great deal over years**

**II. Variability of rainfall and cropping pattern is responsible for this.**

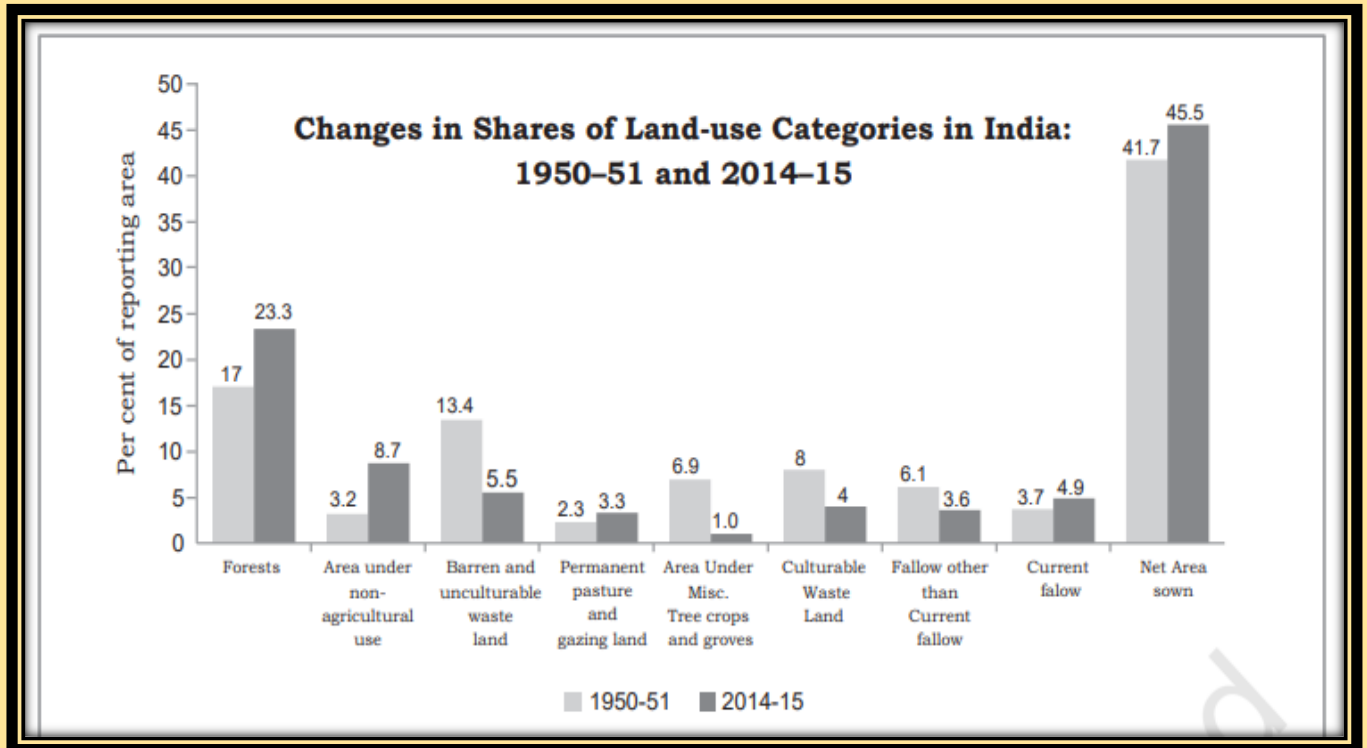
**OPTIONS**

- (A) Only I is correct
- (B) Only II is correct
- (C) Both the statements are correct and statements II correctly explains the cause for statement I

(D) Both are correct but not related to each other

**ANS-C**

1. Study the following graphs carefully and answer the questions that follow:



**1.1 Which of these categories has recorded an increase in area from 1950 to 2015?**

- (A) Barren land
- (B) Culturable wasteland
- (C) Fallow other than current fallow
- (D) Net sown area

Ans-D

**1.2 Which of the following categories constitutes the smallest percentage of land use in India?**

- (A) Forests
- (B) Area under misc. tree crops and groves
- (C) Area under non-agricultural use
- (D) Permanent pasture

Ans-B

**3.3 Which of the following categories of land use has recorded the highest rate of increase in area during 1950-51 to 2014-15 ?**

- (A) Permanent pasture and grazing land
- (B) Net sown area
- (C) Area under non- agricultural use
- (D) Forest area

Ans-C

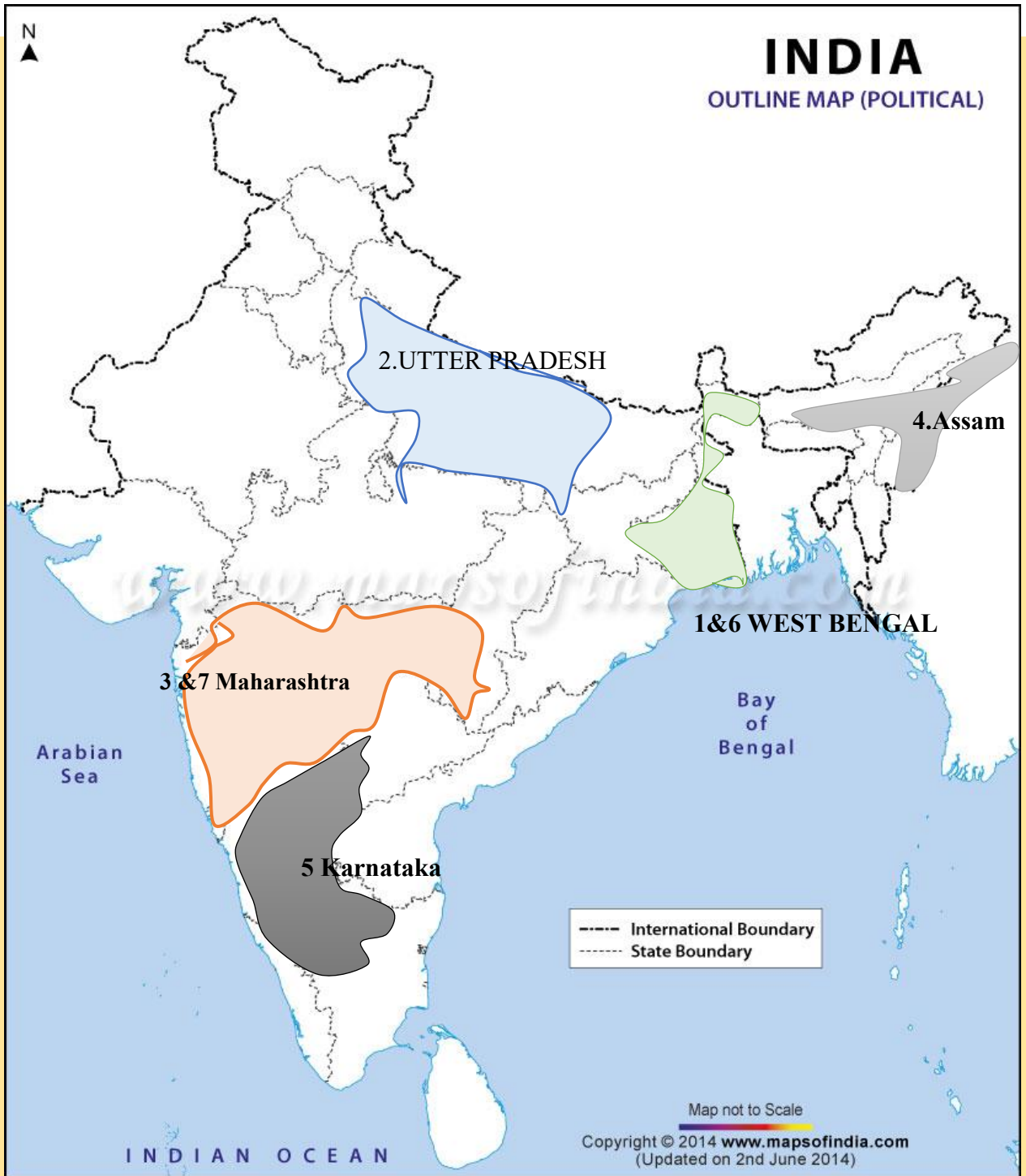
**3.4 The area under wastelands has declined due to which of the following reasons?**

- (A) Due to increase in pasture land
- (B) Due to expansion of agriculture
- c) Due to conversion of land for industries and non-agricultural uses
- d) All of the above

Ans-D

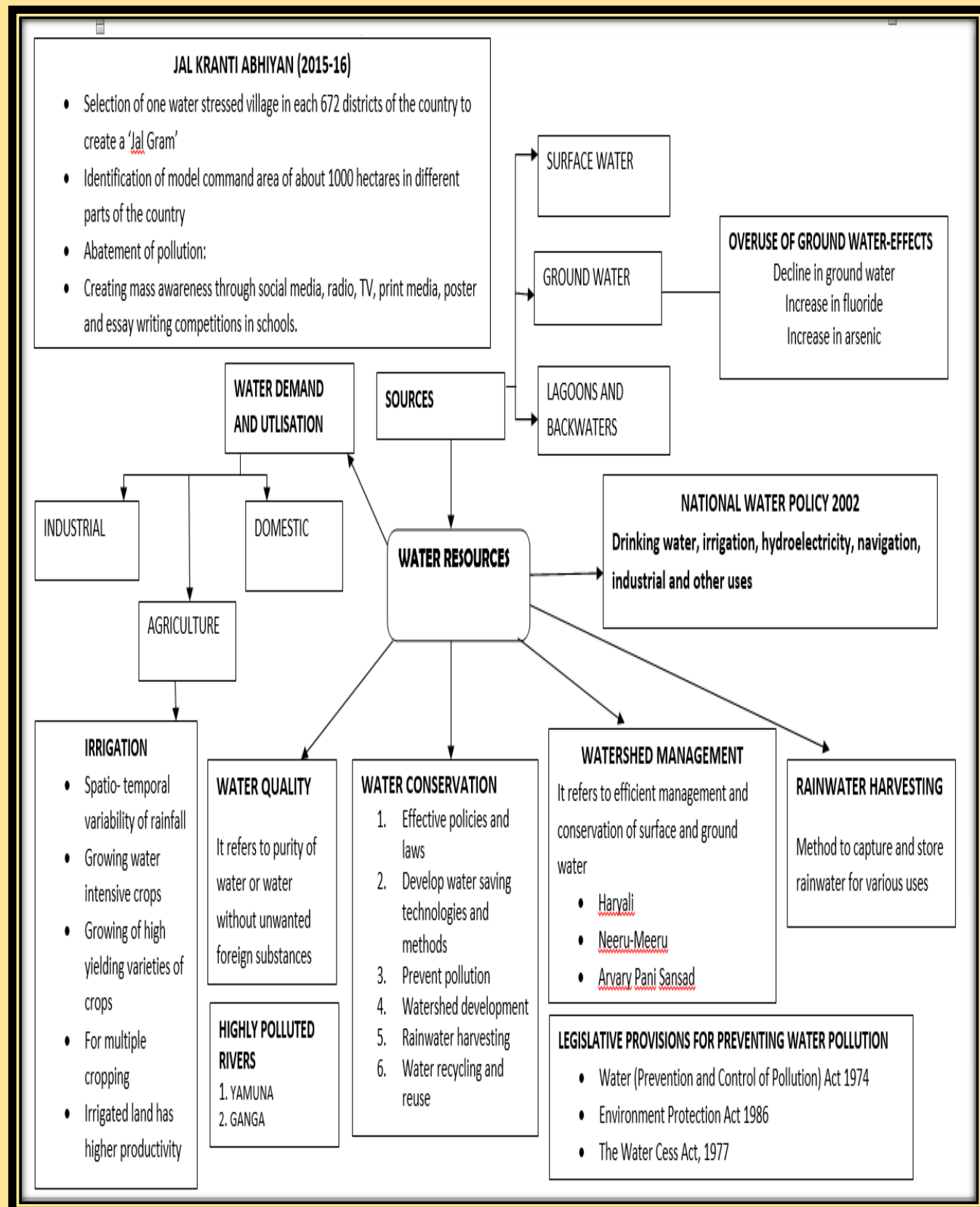
Leading producing states of the following crops -

- |                          |                        |
|--------------------------|------------------------|
| 1.Rice- West Bengal      | 2 Wheat -Utter Pradesh |
| 3.Cotton - Maharashtra   | 4.Tea –Assam           |
| 5 .Coffee- Karnataka     | 6.Jute -W.B            |
| 7.Sugarcane- Maharashtra |                        |



## CHAPTER-4

### WATER RESOURCES



## KEY NOTES

- Water is a cycle resource with abundant supplies on the globe
  - About 71% of the Earth's surface is covered with water
  - But only 3% freshwater constitutes in the total water
  - Indeed, a small proportional fresh water is effectively available for human use
  - The availability of water varies over space and time
  - Presently the tensions and disputes on sharing and control of this resource are becoming the contested issues among communities, regions, and States
- Hence the development and planning are very much required to the water resources

### Water Resources in India

- India accounts about 2.45% of the total land of the world
- India has 4 percent of the world water resources and about 16% of the world population
- The total water available from precipitation in a year is about 4000 cubic km
- The availability from surface water and relishable groundwater is only 1869 cubic km
- Out of this, only 1122 cubic km (60% ) can be put to beneficial uses

### Surface Water Resources

- Rivers
  - Lakes
  - Ponds
  - Tanks
- The mean annual flow in all the river basins in India is estimated to be 1869 cubic km
  - Due to topographical, hydrological and other constrains only about 690 cubic km of the available surface water can be utilised
  - Water flows in a river depends on size of is catchment area of river basin and rainfall
  - Example - the Ganga, the Brahmaputra and the Indus have huge catchment areas and have relatively a high precipitation

- At the same time catchment areas of the Krishna, the Cauvery the Godavari do not have such a big catchment area and they are seasonal in flow

### Groundwater Resources

- The total repressible groundwater resources in the country are about 432 cubic km
- The level of groundwater utilisation is relatively high in the river basins lying-in north-western regions and parts of south India
- The groundwater utilisation is very high in the states of Punjab Haryana, Rajasthan, Tamil Nadu,
- States like Chhattisgarh, Orissa, Kerala utilise only a small proportion of ground water
- States like Gujarat, Uttar Pradesh, Bihar, Tripura, Maharashtra utilise their groundwater resources at moderate

### Lagoons and back waters

- They are used for fishing and irrigating some varieties of paddy crop coconut etc...
- State like Kerala Orissa and West Bengal have vast surface water resources in lagoons and lakes

### Water demand and utilisation

- India is an agrarian society
- 2/3 of its population have been depend on agriculture
- Hence irrigation is required
- After independence five-year plans were implemented and targeted on multipurpose river valley projects like Bhagra Nangal, Hirakud, Damodhar Valley, Nagarjun Sagar, Indira Gandhi Canal Project etc...
- As far as water utilisation is concerned 92% of groundwater and 89% of surface water used for agriculture
- The industrial sector accounts to 2% of the surface water utilisation and 5% of the groundwater
- The domestic sector utilisation is higher (9%) in surface water as compared to groundwater
- The share of agricultural sector in total water utilisation is much higher than the other sectors



### Demand of water for irrigation

- Seasonal rainfall
- Uncertainty in rainfall
- Uneven distribution of rainfall
- Growing more and more food crops
- Dry climate is found in some regions
  
- Growing cash crops
  
- Practicing multiple cropping pattern
- High yield variety of crops need regular water supply

### Emerging water problems

- The available water resources are also getting polluted with industrial, agricultural and domestic effluents
- It leads for the limiting the availability of usable water resources

### Deterioration of water quality

- Water gets polluted by foreign matters such as micro-organisms, Chemicals, Industrial and other wastes
- Quality of water is affecting the aquatic systems
- The Ganga and Brahmaputra are the highly most polluted rivers in the country

### Water Conservation and Management

- Watershed development
- Rainwater harvesting
- Water recycling and reuse
- Conjunctive use of water for sustaining water supply in long run

### Recycle And Reuse of Water

- It is a attractive option for industries for cooling and firefighting to reduce their water cost
- In urban areas water after bathing and washing utensils can be used for gardening
- Water used for washing vehicle can also be used for gardening
- This would conserve the better quality of water for drinking purposes

## Watershed Management

- It basically refers to efficient management and conservation of surface and groundwater resources
- It involves the prevention of runoff and storage and recharge of groundwater through various methods like percolation tanks recharge well etc...
- The central and state government have initiated many watershed development and management programmes in the country
- Some of them are being implemented by non-governmental organisations also
- Example - ***Hariyali Watershed Development Project*** sponsored by the central government
- It is to conserve water for drinking irrigation fisheries and afforestation in rural areas
- ***Neeru - Meeru program*** in Andhra Pradesh is also one of the best examples for watershed management
- ***Arvary pani sansad*** (in Alwar- Rajasthan) is another example
- Besides various water harvesting structures such as percolation tanks, dug out ponds, check dams are taken up by the local participation
- Tamil Nadu has made water harvesting structure in the houses compulsory

## Rainwater Harvesting

- It is a method to capture and storage water for various uses
- It is also used to recharge groundwater aquifers
- It is low cost and eco - friendly technique for preserving every drop of water by passing the rain water to bore wells

## Advantages Of Rainwater Harvesting

- Increases water availability
- Checks the declining groundwater table
- Improves the quality of groundwater
- Prevents soil erosion and flooding and arrest salt water intrusion in coastal areas

## Methods Of Rainwater Harvesting

- Harvesting through watershed management
- Harvesting through lakes
- Harvesting through service lakes

- Harvesting through recharge well
- Traditional rainwater harvesting in rural areas by using surface storage bodies like lakes Ponds irrigation tanks
- In Rajasthan rainwater harvesting structures locally known as **Kund Or Tanka** ( a covered underground tank) constructed near or in the house or village to store harvested rainwater
- Apart from this desalinisation of water particularly in coastal areas and brackish water in arid and semi-arid areas, interlinking rivers from the surface area to the deficit areas are the important remedies for solving water problem in India

### Highlights Of India's National Water Policy -2002

- Irrigation and multipurpose projects should invariably include drinking water component wherever there is no alternative source of drinking water
- Providing drinking water to all human beings and animals should be the first priority
- Measures should be taken to limit and regulate the exploitation of groundwater
- Both surface and groundwater should be regularly monitored for quality
- A phased programme should be undertaken for improving water quality
- The efficiency of utilisation in all the diverse uses of water should be improved
- Awareness of water as a scarce resource should be fostered
- Conservation consciousness should be promoted through education, regulation, incentives and disincentives.

.No.1: Assertion (A): The ground water utilization is relatively high in the river basins lying in the north western region and parts of south India.

Reason (R): This is due to deficiency of rainfall.

- A) Both A and R are true and R is the correct explanation of A
- B) Both A and R are true but R is not the correct explanation of A
- C) A is true but R is false
- D) A is false but R is true.

Ans A. Both A and R are true and R is the correct explanation of A

2. Assertion (A): The concentration of Arsenic in parts of West Bengal and Bihar has increased.

Reason (R): This is due to over use of ground water resources has led to decline in ground water.

- A) Both A and R are true and R is the correct explanation of A
- B) Both A and R are true but R is not the correct explanation of A
- C) A is true but R is false
- D) A is false but R is true.

ans A. Both A and R are true and R is the correct explanation of A.

3. Assertion (A): The concentration of pollutants in rivers especially remains high during summer season when the flow of water is less.

Reason(R): This is because of heavy rainfall in summer and excess evaporation.

- A) Both A and R are true and R is the correct explanation of A
- B) Both A and R are true but R is not the correct explanation of A
- C) A is true but R is false
- D) A is false but R is true.

Ans C -A is true but R is false

4. Assertion (A): Water shed management refers to efficient management and conservation of surface and ground water resources.

Reason(R): This is done by prevention of runoff and storage and recharge of ground water.

- A) Both A and R are true and R is the correct explanation of A
- B) Both A and R are true but R is not the correct explanation of A
- C) A is true but R is false
- D) A is false but R is true.

Ans A. Both A and R are true and R is the correct explanation of A.

5. Assertion (A): The states like Kerala, Orissa and West Bengal have vast surface water resources in lagoons and lakes.

Reason(R): It is used for fishing and irrigating certain varieties of paddy crops, coconut etc,

- A) Both A and R are true and R is the correct explanation of A
- B) Both A and R are true but R is not the correct explanation of A
- C) A is true but R is false
- D) A is false but R is true.

Ans A. Both A and R are true and R is the correct explanation of A.

6. Assertion (A): The Ganga and Yamuna are the two highly polluted rivers in the country.

Reason (R): It is due to addition of foreign substances, microscopic organisms, chemicals, industrial and other wastes.

- A) Both A and R are true and R is the correct explanation of A
- B) Both A and R are true but R is not the correct explanation of A
- C) A is true but R is false
- D) A is false but R is true.

Ans A. Both A and R are true and R is the correct explanation of A.

7. Identify the sector that consumes the highest amount of water in India.

- A) Industry
- B) Agriculture
- C) Domestic.
- D) None of the above.

Ans B. Agriculture

8. In which year, Government of India has launched “Jal Kranthi Abhiyan”?

- A) 2011-12
- B) 2013-14

C) 2015-16

D) 2017-18

Ans C. 2015-16

9. Neeru-- Meeru programme belongs to which State?

A) Gujarat.

B) Rajasthan.

C) Punjab.

D) Andhra Pradesh

Ans D. Andhra Pradesh

10. Haryali programme is related to development of --

A) Forest cover

B) Watershed development

C) Soil conservation

D) Food grain production.

Ans B. Watershed Management

11. Which one the following rivers have the highest replenishable ground water resources in

the Country.

A) The Indus

B) The Brahmaputra.

C) The Ganga

D) The Godavari

Ans C. The Ganga.

12. Which method is not related to rainwater harvesting?

A) Green Belt

B) Check Dam.

C) Recharge wells

D) Eris

Ans- A) Green Belt

13. Which part of the river has good quality of water?

A) Mountain

B) Plain.

C) Delta.

D) Valley.

Ans A. Mountain

14. Environment protection act was implemented in-----

A) 1974

B) 1986

C) 1988

D) 1997

Ans B. 1986

15. What is the negative impact of intensive irrigation in the states of Punjab, Haryana and

Western Uttar Pradesh?

A) Increasing salinity in the soil

B) Increasing soil erosion

C) Soil become alkaline

D) Decreasing of soil fertility

Ans A. Increasing salinity in the soil

16. Consider the following and choose the correct answers from the given options,

I. Over withdrawals of ground water in Rajasthan and Maharashtra increased fluoride concentration.

II. This practice has led to increase in concentration of Arsenic in parts of west Bengal and Bihar.

Options: A) Only statement I is correct

B) Only statement II is correct

C) Both I&II are correct.

D) Both the statements are wrong.

Ans C. Both I & II are correct.

17. Consider and evaluate the following statements and choose the correct answer from the given

Options.

Options: I The availability of usable water is limiting day by day.

II The available water resources is getting polluted due to increase in population, Industrial, agricultural and domestic effluents.

A) Only statement II is correct

B) Both are correct, statement II correctly explains statement I

C) Both are correct but not related to each other

D) Both are wrong.

Ans B. Both are correct, statement II correctly explains statement I

18. Which of the following is not the benefit of Rainwater harvesting?

A) It increases water availability

B) It checks the declining ground water

C) It improves the quality of ground water through dilution of contaminants like Fluoride and nitrates.

D) Helpful in the production of hydroelectricity

Ans D. Helpful in the production of Hydroelectricity



19. Read the note on outsourcing given below and the answer the questions that follow

Ralegan Siddhi is a small village in the district of Ahmednagar, Maharashtra. It has become an example for watershed development throughout the country. In 1975 this village was caught in a web of poverty and illicit liquor trade. The transformation took place when a retired army personnel, settled down in the village and took up the task of water development. He convinced villagers about the importance of family planning and voluntary labour; preventing open grazing, felling trees and liquor prohibition. Voluntary labour was necessary to ensure minimum dependence on the government for financial aids. "It socialised the costs of the projects.", explained the activist. Even those who were working outside the village contributed to the development by committing a month's salary every year. Work began with the percolation tank constructed in the village. In 1975 the tank could not hold water. The embankment wall leaked. People voluntarily repaired the embankment. The seven wells below it swelled with water in summer for the first time in the living memory of the people.

The people reposed their faith in him and his visions. A youth group called Tarun Mandal was formed. The group worked to ban the dowry system, caste discrimination and untouchability. Liquor distilling units were removed and prohibition imposed. Open grazing was completely banned with a new emphasis on stall feeding. The cultivation of water intensive crops like sugarcane was banned. Crops such as pulses, oilseeds and certain cash crops with low water requirements were encouraged. All elections to local bodies began to be held on the basis of consensus. "it made community leaders complete representatives of the people.". a system of Nyay panchayats (informal courts) were also setup. Since then, no case has been referred to the police. A Rs. 22 lakh school building was constructed using only the resources of the village. No donations were taken. Money if needed was borrowed and paid back.

The villagers took pride in this self-reliance. A new system of sharing labour grew out of this infusion of pride and voluntary spirit. People volunteered to help each other in agricultural operation. Landless labourers also gained employment. Today the village plans to buy land for them in adjoining villages. At present water is adequate; agriculture flourishing, though the use of fertilizers and pesticides is very high. The prosperity also brings the question of ability of the present generation to carry on the work after the leader of the movement who declared that,"Then process of Ralegan's evolution to an ideal village will not stop. With changing times, people tend to evolve new ways. In future, Ralegan might present a different model to the country.

Answer any three questions:

(i) In which state is Ralegan Siddhi situated?

(A) Tamil Nadu (B) Andhra Pradesh (C) Maharashtra (D) Arunachal Pradesh

(ii) What happened to the embankment wall in 1975?

(A) Fell down (B) Leaked (C) Held steady (D) destroyed by terrorists.

(iii) What was the name given to the youth group formed?

(A) Youth ekta (B) Yuva Mandal (C) Tarun Mandal (D) Students to soldiers

(iv) How much donation was arranged to construct school building?

(A) Nil (B) Rs. 10 lakhs (C) Rs. 20 lakhs (D) Rs. 22 lakhs

Ans 19. 1. C. Maharashtra.

2. B. Leaked.

3. C Tarun Mandal.

4. (D) Rs. 22 lakhs

20. Which of the following programme has been launched by union government for the cleaning of river Ganga?

A) Ganga action plan

(B) Namami Ganga

(C) Ganga namami Action plan

(D) Ganga cleaning mission

Ans B. Namami Ganga.

21. The river basin which makes the minimum utilization of ground water is:

(A) Gomti (B) Luni (C) Subarnarekha (D) Mahanadi

Ans B. Luni.

### **SHORT ANSWER QUESTIONS**

01. Define watershed management.

Answer: Watershed management means the proper management, use and saving of surface and

Ground water resources. Prevention of surface runoff and storage and recharge of groundwater

by different methods such as percolation tanks, recharge well, etc are done in the watershed.

02. Mention any two states where groundwater level utilization is very high.

Ans Punjab and Haryana.

03. Which sector grounds for most of the surface and ground water utilization?

Ans Agriculture.

04. Why is irrigation required? Give one reason?

Ans Because of spatio temporal variability in rainfall in the country.

05. In which state major part of irrigation is carried out by well, tube-wells?

Ans Gujrat.

06. Mention two highly polluted rivers of our country.

Ganga and Yamuna.

07. What is the local name of rainwater harvesting structure in Rajasthan?

Kund & Tanka.

08. Who has Sponsored Hariyali programme?

Ans Central Govt. of India.

09. In which state Aravarypani sansad has been launched?

Ans Rajasthan.

10. What is the total amount of repleishable groundwater resources in the country?

Ans- 432 cubic kilometres

11. What is the total amount of water available from annual precipitation in India?

Ans- 4000 cubic kilometres

12. What is the total amount of water available from the annual flow in the river basins in India?

Ans- 1869 cubic kilometres.

13. What are Lagoons? What is the utility of such lagoons to the mankind. Give example.

Ans- Lagoon - A shallow body of water separated from a larger body of water by barrier or reef. Example- Chilka lake in odisha

Importance-

1) used for fishing

2) used for irrigating paddy crops, coconut etc.

14. How many rivers are there in India longer than 1.6 km ?

Ans- 10,360 rivers.

15. What is the impact of intensive irrigation on agriculture in Punjab, Haryana and west U.P.?

Ans- Two disadvantages –

1) Increasing salinity in the soil

2) Depletion of ground water resource.

16. Who initiated Haryali watershed development program in the country?

Ans- Central govt.

17. Which sector (economic activity) uses most of the surface and ground water in India?

Ans- Agriculture sector

18. Why is the demand of water for irrigation increasing day by day in India.

Or

“India’s water demand at present is dominated by irrigational needs.” Explain.

Ans- Demand of water is increasing for irrigation due to following reasons. -

1) Uncertain rainfall

2) Drought prone areas need irrigation

3) Dry seasons need irrigation.

19. Describe any three key features of Indian National Water Policy, 2002.

Ans- The key features of Indian National Water Policy, 2002. Are-

1) Providing drinking water to all human being and animals.

2) Measures to be taken to control exploitation of groundwater.

3) Awareness program for water conservation.

20. Explain any three major problems related to water in India.

Ans- The major problems related to water in India are –

1) Low availability of fresh water

2) Water pollution

3) Uneven distribution of water resources.

21. Mention any two sources of water pollution in India.

Ans- 1) Domestic waste 2) Industrial waste

22. Give three reasons of depleting quality of water and scarcity of water?

(i) Increasing demand of water

(ii) Excessive use of water

(iii) Water pollution.

23. Describe the use of water in various sectors -

(3) (i) Agriculture

(ii) Multipurpose projects

(iii) Industrial sector.

24. Why is irrigation necessary in India?

Ans Because of the following reasons-

(i) Seasonal rainfall

- (ii) Uncertainty of rainfall
- (iii) Uneven distribution of rainfall
- (iv) Growing more and more food crops
- (v) Dry climate in some region
- (vi) Cash crops.

25. What are the main features of National Water policy of India 2002. Explain

Ans : (i) Make available drinking water to everyone.

(ii) To check the exploitation of groundwater.

(iii) Start programme to check and improve the quality of water.

(iv) To create awareness among people about water in the form of; Rarely available resource;

(v) Scientific use of water

(vi) Increasing conservation awareness by educational institutions and other enterprises.

26. What factors are responsible for maximum water development in Punjab Haryana and Tamil Nadu?

Ans : (i) Perennial rivers

(ii) Capacity of easy seepage of water in the soil

(iii) More capacity of ground water resources.

27. What is rain water harvesting? Explain the objectives of rainwater harvesting.

Ans Rain water harvesting is a technique of collecting rainwater and also increasing water level in the ground.

Objectives-

(i) Meeting with the increasing demand of water.

(ii) Checking floods.

(iii) To meet out with the domestic demand during dry spell in summer.

28. Why is Conservation of water necessary in India? Give three reasons.

Ans: (i) Completing the demand of water of increasing population.

(ii) Due to intensive agriculture

(iii) Due to industrialization

LONG ANSWER

Q1. Explain the factors responsible for the depletion of water resources.

Ans- The factors responsible for the depletion of water resources are-

1) Increasing population

2) Industrialisation

3) Over utilization of Ground Water.

4) Unscientific method of water conservation and management.

5) Lack of people awareness.

Q2. What is watershed management? Do you think it can play an important role in sustainable development?

Ans- Watershed Management- It basically refers to the efficient management and conservation of surface and groundwater resources.

It can play an important role in sustainable development in the following way-

1) Rain water harvesting

2) Re-cycling of water

3) Prevention of water pollution

4) Saving water in house hold work

5) Awareness program for water conservation.

Q3. How has rainwater harvesting helped in the development of certain areas of India?

Ans- The rainwater harvesting help in the development of certain areas of India in the following manner-

1) It is the method of capturing and storing rainwater

2) Refilled the groundwater wells

- 3) It improves water quality
- 4) Reduces the water pollution
- 5) It increases ground water level.

Q4. What factors are responsible for highest ground water development in the states of Punjab, Haryana and Tamil Nadu?

Ans-The factors responsible for highest ground water development are-

- 1) These areas are not benefitted by monsoon
- 2) These areas experience dry winters and dry summers.
- 3) Water intensive crops grown here make irrigation necessary
- 4) Irrigated land has higher agricultural productivity.
- 5) HYV crops grown here need regular moisture supply .

Q5. What is 'Jal Kranti Abhiyan'? What is its aim?

Ans- It was launched by Govt. of India in 2015-16 to ensure water security through per capita

availability of water in the country.

AIM of Jal Kranti Abhiyan-

- 1) Selection of one water stressed village in each district to create 'Jal Gram'
  - 2) Identification of model command area of about 1000 hectares in different parts of the country
  - 3) Abatement (minimizing) of water pollution
  - 4) Water conservation
  - 5) Creating mass awareness
6. Discuss the availability of water resource in the country and factor that determine its Spatial distribution.

Ans The spatial distribution are:

(1) Surface water resource - The mean annual flow in all the river basins in India is Estimated to be 1869 cubic k.m. There are four major sources of surface water. These



are rivers, lakes, ponds and tanks. Only about 690 cubic km (32%) of the Available surface water can be utilised.

(2) Ground Water Resource- The total ground water resources in the country are about 432 cubic km. The Ganga and the Brahamaputra basins have about 46% of the total groundwater resources.

(3) Lagoons & Backwaters- There are several Lagoon lakes at the coastline of India. Such Lakes are largely found in Kerala, Orissa & West Bengal. The water is generally brackish.

Factors:

- (1) Uneven distribution of rainfall
- (2) Difference in relief
- (3) Difference in soil types
- (4) Difference in natural vegetation
- (5) Drainage system
- (6) Seacoast

7. What is watershed Management? Do you think It can play an important role in sustainable development?

Ans: It refers to efficient management and Conservation of surface and ground water resources. It involves prevention of run off and storage and recharge of ground water. It can play an important role in sustainable development by the following Methods:

- (1) Watershed development
- (2) Rainwater Harvesting
- (3) Re-cycling of water
- (4) Conjunctive use of water
- (5) Saving water in household works
- (6) Prevention of water pollution
- (7) Re-use of water
- (8) People awareness about water conservation.

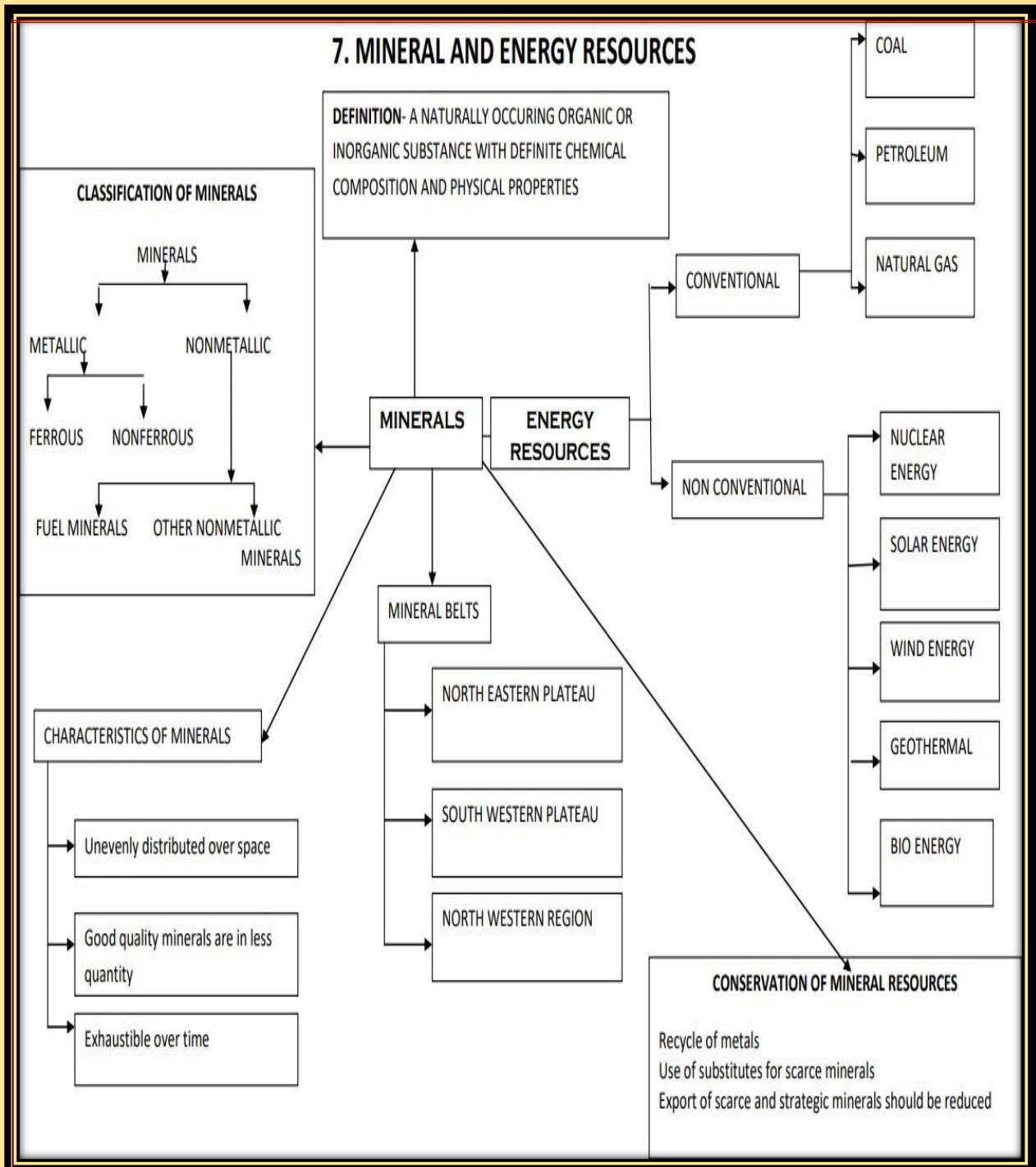
## MAP WORK

Q1. - Show the following on the outline political map of the India-

1. The river which has the highest replenishable ground water resource in the country (The Ganga)
2. State with highest % of net irrigated area to total by well and tube-wells. (Gujarat)
3. Ralegan-siddhi lies in which state of India (Maharashtra)
4. Neeru-Meeru program initiated in which state (Andhra Pradesh)
5. Arvary pani sansad program initiated in which state (Rajasthan)
6. South Indian state with highest ground water utilisation. (Tamil Nadu)

# CHAPTER-5

## MINERAL AND ENERGY RESOURCES



## KEY NOTES

What is meant by mineral?

Mineral is a natural substance of organic or inorganic origin with definite chemical and physical properties

Types of mineral resources

- a. Metallic minerals
- b. Non-metallic minerals

Metallic minerals

Ferrous (Example- iron, manganese,)

Nonferrous (Example- copper, bauxite etc...)

Non-metallic mineral

Fuel mineral (Example- Coal, Petroleum natural gas)

Other non-metallic minerals (Example- mica, limestone graphite etc...)

### Characteristics of minerals

- Unevenly distributed over the surface
- Good quality minerals less in quantity
- Bad quality minerals are more in quantity
- They are exhaustible
- Minerals take long time for their formation
- It cannot be formed over a short period of time

Why conservation of mineral resources is necessary?

- They are exhaustible in nature
- Once the resources are consumed it cannot be renewed at short span of time
- Countries industrial development and progress entirely depends on the mineral resources

Agencies involved for exploring minerals

- Geological Survey of India (GSI)
- Oil and Natural Gas Commission (ONGS)
- Mineral Exploration Corporation Limited (MECL)
- National Mineral Development Corporation (NMDC)

- India Bureau of Mines (IBM)
- Bharat Gold Mines (BGM)
- National Aluminium Company Limited (NALCO)

### **Mineral Belts of India**

- The North eastern plateau region
- The southwestern plateau region
- The North Western region
- Himalayan belt
- Assam Valley

### **Distribution of minerals in India**

#### The North Eastern plateau region

- This belt covers Chota Nagpur, Orissa plateau, West Bengal and parts of Chhattisgarh

#### The southwestern plateau region

- This belt extends over Karnataka, Goa and Tamil Nadu uplands and Kerala

#### The North Western region

- This belt extends along Aravalli in Rajasthan and parts of Gujarat and Minerals are associated with the Dharwad system of rocks

### Ferrous Minerals

#### Iron ore

- our country has abundant resources of iron ore
- ours is the largest iron ore reserve in Asia
- Haematite and Magnetite are the two important main types
- High quality iron ore creates great demand in world market
- Fortunately, the iron ore is found near coalfields and mines in the North-eastern plateau region
- The most important producers are Orissa, Jharkhand Chhattisgarh, Karnataka, Goa, Andhra Pradesh and Tamilnadu
- Orissa - Found in the hill ranges of Sundargarh, Mayurbhanj and Jhar
- Jharkhand - Noamundy and Guna in Singham districts
- This belt further extends to Durg, Dandiwada and Bailadila
- Dalli and Rajghara are important mines in the country

- Karnataka - Occurs in Sandur - Hospet areas of Bellary district, Bababudan hills and kudremukh in Chikmagalur district and parts of Shimoga, Chitradurga in Tumkur district
- Maharashtra – Chandrapur, Bhandara and Ratnagiri districts
- Andhra Pradesh - Karim Nagar, Warangal, Kurnool, Kadapa and Anantapur
- Tamilnadu -Salem and Nilgiris districts

### Manganese

- It is an important raw material for smelting iron ore
- Orissa is a leading producer
- Major mines in Orissa – Banai, kendujhar, Sundargarh Karnataka is another producer- Dharwar, Bellary, Belgaum North Canara, Chikmagalur, Shimoga, Chitradurga and Tumkur are the major mining areas
- Maharashtra is another important producer of manganese Nagpur, Bhandara and Ratnagiri district
- Madhya Pradesh extends in a belt in Balaghat-chhindwara – nimar-mandla and jhabua districts
- Andra pradesh,goa,and jharghand are minor producers

### Nonferrous Minerals

#### Bauxite

- Bauxite is the ore which is used in manufacturing aluminium
- Bauxite is found in tertiary deposits and is associated with laterite rocks
- Orissa is the largest producer
- Tamil Nadu, Karnataka and Goa are the minor producers

### Copper

- copper is an indispensable metal in the electrical industry for making wires, electric motors, Transformers and generators
- Main producers are Madhya Pradesh and Jhunjhunu in Rajasthan

### Non - Metallic Minerals

#### Mica

- Used in the electrical and electronic industries
- It can be split into very thin sheet which are tough and flexible
- Main producers are Jharkhand, Andhra Pradesh

and Madhya Pradesh

### Energy Resources

- Mineral fuel is essential for generating power

- Mineral fuel like Coal, Petroleum and natural gas nuclear energy minerals are the conventional energy sources of energy
- Required for agriculture industry, transport and other sectors of the economy

### Coal

- Used in the generation of thermal power and smelting of iron ore
- Occurs in rock sequences mainly of two geological ages namely Gondwana and tertiary deposits
- Jharia is the largest coalfield followed by Raniganj

### Petroleum

- Crude petroleum consists of hydrocarbons of liquid and gases States varying in chemical composition colour and specific gravity
- It occurs in sedimentary rocks of the tertiary period The Digboi in Assam was the only oil producing region
- But the scenery has changed after 1956
- The major oil fields of Gujarat - Ankleshwar, Kalol Mehsana Nawagam Kosamba and Lunej
- There are two types of Refineries in India
- Field based -example Digboi
- Market based - example Barauni in Bihar

### Natural Gas

- The gas Authority of India limited was set up in 1984 as a public sector undertaking to transport and to market natural gas
- Located exclusively in the eastern Coastal areas (Tamil Nadu Orissa, Andra pradesh) Tripura, Rajasthan and off-shore Wells in Gujarat and Maharashtra

### Non- Conventional Energy Resources

- Fossil fuel sources such as Coal Petroleum natural gas and nuclear energy will be exhausted
- The non-conventional sources will provide more sustained eco friendly

### Nuclear Energy Resources

- Important minerals used for the generation of nuclear energy are uranium and Thorium

- Found in Udaipur, Alwar and Jhunjhunu districts of Rajasthan, Durg districts of Chhattisgarh Bandara districts in Maharashtra
- Thorium is mainly obtained from monazite and limonite in the beach Sands along the West Coast of Kerala and Tamilnadu
- World's richest monocyte deposits occur in Palakkad and Kollam district of Kerala, near Visakhapatnam in Andhra Pradesh and Mahanadi river delta in Orissa
- Atomic energy commission was established in 1948

#### The important nuclear power projects

- Tarapur in Mumbai
- Rawatbhata- near Kota Rajasthan
- Kalpakkam -near Chennai Tamil Nadu
- Narora- Uttar Pradesh
- Kaiga -Karnataka and
- Kakrapara - Gujarat

#### Solar Energy

- Sun rays tapped in photovoltaic cell can be converted into energy
- Easy to construct, eco friendly
- It is 7% more effective than coal or oil-based plans 10% more effective than nuclear plants
- Used in heaters, hair dryers' cookers etc...
- Gujarat and Rajasthan have more potential to develop

India has fast potential to develop solar energy in future. Justify?

- India, being a tropical country has enough scope for production and utilisation of solar energy
- It is about 20 megawatt per square kilometre per annum
- Solar energy has become popular in the country and can be used for cooking pumping heating of water and Street lightning
- The North Western desert areas have more chances for the development of solar power houses

#### Wind Energy

- It is absolutely pollution free and inexhaustible source of energy
- The mechanism of energy conversion from blowing wind is simple



- The kinetic energy of wind, through turbines is converted into electrical energy
- The permanent wind system such as trade winds, westerlies and seasonal winds like monsoon have been used as a source of energy
- Besides these local winds, land and sea breeze can also be used to produce electricity
- In Rajasthan, Gujarat, Maharashtra, and Karnataka favourable conditions for wind energy exist
- Wind power plant at Luma in Gujarat in Kachchh is the largest in Asia
- Located also in Tuticorin in Tamilnadu

### Tidal And Wave Energy

- Ocean currents are the store house of infinite energy
- Large tidal waves are known to occur along the West Coast of India

### Thermal Energy

- When the magma comes out from the interior of earth to the surface tremendous heat is released
- The heat energy can successfully be tapped and converted to electrical energy
- Located in Manikaran in Himachal Pradesh

### Bio-energy

- Energy derived from agricultural residues, Municipal Industrial and other waste
- Bio energy is potential source of energy conversion
- It can be converted into electrical energy heat energy or gas for cooking
- One such project converting Municipal waste into energy is Okhla in Delhi

### Conservation Of Energy Resources

#### Conservation Of Mineral Resources

- Adapting efficient mining technology to check the wastage of mineral resources
- Introducing the alternative energy sources like solar power, wind wave, thermal energy
- Use of scrap metal will enable recycling the metals like a copper, lead and Zinc

- Finding substitute minerals which are available in abundance- example use of aluminium instead of copper
- Export of the mineral resources to the foreign exchange should be minimized.

### **MULTIPLE CHOICE QUESTIONS**

1. Which of the following is not an example of ferrous minerals?
  - a. Iron ore
  - b. Manganese
  - c. Cobalt
  - d. Bauxite
2. Which of the following regions is not associated with the availability of petroleum?
  - a. Assam
  - b. Gujarat
  - c. Mumbai High
  - d. Madhya Pradesh
3. Neyveli coal reserves are found in which of the following region?
  - a. North-east plateau region
  - b. South-west plateau region
  - c. North-western region
  - d. North-eastern states
4. Which of the following minerals are provided as raw materials for the cement industry?
  - a. Gypsum and lead
  - b. Cobalt and limestone
  - c. Dolomite and limestone
  - d. Zinc and bronze
5. Which of the following mines are not associated with Odisha?
  - a. Badampahar
  - b. Rajahra
  - c. Sulaipet
  - d. Gurumahisani
6. Which of the following is the oldest oil producing region of India?
  - a. Ankaleshwar
  - b. Digboi

- c. Mumbai High
- d. Naharkatiya

### ANSWER

- 1. Bauxite
- 2. Madhya Pradesh
- 3. South-west plateau region
- 4. Dolomite and limestone
- 5. Rajahra
- 6. Digboi

### VERY SHORT ANSWERS

- 1. What is a mineral?  
A mineral is a natural substance of organic or inorganic origin with definite chemical and physical properties.
- 2. Why is India endowed with a rich variety of mineral resources?  
India is endowed with a rich variety of mineral resources due to its varied geological structure.
- 3. Which are the two types of iron ore found in India? Haematite, Magnetite
- 4. Why Indian iron ore has great demand in international market?  
It has great demand in international market due to its superior quality.
- 5. State any two uses of manganese  
Manganese is an important raw material for smelting of iron ore and also used for manufacturing ferro alloys.
- 6. Which state leads in manganese production?  
Odisha is the leading producer of Manganese
- 7. Name any two ferrous minerals other than iron ore  
Manganese, Chromite
- 8. What is the utility of Bauxite as a mineral?  
Bauxite is the ore which is used in manufacturing of aluminum.
- 9. Which metal is obtained from bauxite?  
Aluminium

10. Which metal is indispensable in electrical industry?  
copper
11. Name any two non ferrous minerals.  
Aluminium, copper
12. Name the place of Maharashtra where an atomic power station is located. Tarapur in Maharashtra
13. Name any two fossil fuels  
Coal, petroleum, natural gas
14. Name the organization that markets and transports natural gas  
The Gas Authority of India Limited
15. Name the two types of geological formation containing coal deposits in the country  
Coal occurs in rock sequences mainly of two geological ages, namely Gondwana and tertiary deposits.
16. Distinguish between thermal electricity and hydro electricity  
Electricity generated from coal is called thermal electricity and that generated from falling water is hydroelectricity.
17. Write the name of four river valleys known for the occurrence of Gondwana coal  
The most important Gondwana coal fields of India are located in Damodar Valley. The other river valleys associated with coal are Godavari, Mahanadi and Sone.
18. What is Mumbai high known for?  
Off shore oil field.
19. Name the place where first oil refinery of India was set up?  
Digboi
20. Where was the first atomic power station set in India?  
Tarapur in Maharashtra
21. Name four conventional sources of energy  
Coal, petroleum, natural gas, nuclear energy
22. Which are the two types of refineries in India? Give an example of each  
(a) field-based and (b) market-based  
(b) Digboi is an example of field-based and Baruni is an example of market-based refinery
22. Why is petroleum referred to as liquid gold?  
Petroleum is referred to as liquid gold because of its scarcity and diversified uses.

## SHORT ANSWER QUESTIONS

1. Describe any three characteristics of minerals?
  - Minerals are unevenly distributed over space.
  - There is inverse relationship in quality and quantity of minerals i.e. good quality minerals are less in quantity as compared to low quality minerals. T
  - All minerals are exhaustible over time
2. State any one characteristic each of metallic and non-metallic minerals?

Characteristics of Metallic Minerals: -

Ductile, malleable, good conductor of heat and electricity, sonorous etc.

Characteristics of Non-Metallic Minerals: -

These minerals don't have all the above-mentioned characteristics/ These are either organic such as fossil fuels or inorganic such as Mica, limestone etc.

3. State any one characteristic each of ferrous and non-ferrous minerals.

Ferrous Minerals: -

Ferrous Minerals are those minerals which have some contents of iron ore like iron and manganese etc.

Non-Ferrous Minerals: -

Non - ferrous minerals are those minerals which have no trace of iron like copper, bauxite etc.

4. Classify minerals on the basis of chemical and physical properties?  
Classification of minerals - i. Metallic ii. Non – metallic
5. Give two advantages of copper. Mention four main copper mining areas of India.?
  - Copper is alloyable, malleable and ductile. It is also mixed with gold to provide strength to jewellery
  - The Copper deposits mainly occur in Singhbhum district in Jharkhand, Balaghat district in Madhya Pradesh and Jhunjhunu and Alwar districts in Rajasthan
6. How are canaries helpful in the detection of CO in the underground coal mines?  
Canaries are used to detect the presence of deadly carbon monoxide in underground mines When canaries are lowered into mines with CO presence, the birds show distress symptoms such as ruffling of feathers, pronounced chirping and loss of life. These reactions occur even if 0.15 per cent of CO is present in the air. If the content

is 0.3 per cent the bird shows immediate distress and falls off its perch in two to three minutes

7. Why should mineral resources be conserved? Explain any three ways to conserve mineral resources in India.
- The alternative energy sources like solar power, wind, wave, geothermal energy are inexhaustible resources. These should be developed to replace the exhaustible resources.
  - In case of metallic minerals, use of scrap metals will enable recycling of metals. Use of scrap is especially significant in metals like copper, lead and zinc in which India's reserves are meagre.
  - Use of substitutes for scarce metals may also reduce their consumption.
  - Export of strategic and scarce minerals must be reduced, so that the existing reserve may be used for a longer period.

### LONG ANSWER QUESTIONS

1. Classify minerals into two groups on the basis of chemical and physical properties and give one example of mineral of each group.?
- On the basis of chemical and physical properties, minerals may be grouped under two main categories of metallic and non-metallic.
  - Metallic minerals are the sources of metals. Iron ore, copper, gold
  - Metallic minerals are further divided into ferrous and non-ferrous metallic minerals.
  - All those minerals which have iron content are ferrous such as iron ore itself and those which do not have iron content are non-ferrous such as copper, bauxite, etc.
  - Non-metallic minerals are either organic in origin such as fossil fuels also known as mineral fuels which are derived from the buried animal and plant life such as coal and petroleum.
  - Other type of non-metallic minerals are inorganic in origin such as mica, limestone and graphite, etc.
2. Mention the three major mineral belts in India. Write the main feature of each?
1. The North-Eastern Plateau Region
  2. The South-Western Plateau Region
  3. The North-Western Region

### **The North-Eastern Plateau Region**

- This belt covers Chhota Nagpur (Jharkhand), Odisha Plateau, West Bengal and parts of Chhattisgarh.
- It has variety of minerals viz. iron ore coal, manganese, bauxite, mica. The

### **South-Western Plateau Region**

- This belt extends over Karnataka, Goa and contiguous Tamil Nadu uplands and Kerala.
- This belt is rich in ferrous metals and bauxite. It also contains high grade iron ore, manganese and limestone.
- This belt lacks in coal deposits except Neyveli lignite.
- This belt does not have as diversified mineral deposits as the north-eastern belt.
- Kerala has deposits of monazite and thorium, bauxite clay.
- Goa has iron ore deposits

### **The North-Western Region**

- This belt extends along Aravali in Rajasthan and part of Gujarat and minerals are associated with Dharwar system of rocks.
  - Copper, zinc have been major minerals.
  - Rajasthan is rich in building stones i.e. sandstone, granite, marble. Gypsum and Fuller's earth deposits are also extensive.
  - Dolomite and limestone provide raw materials for cement industry.
  - Gujarat is known for its petroleum deposits.
3. "The promotion of the use of non-conventional sources of energy in India is the need of the hour." Support the statement
- (i) Non-conventional resources of energy are highly valuable.
  - (ii) They are able to produce sustainable energy.
  - (iii) They are easily available in different parts.
  - (iv) They are very abundant in nature.
  - (v) They will provide sustainable, eco-friendly and cheap energy.

4. Name five sources of non-conventional energy in India and also state one potential area of each source of non-conventional energy.

- Solar energy – Gujarat and Rajasthan
  - Wind energy - Rajasthan, Gujarat, Maharashtra and Karnataka
  - Tidal energy- west coast of India
  - Geothermal energy-  
Manikaran in Himachal Pradesh
  - Bio energy- Okhla in Delhi

## CASE/SOURCE BASED QUESTIONS

Nuclear energy has emerged as a viable source in recent times. Important minerals used for the generation of nuclear energy are uranium and thorium. Uranium deposits occur in the Dharwar rocks. Geographically, uranium ores are known to occur in several locations along the Singhbhum Copper belt. It is also found in Udaipur, Alwar and Jhunjhunu districts of Rajasthan, Durg district of Chhattisgarh, Bhandara district of Maharashtra and Kullu district of Himachal Pradesh.

Thorium is mainly obtained from monazite and ilmenite in the beach sands along the coast of Kerala and Tamil Nadu. World's richest monazite deposits occur in Palakkad and Kollam districts of Kerala, near Vishakhapatnam in Andhra Pradesh and Mahanadi river delta in Odisha. Atomic Energy Commission was established in 1948, progress could be made only after the establishment of the Atomic Energy Institute at Trombay in 1954 which was renamed as the Bhabha Atomic Research Centre in 1967. The important nuclear power projects are Tarapur (Maharashtra), Rawatbhata near Kota (Rajasthan), Kalpakkam (Tamil Nadu), Narora (Uttar Pradesh), Kaiga (Karnataka) and Kakrapar (Gujarat)

1. Name the six nuclear power plants of India
  1. Tarapur (Maharashtra),
  2. Rawatbhata near Kota (Rajasthan),
  3. Kalpakkam (Tamil Nadu),
  4. Narora (Uttar Pradesh),
  5. Kaiga (Karnataka) and Kakrapar (Gujarat)

## DIAGRAM/MAP BASED QUESTIONS

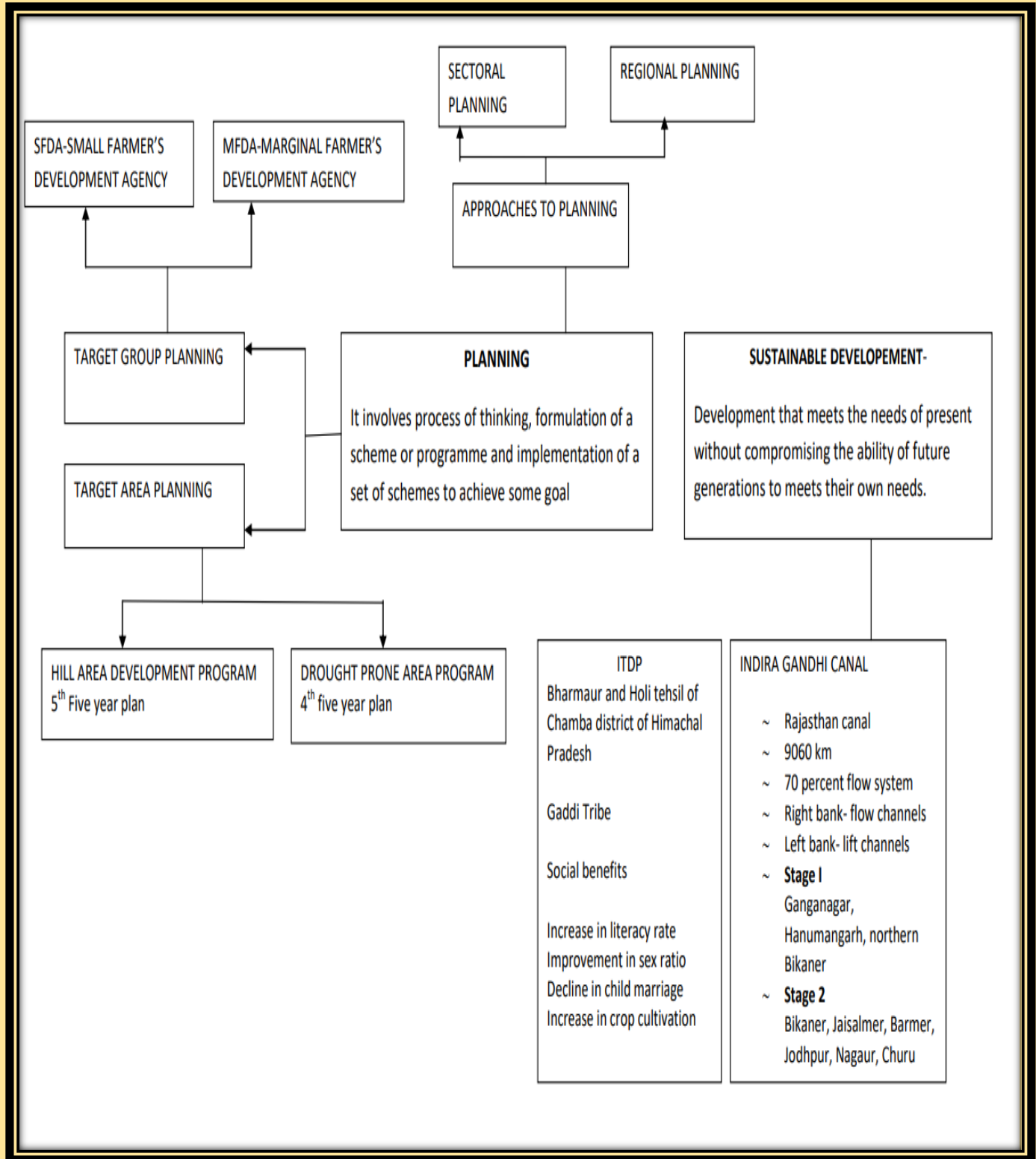
- a. Name the state which has maximum oil refineries- Assam
- b. Name two states with two refineries each  
Andhra Pradesh- Vishakhapatnam, Tatipaka  
Tamil Nadu- Chennai, Nagapattinam





## CHAPTER-6

### PLANNING AND SUSTAINABLE DEVELOPMENT



## **KEY NOTES**

- Term planning means taking decisions to implement them in order to attain economic development

### Two approaches of planning

- Sectoral planning
- Regional planning
- Sectoral planning means formulation and implementation of set of programs at development of the various sectors of the Indian economy
- It aims at particular sectors like agriculture, irrigation manufacturing, power, construction, transport and communication, social infrastructure development and services
- Regional planning means more concentration on the balanced development of the whole region with a view to reduce the economic disparities between the various regions of country

### **Target Area Planning**

- It is the process to take special care of those areas which have remained economically backward
- The economic development requires technology as well as investment besides the resources
  - Command Area Development Programme
  - Drought Prone Area Development Programme
  - Desert Development Programme
  - Hill Area Development Programme
  - The Small Farmers Development Agency (SFDA)
  - Marginal Farmers Development Agency (MFDA)

### **Hill Area Development Programme**

- It was initiated during fifth five-year plan covering 15 districts comprising all the hilly districts of Uttar Pradesh north Kakkar Hills of Assam, Darjeeling districts of West Bengal and Nilgiri districts of Tamilnadu
- The basic criteria to identify these areas having height above 600 metres and not covered under any tribal sub plan programs
- These programs are aiming at development of horticulture, plantation, agriculture, animal husbandry, poultry, Forestry and small scale and village industries

## **Drought Prone Area Programme**

- This program was initiated during the fourth five-year plan with the objectives of providing employment to the people in drought prone areas and creating productive assets
- It emphasized on irrigation projects, land development programmes, afforestation, grass land development and vegetation and creation of basic rural infrastructure such as electricity, roads, market, credit and services
- The other strategies are to develop integrated water shed development approach at the micro level
- Planning Commission of India (1967) identified 67 districts from semi-arid and arid tracts of Rajasthan, Gujarat Western Madhya Pradesh, Marathwada region of Maharashtra, Rayalseema and Telangana plateaus of Andhra Pradesh, Karnataka plateau and Highlands and interior parts of Tamilnadu

## **Case Study-Integrated Tribal Development Project in Bharmaur Region**

- Bharmaur tribal area comprises Bharmaur and Holy tehsils of Chamba district of Himachal Pradesh
- It is inhabited by “Gaddi” tribal community and they practice transhumance and speak “Gaddiali” dialect
- The tribal region has harsh climatic conditions, low resource base and fragile environment
- It is one of the most backward areas of Himachal Pradesh
- Gaddi economy is largely based on agriculture and allied activities like sheep and goat rearing
- Under the five years plan the tribal sub plan was introduced in 1974
- The tribal area development plan was aimed at improving the quality of life of the gaddi and narrowing the gap in the level of development between this region and other areas of Himachal Pradesh
- Top most priority was given on development of transport and Communications, agriculture and allied activities and social and community services
- Also, there is a significant contribution of the scheme for the development of infrastructure in schools, healthcare facilities, Potable water, roads, communications and electricity
- After implementing the tribal development program there is a tremendous increase in literacy rate, improvement in sex ratio and decline in child marriage

- The female literacy rate is increased from 1.88% in 1971 to 42.83% in 2001
- The difference between males and females in literacy has also been reduced
- Cultivation of pulses and other cash crops has increased the life style of the tribals

## **Sustainable development**

What is sustainable development?

- A development that meets the needs of the present without compromising the ability of future generations to meet their own needs is known as sustainable development
- In the late 1960 the Western world people began to aware of environmental issues
- It showed how the people were concerned about the undesirable effects of industrial development on the environment
- In 1970 people began to think of development as micro economic development
- Development should improve the well-being and living standard of the people health, education, equality of opportunity and political and civil rights had to be ensured
- By 1980s the concept of development meant for widespread improvement in social and material well-being of all in a society
- The ideas expressed in “**The Population Bomp**” by Ehrlich and “**The Limits To Growth**” by Meadows contributed to raise the level of fear among the environmentalist as well as general public
- If we take care of ecological, social and economic aspects of development today, then only we can conserve resources for future generation
- Then only we can declare that ours is sustainable development

## **Case Study- Indira Gandhi Canal Command Area**

- Indira Gandhi Canal previously it was known as the Rajasthan canal
- The canal project was launched on 31st March 1958
- The canal originates at Harike barrage where the sutlej and beas river meet in Punjab and runs parallel to Pakistan border at an average distance of 40 km in Thar desert of Rajasthan
- The total length of the system is 9,060 km catering to the irrigation needs of total culturable command area of 19.63 lakh hectares

- About 70% was envisaged to be irrigated by flow system and the rest by lift system
- The construction work was carried out through two stages
- The command area of stage I lies in Ganganagar, Hanumangarh and northern part of Bikaner district
- It is generally undulating topography and its culturable command area is 5.53 lakh hectares
- The command area of stage II spread over Bikaner, Jaisalmer, Barmer, Jodhpur, Nagaur and Churu districts covering culturable command area of 14.10 lakh hectares
- In the left Canal the water is lifted up to make it flow down against the slope of the land
- The canal on the right bank is flow channels
- Irrigation with water from stage I started in 1960
- But stage II started receiving water in 1980 only

#### Positive Effects of Indira Gandhi Canal Project

- Canal irrigation has transformed the ecology, economy and Society of this dry land
- Soil moisture for longer periods has resulted in providing a green cover
- Afforestation and pastoral development programmes has reduced wind erosion and siltation of canal system
- Agricultural economy has transferred the different crops being cultivated in this region
- The traditional crops of gram, bajra, and jowar have been replaced by wheat, cotton, groundnut and rice

#### Negative Effect of Indira Gandhi Canal Project

- Excess use of water has produced water logging and soil salinity

#### **Measures for Sustainable Development**

- Water management policy should be strictly implemented
- The people should be encouraged to grow plantation crops like citrus fruits
- Programmes like lining of water courses land development and levelling and warabandi system (Equal distribution of canal water) should be effectively implemented to reduce loss of water
- Areas affected by water logging and soil salinity should be reclaimed
- Eco-development through afforestation and pasture development should be implemented in stage II

- Adequate financial and institutional support for land cultivation should be provided to the land allottees
- Agricultural and allied activities should be developed along with other sectors of economy
- There should be functional linkage between basic villages, agro service centres and market centres.

Q1. When did NITI Aayog replace the Planning Commission?

(A) 18 March 2001 (B) 1 January 2015

(C) 28 June 2011 (D) 9 May 2016

Ans B

Q2. ITDP means

(A) Integrated tribal development project

(B) Indian tribal development project

(C) Indian tribal development program

(D) Integrated tribal development programme

Ans A

Q3. What should be the height of an area in the hill area development programme?

(A) 500 metres (B) 600 metres

(C)

700 metres (D) 800 metres

Ans B

Q4. What was the period of the First Five Year Plan?

(A) 1951 – 56 (B) 1950 – 55

(C) 1947 – 52 (D) 1960 – 65

Ans A

Q5. Hill area development programme does not include

(A) Horticulture (B) Poultry

(C) Small scale industry (D) Large scale industry

Ans D

Q6. On which factor does the economic development of a region depends?

(A) Relief (B) Climate (C) Population (D) Resources

Ans D

Q7. By Which name was the Indira Gandhi Canal earlier known as?

(A) Gujarat Canal (B) Rajasthan Canal

(C) Nehru Canal (D) Bikaner Canal

Ans B

Q8. Aim of regional planning is

- (A) Develop agriculture (B) To improve roads  
(C) To reduce regional imbalance (D) To develop industry

Ans C

Q9. In which state in Bharmaur Tribal Region situated?

- (A) Uttarakhand (B) Jammu & Kashmir  
(C) Himachal Pradesh (D) Uttar Pradesh

Ans C

Q10. Regional planning relates to:

- (A) Area differences in the transportation network (B) Development of rural areas  
(C) Development of various sectors of the economy (D) Area-specific approach of development

Ans D

Q11. Sectoral planning does not include

- (A) Irrigation (B) Transport (C) Hill area (D) Infrastructure

Ans C

Q12. Bharmaur ITDP includes

- (A) Development of infrastructure (B) Development of transport  
(C) Development of agriculture (D) All of above

Ans D

Q13. Regional planning relates to:

- (A) Development of various sectors of the economy  
(B) Area-specific approach of development  
(C) Area differences in the transportation network  
(D) Development of rural areas.

Ans B

Q14. Who wrote 'The Population Bomb'?

- (A) Ehrlich (B) Meadows (C) Amartya Sen (D) None of these

Ans A

Q21. Negative influence of Indira Gandhi Canal command area includes

- (A) Wind erosion (B) Water logging (C) Siltation (D) Afforestation

Ans B

Q22. From which Barrage, Indira Canal has been taken out?

- (A) Bhakra (B) Nangal (C) Harike (D) Thein

Ans C

### **Short Answer Type Questions**

1. What is meant by planning?

Ans. Planning means process of thinking, formulating schemes or



programmes and implanting them by actions to achieve economic development in the country.

Question 3.

2. What are the two approaches to planning in India?

Ans. The two approaches to planning in India are:

1. Sectoral Planning
2. Regional Planning

3. What do you mean by regional planning?

Ans. Regional planning means formulation and implementation of schemes or programmes for the development of backward region to reduce regional imbalance in the development.

4. Give examples of programmes directed towards the development of target area in the country.

Ans

- Command Area Development Programme
- Drought-prone Area Development Programme
- Desert Development Programme
- Hill Area Development Programme
- The Small Farmers Development Agency (SFDA) and Marginal Farmers Development Agency (MFDA). These are the few examples of target group programme.

5. Name the two publications associated with sustainable development.

Ans.

- The Population Bomb' by Ehrlich in 1968.
- The Limits to Growth' by Meadows.

5. Why is WECD established? Who headed it?

Ans. In view of the growing concern of the world community about the growing environmental problems, the United Nations established a World Commission on Environment and Development (WECD). It was headed by Harlem Brundtland, Prime Minister of Norway.

6. What was the name of Brundtland Report?

Ans. The name of the Brundtland Report was "Our Common Future".

7. Explain the concept of sustainable development.

Ans. It defines as a development that .meets the needs of the present without compromising the ability of future generations to meet their on needs. Sustainable development takes care of ecological, social and economic aspects of development during the present times and pleads for conservation of resources to enable the future generations to use these resources.

### Long answer type Questions

Q1. Suggest the measures of promotion of sustainability in Indira Gandhi Canal Command Area.

Ans. -There is an urgent need to strictly implement the water management policy.

-Water intensive crops should be avoided and instead plantation crops such as Citrus fruits should be encouraged.

-The Command Area Development programmes such as lining of water courses, land development, and levelling and warabandi system (equal distribution of canal water in the command area of outlet) shall be effectively implemented to reduce the conveyance loss of water.

-Efforts should be made to reclaim areas affected by water logging and soil salinity.

-Afforestation, shelter belt plantation and pasture development are necessary for eco-development.

-For achieving social sustainability, land allotted with poor economic background should be given sufficient financial and institutional support so that they can cultivate their land in a proper way.

-Other sectors of economy, in addition to agriculture, animal husbandry and allied activities, should be encouraged for attaining economic sustainability.

Q2. What are the social benefits of ITDP in the Bharmaur tribal region?

Ans: The process of development of tribal area of Bharmaur started in 1970s when Gaddis were included among 'Scheduled Tribes'. The social benefits derived from ITDP include tremendous increase in literacy rate, improvement in sex ratio and decline in child marriage. The female literacy rate in the region increased from 1.88 per cent in 1971 to 42.83 per cent in 2001. The difference between males and females in literacy level i.e. gender inequality, has also declined. The most significant contribution of tribal sub plan in Bharmaur region is the development of infrastructure in terms of schools,

health care facilities, potable water, roads, communications and electricity. Practise of transhumance has decreased and now people migrate to Kangra as wage labourers thereby bringing in new life to their enclosed world.

Q3 Define the concept of sustainable development.

Ans: (WCED) Brundtland Commission report (also known as Brundtland Report) 'Our Common Future' in 1987 defines sustainable development as a "development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It reflected the concern of people about undesirable effects of industrial development on the environment.

Sustainable development takes care of ecological, social and economic aspects of development during the present times and pleads for conservation of resources to enable the future generations to use these resources. It takes into account the development of whole human kind which have common future.

Q4 Write short notes on drought-prone area programme. How does this programme help in the development of dryland agriculture in India?

Ans: Drought prone area programme was initiated during the Fourth Five Year Plan with the objectives of providing employment to the people in drought-prone areas and creating productive assets. Initially this programme laid emphasis on the construction of labour-intensive civil works. But later on, it emphasised on irrigation projects, land development programmes, afforestation, grassland development and creation of basic rural infrastructure such as electricity, roads, market, credit and services.

Since growing population pressure is forcing the society to utilise the marginal lands for agriculture, and, thereby causing ecological degradation, there is a need to create alternative employment opportunities in the drought-prone areas. The other strategies of development of these areas include adoption of integrated watershed development approach at the micro-level. The restoration of ecological balance between water, soil, plants, and human and animal population should be a basic consideration in the strategy of development of drought-prone areas. Broadly, the drought-prone area in India spread over semi-arid and arid tract of Rajasthan, Gujarat, Western Madhya Pradesh, Marathwada region of Maharashtra, Rayalseema and Telangana plateaus of Andhra Pradesh, Karantka plateau and highlands and interior parts of Tamil Nadu. The drought prone areas of

Punjab, Haryana and north-Rajasthan are largely protected due to spread of irrigation in these regions.

Q5 What are the positive and negative influences of Indira Gandhi Canal Command Area Development Programme on the environment of the region?

Answer:

The positive and negative, influences of Indira Gandhi Canal Command Area Development Programme are as follows:

Positive:

- The availability of soil moisture for a longer period of time and various afforestation and pasture development programmes under CAD have resulted in transformation in agricultural economy.
- Spread of canal irrigation has led to increase in cultivated area and intensity of cropping.
- It has also helped in reducing wind erosion and siltation of canal systems.
- Traditional crops such as gram, bajra and jowar have been replaced by wheat, cotton, groundnut and rice.
- Intensive irrigation led to an increase in agricultural and livestock productivity.

Negative:

- The intensive irrigation and excessive use of water has led to the emergence of twin environmental problems of waterlogging and soil salinity.
- Soils are getting infertile and thus in the long run agriculture would be affected.
- It has degraded the environment of the region hampering sustainability of agriculture.

Q6. Which socio-economic benefits are being experienced by implementation of Integrated Tribal Development Project in Bharmaur?

Answer:

Two tehsils of Chamba district of Himachal Pradesh, namely Bharmaur and Holi were notified as a tribal area since 21 November, 1975. Bharmaur is inhabited by 'Gaddi', a tribal community who have maintained a distinct identity in the Himalayan region as they practise transhumance and conversed through Gaddiali dialect. It is one of the economically and socially backward areas of Himachal Pradesh. Due to implementation of

Integrated Tribal Development Project (ITDP), there have been tremendous socio-economic benefits,

#### Social Benefits:

- The most significant contribution of tribal subplan in Bharmaur region is the development of infrastructure in terms of schools, health care facilities, potable water, roads, communications and electricity.
- Tremendous increase in literacy rate (female literacy increase from 1.9% to 65%)
- Improvement in sex ratio.
- Decline in child marriage.
- Difference between males and females in literacy rate, i.e. gender inequality, has also declined.

#### Economic Benefits:

- The cultivation of pulses and other cash crops has increased in Bharmaur region.
- Now a few people practise transhumance because the importance of pastoralism is gradually declining. (About 1/10 household practises pastoralism).

#### **Source Based Questions**

Bharmaur tribal region has harsh climate conditions, low resource base and fragile environment. These factors have influenced the society and Economy of the region. According to the 2011 census, the total population of Bharmaur sub-division was 39,113 i.e., 21 persons per sq km. It is one of the most (economically and socially) backward areas of Himachal Pradesh.

Historically, the Gaddis have experienced geographical and political isolation and socio-economic deprivation. The economy is largely based on agriculture and allied activities such as sheep and goat rearing.

The process of development of tribal area of Bharmaur started in 1970s when Gaddis were included among 'scheduled tribes'. Under the Fifth Five Year Plan, the tribal sub-plan was introduced in 1974 and Bharmaur was designated as one of the five Integrated Tribal Development Projects (ITDP) in Himachal Pradesh.

This area development plan was aimed at improving the quality of life of the Gaddis and narrowing the gap in the level of development between Bharmaur and other areas of Himachal Pradesh. This plan laid the highest

priority on development of transport and communications, agriculture and allied activities, and social and community services.

1 What was the climate of Bharmaur?

- (A) Monsoon
  - (B) Winter
  - (C) Harsh Climate
  - (D) Wet and dry climate
- (C) Harsh Climate**

2 Which tribal community is major group in Bharmaur region of Himachal Pradesh?

- (A) Bhotiyas
- B. Gaddis
- (C) Bakkarwals
- (D) Gujjars

**Ans. (B) Gaddis**

3. In which year the tribal sub-plan was introduced?

- (A) 1975
- (B) 1976
- (C) 1972
- (D) None

Ans. (D) None

### **Assertion reasoning Questions**

1. Assertion- Hill areas development programme was started by the central government and covering 15 all district of Uttarakhand and north eastern states.

Reason-The main objective is to exploit local resources of the hill areas through the development programme of agriculture.

Options: (A) Both A and R are true and R is correct explanation of A

(B) A and R both are true but R is not the correct explanation of A

(C) A is true, R is false

(D) A is false, R is true

Answer (A) A and R both are true but R is the correct explanation of A

2 Assertion: Assertion-Drought prone Area programme was initiated during the fourth-year plan. Reasons-After the reviewing the performance of this programme the National Committee on the development of Backward Area formed.

Options: (A) Both A and R are true and R is correct explanation of A

(B) A and R both are true but R is not the correct explanation of A

(C) A is true, R is false

(D) A is false, R is true.

Answer (B) A and R both are true but R is not the correct explanation of A

3 Assertion- Regional planning aims at removing regional disparities with respect to development. Reasons-Programmes aimed at development of various sectors of the economy such as agriculture.

Options: (A) Both A and R are true and R is correct explanation of A.

(B) A and R both are true but R is not the correct explanation of A.

(C) A is true, R is false.

(D) A is false, R is true

Answer (A) Both A and R are true and R is correct explanation of A.

4 Assertion –The eighth five year plan was launched immediately after the policy of liberalisation was adopted by the government of India.

Reason-For the faster economic growth and manufacturing sectors and agriculture.

Options: (A) Both A and R are true and R is correct explanation of A.

(B) A and R both are true but R is not the correct explanation of A.

(C) A is true, R is false.

(D) A is false, R is true

Answer (A) Both A and R are true and R is correct explanation of A.

5 Assertion – Annual plan was deferred due to problems faced by the country.

Reason-Annual Plans were adopted for a period of three years.

Options: (A) Both A and R are true and R is correct explanation of A.

(B) A and R both are true but R is not the correct explanation of A.

(C) A is true, R is false.

(D) A is false, R is true

Answer (C) A is True, R is False

6 Assertion: (A) Regional planning relates to: Area specific approach of development.

Reason: (B) It refers Development of rural areas only.

Options: (A) Both A and R is true and R is correct explanation of A.

(B) A and R both is true but R is not the correct explanation of A.

(C) A is true, R is false.

(D) A is false, R is true

Answer (C) A is true, R is false

### **CASE STUDY TRIBAL DEVELOPMENT PROGRAMME**

Bhaurmur Tribal region located in chambray district of HP Inhabited by Gaddi tribes. They practice transhumance. Total area is 1818 sq.km 1500 to 3700 mts altitude. Ravi and its tributaries drain this region There are physiographic regions1. Holi 2. Khani 3. Kugti 4. Tundah Harsh climate, low resource base, fragile environment. density 20/sq. km. Most economically backward Socio economic deprivation



Objectives: transport and communication Agriculture. Allied activities. Socio economic. Services, education, health, potable water, electricity

### **EFFECTS OF ITDP**

- Increase literacy rate
- Improvement in sex ratio
- Higher female literacy
- Reduced gender inequality
- shift to cash crops

### **SUSTAINABLE DEVELOPMENT**

A Development that meets the needs of present without compromising the ability of future generations to meet their own needs. It takes care of ecological, social economic, aspects of present and pleads for conservation of resource for future

### **CASE STUDY**

#### **INDIRAGANDHI CANAL COMMAND AREA – RAJASTHAN CANAL**

- One of the largest canal systems in India
- Started in 1948 launched on 31/3/1958
- started from Harike barrage in Punjab run parallel to the Pakistan border
- The total length is 9060 km 19.63 lakh hectare irrigation 70% flow 30% lift system
- Started in two stages
- cover Ganganagar, Hanuman Garh, Bikanir, Jaisalmer, Barmer, Jodhpur, Nagaur, Churu Districts
- Left side lift system and right side flow system
- Stage one -1960 and stage ii 1980

#### **Objectives achieved:**

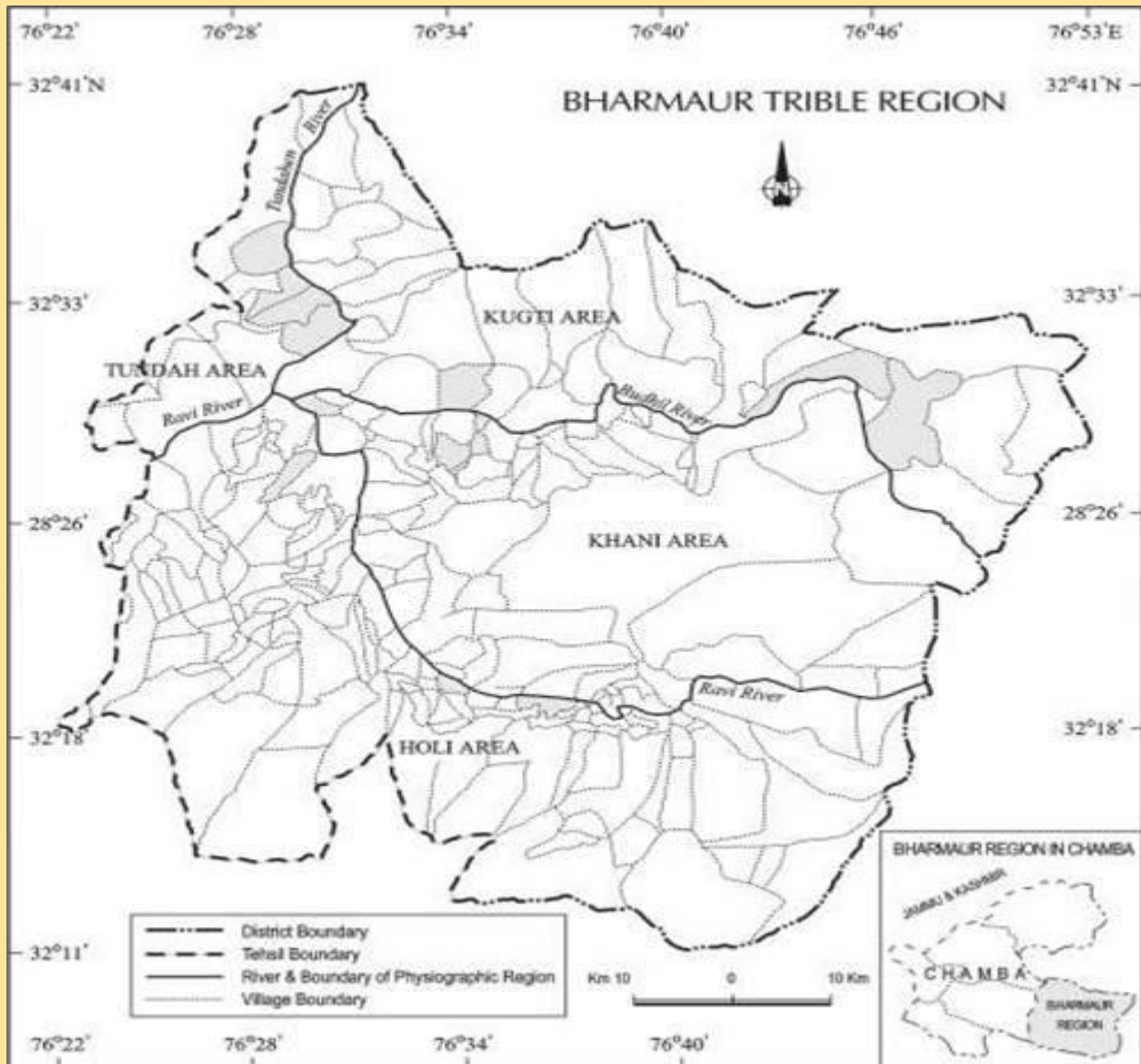
irrigation, pasture development, afforestation reduces wind erosion, reduce siltation. Development of per-capita income, increase in food production, increase cultivated area, change in cropping system problems: siltation, water logging

#### **STEPS TAKE TO SOLVE THE PROBLEMS**

- Strict implementation of water management policy
- Protective irrigation
- Extensive irrigation of crops and pasturelands
- No water intensive crops
- lining of water courses
- Leveling of wara bandhi
- Reclamation of water logging areas

- Afforestation, shelterbelts,
- Adequate financial support

### Map Based Questions



1. Major part of Bharmaur region is drained by..... River.

- (A) Sutlej      (B) Jhelum      (C) Ravi      (D) Beas

Answer (C) Ravi

2. Name the Southernmost area of Bharmaur region.

- (A) Khani      (B) Kugti      (C) Tundah      (D) Holi

Answer (D) Holi

3. Bharmaur region is made of..... areas.

- (A) 2      (B) 3      (C) 4      (D) 5

Answer (c) 4

Q 1 Name the place from where the canal originates.

a. Rajasthan b. Punjab c. Haryana d. Delhi

Ans. B. Punjab

Q 2 Jaisalmer and Barmer districts were irrigated by this canal during

a. stage –I b. Stage –II c. Stage- III d. None

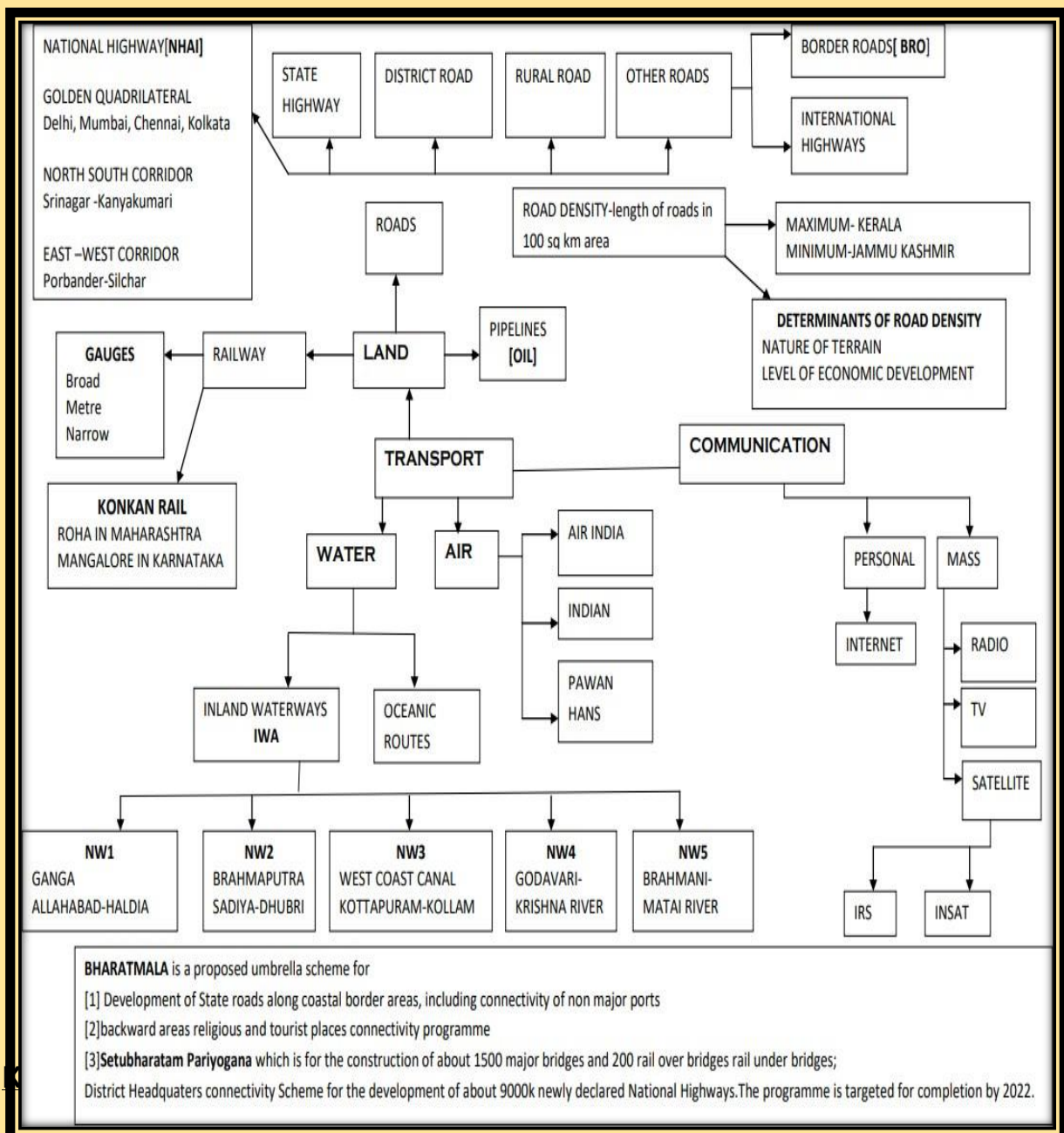
Ans. B Stage -II

Q 3 Which irrigation system is used to irrigate eastern side of the canal area?

a. Lift b. Flow c. Both of them d. None

Ans. A lift

## Chapter -7 TRANSPORT AND COMMUNICATION



## Means of transport

### Land

- Road
- Railway
- Pipeline

### Water

- Inland and
- Oceanic route

### Air

- National
- International

## **Land Transport**

- with the economic and technological development metalled roads and railways were developed to move large volume of goods and people from one place to another

### Road Transport

- The first serious attempt was made in 1943 when Nagpur plan was drawn
- This plan could not be implemented due to lack of coordination among the princely states and British India
- 20-year road plan (1961) was introduced to improve the condition of roads in India after independence

### Classification of roads

- National Highways
- State Highways
- Major district roads
- Rural roads

### National Highways

- These are constructed and maintained by central government
- These roads are mean for inter-state transport and movement of defence men and materials in strategic areas
- They connect the state capitals, major cities, important ports, railway junctions etc...
- Total length is increased from 19,700 km in 1951 to 65,769 km in 2005
- It constitutes only 2% of the total road length
- But carry 40% of the road traffic

## The National Highway Authority of India (NHAI)

- It was operationalised in 1995 as an autonomous body under the ministry of surface transport
- It has the responsibility for the development, maintenance and operation of national highways

## National Highways Development Projects

### Golden Quadrilateral

- It has 5846 km length with 4/6 lanes with high density traffic corridor
- It connects big metro cities like Delhi, Mumbai, Chennai Kolkata
- With this construction the time and cost distance are considerably minimised among the megacities

### North South Corridor

- Connects Srinagar in Jammu and Kashmir with Kanyakumari in Tamilnadu
- There is one loop line connects Salem to Cochin
- Total length is 4076 km

### East West Corridor

- It connects Silchar in Assam with Porbandar in Gujarat
- Total length is 3640 km

### Grand Trunk Road

- 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 Road during the British period
- It connected Kolkata and Peshawar
- At present it extends from Amritsar to Kolkata
- Bifurcated into two segments
- National Highway(NH)-1 from Amritsar to Delhi
- National Highway(NH)-2 from Delhi to Kolkata

### State Highways

- These are constructed and maintained by State governments
- They connect the state capitals with the district headquarters and other important towns
- These roads are connected to the national highways
- It constitutes 4% of the total road length in the country

### District Roads

- They connect the district headquarters and other important towns in the district
- They account for 14% of the total length of the country

### Rural Roads

- 80% of the total road length is rural roads

### Other Roads

### Border roads

- Established in 1960
- Constructed roads along the northern and North Eastern boundary of the country exclusively for defence strategies
- It has constructed roads in higher altitude mountain terrain joining Chandigarh with Manali (Himachal Pradesh) and Leh (Ladakh)
- Undertakes snow clearance in high altitude areas

### The International Highways

- It is to promote the harmonious relationship with the neighbouring countries by providing effective links with India

### **The distribution of roads in India**

What is meant by density of roads?

It refers the total length of road/one sqkm

- It is not evenly distributed
- Density of roads varies from state to state
- In Jammu and Kashmir it is only 10.48 km
- In Kerala it is 387.24 km
- National average is 75.42 km
- Density of road is high in the Northern states and major Southern states
- it is due to the nature of terrain
- In Himalayan region, North- Eastern region, Madhya Pradesh and Rajasthan road density is very low
- It is due to extreme climate and undulated topography
- Nature of terrain and level of economic development are the two main factors of density of roads
- Construction of road is very easy and cheaper in plain areas

- But it is costly in hilly and plateau areas and also quality of roads is better in plains as compared to higher altitude areas, rainy and forest areas

### **Rail Transport**

- India has the biggest network of railway in Asia
- It facilitates the movement of both freight and passengers
- The first railway line was constructed between Bombay and Thane in 1853 covering a distance of 34 km
- The length of Indian railway network is 63,221 km
- It has been divided into 16 zones for effective railway management system

On the basis width of the tract it is categorised into three groups

- Broad Gauge
- Meter Gauge
- Narrow Gauge

#### **Broad Gauge**

- The distance between tracks is 1.676 metre
- Total length is 46807 km
- It accounts for 74.14% of the total length of a rail roads

#### **Metre Gauge**

- The distance between two tracks is 1 m
- It runs over 13,290 km and covering 21.02% of the total road length the distance

#### **Narrow Gauge**

- Distance between the tracks is 0.762 metre
- It contributes only 4.94% to the total length and it accounts for 3,124 km
- It is generally confined in hilly areas

### **Steps taken to develop Indian railways**

- Meter and narrow gauges were converted to broad gauge
- Steam engines have been replaced by diesel and electric engines
- It has increased the speed as well as the haulage capacity
- It also makes pollution free
- Metro rail revolutionised the urban transport system like Kolkata , Delhi and Chennai
- During Britishers period important towns, raw material producing areas, plantation gardens and commercial crops areas, hill station and cantonment towns were well connected by railways

- It was developed exclusively to exploit the resources
- After independence railway routes have been extended to other areas
- Most significant development has been the development of Konkan Railway along the West Coast providing a direct link between Mumbai and Mangalore
- It was constructed in 1998 With the total length of 760 km
- It connects Roha in Maharashtra to Mangalore in Karnataka
- It crosses 146 rivers, streams, nearly 2000 bridges and 91 tunnels
- Asia's largest tunnel which is nearly 6.5 km long lies on this route

### **Water transport**

- It is an important mode of transport for both passengers and cargo traffic
- Cheapest means of transport and most suitable for carrying heavy and bulky material
- It is a fuel efficient and eco-friendly mode of transport

### **Two Types**

- Inland waterways
- Oceanic waterways

### **Inland Waterways**

- It was the chief mode of transport before the invent of railways
- Faces tough competition from road and railway transport
- Diversion of river water for irrigation purposes made them non navigable in their courses
- India has 14,500 metres of navigable waterways and it contributes only 1% to the countries transportation
- It is carried out through rivers, canals, backwaters, creeks etc...
- For the development and maintenance, the inland waterways authority was set up in 1986
- It has declared three inland waterways as national waterways
- National waterway 1 (stretches between Allahabad to Haldia )
- National waterway 2 (stretches between Sadiya to Dhubri)
- National waterway 3 (stretches between Kottapuram from Kollam)
  - The backwaters of Kerala has a special significance in inland waterway
  - They attract large number of tourists
  - The famous Nehru Trophy boat race vallamkali is also held in the backwaters



## Oceanic Routes

- India has 7517-kilometre coastal length including islands there are 12 Major ports and 185 minor ports
- 95% of India's foreign trade by volume and 70% of by Value moves through Ocean routes
- Apart from international trade these are also used for the purpose of transportation between the islands and the rest of the country

## Air Transport

- Fastest means of transport
- Reduce the distance by minimising the travel time
- It is suitable for hilly Terrain and the inaccessible areas started in 1911 for about 10 km between Allahabad and naini
- But the real development took place after the Independence
- Airport Authority of India manages 126 airports including 11 International 86 domestic and 29 civil Enclave at Defence air fields
- Transport is managed by Air India and Indian Airlines
- Now many private companies have also started passenger services

## Air India

- It provides international air services for both passengers and cargo
- In 2005 it carried 12.2 million passengers and 4.8 lakh metric tons of cargo
- About 52% of the total traffic was handled only at Mumbai and Delhi Airport
- Apart from these, Pawan Hans helicopter service is operated in hilly areas and widely used by tourist people in North Eastern parts

What do you mean by open Sky policy?

- Open Sky policy allows foreign Airlines, associations of exporters to bring any frights to India

## Oil and gas pipelines

- Most convenient and efficient mode of transport in transporting liquid and gases over long distance
- Even solids also can be transported by pipelines after converting them into slurry
- Oil India Limited (OIL) is engaged in the exploration of production and transportation of crude oil and natural gas
- Asia's first Cross Country pipeline covering a distance of 1157 km was constructed by OIL from oil field in Assam to Barauni refinery in Bihar

- It was further extended up to Kanpur in 1966
- Other important pipelines are
- Ankleshwar-Koyali
- Mumbai high-Koyali
- Hazira-Vijaipur-Jagdishpur(HVJ)-Longest pipe line
- Recently 1,256 km long pipe line connecting Salaya (Gujarat) with Mathura (UP) has been constructed
- It supplies crude oil from Gujarat to Punjab (Jalandhar) via Mathura

### Communication Networks

#### Means of communication

1. Personal Communication
2. Mass Communication

#### Personal Communication

Letter, telephone, Telegram, fax, email, Internet, etc

#### Mass Communication

Radio, television, cinema, satellite, newspaper, magazines, and books, public meetings, seminars, and conferences

#### Radio

- Broadcasting was started in India in 1923 by Radio Club of Bombay
- It was changed to All India Radio in 1936 and to Akashvani in 1957
- All India Radio broadcast about a variety of programs related to Information, education and entertainment
- Special news bulletins are also broadcasted at specific occasions like sessions of Parliament and state legislatures

#### Television

- Initially the TV services were limited only to the national capital where it began in 1959
- After 1972 several other centres became operational
- In 1976 TV was delinked from All India Radio (AIR) and got a separate identity as Doordarshan (DD) after INSAT IA (National Television DD1) became operational

#### Satellite Communication

- Satellite images can be used for the weather forecast, monitoring natural calamities, surveillance of border areas etc

- It can be grouped into two types
- Indian Remote Sensing satellite system(IRS)
- Indian National Satellite System (INSAT)
- INSAT was established in 1983 and it is a multipurpose satellite system for telecommunication, meteorological observation and for various other data and programs
- The IRS satellite system became operational with the launching IRS 1 in March 1988
- India has also developed her own launching vehicle PSLV (Polar Satellite Launch Vehicle)
- These too collect data transmit them to the ground station for various uses
- The National Remote Sensing Agency (NRSA) at Hyderabad provides facilities for data processing and they are very much useful for resources management

### **Multiple choice question**

1. When was the first artificial satellite for communication launched?

[A] 1981

[B] 1991

[C] 1957

[D] 1954

Answer: [C] 1957

2.Which is the cheapest mode of transport in long distance?

[A] Road

[B] Rail

[C] Air

[D] Water

Answer:

[B] Rail

3.which of the following is not a link between producing centres and consuming centres?

[A]. Trade

[B]. Communication

[C]. Transport

[D]. Immigration

Answer: immigration

4.Which of the following is not transported through pipelines?

[A]. Natural Gas

[B]. Liquefied Ores

[C]. Petroleum

[D]. Molted Iron

Answer: Molted Iron

5.Which of these is not a mode of transportation?

[A]. Pipeline

[B]. Air

[C]. Ethernet

[D]. Water

Answer: Ethernet

6.International movement of goods is handled by

[A]. Ocean freighters

[B]. Ropeway

[C]. Cable cars

[D]. Hyper loop

Answer : ocean freighters

7.In which areas you'd see 'Mules' as pack animals?

[A]. Coastal areas

[B]. Mountain areas

[C]. Plain areas

[D]. Desert areas

Answer: Desert Areas

8. Which mode of transport is best for bulky goods?

- [A]. Railways
  - [B]. Airways
  - [C]. Waterways
  - [D]. Roadways
- [C] 1957

Answer : Railways

9. Which one of the following Railways is considered an engineering marvel?

- (a) Konkan Railway
- (b) South Western Railway
- (c) Central Railway
- (d) Konkan Railway

Answer: Konkan

10. Which one of the following is not included in the North-South and East West corridors?

- (a) Srinagar
- (b) Kanyakumari
- (c) Silcher
- (d) Delhi

Answer; Delhi

11. In how many zones has the Indian Railways system been divided?

- (a) 9
- (b) 12
- (c) 16
- (d) 14

Answer:

- (c) 16

12. Which one of the following is the longest highway of India?

- (a) N.H.-1
- (b) N.H.-6
- (c) N.H.-7
- (d) N.H.-8

Answer:

- (c) N.H.-7

13. On which river and between which two places does the National Water Way No. 1 lie?

- (a) The Brahmaputra, Sadiya-Dhubri
- (b) The Ganga, Haldia-Allahabad
- (c) West Coast Canal, Kottapuram to Kollam

Answer:

- (b) The Ganga, Haldia-Allahabad

14. In which of the following year, the first radio programme was broadcast?

- (a) 1911
- (b) 1936
- (c) 1927
- (d) 1923

Answer:

- (d) 1923

15. The Border Road organisation was established in the year;

- (a) 1950
- (b) 1960
- (c) 1970
- (d) 1980

Answer; 1960

### **Short answers Question (3marks)**

Question 1.

Which activity does transportation convey? Name three major modes of transportation.

Answer:

Transport conveys the basic activity of mobility. Mobility is a basic need of humans which helps in trade and other activities. Transport is instrumental

in bringing out about increased mobility. The three major modes of transportation are land, water and air. Land includes roadway, railway and ropeway.

Question 2.

Discuss advantages and disadvantages of pipeline transportation.

Answer:

Pipeline transportation is a newer development in the field of transportation.

Advantages:

- Liquids and gases can be transported easily at low costs. Even solids can be transported in form of slurry.
- No need of fuel is required. It is an eco friendly method. Gradient plays the main role in transportation of the material.
- Pipelines can be laid in the high altitude, rugged areas, even under the sea.
- Material can be transported between distant areas continuously without aid of human agent carrying it from one place to another.

Disadvantages:

- Cost of laying the pipelines is very high. People cannot be transported.
- Leakage in the pipelines can cause serious disasters especially in case of transportation of material like petroleum.
- Pipelines are very probable target of terrorist attacks; therefore, safety is major issue.
- All solid substances cannot be transported.

Question 3.

What do you mean by 'communication'?

Communication is transmission of facts, words and information using various means of communication. It is disseminating of ideas, facts, information and knowledge through writing, words. Communication has been present since very initial stages of human development. Earlier there were primitive means of communication like beating of drums, sparrows etc. Now with communication revolution modern methods of communication like Internet, mobile telephony are widespread and have made communication over long distances easier and faster.

## LONG ANSWER QUESTIONS

1. Discuss the contribution of Air India and Indian in the air transport of India.

Answer:

Air transport in India made a beginning in 1911 when airmail operation commenced over a little distance of 10 km between Allahabad and Naini. But its real development took place in post-independent period. The air transport in India is managed by two corporations, Air India and Indian Airlines after nationalization. Air India provides international service for both passengers and cargo. In 2005, it carried 12.2 million passengers and 4.8 lakh metric tonnes of cargo. Indian looks after air transport at national level. In 2005, domestic movement involved 24.3 million passengers and 20 lakh metric tonnes of cargo.

2. Which are the chief means of transportation in India? Discuss the factors affecting their development.

Answer:

The important means of transport in India are—Land, air and water. Each mode of transportation contributes to the development of economy. Each provides a strong support for setting up industries and link even the remotest areas. All the means of transport compete and complement each other.

- Land transport comprises road, rail and pipeline. Use of railways for carrying heavy and bulky goods along with the large number of passengers over long distances has led to the development of a dense network of railways. Within the country the network is relatively less dense in the hilly, forested and desert areas. Roads play an important role in linking the interior areas with the markets and urban centres. Their importance in facilitating door-to-door services over short distances has led to development of a well knit network of roadways.
- Water transport is an ideal means for engaging in international trade through long and indented coastline of India. Inland waterway also links the different regions within the country efficiently. It is the cheapest means for bulky cargo.
- Air transport has become very important means of rapid and frequent movement of people and light cargo over long distances. Role of private airlines has made the air transport trickle down to wider sections of economy. Budgets Airlines have changed the aviation scenario in India. Air transport is important



in inaccessible areas, during calamities and for rapid connectivity.

6. What recent steps have been taken for development and modernization of Indian railways? Why is unification of gauges important? What role does railway network play in economic development of our country?

Answer:

Recent development and modernisation steps taken in Indian railways:

- Extensive programme to convert the metre and narrow gauge to broad gauge.
- The steam engines have been replaced by diesel and electric engines. .
- The new trains have increased speed.
- The environment of the stations have improved. There have been computerised reservations, automatic electronic signals, loading facilities, etc.
- Introduction of metro in Kolkata and Delhi have set an example for other states also.
- Railway routes have been extended to other areas such as Konkan railway between Mumbai and Mangalore.
- Improved passenger services on the trains include AC coaches, pantry services, bedding facilities, etc.

Unification of gauges is important:

- Unification of gauges will bring uniformity across the country.
- It helps in increasing capacity with broad higher speed.
- It provides higher speed at economical rates.
- Reduction in transshipment losses, eliminates wastage of time and money.
- Maintenance of single track is easy and it promotes comfortable travelling.

Contribution of Indian railways to economic development:

- The major bulk commodities transported by railways are coal, food grains, cement and fertilizers.
- The haulage of food grains increased to about four times between 1970-71 to 2004-05. It has now reached up to 44.07 million tons from 15.1 million tons.

- It shows production has substantially increased.
- The transport of fertilizers has increased many times from 4.7 million tons in 1970-71 to 23.7 million tons in 2004-05. It shows improvement in the agricultural sector as it provides the base for agricultural development.
- The transport of coal has increased from 47.9 million tons in 1970-71 to 251.7 million tons in 2004-05. It shows the expansion of railways. Moreover, the consumption of coal has brought major industrial development.

#### SOURCE BASED QUESTION

**Radio:** Radio broadcasting started in India in 1923 by the Radio Club of Bombay. Since then, it gained immense popularity and changed the social-cultural life of people. Government took mode of communication under its control in 1930 under the Indian Broadcasting System. It was changed to All India Radio in 1936 and to Akashwani in 1957 (TV).

**Television:** TV broadcasting has emerged as the most effective audio-visual medium for disseminating information and educating masses. Initially, the TV services were limited only to the national capital where it began in 1959. After 1972, several other centres became operational. In 1976, TV was delinked from All India Radio (AIR) and got a separate identity as Doordarshan (DD). After INSAT-IA (National Television-DDI) became operational, Common National Programme (CNP) was started for the entire network and its services were extended to the backward and remote rural areas. TV and radio play an important role in mass communication. All India Radio broadcasts a variety of programmes related to information, education and entertainment. Special news bulletins are also broadcast at specific occasions like session of parliament and state legislatures.

They are used for the purpose of advertisement of various products. They are used to create awareness on government policies and programmes. They are also used to create awareness about various diseases and their precautions. In this way they act as public health measures. Weather forecasting information, important facts and figures reach to general public only through radio and TV.

1. When and where the Radio broadcasting started?

Ans: 1923 -Bombay

2.What is CNP?

Ans: COMMON NATIONAL PROGRAMME

3. Discuss the growth and role of TV

TV play an important role in mass communication. The T V broadcasts a variety of programmes related to information, education and entertainment. Special news bulletins are also broadcast at specific occasions like session of parliament and state legislatures. They are used for the purpose of advertisement of various products. They are used to create awareness on government policies and programmes. They are also used to create awareness about various diseases and their precautions. In this way they act as public health measures. Weather forecasting information, important facts and figures reach to general public only through TV.

transportation of crude oil and natural gas. It was incorporated in 1959 as a company. Functions:It constructed Asia's first cross country pipeline covering a distance of 1,157 km from Naharkatiya oilfield in Assam to Barauni refinery in Bihar.

1.When was the Inland Waterways Authority setup?

A)1986

2.Name the three National waterways?

A) Allahabad-Haldia, Sadiya-Dhubri, Kottapuram-Kollam

3.What is OIL? When was it incorporated?

A) Oil India Limited, It was incorporated in 1959

**Legend**

Golden Quadrilateral	
North-South Corridor	
East-West Corridor	
NHDP Phase - III	



**Legend**

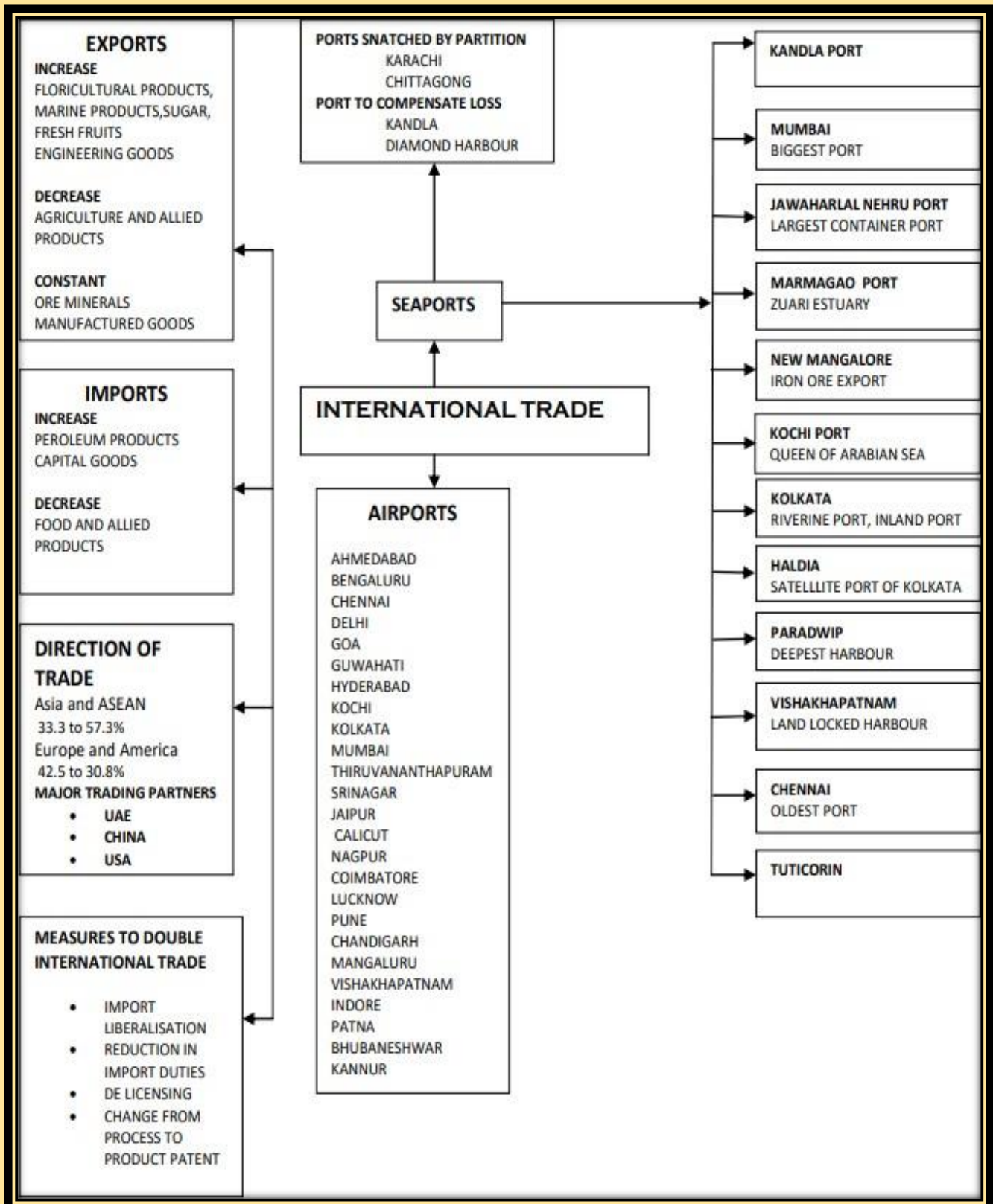
Golden Quadrilateral	
North-South Corridor	
East-West Corridor	
NHDP Phase - III	



KARNATAKA  
 GOA  
 KERALA  
 TAMIL NADU  
 ANDHRA PRADESH  
 WEST BENGAL  
 BIHAR  
 JHARKHAND  
 MADHYA PRADESH  
 RAJASTHAN  
 GUJARAT  
 MADHARASHTRA  
 KARNATAKA  
 GOA  
 KERALA  
 TAMIL NADU  
 ANDHRA PRADESH  
 WEST BENGAL  
 BIHAR  
 JHARKHAND  
 MADHYA PRADESH  
 RAJASTHAN  
 GUJARAT  
 MADHARASHTRA

## CHAPTER -8

### INTERNATIONAL TRADE



## **KEY NOTES**

- The pattern of India's foreign trade has been changed in the past few decades
- In 1950-51 our foreign trade was worth Rupees 12,140 million
- This figure rose to Rupees 83,71,330 million in 2004-05
- This sharp rise was the result of the fast development in manufacturing sectors, the liberal policies of the government and diversification of markets
- There has been an increase in the total volume of import and export
- The import is continued to be higher than the export and we experienced trade deficit in the recent past
- Deficit increase is due to the crude petroleum price rise
- Because our major import is crude petroleum
- The share of agriculture and allied products has declined whereas the share of Petroleum, crude products and other commodities has been increased
- But Minerals and manufactured goods remained almost same till 2003-2004
- The increase of Petroleum products share is due to rise in petroleum prices and increase in refining process capacity of our country
- The traditional items of export like coffee, spices, pulses had less demand in international market
- But there is a steady increase in demand for fresh fruits, Marine Products and sugar

## **Composition of India's foreign trade-changing pattern**

- After independence especially from 1950 we had acute shortage in food supply
- Hence food grains were imported from other countries till 1970
- After 1970, due to Green Revolution importing food grains was stopped
- But in 1973, the energy crisis caused much to import petroleum from other countries
- So, the petroleum prices hiked immediately
- In the place of food grains, we were forced to import Petroleum and fertilizers, machinery, special Steel, edible oil and Chemicals
- Petroleum was used on two heads as a fuel and as a raw material for various industries
- The capital goods such as non-electrical machinery, machine tools and transport equipment were also imported

## **Direction of trade**

- Measures like liberalisation, reduction in import duties de-licensing and change to product patterns from process patents are already showing favorable change in the trade
- The USA is the India's largest trading partner
- Next comes the UK followed by Belgium, Germany, Japan, Switzerland, Hong Kong, UAE, China, Singapore and Malaysia
- Sea and air routes carry the cargo for most of our foreign trade
- To our neighbouring countries like Nepal, Bhutan ,Bangladesh and Pakistan trade is carried through land routes

## **Sea Ports as Gateways of International Trade**

### The role of sea port in foreign trade of India

- The sea port act as collection centres of commodities from the hinterland for further shipment to foreign destinations
- Ports are receiving points of foreign goods and consignments coming to India for distributing them into the interior parts of the country

### Favourable conditions to develop international trade

- India is surrounded by sea on three sides and it has a long coastline
- Water transport provide cheap transport for trade
- India has several well-developed sea ports along coast west and east coasts
- She has 12 major and 185 minor ports
- The Major ports are operated by Central Government and minor ports are regulated by State governments
- Till 1947, the British had their own axis in developing the major ports in India and they continued to carrying away our resources to England
- After partition, two very important ports Karachi and Chittagong went to Pakistan and Bangladesh respectively
- To compensate this, India developed two new ports Kandla in the west and Diamond Harbour near Kolkata in the East

## **Major Ports of India**

### Kandla Port

- It is situated at the head of the Gulf of Kutch
- It caters to the needs of Western and North Western part of the country



- It receives large quantities of petroleum and allied products and fertilizers

### Mumbai Port

- It is the largest natural port in India
- Situated close to the general routes from Middle East countries, North Africa, America and Europe
- Mumbai carries on Overseas trade with all Major ports in the world
- The port is 20 km long and 10 km wide
- India's largest oil terminal is in Mumbai
- It is also known as the Gateway of India

### Jawaharlal Nehru Port

- It was developed at Nhava Sheva as a satellite port to reduce the pressure on Mumbai port
- It is the largest container port in the country

### Marmagao Port

- It is a natural Harbour in Goa
- It was remodelled in 1961 to handle iron ore exports to Japan
- Karnataka, Goa, southern Maharashtra form its hinterland

### New Mangalore Port

- It is situated in Karnataka
- The port is handling iron ore and fertilizers, petroleum products, edible oils, coffee, tea, wood pulp, granite Karnataka forms its main hinterland

### Kochi Port

- It is known as the Queen of Arabian Sea
- Situated at the head of it is a large sheltered back water
- It is a deep natural harbour
- Being located close to Columbu-Suez route it exports tea, coffee, cashew, nuts, rubber, pepper cardamom and cotton goods
- It imports petroleum, fertilizers, machinery and coal
- It serves the states of Kerala, Karnataka and Tamilnadu

### Kolkata Port

- It is located in Hooghly River 128 km away from the Bay of Bengal and was developed by the Britishers

- Today it has lost much of its importance as many exports from Kolkata had been diverted to other port like Visakhapatnam, Paradwip and Haldia
- Silt accumulation in Hooghly river causes stumbling blocks in this link to the sea
- West Bengal, Sikkim, Uttar Pradesh, Bihar and Jharkhand constitute its hinter land
- Nepal and Bhutan get port facilities from Kolkata

#### Haldia Port

- Constructed mainly to reduce pressure at Kolkata port
- Handles cargo like iron ore, Coal, Petroleum, jute, cotton and allied products

#### Paradwip Port

- Situated about 100 km away from Cuttack
- Is the deepest Harbour which can handle very large ships
- It has been developed with the intention of handling large scale export iron ore
- Chhattisgarh and Jharkhand constitute parts of its hinterland

#### Visakhapatnam Port

- This port is in Andhra Pradesh and is a landlocked Harbour
- It lies Midway between Kolkata and Chennai
- Its hinterland includes Andhra Pradesh, Madhya Pradesh and Orissa
- The largest ship yard in the country is situated in Visakhapatnam
- The cargo exported from here includes iron ore, manganese, oil seeds, mica and tobacco
- The main imports are rice, petroleum and machinery

#### Chennai Port

- It is one of the oldest artificial Harbour built in 1859
- It is not much suitable for large ships. because of the shallow water near the coast
- Tamil Nadu and Pondicherry are its hinterland

#### Ennore Port

- A newly developed port in Tamil Nadu and it is constructed 25 kilometre north of Chennai
- It relieves the pressure at Chennai port

### Tuticorin Port

- It is also developed to relieve the pressure of Chennai port
- Handles variety of cargo including coal, salt, food grains, edible oils, sugar, Chemicals and petroleum products

### **Air Transport**

- It has the advantages of taking the least time for carriage and handling high value of perishable goods over long distance
- It is very costly and unsuitable for carrying heavy and bulky commodities
- At present we have 12 international airports and 112 domestic airports in the country

International Airports are

<ul style="list-style-type: none"><li>• Ahmedabad</li><li>• Amritsar</li><li>• Bangalore</li><li>• Chennai</li><li>• Delhi</li><li>• Goa</li></ul>	<ul style="list-style-type: none"><li>• Guwahati</li><li>• Hyderabad</li><li>• Kochchi</li><li>• Kolkata</li><li>• Mumbai</li><li>• Thiruvananthapuram</li></ul>
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### **MCQ QUESTIONS**

**Q1. Which of the following point is not true about the international trade of India?**

- (A) Machine and equipment, special steel, edible oil and chemicals largely make the steel basket.
- (B) There is steep rise in the export of petroleum.
- (C) Gems and jewels have major shares in the international trade of India
- (D) Amongst the agricultural products, there is decline in the export of traditional items, such as coffee, cashew etc.

**Ans-(B) There is steep rise in the export of petroleum**

**Q2. Which of the following pairs is not matched correctly?**

- (A) Hugli river - Diamond Harbour
- (B) Bangladesh - Trade by roadways

(C) Asia and ASEAN - Largest import area of India

(D) Africa - Major trading partner of India

**Ans-(D) Africa -**

**Major trading partner of India**

**Q3. Match the list I with list II and choose the correct answer with the help of given options.**

PORTS	LOCATION/TYPE
I. Kandla port	a. Land locked port
II. Mumbai port	b. Natural port
III. Visakhapatnam port	c. oldest port
IV. Chennai port	d. At the head of Gulf of Kutchh

Options:

- |     |    |     |    |   |
|-----|----|-----|----|---|
| I   | II | III | IV |   |
| (A) | a  | b   | c  | d |
| (B) | d  | b   | a  | c |
| (C) | a  | c   | b  | d |
| (D) | c  | a   | d  | b |

**Ans-(B) d b a c**

**Q4. Match the list I with list II and choose the correct answer with the help of given options.**

LIST-I (PORTS)	LIST-II (STATES)
I. Haldia	a. Kerala
II. Paradweep	b. Odisha
III. Tuticorin	c. West Bengal
IV. Kochchi	d. Goa
V. Marmagao	e. Tamil Nadu

Options:

- |     |    |     |    |   |   |
|-----|----|-----|----|---|---|
| I   | II | III | IV | V |   |
| (A) | a  | b   | c  | d | e |
| (B) | e  | d   | c  | b | a |
| (C) | c  | b   | e  | a | d |
| (D) | b  | c   | e  | d | a |

**Ans-(C) c b e a d**

**Q5. For which of the following purpose did the British build and use ports?**

- (A) As suction points of the resources from their hinterland
- (B) With the aim to increase trade in India
- (C) For the development of market in India
- (D) For the integrated development of India

**Ans-(C) For the development of market in India**

**Q6. Which of the following port is developed in the form of satellite port?**

- (A) Paradweep
- (B) Kochchi
- (C) Kandla
- (D) Jawahar Lal Nehru

**Ans-(D) Jawahar Lal Nehru**

**Q7. Which port has the deepest harbour especially suited to handle very large vessels.**

- (A) Vishakhapatnam
- (B) Paradweep
- (C) Kochchi
- (D) New Mangalore

**Ans-(B) Paradweep**

**Q8. Which of the following states are covered under the hinterland of Paradweep port?**

- (A) Uttar Pradesh, Bihar, Madhya Pradesh
- (B) West Bengal, Odisha, Assam
- (C) Odisha, Jharkhand, Chhattisgarh
- (D) Andhra Pradesh, Odisha, Telangana

**Ans-(C) Odisha, Jharkhand, Chhattisgarh**

**Q9. Kolkata port is confronted with silt accumulation in which of the following river which provides a link to the sea.**

- (A) Hughly
- (B) Mahanadi
- (C) Brahmaputra
- (D) Koshi

**Ans-(A) Hughly**

**Q10. Which of the following constitute a larger share in India's export in foreign trade?**

- (A) Agriculture and allied products
- (B) Ore and Minerals
- (C) Manufactured goods
- (D) Crude and petroleum products

**Ans-(C) Manufactured goods**

**Q11. Which of the following is not true regarding measures taken by India to double its share in the international trade within the next five years?**

- (A) Import liberalisation
- (B) Increase in import duties
- (C) delicensing
- (D) change from process to product patents

**Ans-(B) Increase in import duties**

**Q12. Kandla port was developed to compensate the loss of which of the following port?**

- (A) Karachi
- (B) Chittagong
- (C) Surat

(D) Kochchi

**Ans-(A) Karachi**

**Q13. Which of the following port is located at the entrance of Zuari estuary?**

(A) Chennai

(B) Kolkata

(C) Marma Gao

(D) Paradweep

**Ans-(C) Marma Gao**

**Q14. Which port is known as “Queen of the Arabian sea”?**

(A) Kochi

(B) Kolkata

(C) Visakhapatnam

(D) Kandla

**Ans-(A) Kochi**

### **SHORT ANSWERS**

**1.Mention the characteristics of India’s foreign trade.**

Ans-The nature of India’s foreign trade has changed over the years.

1.Though there has been an increase in the total volume of import and export, the value of import continued to be higher than that of exports.

2.There has also been an increase in trade deficit over the last couple of years.

3.This increase in deficit is attributed to the price rise of crude petroleum, which forms a major component of India’s international trade.

4.The share of primary products has decreased in the total export of India, whereas share of petroleum products has increased, share of manufactured products has remained constant over the years.

**2.What changes have taken place in exports of India due to increased competition?**

Due to tough international competition, amongst the agricultural products, there is a great decline in the exports of traditional items such as coffee, spices, tea, pulses, etc. though an increase has been registered in floricultural products, fresh fruits, marine products and sugar,

### **3. Why did India's external trade increase rapidly between 1950-51 and 2009-10?**

India's external trade increased rapidly due to the sharp rise in overseas trade, the momentum picked up by the manufacturing sectors, the liberal policies of the government and the diversification of market.

### **4. What natural factors are favorable for international trade in India?**

India is surrounded by sea from three sides and is bestowed with a long coastline. Water provides a smooth surface for very cheap transport provided there is no turbulence. India has a long tradition of sea-faring and developed many ports with place name suffixed with pattan which means port.

### **5. Which port is situated at downstream Kolkata? Which goods does it handle?**

Haldia port is located at 105 km downstream from Kolkata. It has been constructed to reduce the congestion at Kolkata port. It handles bulk cargo like iron ore, coal, petroleum, petroleum products and fertilizers, jute, jute products, cotton and cotton yarn, etc.

### **6. Write a note on the changing nature of the international trade of India.**

In 1950-51, India's external trade was worth Rs. 1,2140 million, which rose to Rs. 22,09,270 crore in 2009-10. The main reasons for the rise in the quantum of trade is momentum pitched up by the manufacturing sector, the liberal policies of the government and the diversification of markets. The nature of India's foreign trade has changed over the years. Though there has been an increase in the total volume of import and export, the value of import continued to be higher than that of exports. There has also been an increase in trade deficit over the last couple of years.

## **LONG ANSWERS**

### **1. Describe the composition of export and import trade of India.**

#### **Composition of Export trade in India:**

The composition of commodities in India's international trade has been undergoing change over years.

1. The share of agriculture and allied products have declined whereas shares



of petroleum and crude products and other commodities have increased.

2. The shares of ore minerals and manufactured goods have largely remained constant over the years from 1997-98 to 2003-04.

3. The increase in share of petroleum products is due to rise in petroleum price as well as India's refining capacity.

4. The decline in traditional products is largely due to the competition from the international market.

5. Amongst the agricultural products, there is a great decline in the exports of traditional items such as coffee, spices, tea, pulses, etc. though an increase has been registered in floricultural products, fresh fruits, marine products and sugar, etc. Manufacturing sector alone accounted for 68 per cent of India's total value of export in 2010-11. Engineering goods have shown a significant growth in the export list. China and other East Asian countries are our major competitors. Gems and jewelry contribute a larger portion of India's foreign trade.

### **Composition of Import trade in India:**

1. Machine and equipment, special steel, edible oil and chemicals largely make the import basket.

2. There has been a steep rise in imports of petroleum products. It is used not only as a fuel but also as an industrial raw material.

3. It indicates the tempo of rising industrialization and better standard of living. Sporadic price rise in the international market is another reason for the same.

4. Import of capital goods maintained a steady increase due to rising demand in the export-oriented industrial and domestic sectors.

5. Nonelectrical machinery, transport equipment, manufacturers of metals and machine tools were the main items of capital goods.

6. Import of food and allied products declined with a fall in imports of edible oils. Other major items of India's import include pearls and semi-precious stones, gold and silver, metalliferous ores and metal scrap, non-ferrous metals, electronic goods, etc

### **2. Describe the changes in composition of India's imports.**

Composition of India's imports:

1. During 1950-60s the major items of imports were foodgrain because India at that time faced food crisis.

2. After 1970s import of foodgrains stop due to Green Revolution.

3. Foodgrains were replaced by fertilizers and petroleum.

4. Petroleum is the largest imported commodity because it is used as a fuel as well as industrial raw material.

5. The capital goods like non-electrical machinery, transport equipment,

machines and tools have increased on the import list.

6.Special steel alloy, edible oils are also imported.

7.The other major items of import include pulse, precious gold and silver, metal ores, scraps, electronic goods, etc.

### **3.What are the advantages of sea port? Why are they termed as gateways of international trade?**

1 India is surrounded by sea from three sides and is bestowed with a long coastline.

2.Water provides a smooth surface for very cheap transport provided there is no turbulence.

3.India has a long traditional of sea-faring and developed many ports with place name suffixed with pattan which mean port. Since waterways is the cheapest means of transport for heavy and bulky goods and it is more favored for international trading.

4.India's west coast has more seaports than its east coast.

5.Availability of indented coastline.

6.Early arrivals of British to promote their trade.

7.British encouragement to establish and promote ports along the west coast to strengthen connectivity to Europe.

8.Opening of Suez Canal also promotes an encouraged seaports along the west coast.

### **3.How are ports helpful for trade?**

The commercial part of a harbor containing facilities for embarking and disembarking passengers, loading and unloading, and facilities for storage are called ports.

(a)Ports are called gateways of international trade. 90-95% of international trade is carried out through them. Major part of the international trade is carried out through waterways and ports are two ends of a waterway.

(b)Cargoes and traveler's pass from one part of the world to another through these ports.

(c )The ports provide facilities of docking, loading, unloading, storage facilities for cargo.

(d)In order to provide these facilities, the port authorities make arrangements for maintaining navigable channels, arranging tugs and barges, and providing labour and managerial services.

## **SOURCE BASED QUESTION**

**Q1. Read the case study given and answer the questions follows:**

Though ports have been in use since ancient times, the emergence of ports as gateways of international trade became important after the coming of the European traders and colonisation of the country by the British. This led to the variation in the size and quality of ports. There are some ports which have very vast area of influence and some have limited area of influence. At present, India has 12 major ports and 200 minor or intermediate ports. In case of the major ports, the central government decides the policy and plays regulatory functions. The minor ports are there whose policy and functions are regulated by state governments. The major ports handle larger share of the total traffic. The British used the ports as suction points of the resources from their hinterlands.

The extension of railways towards the interior facilitated the linking of the local markets to regional markets, regional markets to national markets and national markets to the international markets. This trend continued till 1947. It was expected that the country's Independence will reverse the process, but the partition of the country snatched away two very important ports, i.e., Karachi port went to Pakistan and Chittagong port to the erstwhile east-Pakistan and now Bangladesh.

To compensate the losses, many new ports, like the Kandla in the west and the Diamond Harbour near Kolkata on river Hugli in the east were developed. Despite this major setback, Indian ports continued to grow after the Independence. Today, Indian ports are handling large volumes of domestic, as well as, overseas trade. Most of the ports are equipped with modern infrastructure. Previously, the development and modernisation was the responsibility of the government agencies, but considering the increase in function and need to bring these ports at par with the international ports, private entrepreneurs have been invited for the modernisation of ports in

India. The capacity of Indian ports increased from 20 million tonnes of cargo handling in 1951 to more than 837 million tonnes in 2016.

**Q1.1 The emergence of ports as gateways of international trade became important after the coming of.....**

- (A) American traders
- (B) European traders
- (C) African traders
- (D) Australian traders

**Ans-(B) European traders**

**Q1.2 Who of the following decides the policy and plays regulatory functions in case of major sea ports?**

- (A) Central government
- (B) State government
- (C) Local government
- (D) All of the above

**Ans-(A) Central government**

**Q1.3 For which of the following purpose did the British build and use ports?**

- (A) For the development of market in India.
- (B) With the aim to increase agricultural trade in India.
- (C) As suction points of the resources from their hinterland .
- (D) For the economic development of India.

**Ans-(C) As suction points of the resources from their hinterland**

**Q1.4 Which two new ports were developed after independence to compensate the loss as two major ports went to Pakistan due to partition ?**

- (A) Kandla and Marma Gao
- (B) Kochi and Jawaharlal Nehru sea port
- (C) Diamond harbour and Paradweep
- (D) Kandla and Diamond harbour

**Ans-(D) Kandla and Diamond harbour**

**Q2. Read the case study given and answer the questions follows:**

The composition of commodities in India's international trade has been undergoing a change over the years. The share of agriculture and allied products has declined, whereas, shares of petroleum and crude products and other commodities have increased. The shares of ore minerals and manufactured goods have largely remained constant over the years from 2009-10 to 2010-11 and 2015-16 to 2016-17. The decline in traditional items is largely due to the tough international competition. Amongst the agricultural products, there is a decline in the export of traditional items, such as coffee, cashew, etc., though an increase has been registered in floricultural products, fresh fruits, marine products and sugar, etc. Manufacturing sector alone accounted for 73.6 per cent of India's total value of export in 2016-17. Engineering goods have shown a significant growth in the export. China and other East Asian countries are our major competitors. Gems and jewellery contribute a larger share of India's foreign trade.

**Q2.1 Which of the following product's share has declined over the years?**

- (A) Agriculture and allied products
- (B) Engineering goods

(C) Floricultural products

(D) Marine products

**Ans-(A) Agriculture and allied products**

**Q2.2 Which is the main reason for the decline in export of traditional items?**

(A) Increase in export duties

(B) Tough international competition

(C) Increase in import duties

(D) All of the above

**Ans-(B) Tough international competition**

**Q2.3 Which sector account largest share of India's total value of export?**

(A) Agricultural sector

(B) Manufacturing sector

(C) Mining sector

(D) None of the above

**Ans-(B) Manufacturing sector**

**Q2.4 Which of the following countries are our major competitor in foreign trade?**

(A) USA and UK

(B) Japan and European countries

(C) Australia and African countries

(D) China and East Asian countries

**Ans-(D) China and East Asian countries**

**ASSERTION AND REASONING**

**Q1. Consider the following statements and choose the correct answer with the help of given options;**

**I. Participation of air transport is increased in international trade as compared to oceanic route.**

**II. It is very costly and unsuitable for carrying heavy and bulky commodities.**

**Options;**

(A) Only statement I is true

(B) Only statement II is true

(C) Both statements are true and statement II correctly explains statement I.

(D) Both statements are incorrect

**Ans-(C) Both statements are true and statement II correctly explains statement I.**

**Q2. Assertion(A) The international trade of India has rose many folds as compare to 1950-51 to 2016-17.**

**Reason(R) This sharp rise is the momentum picked up by the manufacturing sectors, the liberal policies of the government and the diversification of markets.**

(A) Both A and R are true and R is the correct explanation of A

(B) Both A and R are true but R is not the correct explanation of A

(C) A is true but R is false

(D) A is false but R is true

**Ans-(A) Both A and R are true and R is the correct explanation of A**

**Q3. Assertion(A) The composition of commodities in India's international trade has been undergoing a change over the years.**

**Reason(R) The share of agriculture and allied products has increased, whereas, shares of petroleum and crude products and other commodities have decreased.**

(A) Both A and R are true and R is the correct explanation of A

(B) Both A and R are true but R is not the correct explanation of A

(C) A is true but R is false

(D) A is false but R is true

**Ans-(B) Both A and R are true but R is not the correct explanation of A**

**Q4. Assertion(A) Import of capital goods maintained a steady increase during the period from 2009- 2017**

**Reason(R) Non-electrical machinery, transport equipment, manufacturers of metals and machine tools were the main items of capital goods.**

(A) Both A and R are true and R is the correct explanation of A

(B) Both A and R are true but R is not the correct explanation of A

(C) A is true but R is false

(D) A is false but R is true

**Ans-(D) A is false but R is true**

**Q5. Assertion(A) At present, India has 22 major ports and 300 minor or intermediate ports**

**Reason(R) In case of the major ports, the central government decides the policy and plays regulatory functions.**

(A) Both A and R are true and R is the correct explanation of A

(B) Both A and R are true but R is not the correct explanation of A

(C) A is true but R is false

(D) A is false but R is true

**Ans-(A) Both A and R are true and R is the correct explanation of A**

**Q6 Assertion(A) Kolkata port is also confronted with the problem of silt accumulation in the Hugli River which provides a link to the sea.**

**Reason(R) Its hinterland covers U.P., Bihar, Jharkhand, West Bengal, Sikkim and the north-eastern states.**

(A) Both A and R are true and R is the correct explanation of A

(B) Both A and R are true but R is not the correct explanation of A

(C) A is true but R is false

(D) A is false but R is true



Ans-(B) Both A and R are true but R is not the correct explanation of A

Q7. Consider the following statements and choose the correct answer with the help of given options;

I. The balance of payment was adverse as imports were more than exports in spite of all the efforts of import substitution.

II. Steep rise in the import of petroleum products responsible for the increase in import value.

Options;

(A) Only statement I is true

(B) Only statement II is true

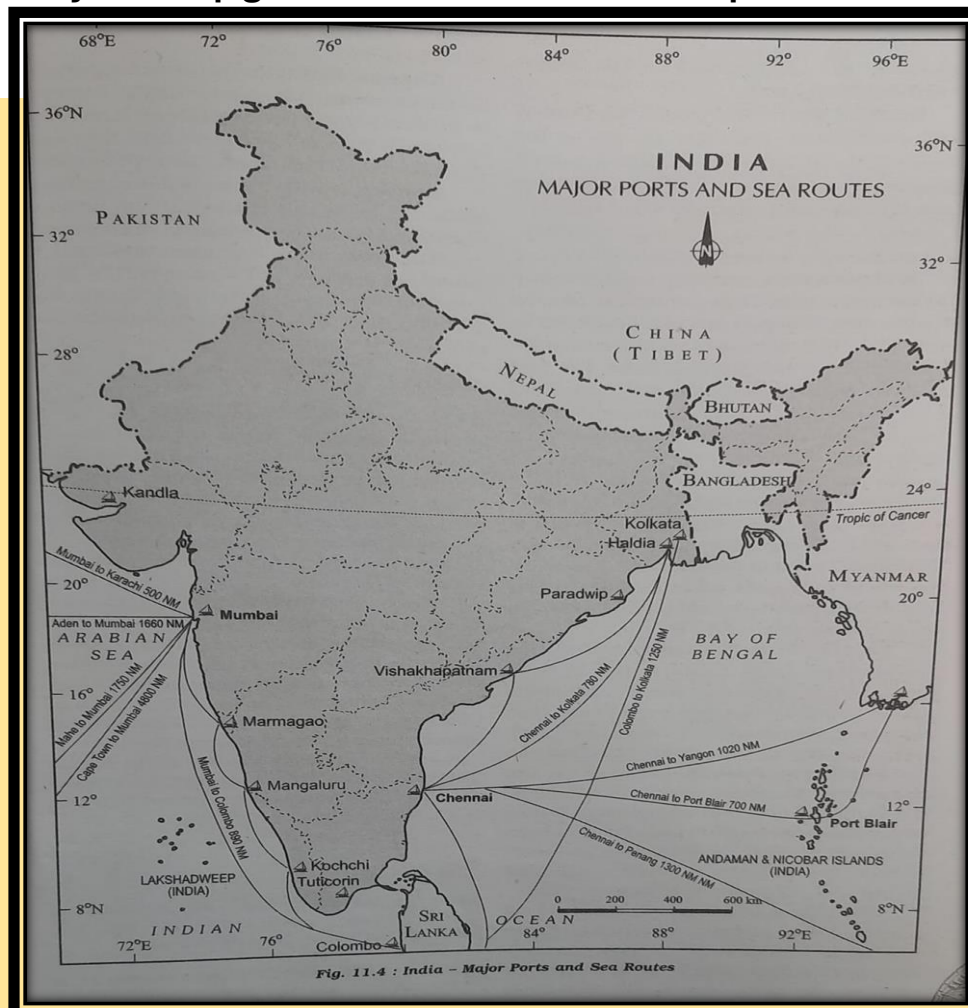
(C) Both statements are true and statement II correctly explains statement I.

(D) Both statements are incorrect

Ans-(A) Only statement I is true

### DIGRAM BASED QUESTIONS

1 Study the map given below and answer the questions follow:



**Q1.1 Which of the following is the largest sea port on the western coast?**

- (A) Kandla
- (B) Mumbai
- (C) Marmagao
- (D) Kochchi

**Ans-(B) Mumbai**

**Q1.2 Which is the southernmost sea port of India ?**

- (A) Chennai
- (B) Kochchi
- (C) Tuticorin
- (D) Mangaluru

**Ans-(C) Tuticorin**

**Q1.3 In which of the following states two major sea ports are found?**

- (A) Andhra Pradesh and Odisha
- (B) Odisha and West Bengal
- (C) Kerala and Tamil Nadu
- (D) West Bengal and Tamil Nadu

**Ans-(D) West Bengal and Tamil Nadu**

**Q1.4 Which states provide hinterland to Marma Gao Sea port?**

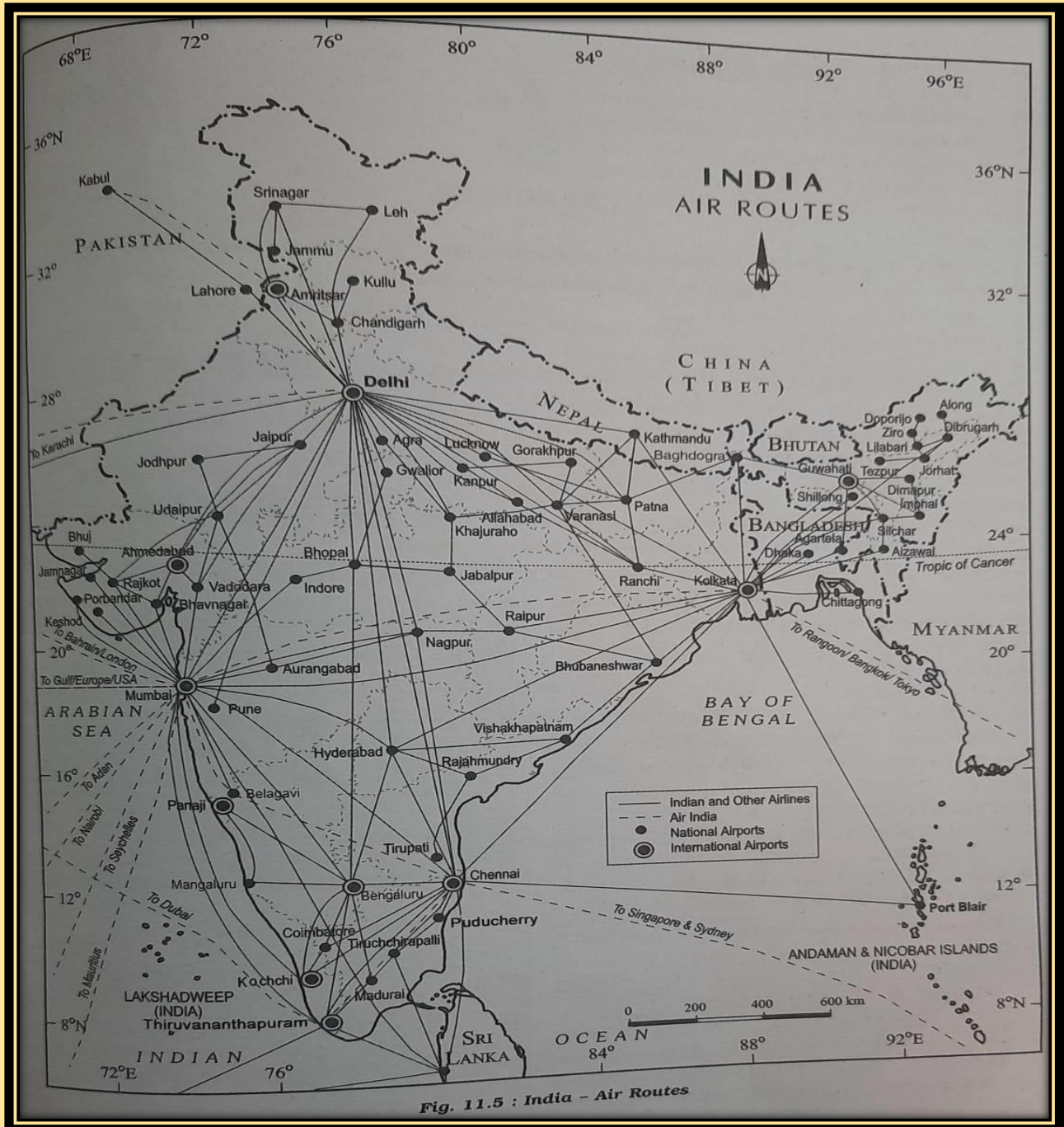
- (A) Karnataka, Goa and Maharashtra
- (B) Odisha, Goa and West Bengal
- (C) Kerala, Maharashtra and Tamil Nadu
- (D) West Bengal, Karnataka and Tamil Nadu

**Ans-(A) Karnataka, Goa and Maharashtra**

**Q2.1 In which of the following group of cities maximum air routes converge?**

- (A) Delhi, Ahmedabad, Patna and Chennai
- (B) Mumbai, Bengaluru, Bhubaneswar and Jaipur
- (C) Delhi, Mumbai, Kolkata and Chennai

(D) Kolkata, Pune, Amritsar and Chandigarh



Ans-(C) Delhi, Mumbai, Kolkata and Chennai

Q2.2 In which of the following state two major international airport are found?

- (A) Andhra Pradesh
- (B) Odisha
- (C) Rajasthan
- (D) Kerala

Ans- (D) Kerala

**Q25.3 Which of the following is the southern most international airport of India?**

- (A) Thiruvananthapuram
- (B) Madurai
- (C) Srinagar
- (D) Amritsar

**Ans-(A) Thiruvananthapuram**

**Q2.4 Which international airport of India is shortest route to Singapore and Sydney?**

- (A) Delhi
- (B) Chennai
- (C) Mumbai
- (D) Thiruvananthapuram

**Ans-(B) Chennai**

### **MAP WORK**

**1. Locate and label the following seaport on the given political outline map of India with appropriate symbols.**

- (i) A major seaport which has been developed after independence to cater to the needs of Western and North-Western parts of the country. (Delhi 2013)
- (ii) The major seaport located in Goa. (Delhi 2011)
- (iii) The southernmost major seaport of India. (All India 2011)
- (iv) The major seaport located in Odisha. (Delhi 2010)
- (v) The major seaport located in Kerala, (AH India 2010, 09)
- (vi) Port has a a land-locked harbour,
- (vii) A natural harbour and the biggest port of the country.
- (viii) One of the oldest ports on the eastern coast.

(IX) It has been constructed to reduce the congestion at Kolkata port.9



2. Locate and label the following Airport on the given political outline map of India with appropriate symbols.

1 Ahmedabad

2. Mumbai

**3.Bengaluru**

**4.Chennai**

**5.Kolkata**

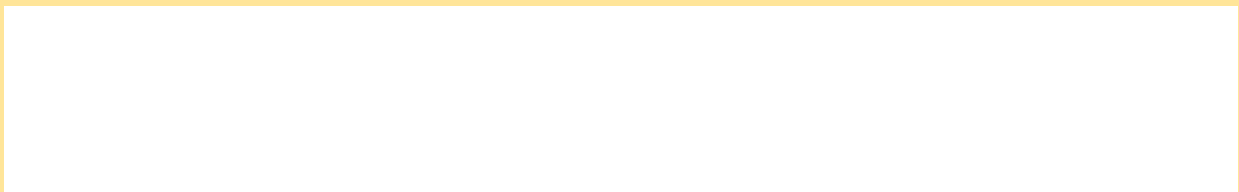
**6.Guwahati**

**7.Delhi**

**8.Amritsar**

**9.Thiruvananthapuram**

**10.Hyderabad**



## GEOGRAPHICAL PERSPECTIVE ON SELECTED ISSUES AND PROBLEMS

L.R ASHA PGT GEOGRAPHY





## Key notes

### POLLUTION

It is the unwanted matter and energy in the environment which harms to the man

Types of pollution:

- Air pollution
- Water pollution
- Land Pollution
- Noise Pollution

POLLUTION	CAUSES	POLLUTANTS	EFFECTS	SOLUTION
AIR POLLUTION	Combustion of coal diesel, industrial processes solid waste disposal sewage disposal disposal	Oxides of Sulphur, nitrogen, carbon monoxide, ammonia, lead, aldehydes asbestos &Beryllium	Causes various diseases, respiratory, nervous and circulatory systems cause smog in cities, acid rain, in return cause damage to the buildings	Plantation, use of filters in industries, use of non-conventional energy resources use of public transport

WATER POLLU TION	Sewage disposal, urban runoff, toxic effluents, runoff from Ag. lands	Odor, suspended solids, ammonia, urea, chloride, grease, insecticide, heavy metals	Water borne diseases diarrhea, intestinal worms, hepatitis, ¼ diseases are caused by water pollution	Controlled use of fertilizers, pesticides, treat the waste before release to the streams from industries
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LAND POLLU TION	Improper human activities disposal of untreated waste	Human and animal excreta, virus and bacteria garbage, vectors therein, radioactive subsistence	Exhaustion of land land pollution, heavy metals are transferred to the Ag. Products Cause water pollution	Educate the farmers about the importance of land utility and consequences of pollution
NOISE POLLU TION	Air crafts, automobiles trains, industrial processing advertising	High level of noise	cause neural and heart disease	Locate industries away from living areas

## SOURCES OF POLLUTION IN THE GANGA AND YAMUNA

### RIVERS

RIVER & STATE	POLLUTED STRECHES	NATURE OF POLLUTION	POLLUTANTS
GANGGA-UP, BI, WB	<ol style="list-style-type: none"> <li>1. Down stream of Kanpur</li> <li>2. Down stream of Varanasi</li> <li>3. Farrakka barrage</li> </ol>	<p>Industries in Kanpur</p> <p>Domestic and urban waste</p> <p>Carcasses of man</p>	Kanpur, Allahabad, Varanasi, Patna , Kolkata
YAMUNA – DELHI, UP	<ol style="list-style-type: none"> <li>1. Delhi to confluence with Chambal</li> <li>2. Mathura and Agra</li> </ol>	<p>Diverse of water to HR,UP</p> <p>Agriculture. Runoff, industrial waste</p>	Urban waste from Delhi

### CASE STUDY- DHARVI THE ASIA'S LARGEST SLUM FEATURES

- There is only one road about 90 feet
- Narrow streets, one toilet for every 1440 people
- Two/three stored buildings with rusty iron gates
- Single room for 12 people
- Tree less sunlight uncollected garbage
- Stagnant pools, fowl water,
- Zari work, pottery, wood carving, scheduled caste people
- Poor Muslims, treatment of hides and tanning

### URBAN WASTE DISPOSAL

- Overcrowding,

- Congestion,
- Inadequate facilities,
- Poor sanitary conditions,
- Significant quantity of solid waste Pieces of metals, polythene bags,
- Broken glass ware
- Plastic containers ashes garbage and CDs make solid waste

#### SOURCES OF URBAN WASTE

- House hold establishments: thrown in public lands, private contractors sites
- Industrial establishments: thrown in low lying public grounds

#### EFFECTS OF SOLID WASTE

- Health hazard due to obnoxious smell, flies and rodents
- Disease like typhoid, diphtheria diarrhea malaria cholera
- they are spitted through rain water
- industrial waste dumping in the rivers cause water pollution ex. Ganga , Yamuna

#### CASE STUDY- DAURALA

1. Meerut based NGO developed a model for ecological restoration
2. The ground water was contaminated with industrial waste
3. Ngo collected the data about the health conditions of the locality

#### STEPS TAKEN

- Overhead tank capacity was increased
- Ponds were cleaned
- Silt was removed
- Rain water harvesting structures were made
- 5.1000 trees have been planted

## **PROBLEMS OF SLUM AREAS**

- Least choice
- Dilapidated houses
- Poor hygienic conditions
- Poor ventilation
- Lack of drinking water, light, toilet facilities
- Over crowded, narrow streets, low paid workers
- Prone to diseases, alcoholism, vandalism, apathy, social exclusion

## **LAND DEGRADATION**

### **CAUSES**

- Pressure on agriculture
- Increase in population density
- Faulty methods of agriculture
- Excessive use of fertilizers, pesticides
- Indiscriminate cutting of trees,
- Heavy rains,
- Floods

### **CLASSIFICATION OF WASTE LAND BY NRSA**

#### **CAUSED BY NATURAL AGENTS**

Gullies, ravenous land, deserted, coastal sands, barren rocky areas, steep sloping land, glacial areas

#### **CAUSED BY NATURAL ASWELL AS HUMAN FACTORS**

Waterlogged and marshy areas, land affected by salinity and alkalinity, land with or without scrub

#### **CAUSED BY HUMAN ACTIONS**

Degraded shifting cultivated areas, degraded land under plantation crops, degraded forests, degraded pastures, mining and industrial waste lands

## CASE STUDY- ECOLOGICAL BALANCE REASONS

- Westernmost climatic zone in MP.
- One of the five backward districts of the country
- High concentration of Bhills
- suffer from poverty
- Most degraded land

## OBJECTIVES

- Start watershed development programme
- Link of water, land, vegetation
- Natural resource management
- Increase common property resources
- Each family should plant one tree at least
- Planted fodder grass
- Social fencing
- Stop open grazing land
- Stopping the common property resources by govt.

## CLASSIFICATION OF WASTELAND BY PROCESS

- Barren and uncultivated wasteland 2.18%
- Natural degraded common waste land 2.4%
- Natural man-made common waste land 7.51%
- Manmade degraded common waste land 5.88%
- Total degraded land 15.8%

1. What is the cause of environment pollution?

a) **From the release of substances and energy from the waste products of human activities.**

b) From the release of substances and energy by Plants

c) From the release of Substance and energy by Animals d) All of the above

2. What are the classification on the basis of medium through which pollutants transported and diffused?

a) Air pollution b) Water pollution c) Land pollution d) Noise pollution  
e) **All of the above**

3. Means of water pollution?

a) Indiscriminate use of water by increasing population  
b) Industrial expansion has led degradation of the quality of water considerably.  
c) **Both a & b** d) None of the above

4. Sources of Water

a) From rivers & Canals b) From Ponds & lakes c) From Seas & Ocean, etc.,  
d) **All of the above**

5. Natural Sources of Water Pollution?

a) Erosion, Landslides, Decay b) Decomposition of plants and animals, etc.  
c) **Both a & b** d) None of the above

6. Who contributes in polluting the environment more?

a) **Humans** b) Plants c) Animals d) None of the above

7 . Ways of water pollution by human beings?

a) Industrial wastes, b) Agricultural watering methods  
c) Cultural activities d) **All of the above**

8. Among these activities, which is the most significant contributor?

a) **Industry** b) Agriculture c) Cultural Activities d) None of the above

9. What are the undesirable products produced by Industries?

a) Industrial wastes b) Polluted residuals c) Numerous heavy metals, dust, smoke, etc.  
d) **All of the above**

10. How is industrial waste disposed?

a) **Industrial wastes are disposed of in running water bodies**  
b) Industrial wastes are disposed of in Stagnant water bodies

c) Both a & b d) None of the above

11. Where do poisonous elements reach?

**a) Poisonous elements reach the reservoirs, river and other water bodies**

b) Poisonous elements reach the Mountains c) Poisonous elements reach the Forests

d) All of the above

12. How do humans destroy the bio system?

a) Humans destroy bio system by polluting industries like leather, pulp, paper, textiles and chemicals.

b) Humans destroy bio system by cutting trees from the forest.

**c) Both a & b**

d) None of the above

13. Which are the major polluting industries?

**a) Leather industries** b) Mineral industries c) Agro based industries d) None of the Above

14. What are the various types of chemicals used in modern agriculture?

a) Chemicals used in modern agriculture such as in-organic fertilizers, pesticides and herbicides are also pollution generating components. @

b) Manure c) Both a & b d) None of the above

15. Where do the chemical wash down?

a) Chemicals are washed down to rivers, lakes and tanks. @

b) Chemicals are washed down to Ocean. c) Both a & b d) None of the

16. For what chemicals infiltrate soils?

a) Chemicals also infiltrate the soil to reach the ground water @

b) Chemicals also infiltrate the soil to reach the surface water

c) Both a & b

d) None of the above

17. Examples of cultural activities?

a) Cultural activities such as pilgrimage, religious fairs, tourism, etc. @ b) Diwali

c) Pongal d) None of the above

18. In India is all surface water sources are fit for human consumption?



a) TRUE b) FALSE@ c) Partially Correct d) Partially In-Correct

19. In which way water pollution affects the human health?

a) Water Borne Diseases@ b) Air Borne Diseases c) Both a & b d) None of the above

20. What are the diseases commonly caused, due to water contamination?

a) Diarrhea, Intestinal worms, Hepatitis, etc.@ b) Malaria, Dengue  
c) Viral Fever, Flu d) None of the above

21. What does the world health organization say about the cause of communicable diseases?

a) One fourth of the communicable diseases in India are water borne.@  
b) One fourth of the communicable diseases in India are air borne.  
c) Both a & b d) None of the above

22. What is the name of the programme to clean ganga river?

a) National mission for clean ganga@ b) Namami ganga programme  
c) Both a and b d) Neither a nor b

23. In what ways air pollution is taken as addition of contaminants?

a) Dust b) Fumes c) Gas d) All of the Above @

24. Define noise pollution?

a) Unbearable and Uncomfortable Noise to human beings caused by noise from different sources@  
b) The sound produced by Music c) The sound produced by Band Procession  
d) The sound produced by Political meeting

25. What are the main sources of noise pollution?

a) Mechanized construction b) Demolition works c) Automobiles & Aircraft, etc.  
d) All of the above@

26. What is the main source of pollution?

(A) Solid waste@ (B) Crops © Animals (D) Forests

27. Which is the natural source of air pollution?

(A) Man (B) Water (C) Agriculture (D) Volcanoes@

28. What is the source of pollution along the banks of Ganga?  
(A) Leather industry@ (B) Paper industry (C) Gases (D) Waste
29. Which town along the banks of Yamuna is polluted?  
(A) Lucknow (B) Mathura@ (C) Kanpur (D) Varanasi
30. What is the unit for measuring noise pollution? (A) Millibar (B) Decibal@  
(C) Decimetre (D) Centimetre
31. In which Dharavi stream is located? (A) Karnataka (B) Gujarat (C)  
Maharashtra (D) Rajasthan
32. Land degradation is not the result of: (A) Erosion (B) Salinity (C) Alkalinity  
(D) Forests@
33. The wasteland in India covers: (A) 7.5% (B) 10.5% (C) 15.9% (D) 25.15%@
34. Jhabua district is located in: (A) Karnataka (B) Madhya Pradesh (C)  
Chhattisgarh (D) Jharkhand
35. By 2050, how many people will live in towns? (A) 1/4th (B) 1/3rd (C)  
2/3rd@ (D) 3/4th
- .
36. Which one of the following rivers is highly polluted?  
(A) the Brahmaputra (B) the Yamuna@ (C) Satluj (D) Godavari
37. Which one of the following diseases is caused by water pollution?  
(A) Conjunctivitis (B) Respiratory infections (C) Diarrhea@ (D) Bronchitis
38. Which one of the following is the cause of acid rain?  
(A) Water pollution (B) Noise pollution (C) Land pollution (D) Air pollution.@
39. Push and pull factors are responsible for:  
(A) Migration@ (B) Slums (C) Land degradation (D) Air pollution

### **SHORT ANSWER QUESTIONS**

1. What is environment pollution?

Environmental pollution results from the release of substances and energy from the waste products of human activities.

2. What are the classification on the basis of medium through which pollutants transported and diffused?

a) air pollution b) water pollution c) land pollution d) noise pollution e) all of the above

3. What is water pollution?

Indiscriminate use of water by increasing population and industrial expansion has led to degradation of the quality of water considerably.

4. From where water is available?

Surface water available from rivers, canals, lakes, etc.

5. How are pollutants created?

Though water pollutants are also created from natural sources (erosion, landslides, decay and decomposition of plants and animals, etc.

6. What are the causes for pollutants?

Pollutants from human activities are the real causes of concern.

7. How do human beings pollute the water?

Human beings pollute the water through industrial, agricultural and cultural activities.

8. Among these activities, which is the most significant contributor?

Among these activities, industry is the most significant contributor.

9. Industries produce several undesirable products, what are they?

Industries produce several undesirable products including industrial wastes, polluted residuals, numerous heavy metals, dust, smoke, etc.

10. How are industrial wastes disposed?

Most of the industrial wastes are disposed off in running water bodies.

11. Where do poisonous elements reach?

Poisonous elements reach the reservoirs, river and other water bodies.

12. How do they destroy the bio system?

They destroy the bio system by polluting industries like leather, pulp, paper, textiles and chemicals.

13. Which are the major polluting industries?

- a) leather industries b) mineral industries c) agro based industries  
d) none of these

14. What are the various types of chemicals used in modern agriculture ?  
various types of chemicals used in modern agriculture such as inorganic fertilisers, pesticides and herbicides are also pollution generating components.

15. Where do the chemical wash down ?  
these chemicals are washed down to rivers, lakes and tanks.

16. For what chemicals infiltrate soils ?  
these chemicals also infiltrate the soil to reach the ground water .

17.Examples of cultural activities ?  
cultural activities such as pilgrimage, religious fairs, tourism , etc.

18. In India is all surface water sources are fit for human consumption? If yes why?  
yes, in India almost all surface water sources are contaminated and its unfit for human consumption.

19. In which way water pollution affects the human health?  
water pollution is a source of various water borne .

20. How does diseases commonly caused?  
the diseases commonly caused due to contaminated water are diarrhoea, intestinal worms , hepatitis, etc.

21. The world health organization shows what ?  
the world health organization shows that about one fourth of the communicable diseases in India are water borne.

22. What is the name of the programme to clean Ganga river ?  
a) national mission for clean Ganga b) Namami Gange Programme@  
c) both a and b d)neither a nor b

23.In what ways air pollution is taken as addition of contaminants?  
a) dust b)fumes c) gas d) all of these @

24.Define noise pollution ?

Noise pollution refers to the state of unbearable and uncomfortable to human beings which is caused by noise from different sources.

25. What are the main sources of noise pollution ?

mechanised construction and demolition works , automobiles and aircraft ,etc.

26. What does the disposable waste contain?

Solid, slurries and liquids

27. What are the examples of variety of old use articles in solid waste?

metals had broken, glassware, plastic containers, polythene bags, ash floppies, CDS etc.

28. What are discarded materials in waste disposal?

Refuse, garbage and rubbish

29. What are two sources in disposed urban waste?

Household or domestic establishments and industrial or commercial establishments

30. What are the cause and diseases of solid waste and health hazard?

obnoxious smell and harboring of flies and rodents, which act as carriers of diseases like typhoid, diphtheria, malaria and cholera

31. What are the problems of slum?

Lack of clean water constant migration at slums, no sewage or waste disposal facilities, pollution and unsanitary living conditions

32. What is meant by slum?

A slum is a highly populated urban residential area consisting of densely packed housing units of weak build quality and often associated with poverty

33. What is the other name for slum?

Jhuggi -jhopari

34. What are different types of undernourished prone diseases and illness?

Afford to give proper education to their children drug, abuse ,alcoholism crime vandalism , escapism apathy and ultimately social exclusion

35. What are the features of residential slums?

Dilapidated house, poor hygienic conditions poor ventilation lack of basic amenities like drinking water light and toilet facilities etc

36: What land degradation?

soil erosion water logging, salinization and alkalinisation of land lead to land degradation

37. What is the full form of NRSC?

National Remote sensing center

38. What are the types of wasteland?

Gullied/ravines land deserted or coastal sands barren rocky areas, steep sloping land and glacial

Degraded shifting cultivation areas, degraded land under plantation crops, degraded forest, degraded pasture and mining and industrial wastelands are caused by human action

39. In which state Jhabua district is located?

Madhya Pradesh

40. Where is Jhabua district located?

Jhabua district is located in the westernmost agro-climate zone in Madhya Pradesh

41. Who as the right common land?

The village tehsildar to ascertain the right of the common land

42. Who fund the watershed management?

watershed management programmes funded by both the ministries of Rural development and agriculture

43. Define SBM?

Swachh Bharat Mission

44. What diseases are caused by urban disposal?

Diseases like typhoid, diarrhea, and malaria

#### **SHORT ANSWER QUESTIONS**

1. What do you mean by environmental pollution?

Environmental pollution results from 'the release of substances and energy from waste products of human activities.

2. In how many categories is pollution divided on the basis of medium through which pollutants are transported?

There are many types of pollution on the basis of medium through which pollutants are transported and diffused: Air pollution Water pollution Land pollution Noise pollution

3. What do you mean by water pollution?

Deterioration in quality of water due to presence of waste, toxic chemicals, etc. water becomes unfit for use. They are difficult to remove by standard purification measures. Fluorides, e-coli from wastes are examples of water pollution.

4. What are the main sources of water pollution?.

Water pollutants are created by natural sources like soil erosion, landslides, decay and decomposition of plants and animals, etc. But the main pollutants come from human sources which includes polluting the water through industrial, agricultural and cultural activities. Human causes are the real causes of concern.

5. What is meant by air pollution?

Air pollution is taken as addition of contaminants like dust, fumes, gas, fog, odour, smoke or vapour to the air in substantial proportion and duration that may be harmful to flora and fauna and to property.

6. Name the diseases caused by air pollution.

It causes various respiratory diseases like asthma, sore throat, sneezing, allergic rhinitis, smoky fog over the cities commonly known as smog prevails which may lead to accidents.

7. What do you mean by noise pollution?

Noise pollution refers to the state of unbearable and uncomfortable to human beings which is caused by noise from different sources. The level of steady noise is measured by sound level expressed in terms of decibel (dB).

8. Which physical disorders take place due to noise pollution?

Hearing problems, headache, anxiety, irritation, depression, digestive disorder, etc.

9. What health problems are caused by solid waste?

Solid wastes cause health hazard through creation of obnoxious smell, and harboring of flies and rodents, which act as carriers of diseases like typhoid, diphtheria, diarrhea, malaria and cholera, etc.

10. What are the main causes of migration from rural area to urban area?

Population flow from rural to urban areas is caused by many factors:

High demand for labour in urban areas.

Low job opportunities in rural areas.

Imbalanced pattern of development between urban and rural areas

11. What do you mean by slums?

“Slums”, jhuggi-jhopari” are clusters and colonies of shanty structures.

These are inhabited by those people who were forced to migrate from the rural areas to these urban centers in search of livelihood but could not afford proper housing due to high rent and high costs of land. They occupy environmentally unfriendly areas.

12. What do you mean by land degradation?

Land degradation is generally understood either as a temporary or a permanent decline in productive capacity of the land.

13. Which human action brings reduction in land productivity?

Shifting cultivation area, degraded land under plantation crops, degraded forests, degraded pastures, and mining and industrial wastelands, are causes of land degradation by human action.

14. What per cent of agricultural land in India is barren and uncultivable waste and degraded land?

17.98% of total geographical area of land in India is barren and un cultivable waste and degraded land for which natural and human actions are responsible.

### **SHORT ANSWER QUESTIONS**

1. What is the difference between pollution and pollutants?

Pollution    Pollutant

(i) Pollution is the addition of unwanted, harmful substances in the atmosphere in substantial amount over a considerable period of time.    (i)



Pollutants are the substances which are unwanted, and harmful. They make the environment polluted.

(ii) It is the degradation of the quality of environment. (ii) They degrade the quality of the environment.

(iii) Pollution is caused by pollutants. (iii) Addition of pollutants is the cause of pollution.

2. Describe the major source of air pollution.

- Combustion of coal, petrol and diesel, industrial processes, solid waste disposal, sewage disposal, etc. are the major sources of air pollution because they add oxides of sulfur, oxides of nitrogen, carbon monoxide, hydro-carbons, ammonia, lead aldehydes, asbestos and helium in the atmosphere.

4. Mention major problems associated with urban waste disposal in India.

- Solid waste refers to a variety of old and used articles, For example stained small pieces of metals, broken glass wares, plastic containers, polythene bags, ashes, floppies, CD's, etc. dumped at different places. Environmental pollution by solid wastes has now got significance because of enormous growth in the quantity of wastes generated from various sources.

- The huge turnout of ashes and debris from industries, thermal power houses and building constructions or demolitions have posed problems of serious consequences. Solid wastes cause health hazard through creation of obnoxious smell, and harboring of flies and rodents, which act as carriers of diseases like typhoid, diphtheria, diarrhea, malaria and cholera, etc.

- These wastes cause frequent nuisance as and when these are carelessly handled, spread by wind and splattered through rain water. Concentration of industrial units in and around urban centers gives rise to disposal of industrial wastes.

- The dumping of industrial waste into rivers leads to water pollution. River pollution from city-based industries and untreated sewage leads to serious health problems downstream. 50 per cent of the waste generated are left uncollected which accumulate on streets, in open spaces between houses and in wastelands leading to serious health hazards.

- Untreated wastes ferment slowly and release toxic biogas to the atmosphere, including methane. Land is limited in urban centres so looking for landfill to dump the waste generated in urban centres is a major problem.

4. What are the effects of air pollution on human health?

- Air pollution is taken as addition of contaminants like dust, fumes, gas, fog, odor, smoke or vapor to the air in substantial proportion and duration that may be.
- Harmful to flora and fauna and to property. It causes various diseases related to respiratory, nervous and circulatory systems.
- Smoky fog over cities called as urban smog is caused by atmospheric pollution.
- It proves very harmful to human health. It can also cause acid rain.

### **SHORT ANSWER QUESTIONS**

1. Describe the effects and remedies for air pollution.

Effects of Air Pollution:

- It causes various respiratory diseases like asthma, sore throat, sneezing, allergic rhinitis, smoky fog over the cities commonly known as smog prevails which may lead to accidents.
- Air pollution also causes acid rain.
- It leads to global warming which creates variation in the rhythmic cycle of seasons.
- Depletion of the ozone layer is the result of excessive chlorofluorocarbons and carbon dioxide in the atmosphere.
- It is also responsible for the various skin diseases like, itching of eyes, pimples, etc.

Measures to curb Air Pollution:

- Promote afforestation
- Use electrical appliances with four star or five star ratings.
- Use CNG for automobiles.
- Proper chimney should be installed.

2. Describe the sources of air pollution in India.

- Air Pollution: Increased concentration of contaminants like dust, fumes, gas, odour and smoke in the air causes pollution. This concentration may be harmful to flora, fauna and to property.

Sources of Air Pollution:

Increased use of variety of fuels such as coal, petrol and diesel.

Increased emission of toxic gases from industrial activities into the atmosphere.

Mining activities release the dusts which pollute the air.

Important pollutants are oxide of sulphur and nitrogen, hydrocarbons, carbon dioxide, carbon monoxide, lead and asbestos

3. What are the sources of pollution in the Ganga and the Yamuna? Also give its polluted stretch.

Sources of pollution in Ganga and Yamuna:

- Domestic and industrial effluents.
- Dumping and carcasses in the river.
- Domestic waste from urban centres.
- Agricultural run-off.

Extraction of water for irrigation purpose.

Industrial pollution in the cities like Kanpur, Agra, Mathura, Varanasi and Delhi. The polluted stretch of the river Ganga: Downstream of Kanpur, Varanasi, Farakka barrage. The polluted stretch of the river Yamuna: Delhi, Mathura and Agra.

4. Which problems have arisen due to increasing urban population?

Some problems have arisen due to increasing urban population:

- Congestion
- Overcrowding
- Inadequate facilities to support the fast growing population and consequent poor sanitary conditions and foul air.
- Environmental pollution by solid wastes has now got significance because of enormous growth in the quantity of wastes generated from various sources,
- Urban waste disposal.
- Increasing number of slums.

5. Urban waste disposal is a serious problem in India. Why?

- In metropolitan cities like Mumbai, Kolkata, Chennai, Bangalore, etc. about 90 per cent of the solid waste is collected and disposed.
- But in most of other cities and towns in the country, about 30 to 50 per cent of the waste generated are left uncollected which accumulate on streets, in open spaces between houses and in wastelands leading to serious health hazards.
- These wastes should be treated as resource and utilized for generating energy and compost. Untreated wastes ferment slowly and release toxic biogas to the atmosphere, including methane.

6. Write a note on the life of people living in slums.

- Slums are residential areas of the least choice, dilapidated houses, poor hygienic conditions, poor ventilation, lack of basic amenities like drinking water, light and toilet facilities, etc.

- Most of the slum population works in low paid, high risk- prone, unorganized sectors of the urban economy.
- They are the undernourished, prone to different types of diseases and illness and can ill afford to give proper education to their children.
- The poverty makes them vulnerable to drug abuse, alcoholism, crime, vandalism, escapism, apathy and ultimately social exclusion.

7.What are the main sources of noise pollution?

- The main sources of noise pollution are various factories, mechanized construction and demolition works, automobiles and aircraft's, etc.
- There may be added periodical but polluting noise from sirens, loudspeakers used in various festivals, programmes associated with community activities.
- In sea traffic, the noise pollution is confined to the harbor due to loading and unloading activities being carried. Industries cause noise pollution but with varying intensity depending upon the type of industry.

8.Why are rural areas important for urban centers?

- Rural areas are important for urban areas because they provide labour for industrial development and for tertiary activities.
- At present, 47 per cent of the world's six billion population lives in cities and more will join them in near future.
- This proportion is estimated to go up to 50 per cent by 2008. By 2050, an estimated two-thirds of the world's population will live in urban areas, imposing even more pressure on the space infrastructure and resources of cities, which are manifested in terms of sanitary, health, crime problems and urban poverty.

### **SHORT ANSWER QUESTIONS:**

1.Mention any two cultural activities responsible for water pollution in India.  
Pilgrimage and religious fairs.

2.Which is the main source of water-borne diseases in India? Name any one water-borne disease.

Water pollution is the main source of water-borne diseases in India.  
Diarrhoea is the main disease caused by polluted water.

3.Which is the main source of environmental pollution in India?

Human activities is the main source of environmental pollution in India.

4. Which city is the main polluter of River Yamuna? -Delhi.

5. Which source of pollution is responsible for acid rain? OR  
What is the main cause of acid rain? ----Air pollution is responsible for acid rain.

6. Name the two metropolitan cities which are the main polluters of river Ganga before it reaches Varanasi. Kanpur, Allahabad.

7. Which is the most significant contributor of water pollution in India? (Foreign 2011) OR  
Mention any two sources of land pollution in India.---Industrial waste.

8. Which are the two major sources of land pollution in India?  
Large scale use of chemicals in agriculture and industries as well as industrial wastes.

9. Name two diseases caused by use of contaminated water. OR  
Which diseases may take place due to contaminated water?  
Diarrhoea, intestinal worms, hepatitis, cholera, jaundice, malaria, etc.

10. Mention the root cause of 'acid rains'.  
Urban smog/Air pollution/Atmospheric pollution cause acid rain.

11. What is criterion for the classification of pollution?  
Different types of pollution are classified on the basis of medium through which pollutants are transported and diffused.

12. Mention any two sources of water pollutants created by humans.  
Sewage disposal. Urban run-off. Toxic effluents from industries.  
Run-off over cultivated lands and nuclear power plants

**SHORT ANSWER QUESTIONS:**

1. Examine any three causes for the deterioration of quality of water in India.

2. Causes:

Water gets polluted by foreign matters like chemicals, industrial waste etc.

Various types of chemicals used in modern agriculture such as inorganic fertilizers, pesticides, etc. are also pollution generating components.

Cultural activities such as pilgrimage, religious fairs also cause water pollution.

2.Explain any three effects of air pollution on human life. OR  
Explain three ill effects of air pollution on human health in India. OR  
Explain any three consequences of air pollution.

Effect of air Pollution on human are:

It causes various disease related to respiratory system, nervous and circulatory systems.

It causes smoky fog over cities called as urban smog which is very harmful to us.

It causes acid rain etc.

3.How has noise pollution become hazardous in many big cities of India?

Explain with example.

The main source of noise pollution are:

Traffic noise is the biggest sources of air pollution as its intensity and nature depend upon the type of aircraft, vehicle, train and the condition of road.

In sea traffic, the noise pollution is confined to the harbour due to loading and unloading of goods being carried, (in) Noise pollution's intensity declines with increase in distance from the source of pollution, i.e., industrial areas, arteries of transportation, airport, etc.

4.Explain any two major sources of air pollution in India? How is the air pollution harmful to human health? Explain.

Two major sources of air pollution in India are: Combustion of coal, petrol and diesel, mining, solid waste disposal, sewage, vehicles etc.

Effect of air pollution on human are:

It causes various disease related to respiratory system, nervous and circulatory systems.

It causes smoky fog over cities called as urban smog which is very harmful to us.

It causes acid rain etc.

5.Analyse any three major problems of slum dweller in India. OR

Describe any three major problems of slums in India. OR

Describe any three major problems of slums in India.

Their houses are dillapidated and poor hygienic conditions.

They have lack basic amenities like drinking water, light and toilet facilities.

These areas are over crowded having narrow street pattern prone to serious hazard from fire.

6.Mention any two sources of land pollution in India. Improper human activities.

Disposed of untreated industrial waste.

Use of pesticides and fertilizers.

7. How do industries pollute India's water bodies? Explain with examples.

Industrial expansion has led degradation of the quality of water considerably.

Industry is the most significant contributor of pollution.

Industries produce several undesirable products including industrial waste, polluted waste water, poisonous gases, chemical residuals, numerous heavy metals, dust smoke etc.

Most of the industrial wastes are disposed off in running water or lakes. As a result, poisonous elements reach the reservoirs, rivers and other water bodies.

Major water polluting industries are leather, pulp and paper, textiles and chemicals.

8. "The urban waste should be properly treated as a resource for various needs of mankind."

Explain the values that can help in changing the urban waste into resources.

About 90% of the solid waste is collected and disposed in some metropolitan cities.

But in most of their cities and towns in the country, about 30 to 50% of the waste generated are left uncollected which accumulate on streets, in open spaces between houses and in wastelands leading to serious health hazards. These waste should be treated as resource and utilised for generating energy and compost. Untreated wastes ferment slowly and release toxic biogas to the atmosphere, including methane.

9. Examine the success of watershed management programme implemented in Jhabua district of Madhya Pradesh.

Jhabua is a backward district in Madhya Pradesh with high tribal population. People suffer due to poverty caused by resource degradation. The watershed management programme funded by the GOI, has helped in preventing land degradation and improving soil quality. It emphasized on the holistic development with community participation. The WSDP has treated 20% of the area in the district. The Bhils have revitalized large parts of community resource. Each household planted at least one tree. Stall feeding of cattle has been introduced and they have developed pastures which will sustain their cattle as well. The villagers are proud and confident of their common property resources.

10. "Air pollution is very harmful to flora, fauna and property." Explain any three values which can help in maintaining pollution free air to some extent.

Values which can help in maintaining pollution free air:

Air pollution is harmful for environment and mankind; therefore, it is our responsibility to save air from pollution.

People should be aware of the harmful effects of air pollution.

People should feel duty bound to save air.

People must follow rules for saving air.

We must use eco-friendly non-conventional sources of energy (Solar, Biogas and Wind energy) as conventional sources (Coal, oil and gas) are harmful.

People should feel duty bound to use public transport.

11. "Indiscriminate use of water by increasing population and industrial expansion has led to degradation of the quality of water considerably."

Evaluate the statement.

Increasing population and industrial expansion are responsible for water pollution:

Domestic and sewage waste water remains untreated.

Excessive use of fertilizers and pesticides in farming results in water pollution.

Cultural activities: fairs, tourism, pilgrimage, etc.

Industries produce many undesirable substances which pollutes water.

Chemical residues and toxins pollute water.

Major polluting industries are leather, pulp, paper, textiles, chemicals, etc.

### **LONG ANSWER QUESTIONS**

1. Describe the nature of water pollution in India.

- Water pollution is addition of unwanted and harmful material in the water which renders it harmful for the use of human and degrades the flora and fauna around it.
- Indiscriminate use of water by increasing population and industrial expansion has led degradation of the quality of water considerably.
- Surface water available from rivers, canals, lakes, etc. is never pure.
- It contains small quantities of suspended particles, organic and inorganic substances.
- When concentration of these substances increases, the water becomes polluted, and hence becomes unfit for use. In such a situation, the self-purifying capacity of water is unable to purify the water.



- Although water pollutants are also created from natural sources (erosion, landslides, decay and decomposition of plants and animals, etc.).
- Pollutants from human sources are the real causes of concern.
- Human beings pollute the water through industrial, agricultural and cultural activities. Among these activities, industry is the most significant contributor.
- Industries produce several undesirable products including industrial wastes, polluted waste water, poisonous gases, chemical residuals, numerous heavy metals, dust, smoke, etc.
- Most of the industrial wastes are disposed off in running water or lakes.     poisonous elements reach the reservoirs, rivers and other water bodies, which destroy the bio-system of these waters. Major water polluting industries are leather, pulp and paper, textiles and chemicals.
  
- Various types of chemicals used in modern agriculture such as inorganic fertilizers, pesticides and herbicides are also pollution generating components.
- These chemicals are washed down to rivers, lakes and tanks.
- These chemicals also infiltrate the soil to reach the ground water. Fertilizer induces an increase in the nitrate content of surface waters.
- Cultural activities such as pilgrimage, religious fairs, tourism, etc. also cause water pollution.
- In India, almost all surface water sources are contaminated and unfit for human consumption.
- the overutilization of groundwater resources in India has led to groundwater depletion and also increased concentration of Arsenic in many parts of West Bengal and Bihar.
  
- Domestic waste which includes sewage and other household waste also adds on to the pollution of water. Water pollution is a source of various water borne diseases.
- The diseases commonly caused due to contaminated water are diarrhea, intestinal worms, hepatitis, etc. World Health Organisation shows that about one-fourth of the communicable diseases in India are water-borne.

2. Describe the problem of slums in India.

- Urban centers in India are more differentiated in terms of the. social-economic, politico-cultural and other indicators of development than any other areas.
  - They represent social-economic disparities of highest order.
  - the highly posh areas with huge farm houses, wide roads, entertainment center and all amenities required for leading a luxurious life,
  - the slum clusters, generally referred to as “jhuggi- jhopris-clusters and colonies of shanty structures.
  - Those people who were forced to migrate from the rural areas to these urban centers in search of livelihood but could not afford proper housing due to high rent and high costs of land inhabit these slums.
  - They occupy environmentally incompatible and degraded areas.
- 
- Slums are residential areas of the least choice, dilapidated houses, poor hygienic conditions, poor ventilation, lack of basic amenities like drinking water, light and toilet facilities, etc.
  - These areas are overcrowded having narrow street pattern prone to serious hazards from fire. Moreover, most of the slum population works in low paid, high risk-prone, unorganized sectors of the urban economy.
  - they are the undernourished, prone to different types of diseases and illness and can ill afford to give proper education to their children.
  - The poverty makes them vulnerable to drug abuse, alcoholism, crime, vandalism, escapism, apathy and ultimately social exclusion.
- 
- Dharavi, which is the second largest slum of Asia, shows the extreme miserable and unhygienic conditions of existence.
  - The area is devoid of sanitation and is infested by pests such as rats, causing miserable health conditions of the residents.
  - The lanes of the slum are not wide enough to let a bicycle pass through them. People inhabiting the slum face chronic diseases- both communicable and the ones caused by deficiencies.
  - The lack of employment opportunities in the rural as well as urban areas of developing nations consistently push the population to urban areas.
- 
- The enormous migrant population generates a pool of unskilled and semi-skilled labor force, which is already saturated in urban areas.
  - People coming to the slums are affected by the several ills which cities of developing countries face.

- The available social and economic infrastructure is unable to absorb the additional population. Lack of education, employment and male selective migration tends to increase the crime rates.
  - Due to failing infrastructure, people living in slums are devoid of minimum required quantity of potable water. An improper sewage system creates unhealthy conditions. Massive use of traditional fuel severely pollutes the air.
3. Suggest measures for reduction of land degradation.
- The pressure on agricultural land increases not only due to the limited availability but also by deterioration of quality of agricultural land. Soil erosion, waterlogging, salinization and alkalinization of land lead to land degradation.
  - Though all degraded land may not be wasteland, but unchecked process of degradation may lead to the conversion to wasteland.
  - There are two processes that induce land degradation.
  - These are natural and created by human beings. National Remote Sensing Agency (NRSA) has classified wastelands by using remote sensing techniques and it is possible to categorizes these wastelands according to the processes that have created them.
  - Some degradation which is caused by natural agents cannot be stopped altogether, but the degraded land can be revived through reclamation processes.
- Land degradation like gullied/ ravenous land, desertic or coastal sands, barren rocky areas, steep sloping land, and glacial areas are primarily caused by natural agents.
  - There are other type of degraded land such as waterlogged and marshy areas, land affected by salinity and alkalinity and land with or without scrub, which have largely been caused by natural as well as human factors.
  - There are some other types of wastelands such as degraded shifting cultivation area, degraded land under plantation crops, degraded forests, degraded pastures, and mining and industrial wastelands, are caused by human actions.
- Land degradation caused by human activities can be controlled by regulating and improving land use practices.
  - Shifting agriculture and open grazing causes a large area of land to be degraded, therefore shifting cultivation and open grazing should be strictly banned.

- Regulations on use of fertilizers and other chemicals on the agricultural land should be strengthened. Mining activities, deforestation all leads to land degradation, therefore government needs to put strict checks on these practices.
- The best way to put a check on the land degradation and land revival is by educating the inhabitants of the area and having community-based programmes aimed at checking land degradation and reviving the degraded land.
- Under the various schemes of governments and aid of NGOs the community is organized in such a way to use sustainable and organic agricultural practices.
  
- Common property resource is revitalized, and its use is promoted. Planting patches of fodder grass so as to limit open grazing is a crucial step to curtail land degradation.
- Social fencing of the land leads to feeling of responsibility among the people and therefore protection of land.
- Therefore, community participation with public- government participation is. the best method to contain land degradation.
- The best example from India for revival of degraded land is of the Jhabua district in the westernmost agro-climatic zone of Madhya Pradesh.

4 .The largest slum Dharavi exhibits many contradictory elements. What are these? Explain.

Dharavi is Asia's largest slum. There are many contradictory elements.

Negative versus positive aspect of the slum:

- Only one main road traverses the slum, the miscalled 'ninety-foot road', which has been reduced to less than half of that for most of its length.
- Some of the side alleys and lanes are so narrow that not even a bicycle can pass.
- The whole neighborhood consists of temporary buildings, two or three storeyed high with rusty iron stairways to the upper part, where a single room is rented by a whole family, sometimes accommodating twelve or more people.
- in this place of shadow less, treeless sunlight, uncollected garbage, stagnant pools of foul water, where the only non-human creatures are the shining black crows and long grey rats, on the other hand, some of the most beautiful, valuable and useful articles in India are made.

- From Dharavi come delicate ceramics and pottery, exquisite embroidery and zari work, sophisticated leather goods, high-fashion garments, finely-wrought metalwork, delicate jewellery settings, wood carvings and furniture that would find its way into the richest houses, both in India and abroad.
- State any four pressing environmental concerns of India.
- Four pressing environmental concerns in India are:
  - Water Contamination: In India drinking water is getting contaminated due to industrial waste. It is leading to waterborne diseases.
  - Air Pollution: Due to urbanization, the number of vehicles on Indian roads is increasing continuously. Number of motor vehicles has increased from 3 lakh in 1951 to 67 crores in 2003. India is one of the ten most industrialized nations of the world but it has happened at the cost of environment which is irreversible.
  - Deforestation: India's forest cover is dwindling continuously due to increasing demand by increasing population. It is increasing air pollution and the problems associated with it. Per capita forest land in India is only 0.08 hectare against a requirement of 0.47 hectare.
  - Land Degradation: Land degradation is happening because of loss of vegetation occurring due to deforestation, unsustainable fuel wood and fodder extraction, encroachment into forest lands, non-adoption of adequate soil conservation measures, indiscriminate use of chemicals, improper planning and management of irrigation system. Certainly, correction of environmental degradation involves an opportunity cost in the form of adverse health conditions, poor quality of life in poor environmental conditions and expenditure by government on correcting the harm done by environment.

## **SOURCE BASED QUESTIONS**

### **Dharavi–Asia's Largest Slum**

“... Buses merely skirt the periphery. Auto rickshaws cannot go there, Dharavi is part of central Bombay where three wheelers are banned.

Only one main road traverses the slum, the miscalled ‘ninety-foot road’, which has been reduced to less than half of that for most of its length. Some of the side alleys and lanes are so narrow that not even a bicycle can pass. The whole neighbourhood consists of temporary buildings, two or three storeyed

high with rusty iron stairways to the upper part, where a single room is rented by a whole family, sometimes accommodating twelve or more people; it is a kind of tropical version of the industrial dwelling of Victorian London's East End. But Dharavi is a keeper of more sombre secrets than the revulsion it inspires in the rich; a revulsion, moreover, that is, in direct proportion to the role it serves in the creation of the wealth of Bombay.

In this place of shadowless, treeless sunlight, uncollected garbage, stagnant pools of foul water, where the only non-human creatures are the shining black crows and long grey rats, some of the most beautiful, valuable and useful articles in India are made. From Dharavi come delicate ceramics and pottery, exquisite embroidery and zari work, sophisticated leather goods, high-fashion garments, finely-wrought metalwork, delicate jewellery settings, wood carvings and furniture that would find its way into the richest houses, both in India and abroad...Dharavi was an arm of the sea, that was filled by waste, largely produced by the people who have come to live there: Scheduled Castes and poor Muslims. It comprises rambling buildings of corrugated metal, 20 metres high in places, used for the treatment of hides and tanning. There are pleasant parts, but rotting garbage is everywhere..." (Seabrook, 1996, pp. 50, 51-52

1. Which of the following products are manufactured in Dharavi?
  - a. Auto parts, b. Electronic items, c. consumer electrical d. leather goods@
2. Which among the following are the common problems of slums?
  - a. Unhygienic conditions, b. lack of sanitation, c. overcrowding, d. all the above@
3. Who are the people largely living in Dharavi?  
Scheduled castes and poor Muslims
4. Which among the following are the social issues prevailing in slums?
  - a. Crime, b. alcoholism, c. social discrimination, d. all the above@

### **ASSERTION AND REASONING**

1. ASSERTION- A- India is facing serious problem of urban waste disposal  
REASONING -R- About 50-80% of the waste generated is left uncontrolled and untreated.

- A Both A and R are true. R is the correct reason for A.**
- B Both A and R are true. R is not the correct reason for A.
- C A is true. R is false.
- D A is false but R is true.

2. A- Watershed Management is the effective method to prevent land degradation

R- Watershed Management programme acknowledge the link between land, water and vegetation

And improve the livelihoods of people through natural resource management and community participation

A **Both A and R are true. R is the correct reason for A.**

B Both A and R are true. R is not the correct reason for A.

C A is true. R is false.

D A is false but R is true.

3. Consider the following statements and choose the correct answer with the help of given options;

I. Environmental pollution by solid wastes has now got significance.

II. Enormous growth in the quantity of wastes generated from various sources is responsible for it.

Options;

a. Only statement I is true

b. Only statement II is true

c. Both statements are true but not related with each other.

d. **Both statements are correct and statement II is the main cause for statement I.**

4. Poisonous elements reach the reservoirs, rivers and other water bodies which destroy the bio system of these waters.

Options;

a. Only statement I is true

b. Only statement II is true

c. **Both statements are true and statement II correctly explains the effects of Statement**

d. Both statements are incorrect

5. Q1. Assertion (A): Modern agriculture is also responsible for water pollution.

Reason (R): Various types of chemicals used in modern agriculture such as inorganic fertilisers, pesticides and herbicides are pollution generating components.

(A) **Both A and R are true and R is the correct explanation of A**

(B) Both A and R are true but R is not the correct explanation of A

(C) A is true but R is false

(D) A is false but R is true.

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