

Population

Exercise

Q. 1. A. Complete the following sentences.

If the birth rate is greater than the death rate then the population _____.

A. Decreases

B. Increases

C. remains constant

D. becomes surplus

Answer : Birth rate: The number of infants born per thousand of the population a year is known as birth rate.

Death rate: the number of deaths per thousand of the population a year is known as the death rate.

When the birth rate is greater than death rates, the population increases by increasing the number newly born infants.

Q. 1. B. Complete the following sentences.

People of _____ age group are included in the productive population.

A. 0 to 14

B. 14 to 60

C. 15 to 60

D. 16 to 59

Answer : The age group of 15-60 are economically productive and biologically reproductive. They comprise the working population.

Q. 1. C. Complete the following sentences.

The spread of modern technology in society is mostly dependent on _____.

A. Sex Ratio

B. Birth Rate

C. Literacy

D. Migration

Answer : When there is an increase in literacy of the community then there will be an increase in the development of techniques. Therefore the technological development takes place.

Q. 2. A. Examine the following statements and correct the incorrect ones.

The population density of a region can be understood from its area.

Answer : Population density means the ratio between the population in the area and size of the area. Therefore the given statement is correct we can understand the density by its area.

Q. 2. B. Examine the following statements and correct the incorrect ones.

The quality of the population is determined on the basis of literacy.

Answer : The population quality cannot be determined by the literacy alone. It needs further social indicators such as birth rate, death rate, infant mortality rate, etc. Therefore the population quality can be determined by the cleanliness, hygiene and health condition of the economy.

Q. 2. C. Examine the following statements and correct the incorrect ones.

There is an adverse impact on manpower in the regions of out-migration.

Answer : Migration is the movement of people from one place to another. In most cases, migration happens in search of employment opportunities. Thus, there will be an adverse impact on the manpower in the region of out-migration. Thus the statement is correct.

Q. 2. D. Examine the following statements and correct the incorrect ones.

Greater economic prosperity indicates the development of a region.

Answer : Economic prosperity alone cannot indicate the development of a region. It is the GDP and other social indicators that will indicate the development of a region. Therefore the GDP of the region and other social, as well as economic indicators such as literacy, birth, death, health, etc., will indicate the development of the region.

Q. 2. E. Examine the following statements and correct the incorrect ones.

Developing countries have an HDI of 1.

Answer : No, the developing countries will not have the HDI value of 1. The HDI value is indicated to show the development score of the economy. HDI value of 0-0.5 underdeveloped countries, 0.5-0.8 developing countries, and 0.8-1 developed countries. Therefore developing countries will have HDI value between 0.5-0.8.

Q. 3. B. Answer in brief.

Prepare a list of advantageous and disadvantageous factors, affecting population distribution.

Answer : Population distribution refers to the way in which people are spread over the earth's surface. 90% of the population live in 10% of land area in the world.

Disadvantageous factors

• Climate

An extreme climate such very hot and very cold makes uncomfortable for the human habitation. Hilly regions make harsh climate for transportation and network facility which will make very difficult to make human habitation in such places.

• Soil

People prefer the fertility of soil before the habitation. Fertile soils are significant for agricultural and associated activities. Therefore people will not prefer soil which is not fertile.

• Water

Water is the most important factor in life. People have a preference over the places where there is fresh water availability. Then the regions like deserts and barren land will not be preferred by the habitats.

Advantageous factors

• Urbanization

Urbanization makes a favourable condition for the people because of technological development in urban areas. This technological development will attract people to employment opportunities, better education, health care, etc.

• Industrialization

Industrial belts offer job opportunities and magnetize large numbers of people. These comprise not just industrial unit workers but also transport operators, shopkeepers, bank employees, doctors, teachers, and other service providers.

Q. 3. C. Answer in brief.

What are the problems in areas of high population densities?

Answer : Population density is the number of people per square kilometre. It is calculated as the number of people per unit area. India is one of the densely populated countries in the world. The problem due to high population density are:

- **Lack of open space**

High population makes very difficult to get a free space for a new habitat. There will be no rooms or houses or land left for the people.

- **Pollution**

Pollution is the main social problem faced due to the areas which have high population densities. There will be an increase in land degradation by building houses and flats which makes land pollution, water contamination by a huge volume of people makes water pollution, and massive usage of vehicles will contribute to air pollution.

- **Lacks storage of water facility**

These areas will lack the storage facility for water because of high density. The higher population needs more amount of water and storage capacity which lacks in these areas.

- **Overcrowded**

The areas with high population are overcrowded which makes the atmosphere polluted and lacks peacefulness. The environment gets damaged due to the over crowdedness.

Q. 3. D. Answer in brief.

What are the problems in the area of low population densities?

Answer : • Lack of technological advancement

The area with low population density will have the problem of technological advancement. Since there will be less or no human interference there lacks the new technological advancements.

- **Low level of agricultural production**

The land will be less fertile because of less human interactions. Even if the land is fertile, there will less production because of lack of human inhabitants.

- **Low-level of the transportation facility**

There will be less transportation and communication facility in these regions. These developments will not take place because of less population density.

Q. 4. A. Give Geographical Reasons.

The population is an important resource.

Answer : The population is an important resource because it provides human capital for the development of the country. The development of the country depends on the population because when there is a higher number of working population, then there will be development simultaneously. Higher the population higher will be chances of having larger human resource. Therefore, the development of the human resource will increase in both skilled and unskilled labour. This increase in both the type of labourers will develop the nation in all the spheres such as economically, politically and socially. Even the dependent population such as students and children will contribute to the development of the economy. Hence the population is considered an important human resource in the world.

Q. 4. B. Give Geographical Reasons.

Productive population is an important group.

Answer : Among the population group, the productive population is important because they are the group who contribute very much to the development of the country. Human resource is the basis for economic growth. Even in the high-income economies, the economic growth is very low because of the low working population. When there is a low working population, the productivity of the economy decreases even though the income for the labourers is very high. A growing working population leads to a rise in total output. The pure arithmetical increase in population creates work as well as incentives for production that impacts upon output and productivity quite positively. An increasing productive population means an increasing market for most goods and services, and we know that the partition of labour is restricted by the extent of the market. A potentially escalating market may motivate entrepreneurs to invest more and more capital in goods and machinery. Business activity will be spurred as a result, and more income and employment will be produced in the process.

Q. 4. C. Give Geographical Reasons.

The study of age structures is important.

Answer : The study of age structure plays a very important role in the demographic statistics. The study of age structure indices helps to plan for the development of the economic and cultural life of the society. This study helps the planning agencies of the country to make the investment in the country according to the needs of the society; when the economy is mostly dependent population, then the investment should be made to the welfare activities such as old age pension, scholarship, etc. Whereas when there is more working population the investment made should be for the employment generation.

Q. 4. D. Give Geographical Reasons.

Literacy is directly related to development.

Answer : Literacy is an important tool which makes the work of the productive population most efficient. The impact of literacy on economic development is positive. The literate person makes technological developments to overcome the problems in the economy such as pollution, urbanization, and etc. they need technical experts for ensuring sustainable development.

Q. 4. E. Give Geographical Reasons.

The real progress of a country is understood with the help of the Human Development Index.

Answer : The level of human development is ranked through scores of the Human Development Index (HDI) which varies between 0-1. In the HDI score, 0 states least developed state and 1 states highly developed state. It shows the real progress of the country because the indicators used to calculate the index are income, health, and education which are the most relevant factors in the country. When HDI value is higher, then the standard of living will also be higher which will make real progress in the country.

Q. 5. A. Write notes.

Sex ratio

Answer : Sex ratio is defined as the number of females per thousand males in the population. This is a social indicator which measures the extent of equality between the male and female in society. The sex ratio in India is unfavourable with 948 females per 1000 thousand males. The state Kerala has a sex ratio of 1058 females per 1000 males; Pondicherry has 1001 females per 1000 males while Delhi has only 821 females per 1000 males.

Q. 5. B. Write notes.

Age structure

Answer : Age structure of a population refers to the number of people in different age groups in a country. It is one of the basic characteristics of a population. The age classification makes a clear picture of the economical human resource in the country. The percentage of population under the age group of 15 years is considered as economically unproductive population. The percentage of population between 15-59 years is considered as economically productive population. The age group 59 years and above is mostly dependent population, and they are unproductive.

Q. 5. C. Write notes.

Literacy

Answer : Literacy is a very important quality of the population. Labour becomes skilled labour when they become literate or have some skills. Educated people indulge in many intelligent choices and undertake research and development activities. According to Census, a person who can read and write with understanding in any language is treated as literate. India has a literacy rate of 74.04%. In India, the state Kerala has the highest literacy rate with 93.91% as of 2018.

Activity

Q. 1. Survey 5 families in your neighbourhood on the basis of the following points and make a presentation.

a. Sex

b. Age group

c. Education

d. Occupation

Answer :

Families	Sex		Age group			
	Male	Female	0 - 14	14 - 30	30 - 60	60+
Family I	2	3	-	1	2	2
Family II	1	1	-	2	-	-
Family III	2	1	1	-	2	-
Family IV	2	2	-	2	2	-
Family V	1	4	-	2	2	1

Families	Educational qualification					Occupation	
	10 th	12 th	U.G	P.G	Professional course	Public sector	Private sector
Family I	1	2		1	1	1	1
Family II					2		2
Family III	1		1		1		1
Family IV		1	1	2		2	
Family V	1	1	1		2	1	1

I surveyed 5 families in my locality. The findings are presented in the above table:

- Family I- The family consists of 2 male and 3 female members. The elderly female member has completed her 10th standard while her male counterpart has completed his 12th grade. The child is in the age group of 14-30 has completed his 12th standard. The working members of the family have completed their higher studies. The male member has completed his Post-Graduation and is working as a teacher in the government school. The female member has done a professional course and is working in a private firm.
- Family II- The family consists of a male and a female member. Both are in the age group of 14-30 has completed professional courses. Both of them are working in a private firm.
- Family III- The family consists of 2 male and a female member. The child in the age group of 14-30 has completed his 10th standard. The working members of the family have completed their higher studies. The male member has completed his professional course and is working in a private firm. The female member has completed her graduation and is the homemaker.
- Family IV- The family consists of 2 male and 2 female members. Both the children are in the age group of 14-30. One has completed 12th standard, and the other member has completed her graduation. The working members are in the age group of 30-60. Both have completed their Post-Graduation and are government employees.
- Family V- The family consists of a male and 4 female members. The elderly female member has completed her 12th standard. Both the children are in the age group of 14-30. One of them has completed her 10th standard, while the second child has completed her graduation. Both the working members have completed their studies. Both have completed professional courses. One of them is employed in the private sector while the other person is employed with the government.

Intext Questions

Q. 1.

Particulars	Change	A City	B City
Total Population in 2016		1,00,000	1,10,000
Total number of children born	+	2,000	2,750
Total number of deaths	-	1,500	2,200
People who have migrated from outside	+	23,000	15,000
People who have migrated out	-	2,000	5,000
Total Population in 2017		?	

- Which city has greater number of newly born children?
- Which city records greater number of deaths?
- Looking at the figures of in-migration and out-migration which city has received more migrants?
- Calculate the population of both the cities in 2017.
- After considering all the points, which city has recorded more growth of population in one year?
- The total numbers of births are given. What would be this figure per thousand population? What is the term for this?
- What would be the number of deaths per thousand populations? What is the term used for this?

Answer : • From the above data given, City B has got 2,750 of total newborn whereas city A has only got 2,000 of total newborn. Therefore, City B has got the greatest number of new born children.

• From the above data given, City B has got 2,200 total numbers of deaths whereas city A has only got 1,500 total numbers of deaths. Therefore, city B has got the greatest number of deaths.

• From the above data given, City A has received 23,000 in-migrants and city B has received 15,000 in-migrants. Therefore, city A has received more migrants.

• From the above data given, the total population of both the cities in 2017 = total population of city A in 2017 + total population if city B in 2017.

Total population in city A in 2017 = total population in 2016 of city A + total number of newborn children of city A – a total number of deaths of city A + People who have migrated from outside - People who have migrated out.

Total population in city A in 2017 = $100000 + 2000 - 1500 + 23000 - 2000$

Total population in city A in 2017 = 121500

Total population in city B in 2017 = total population in 2016 of city B + the total number of newborn children of city B – total number of deaths of city B + People who have migrated from outside - People who have migrated out.

Total population in city B in 2017 = $110000 + 2750 - 2200 + 15000 - 5000$

Total population in city B in 2017 = 120550

Therefore, the total population of both the cities in 2017 = total population of city A in 2017 + total population if city B in 2017.

The total population of both the cities in 2017 = $121500 + 120550$

The total population of both the cities in 2017 = 242050

- From the data given above, city A has recorded a growth of 121500 and city B has recorded a growth of 120550. Therefore, city A has recorded more growth population in one year.

- The number of births per thousand population = $\frac{\text{total number of births}}{\text{total number of population}} \times 1000$

The number of births per thousand population = $\frac{2000}{100000} \times 1000$

The number of births per thousand population = 20

The term used for this is called the birth rate.

- The number of deaths per thousand population = $\frac{\text{total number of deaths}}{\text{total number of population}} \times 1000$

The number of deaths per thousand population = $\frac{1500}{100000} \times 1000$

The number of deaths per thousand population = 15

The term used for this is the death rate.

Q. 2. Even though area wise Rajasthan is a large state, the population is less. Which geographical factors may be responsible for this?

Answer : Geographical factors such as climate and rainfall may be responsible for less population in Rajasthan. Rajasthan is a very dry state receiving less rainfall. This affects the agriculture and the livelihood of the people. The climate is dry and harsh. Therefore, even though Rajasthan is a large state the population is less.

Q. 3. Groups :

1. Male 2. Adolescent 3. Illiterate 4. Children 5. Unemployed 6. Infants 7. Literate 8. Rural 9. Working population 10. Urban 11. Female 12. Old 13. Young 14. Dependent population

15. Adult

Classify the above groups into the categories below Sex, Age, Rural, Urban, Literacy, Productive Population. The population can be subdivided as per the groups were given above. These subgroups and their relationship with one another is studied in the structure of the population.

Answer : On the basis of sex: Male, female

On the basis of age: children, infants, adult

On the basis of rural: illiterate

On the basis of urban: urban

On the basis of literacy: literate

On the basis of productive population: adolescents, old, dependent population, working population, young

Q. 4. Have a class discussion based on the following questions.

- **How many people in your house are studying? What is their age?**
- **How many people in your house are working for a living? How old are they?**
- **Do your grandparents still work? What is their age?**

Answer : • There are four people in my house who are studying and their ages are 14, 23, 47 and 53 years.

• There are two people in my house who is working, and his age is 53 years.

• No, my grandparents are not working anymore because they are retired from their jobs. Their ages are 70 years and 75 years.

Q. 5. How do imbalanced sex ratios affect society?

What measures can be taken to strike a balance in the sex ratio?

Answer : • Imbalanced sex ratio occurs when the proportion of females is more than males, or the proportion of males is more than females due to migration. It can affect the birth rate of females and employment factor.

1. Measures such as encouraging the birth of girl child should be promoted.
2. The government should make sure that the ban on sex determination of the foetus is strictly implemented.
3. Strict actions should be taken against those involved in female infanticide and female foeticide.

Q. 6. Answer on basis of the given table.

Statistics 2010

Country	Percentage of the immigrant population
Afghanistan	0.14
Brazil	0.34
Kuwait	62.11
Bangladesh	0.73
Germany	12.31
Hongkong	42.59
Israel	37.87
India	0.52
Oman	24.46
Saudi Arabia	25.25
Great Britain	8.98
U S A	12.81

- Which countries have less than 10% migrant population?
- Which are the countries with a migrant population of between 10% to 20%?
- Which are the countries with a migrant population of more than 20%?
- Find the reason behind the migrant population of more than 20%.
- Draw two pie diagrams for any two countries.
- Have a discussion on migration and development.

Answer : • From the data given above,

Countries that have less than 10% migrant population:

1. Great Britain
2. India
3. Bangladesh
4. Brazil
5. Afghanistan

• From the data given above,

Countries that have a migrant population of between 10% to 20%:

1. Germany
2. USA

• From the data given above, Countries with a migrant population of more than 20% are as follows:

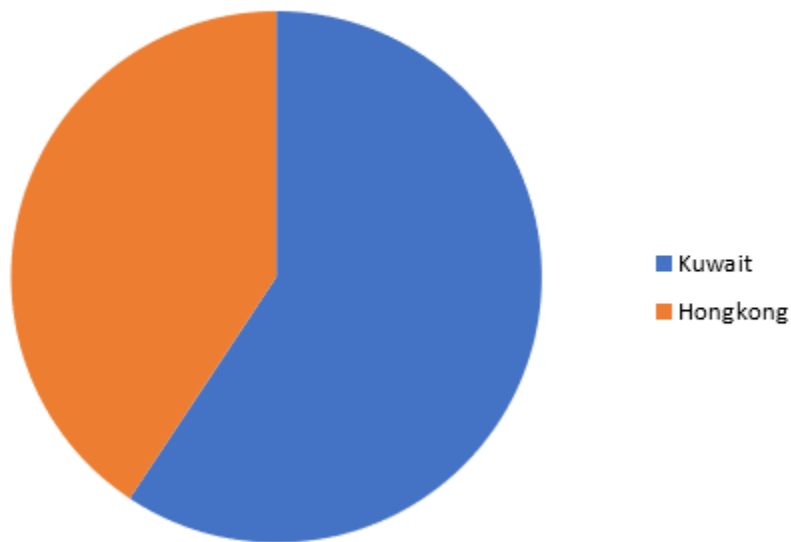
1. Kuwait
2. Hongkong
3. Israel
4. Oman
5. Saudi Arabia

• In some countries the migrant population is more due to the following reasons:

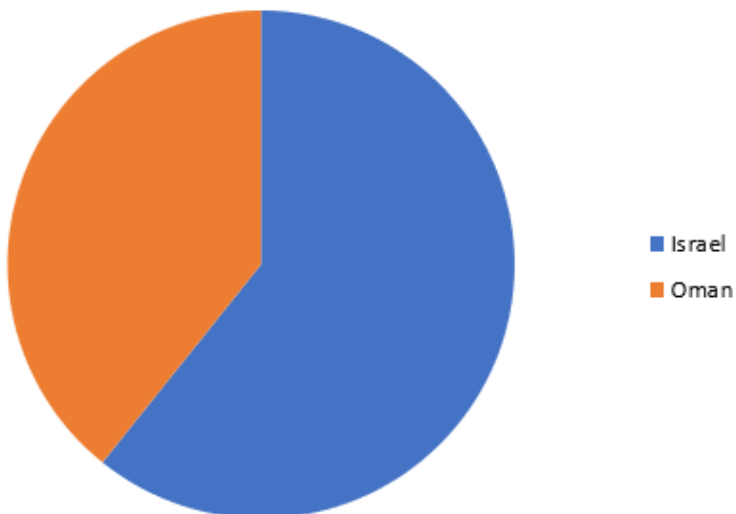
1. Job opportunities

2. Good business prospects
3. Better availability of natural resources
4. Steady economic development
5. Lifestyle
6. Good cost of living
7. Good currency exchange rates

Percentage of imifrant population



Percentage of immigrant population



- The movement of an individual or a group from one place to another is termed as migration. This could be for a short period, long period or permanently.

1. The reasons why people migrate are as follows: Marriage, education, business, transfer, tourism, natural calamities, wars, etc.

2. Due to migration the composition of the population also changes.

3. Places from where people migrate show a fall in population. Such places experience a shortage of manpower.

Migration and development take place side by side. Development is the process by which the nation improves its economic, social and financial wellbeing. Places which receive more migrants have a benefit of more manpower and working employs. This results in the development of that country.

Q. 7. Have a discussion on the basis of the following questions and answer the following.

- What would you call the people who work in the places mentioned below? farm, factory, hotel, hospital, shop, school, office

Answer : • People who work on the farm: farmers

People who work in hotel: chefs, waiters

People who work in hospitals: doctors, nurse, pharmacists

People who work in shops: shopkeepers

People who work in school: teachers

People who work in an office: engineers, accountants, clerks

Q. 8. Study fig 7.5 and answer the following questions.

- Which are the most densely populated districts?
- Name the sparsely populated districts with a density of less than 100 per sq. km.
- Name two districts with moderate population densities
- What is the density of the dark shaded regions?
- Why is the density of the population less in Gadchiroli?
- Have a discussion in the class on the effect of physiography, climate, the area under forest, industries, etc on the density of population.

Answer : • Palghar and Thane

- Gadchiroli

- Wardha, Yavatmal
- More than 1000 per sq. Km.
- The density of population is less in Gadchiroli because it is located in the eastern district and it is densely forested and rain shadowing.
- Referring to the fig. given above:

Effect of Industries: Higher density indicates urbanization and higher levels of industrialization. Therefore Mumbai city district and Mumbai suburb district, Thane, Pune, and Nagpur districts have a higher density.

Effect of the area under forest: The rain shadow districts as well as the districts in the extreme east which are densely forested show less density.

Effect of Physiographic: The reliefs and mountains determine the availability of natural resources

Effect of Climate: The climatic conditions of a place also determine the density of population.

Q. 9. Since the past two centuries, the size of a family is decreasing. But in spite of this, the population of the country is increasing. Find out why is this happening?

Answer : Since the past two centuries the size of the family is decreasing, but in spite of this, the population of the country is increasing due to in-migration and lack of population control.

Q. 10. Have a discussion on population control with the help of the following points

Public education

Education

Public awareness

Health facilities

Planning

Government policies

Research

Answer : Public education: By giving public education the population control can be achieved. It is very important for the public to be educated about the consequences of reproduction without planning. It is highly important for people to be aware of population control.

Education: Everyone should be given education regarding the importance of population control. It is essential to maintain population control for the betterment of the country and the family. It will help the nation and the people financially. Education will help them take responsible and sensible actions regarding population control.

Public awareness: Public awareness of the need for population control is highly essential. The public must be aware of the pros and cons of population control. Awareness must be spread regarding the need and how population control will lead to the betterment of the country.

Health facilities: Health facilities such as contraceptives and sex education must be provided for people to have a proper and correct understanding of reproduction. They should be taught about the importance and consequences of population control.

Planning: Proper planning steps must be taken to ensure population control. People should be taught about proper planning and the importance of it.

Government policies: Many government policies are introduced for the benefit of population control.

Research: A lot of researches are done regarding population control. Many products help in planning a child in the modern world.