

Population : Part – 1

EXERCISE Q.1 [PAGE 11]

Exercise Q.1 | Q 1 | Page 11

Identify the correct correlation :

A: Assertion; R: Reasoning

A: Areas which have fertile soil have a dense population.

R: Fertile soils are good for agriculture.

1. Only A is correct
2. Only R is correct
3. **Both A and R are correct and R is the correct explanation of A.**
4. Both A and R are correct but R is not the correct explanation of A.

Solution: Both A and R are correct and R is the correct explanation of A.

Exercise Q.1 | Q 2 | Page 11

Identify the correct correlation :

A: Assertion; R: Reasoning

A: Population of a region does not change.

R: Birth rate, death rate, and migration affect the population of a region.

1. Only A is correct
2. **Only R is correct**
3. Both A and R are correct and R is the correct explanation of A.
4. Both A and R are correct but R is not the correct explanation of A

Solution: Only R is correct

Exercise Q.1 | Q 3 | Page 11

Identify the correct correlation :

A: Assertion; R: Reasoning

A: In stage 2, the death rate reduces but the birth rate is constant.

R: The population increases rapidly in stage 2.

1. Only A is correct
2. Only R is correct
3. **Both A and R are correct and R is the correct explanation of A.**
4. Both A and R are correct but R is not the correct explanation of A.

Solution: Both A and R are correct and R is the correct explanation of A.

EXERCISE Q.2 [PAGE 11]

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Write a short note on :

Impact of relief on population distribution.

Solution:

- Relief is one of the most important factors influencing the distribution of the population.
- Generally, mountains are thinly populated, plains are thickly populated and plateaus are moderately populated.
- The mountains and hilly areas are less populated because of limited means of livelihood; agriculture is poorly developed and transportation facilities are limited. For example, the north eastern states of India have less population due to hilly and mountainous relief.
- On the other hand, plains are densely populated because of fertile soil and well-developed agriculture. Due to plain relief, it is easy to construct roads and develop industries. Better employment facilities attract people in these areas. For example, Ganga plains are thickly populated
- In short, we can say plains are densely populated and mountains and plateaus are sparsely populated.

Exercise Q.2 | Q 2 | Page 11

Write a short note on :

Correlation between birth rates and death rates.

Solution:

- Birth rate and death rate are the important components of population change.
- Birth rate is the number of live births in a year per thousand population.
- Death rate is the number of deaths in a year per thousand population.
- Population growth depends upon birth rate and death rate in a year. Population growth occurs not only by increasing the birth rate but also because of the decreasing death

rate.

- When the birth rate is more than the death rate, the population increases.
- When the birth rate is less than the death rate, the population decreases.
- If both, birth rate and the death rate are the same then the population is said to remain stable. However, the birth rate and death rate being the same is only a hypothetical situation.

Exercise Q.2 | Q 3 | Page 11

Write a short note on :

Stage 3 of Demographic Transition theory.

Solution:

- Stage 3 of the Demographic Transition Theory is the stage of expanding the population.
- From the second stage to this stage, death rates are decreasing. Birth rates are also decreasing. A decrease in both birth rates and death rates reduces the rate of growth of the population. But actually, the population is growing because the birth rates are higher than death rates.
- In this stage, since the country is making progress, the income of the people is above the subsistence level and there is an improvement in the standard of living of the people. Poverty is also reducing
- There is the development of technology as a result secondary and tertiary activities develop.
- Due to an increase in education level, people understand the importance of family planning so the size of family reduces.
- In short in stage 3 countries are moving from the developing stage to the developed stage.

EXERCISE Q.3 [PAGE 11]

Exercise Q.3 | Q 1 | Page 11

Give a geographical reason:

India is passing through Stage 3 of the demographic transition.

Solution:

- In India, since there is a decrease in the birth rates and death rates, the growth rate of the population is also decreasing.
- Due to the development in the country, the income of the people has reached above subsistence level, the standard of living is improved, poverty is decreasing, technology is developing.
- Number of people engaged in secondary and tertiary activities is increasing.
- Due to an increase in the literacy rate, people have understood the importance of family planning. Therefore, there is a decrease in the size of the family.
- Hence, India is passing through Stage 3 of the demographic transition.

Exercise Q.3 | Q 2 | Page 11

Give a geographical reason:

Population distribution is uneven.

Solution:

- Distribution of the population in the world is very uneven because the distribution of population depends upon many physical factors such as relief, climate, availability of water supply, soil, etc.
- For example, if you consider the relief factors, mountains and hilly areas are thinly populated. Plateau regions are moderately populated and plains are densely populated. The Himalayan region in India is thinly populated but the Gangetic plains are thickly populated and the Deccan plateau region is moderately populated.
- The distribution of population also depends upon human factors such as agriculture, mining, transportation, urbanization, etc.
- For example, agriculture or mining activities support a large population since they provide a source of living to many people.
- Sometimes government policies also affect population distribution. For example, government-provided land, water, electricity at concessional rate in New Mumbai area to attract people and to reduce the pressure of the population in Mumbai city.

Exercise Q.3 | Q 3 | Page 11

Give a geographical reason:

Population increases because of transportation facilities.

Solution:

- The development of roads and railways makes the region more accessible.
- Such areas provide favourable conditions for the development and manufacturing industries, which generate employment. Therefore, people from different areas migrate in search of jobs. Thus, such areas become densely populated. For example, the Gangetic plain of India, where the density of roads and railways is highest in India.
- Population increases in port cities due to the availability of sea transport for the development of trade. Therefore, the coastal region is densely populated. For example, many port cities like Chennai, Mumbai are developed on the east and west coast of India.
- Thus, the population increases because of transportation facilities

Exercise Q.3 | Q 4 | Page 11**Give a geographical reason:**

Secondary and tertiary activities increase in the third stage of demographic transition.

Solution:

- In Stage 3 of demographic transition theory, the growth rate of the population decreases.
- As a result, the income of the people in the country reaches the above subsistence level. Poverty rate decreases and the standard of living increases. Therefore, the use of technology increases and this generates employment in secondary and tertiary activities.
- Due to an increase in education level and development of health facilities there is an increase in employment in the tertiary sector.
- Thus, secondary and tertiary activities increase in the third stage of demographic transition.

Exercise Q.3 | Q 5 | Page 11**Give a geographical reason:**

Population may increase though birth rates are low.

Solution:

- The growth of the population depends upon the difference between the number of live births in a year per thousand population and the number of deaths in a year per thousand population. Therefore, the growth of the population depends upon both birth rate and death rate.
- When the birth rate is low and the death rate is also low, then though the number of live births per thousand population is less, but due to a smaller number of deaths per thousand population, there is an increase in the population of the country.

Exercise Q.3 | Q 6 | Page 11

Give a geographical reason:

Population density is a function of the population and area of a region.

Solution:

- The number of people living in an area or country is called the total population of the area or country.
 - The density of the population is the ratio between the total population and a total area of that region or country.
 - For example, as per the census of 2011, the Density of population in India is 325 persons per sq. km. It is a ratio between the total population in India and the total area of India in sq. km.
 - In some countries, the total population may be less but the density of the population is high due to small area of the country. For example, Bangladesh's total population is less but the area of the country is small, therefore, the density of the population is high.
 - In some countries total population may be more but the density of the population is low due to the very large area of the country. For example, Brazil has more total population but the area of the country is also large, therefore, the density of the population is low.
- Thus, population density is a function of the population and area of a region.

EXERCISE Q.4 [PAGE 11]

Exercise Q.4 | Q 1 | Page 11

Answer in detail:

Explain the physical factors affecting the distribution of the population.

Solution:

Physical factors affecting the distribution of population are:

- (i) Relief
- (ii) Climate
- (iii) Availability of water
- (iv) Soils

(i) Relief

- Distribution of population is greatly affected by relief features.
- Generally, flat plains or gently sloping lands are densely populated.
- Plains are suitable for agricultural activities.
- In these areas, it is easier to construct roads and railways and the development of industries and trade. As a result, many people are attracted to plains and they become densely populated. For example, the Ganga plains are thickly populated.
- On the other hand, in mountainous and hilly areas density of the population is low. This is because in such areas agricultural development is difficult.
- The construction and development of transport facilities are very difficult and costly too. Such areas are inaccessible.
- Due to inaccessibility, the movement of goods and people is restricted. Therefore, mountainous and hilly areas are thinly populated. For example, the northeastern states of India have less population due to hilly and mountainous relief.

(ii) Climate

- Climate is the most important factor of all the factors influencing the distribution of the population.
- Areas having a very hot or very cold climate, heavy rainfall is very uncomfortable for human settlement. Such areas are thinly populated.
- For example, polar regions where Eskimos and Lapps live are sparsely populated due to the extremely cold climate. The Sahara Desert is sparsely populated due to the extremely hot climate.
- On the other hand, areas with an equable climate, that is climate having not much seasonal variation attract people. People feel comfortable to stay in these areas.

- For example, coastal areas have dense populations because of equable climate and wide scope for the development of agriculture, industries, and trade.

(iii) Availability of water

- Water is the most important factor affecting the distribution of the population. It is the most essential factor for all human activities.
- Therefore, more people live in areas where potable and sufficient water is available. As a result of this most of the river valleys are densely populated I .s. Nile river valley.
- Even in desert areas there is more population near oasis due to the availability of water.

(iv) Soil

- Fertile soils are most important for the development of agriculture.
- The areas having fertile alluvial soil have developed intensive agriculture and support a large number of people and hence they are densely populated, e.g., Gangetic Plain, Plains of Mississippi, Irrawaddy, and the Yangtze, etc.
- Similarly, in the areas having very fertile black cotton soil or regur soil, agriculture is well developed, and hence such areas are densely populated.
- The volcanic soil is very fertile hence, it supports agriculture. Therefore, the slopes of volcanic mountains have a dense population. For example, volcanic mountain slopes of Java island.

Exercise Q.4 | Q 2 | Page 11

Answer in detail:

In the first and fifth stages of the demographic transition, population growth is almost nil. What is the difference between the two stages then?

Solution:

- In the stage 1 both birth rates and death rates are high. The difference between the two is very less and therefore, the population is stable.
- In stage 1 birth rates are high due to limited educational opportunities, people feel having many children is good. Therefore, families are big.
- In stage 1, due to the lack of sanitation facilities, medical facilities, the spread of

contagious diseases, malnutrition, etc., the death rate is high.

- In stage 5 birth rates and death rates are very low. Birth rates are almost equal to death rates.
- As a result, the population growth is almost minimal or very low or even negative in the case of some countries.
- In stage 5, the death rate is low because of improved medical facilities, eradication of contagious diseases, and a healthy environment.
- In stage 5, due to an increase in awareness among the people, the birth rate is low.

Exercise Q.4 | Q 3 | Page 11

Answer in detail:

Discuss the problems faced by countries in stage 4 and stage 5.

Solution:

Problems faced by stage 4 countries are as under:

- The death rate is very low and going down as the medical facilities have improved and pandemic like the plague, cholera, smallpox, etc., are eradicated.
- Birth rate is the same as the death rate so population growth is minimal. Problems face by stage 5 countries are as under:

- In this stage, the birth rate is very low and the death rate is high. Therefore, the growth of the population is slow or negative growth of population is seen.
- Due to a large number of old people the death rate is high and due to a smaller number of young people birth rate is low.
- Due to a large number of old people, the dependent population is high.
- Due to the less young age population, the working population is limited.
- As a result, the size of the dependant population is larger than the active population and adverse effect on the economy of the country.

EXERCISE Q.5 [PAGE 11]

Exercise Q.5 | Q 1 | Page 11

Draw a neat labelled diagram for demographic transition theory and its various stages.

Solution:

