Population

▶ Population is a pivotal element. People play an important role in the development of the economy and society. Their numbers, distribution, growth and characteristics or qualities provide the basic background for understanding and appreciating all aspects of the environment.

▶ **Population size** gives information related to the number of people and **population distribution** tells us their location.

Knowledge BOOSTER

Almost half of India's population lives in Uttar Pradesh, Maharashtra, West Bengal, Andhra Pradesh and Bihar.

▶ A census is an official enumeration of population done periodically. The first census was held in the year 1872 in India but was however taken in the year 1881.

▶ India's population according to the 2011 census stood at 1.21 billion which accounts for 17.5% of the world's population. This 1.21 billion population is unevenly distributed over our country's vast area.

▶ **Population density** is calculated as the number of persons living per unit area. Density of population in India, in the year 2011, was 382 persons per square km. Density of population is not uniform in our country.

▶ The distribution of the population is highly uneven in India. Almost half of India's population lives in just five states namely Uttar Pradesh (16%), Maharashtra (9%), Bihar (9%), West Bengal (8%), and Andhra Pradesh (7%). The largest state in terms of the area is Rajasthan which has only (6%) of the Indian population. Karnataka has moderate density of population whereas Mizoram has low density population. The Northern Plains and Kerala have high to very high population densities because of flat plains with fertile soil and abundant rainfall.

▶ Population is a dynamic phenomenon. The numbers, distribution and composition of population are constantly changing. This is the influence of the interaction of three concepts, *viz.,* birth rate, death rate and migration.

> ➤ **Birth Rate:** It is the number of live births per thousand persons in a year.
> ➤ **Death Rate:** It is the number of deaths per thousand persons in a year.

Knowledge BOOSTER

Infant Mortality Rate is the number of deaths per 1,000 live births of children under one year of age.

> ➤ **Migration:** It is the movement of people across regions and territories. Migration can be internal or external.

▶ **Growth of population** refers to change in the number of inhabitants of a country during a specific period of time. The rate of population growth is observed in per cent per annum.

▶ India's population has been steadily increasing from 361 million in 1951 to 1.21 billion in 2011.

▶ It is essential to realise that India has a very large population. When a low annual rate is applied to a very large population, it yields a large absolute increase.

▶ India's annual increase in population is large enough to neutralise efforts to conserve the resource endowment and environment.

Practice Exercise

Multiple Choice Questions

Q 1. Which of the following is the most basic characteristic of a population?
a. Age composition
b. Population growth
c. Migration
d. None of these

Q 2. What is known as the counting of people in a country?
a. Census
b. Migration
c. Remuneration
d. All of these

Q 3. Which year is called the 'Year of Great Divide'?
a. 1911
b. 1921
c. 1931
d. 1941

Q 4. What was the population density of India in the year 2011?
a. 689 persons per sq km
b. 382 persons per sq km
c. 528 persons per sq km
d. 765 persons per sq km

Which one of the following state has very high population density in India?
a. West Bengal
b. Madhya Pradesh
c. Rajasthan
d. All of the above

Q 6. Which one of the following Southern state has a high population density?
a. Tamil Nadu
b. Punjab
c. Kerala
d. None of these

Q 7. Which one of the following state has a population density below 100 persons per square kilometre?
a. Jammu and Kashmir
b. Uttarakhand
c. Nagaland
d. All of the above

Q 8. Which one of the following state of India has very low population density?
a. Arunachal Pradesh
b. Sikkim
c. Odisha
d. All of these

Q 9. Which movement of the people across regions and territories does not change the size of the population?
a. Internal
b. External
c. Birth rate
d. None of these

Knowledge BOOSTER

Internal migration does not change the population size but it changes the population distribution of an area.

Q 10. What was India's share in world population as on March 2011?
a. About 17%
b. About 17.5%
c. About 16.8%
d. About 18.2%

Q 11. Which state lying in the Northern plains do not have very high population density?
a. Uttar Pradesh
b. Bihar
c. West Bengal
d. Punjab

Q 12. Which of the following countries has a higher population density than India?
a. USA
b. Bangladesh
c. China
d. Great Britain

Q 13. Why is there moderate population in the peninsular states of India?
a. Land is uneven and rocky
b. Rainfall is moderate
c. Soil is not fertile
d. All of the above

Q 14. What could be the reason of uneven distribution of population in India?
a. Nature of the terrain
b. Employment opportunities
c. Migration
d. All of the above

Q 15. Which term is referred as the change in the number of inhabitants of a country during a specific period of time?
a. Density of population
b. Population growth
c. Age composition
d. None of the above

Q 16. What do you mean by the magnitude of population growth?
a. The total population of an area
b. The number of females per thousand males
c. The number of persons added each year
d. None of the above

Q 17. Which of the following are resource creating factors as well as resources themselves?
a. Animals
b. Human beings
c. Plants
d. All of these

Q 18. What is the term given to the rate or the pace of population increase per annum?
a. Marginal growth rate
b. Annual growth rate
c. Average growth rate
d. Total growth rate

Q 19. A large proportion of children in a population is a result of:
a. high birth rates
b. high life expectancy
c. high death rates
d. more married couples

Q 20. Read the following statements carefully and choose the correct option:

Statement (I): Population density indicates a lot about the status of a population in the habitat.

Statement (II): Absolute population density as well as relative population density serve equally well to find total number of individuals in a population for a given area.
a. Statement (I) is correct and (II) is incorrect.
b. Statement (I) is incorrect and (II) is correct.
c. Both statements are incorrect.
d. Both statements are correct.

Q 21. Read the following statements carefully and choose the correct option:

Statement (I): Population density is calculated as the number of persons living per unit area.

Statement (II): Density of population is not uniform in our country.
a. Statement (I) is correct and (II) is incorrect.
b. Statement (I) is incorrect and (II) is correct.
c. Both statements are incorrect.
d. Both statements are correct.

Directions (Q.Nos. 22-24): *In the following questions given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option:*

a. Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).

b. Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).

c. Assertion (A) is true, but Reason (R) is false.

d. Assertion (A) is false, but Reason (R) is true.

Q 22. Assertion (A): Population is a pivotal element.

Reason (R): It is the point of reference from which all other elements are observed and from which they derive significance and meaning.

Q 23. Assertion (A): There is a sparse population in some regions such as Arunachal Pradesh.

Reason (R): Arunachal Pradesh has rugged terrain and unfavourable climatic conditions.

Q 24. Assertion (A): Population is considered a dynamic phenomenon.

Reason (R): The number, distribution and composition of the present structure of population keeps on changing.

Answers

1. (a)	2. (a)	3. (b)	4. (b)	5. (a)
6. (c)	7. (a)	8. (a)	9. (a)	10. (b)
11. (d)	12. (b)	13. (d)	14. (d)	15. (b)
16. (c)	17. (b)	18. (b)	19. (a)	20. (d)
21. (a)	22. (a)	23. (a)	24. (b)	

💡 Source Based Questions ↘

Source 1

Read the source given below and answer the questions that follow by choosing the most appropriate option:

Growth of population refers to the change in the number of inhabitants of a country/territory during a specific period of time, say during the last 10 years. Such a change can be expressed in two ways: in terms of absolute numbers and in terms of percentage change per year.

The absolute numbers added each year or decade is the magnitude of increase. It is obtained by simply subtracting the earlier population (*e.g.*, that of 2001) from the later population (*e.g.*, that of 2011). It is referred to as the absolute increase.

The rate or the pace of population increase is the other important aspect. It is studied in per cent per annum, *e.g.*, a rate of increase of 2 per cent per annum means that in a given year, there was an increase of two persons for every 100 persons in the base population. This is referred to as the annual growth rate.

Q 1. In which of the following way the change in the number of inhabitants of a country/ territory can be expressed?

a. Absolute numbers
b. Percentage change per year
c. Annual growth rate
d. Both a. and b.

Q 2. The aspect of the rate or the pace of population increase can be studied in terms of:

a. per 100 persons
b. per cent per annum
c. absolute increase
d. annual rate

Q 3. Population growth is calculated at the interval of:

a. 5 years
b. 10 years
c. 15 years
d. one year

Q 4. The absolute numbers added each year or in each decade in the population is called as:

a. Population growth
b. Annual growth rate
c. Absolute increase of population
d. None of the above

Q 5. The rate at which the number of individuals in a population increase in 1 year as a fraction of the initial population is called:

a. Absolute increase of population
b. Annual growth rate of population
c. Marginal growth rate of population
d. Change in population growth

Q 6. There is a rate of increase of 5% per annum in population. What does this mean?

a. Increase of 5 persons in total population each year
b. Increase of 5 persons per 1,000 persons per annum
c. Increase of 5 persons per 100 persons in the initial population
d. Increase of 5 persons at an interval of 10 years.

Answers

1. (d)	2. (b)	3. (b)	4. (c)	5. (b)	6. (c)

Source 2

Read the source given below and answer the questions that follow:

Population is the pivotal element in social studies. It is the point of reference from which all other elements are observed and from which they derive significance and meaning.

'Resources', 'calamities' and 'disasters' are all meaningful only in relation to human beings.

Their numbers, distribution, growth and characteristics or qualities provide the basic background for understanding and appreciating all aspects of the environment.

Human beings are producers and consumers of earth's resources. Therefore, it is important to know how many people are there in a country, where do they live, how and why their numbers are increasing and what are their characteristics. The census of India provides us with information regarding the population of our country.

Q 1. How is population a pivotal element?

Ans. Population is a pivotal element due to the following reasons:

(i) It is the point of reference from which all other elements are observed and from which they derive their importance.

(ii) The distribution, growth and characteristics of population provide the basic background for understanding all the aspects of the environment.

Q 2. What does 'census' mean?

Ans. Census means an official counting of population done periodically. In India, it is done after every ten years.

Q 3. How does census provide information regarding population of our country?

Ans. Census provides information regarding the population in the following ways:

(i) It provides data about how many people are there in a country.

(ii) Where do the people live, how and why their numbers are increasing and what are their characteristics etc., are the information that census provides.

Source 3

Read the source given below and answer the questions that follow:

Internal migration does not change the size of the population, but influences the distribution of population within the nation. Migration plays a very significant role in changing the composition and distribution of population.

In India, most migrations have been from rural to urban areas because of the 'push' factor in rural areas. These are adverse conditions of poverty and unemployment in the rural areas and the 'pull' of the city in terms of increased employment opportunities and better living conditions.

Migration is an important determinant of population change. It changes not only the population size but also the population composition of urban and rural populations in terms of age and sex composition.

In India, the rural-urban migration has resulted in a steady increase in the percentage of population in cities and towns. The urban population has increased from 17.29 per cent of the total population in 1951 to 31.80 per cent in 2011.

There has been a significant increase in the number of 'million plus cities' from 35 to 53 in just one decade, *i.e.* 2001 to 2011.

Q 1. What change is brought about by internal migration?

Ans. Internal migration lead to changes in the distribution of population within the nation and not in the size of the population.

Q 2. Why do permanent migration occur from the rural areas to the urban areas?

Ans. Permanent migration occurs from the rural areas to the urban areas in search of employment opportunities as there is great poverty and unemployment in rural areas of India.

Q 3. What are push and pull factors of migration?

Ans. The push factors of migration are those factors which force people to leave a place e.g., poverty, drought, etc.

The pull factors of migration are those factors which attract people towards itself e.g., employment opportunity, quality lifestyle, etc.
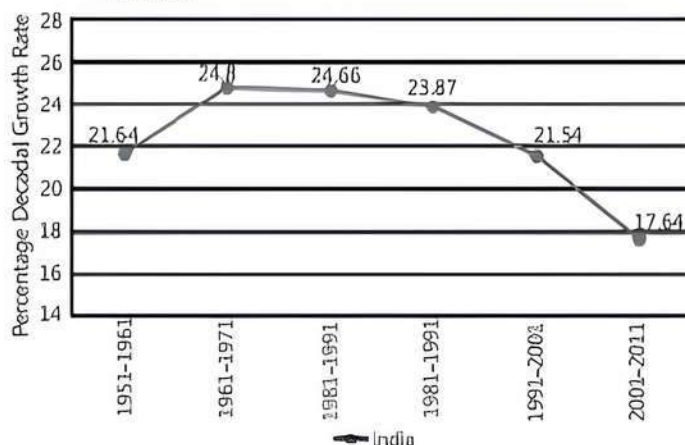
Very Short Answer Type Questions

Q 1. What is census?

Ans. The census is the process of collection, compilation and publication of information relating to different aspects of people living in a country at a specific point of time.

Q 2. What was India's population according to the 2011 census?

Ans. India's population, according to the 2011 census, was 1,210.6 million which accounts for 17.5% of the world's population.

Q 3. Study the graph and answer the question that follows:

at can you say about the population growth rate ing 1951-2011?

Ans. growth rate has risen upto 1961-1971 and ched a high of 24.8%. After that it started falling and in 2001-2011, it reached 17-64%.

Q 4. What is meant by population density?

Ans. Population density is calculated as the number of persons per square kilometre.

Q 5. Name any four most populous countries of the world.

Ans. China, India, U.S.A. and Indonesia are the most populous countries of the world.

Q 6. What is the population density of India according to 2011 Census?

Ans. Population density of India according to 2011 census is 382 persons per square kilometre.

Q 7. Name the state having highest population in India.

Ans. Uttar Pradesh has the highest population in India.

Q 8. Name the thickly populated states of India.

Ans. Rajasthan, Madhya Pradesh, Kashmir, Himachal Pradesh, Assam Tripura, Nagaland, Meghalaya, Manipur, Mizoram, Sikkim and Arunachal Pradesh are the thickly populated states of India.

Q 9. As per the 2011 census, which state has the least density of population?

Ans. The state with the least density of population, as per the 2011 census was Arunachal Pradesh with 17 persons per sq km.

Q 10. Which state out of Rajasthan, Bihar, Assam and Jammu and Kashmir, has the highest population density?

Ans. Bihar has the highest population density at 1,102 persons per sq km.

Q 11. Which are the most populated and least populated states in India?

Ans. The most populated state in India is Uttar Pradesh and least populated is Sikkim.

Q 12. Write the name of moderate and low density population states.

Ans. (i) Karnataka has moderate density of population.
(ii) Mizoram has low density of population.

Q 13. What do you mean by the natural growth in population?

Ans. The difference between a birth rate and a death rate is known as natural growth in population.

Q 14. Mention the factors responsible for the population change.

Ans. The factors responsible for the population change are:
(i) Death rate,
(ii) Birth rate, and
(iii) Migration.

Q 15. What kind of migration does not change the size of the population in a country?

Ans. Internal migration from one city to another or from rural areas to urban areas within a country does not change the size of the population.

Q 16. What kind of migration leads to changes in the distribution of population within the nation?

Ans. Internal migration leads to changes in the distribution of population within the nation.

Short Answer Type Questions

Q 1. What are the three major aspects of population study?

Ans. The three major aspects of population study are:
(i) **Population Size and Distribution:** It involves the total number of people in India and where they are located. Then, the most populated and sparsely populated states are considered.
(ii) **Population Growth and Processes of Population Change:** It involves the reason for growth in population and how it has changed since time.
(iii) **Characteristic Qualities of the Population:** It includes the study of age, sex composition, literacy, occupational structure and health conditions of the people.

TiP

Explain each aspect of population study with the various elements involved.

Q 2. What do you mean by census? After how many years is it prepared in India?

Ans. Census refers to the complete process of preparation, collection, compilation, evaluation, analysis and dissemination of data on demographic, social, economic and housing characteristics of the population of a country.

Such an information is fundamental for any geographic information system developed for socio-economic and environmental analysis purposes.

Census is prepared in India once after every 10 years.

Q 3. How does density of population depend upon topography and climatic conditions?

Ans. Density of population depends upon topography and climatic conditions in the following ways:
(i) Rugged topography and unfavourable climatic conditions are primarily responsible for sparse population, e.g., Arunachal Pradesh has a sparse population due to hilly areas.
(ii) Low rainfall and less fertile soils lead to moderate population densities, e.g., in Rajasthan.
(iii) Flat plains, fertile soil and abundant rainfall support highest population densities, e.g., in Northern Plains and Kerala.

What do you understand by annual growth rate of population? What are the ways by which the annual growth rate is affected by the birth rate?

Ans. The rate at which the number of individuals in a population increase in 1 year as a fraction of the initial population is called annual growth rate of population.

The annual growth rate is affected by the birth rate in the following ways:

(i) The annual growth rate generally increases with the increase in birth rate.

(ii) Despite of the lower birth rate, the annual growth rate keeps on increasing for a larger population.

For example, birth rates declined rapidly since 1981 still 18.20 crore people were added to the total population in the 1990s alone. The annual growth rate calculated on this basis will become very high.

Q 5. Mention any three elements that are responsible for population growth.

Ans. The three elements that are responsible for population growth are:

(i) **High Birth Rate and Low Death Rate:** Both birth and death rates were high in India after independence. But then, the death rate has declined considerably whereas the birth rate continues to remain high.

(ii) **Child Marriage:** A large percentage of girls are married in the age group of 15-20 years in many parts of India where early marriages are common. This results in giving birth to more number of children.

(iii) **Illiteracy:** It is a major concern among a large population of India. Illiterate persons do not understand the importance of family planning or benefits of having a small family.

Q 6. 'Migration is an important determinant of population change.' Justify the statement with reasons.

Ans. The given statement can be explained as follows:

(i) Migration changes not only the population size but also the population composition.

(ii) There has been a significant increase in the number of million plus cities due to internal migration in India.

(iii) External migration is responsible for brain drain in India.

COMMON ERR(!)R •
Students do not give proper explanation of the given statement or do not explain the importance of migration.

Long Answer Type Questions ↘

Q 1. Differentiate between rural and urban population.

Ans. Difference between rural and urban population are:

S. No.	Basis of Difference	Rural Population	Urban Population
(i)	Percentage	It forms 68.84% of the total Indian population of rural area.	It forms 31.16% of the total Indian population.
(ii)	Occupations	The main occupations of the rural people are agriculture, lumbering, fishing, animal husbandry and mining, all of which are primary occupations.	People are engaged mainly in manufacturing industries and tertiary industry.
(iii)	Industrial engagement	Only a small fraction of rural population is engaged in secondary and tertiary industries.	Only a small fraction of the urban population is engaged in the primary industries.
(iv)	Standard of living	The standard of living of the rural population is low.	The standard of living of the urban population is usually high.

COMMON ERR(!)R •
Students do not give difference in tabular form on different bases.

Q 2. What do you mean by population density? Give a brief assessment of India's population distribution by density.

Ans. By population density, we mean the number of persons per unit area.

India is one of the most densely populated countries of the world. The population density of India in the year 2011 was 384 persons per sq km. Densities vary from 1.102 persons per sq km in Bihar to only 17 persons per sq km in Arunachal Pradesh. Rugged

rain and unfavourable climatic conditions are primarily responsible for sparse population in some parts of the country. Assam and most of the peninsular states have moderate population densities. Hilly, dissected and rocky nature of the terrain, moderate to low rainfall, and shallow and less fertile soils have influenced population densities in these areas. The Northern Plains and Kerala in the South have very high population densities because of flat plains with fertile soils and abundant rainfall.

Q 3. Clarify the differences between total population and average density of population.

Ans. Difference between total population and average density of population are:

S.No.	Basis of Difference	Total Population	Average Density of Population
(i)	Method of Count	Total population of a country is the grand total of the persons living in a country at some point of time.	Average density of population is the number of persons living per unit of area at a point of time.
(ii)	Expression	It is expressed in absolute numbers.	It is expressed as number of persons per unit of area.

(iii)	Coverage	It does not cover negative areas.	It tends to cover even the negative areas such as rivers, lakes, ponds, swamps, etc.
(iv)	2011 Census	Total population of India as per 2011 Census was 121.02 crore.	Average density of population in India was 382 persons per sq km, as per 2011 Census.

Q 4. How can we control the rapid growth of population in India? Explain any five measures.

Ans. India's population has already touched the one billion mark. So, there is an urgent need to check and counter this growing population problem. The following measures can be adopted:
   (i) The most important way to check the growth rate of population is to spread education.
   (ii) Strict laws should be made and those who have more than two children should not be given employment in the public sector.
   (iii) Government should ban those candidates from contesting elections who have more than two children.
   (iv) Marriageable age for both men and women should be increased.
   (v) Incentives should be given to families with only one child.

✏️ 👉 Chapter Test

Multiple Choice Questions

Q 1. Migration change the number, distribution and composition of population in the:
   a. area of departure   b. area of arrival
   c. Both a. and b.   d. None of these

Q 2. The magnitude of population growth refers to:
   a. the total population of an area
   b. the number of persons added each year
   c. the rate at which the population increases
   d. the number of females per thousand males

Q 3. Which component is an important determinant of population change?
   a. Sex ratio   b. Age
   c. Migration   d. None of these

Q 4. Which one of the following country has higher population density than India?
   a. Bangladesh   b. Nepal
   c. Korea   d. Canada

Q 5. A large proportion of children in a population is result of:
   a. high birth rate   b. high life expectancy
   c. high death rate   d. more married couple

Assertion and Reason Type Questions

Directions (Q.Nos. 6-7): *In the following questions given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option:*
   a. Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).
   b. Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).
   c. Assertion (A) is true, but Reason (R) is false.
   d. Assertion (A) is false, but Reason (R) is true.

Assertion (A): Internal migration changes the size as well as distribution of population within the nation.

Reason (R): Internal migration occurs from the rural areas to the urban areas in search of employment opportunities.

Q 7. Assertion (A): The structure of population is the index of the development of the country.

Reason (R): The development of a country is depended upon its working age population.

Source Based Question

Q 8. *Read the source given below and answer the following questions that follow by choosing the most appropriate option:*

India's population as on March 2011 stood at 1,210.6 million, which account for 17.5 per cent of the world's population. These 1.21 billion people are unevenly distributed over our country's vast area of 3.28 million square km, which accounts for 2.4 per cent of the world's area.

The 2011 Census data reveal that Uttar Pradesh with a population size of 199 million is the most populous state of India. Uttar Pradesh accounts for about 16 per cent of the country's population. On the other hand, the Himalayan state of Sikkim has a population of just about 0.6 million and Lakshadweep has only 64,429 people.

Almost half of India's population lives in just five states. These are Uttar Pradesh, Maharashtra, Bihar, West Bengal and Andhra Pradesh. Rajasthan, the biggest state in terms of area, has only 5.5 per cent of the total population of India.

(I) How much percentage of world's population does India's population account for?
   a. 16.5 per cent   b. 16 per cent
   c. 17.5 per cent   d. 17 per cent

(ii) Which is the most populous state of India according to 2011 Census?
   a. Bihar   b. Madhya Pradesh
   c. Uttar Pradesh   d. Maharashtra

(iii) Which is the biggest state in terms of area?
   a. Bihar   b. West Bengal
   c. Rajasthan   d. Andhra Pradesh

(iv) What was India's population as on March 2011?
   a. 1200 million   b. 1210.6 million
   c. 1300 million   d. 1310.6 million

(v) Why is there less population in Rajasthan?
   a. Less fertile soil
   b. Extremely hot climate
   c. Both a. and b.
   d. None of the above

(vi) What is the population size of Uttar Pradesh as revealed by 2011 census data?
   a. 190 million   b. 199 million
   c. 180 million   d. 209 million

Very Short Answer Type Questions

Q 9. Why is there moderate population in the peninsular states of India?

Q 10. What is the major reason for the state of Kerala having a very high population density?

Q 11. Why is it important for a country to conduct censuses periodically?

Short Answer Type Questions

Q 12. What are the causes of migration in India from rural to urban areas?

Q 13. Explain the term annual growth rate of population. How is it affected by the birth rate.

Long Answer Type Questions

Q 14. How can we control the rapid growth of population in India? Explain any five measures.

Q 15. How is the structure of population the index of the development of the country?