

Board – ICSE

Class – 10

Topic – Population

1. Fill in the blanks:

- (i) World population in 1994 was _____.
- (ii) The population of whole of Asia beyond 2001 AD is expected to be _____.
- (iii) Population increases in _____ ratio while food production increases in arithmetic ratio.
- (iv) The sign of family planning in India is Inverted _____.

Answers:

- (i) 5-6 billion
- (ii) 13 billion
- (iii) Geometric
- (iv) Red triangle

2. True or false. If false rewrite the wrong statement in its correct form:

- (i) Birth rate is the number of live births per 100 of population per decade.
- (ii) Urbanization is the process of growing urban population.
- (iii) Mortality is the number of deaths per thousand of the population per decade.
- (iv) The full form of IUD is intrauterine devices.

Answers:

- (i) True
- (ii) True
- (iii) False, Mortality is the number of deaths per thousand of population per year.
- (iv) True

3. Match the column:

Column A

- (i) Family Planning
- (ii) Vasectomy
- (iii) Tubectomy
- (iv) Census
- (v) Malthusian theory

Column B

- (a) Counting of population
- (b) Sterilization in female
- (c) T.R. Malthus
- (d) Sterilization in male
- (e) Red triangle.

Answers: (i) (e) (ii) (d) (iii) (b) (iv) (a) (v) (c)

4. Choose the odd one out:

- (i) **Immigration, Decline in death rate, Emigration, Increase in birth rate.**
- (ii) **Progestin, Condoms, IUD, Cervical caps.**
- (iii) **Abortion, Tubectomy, Vasectomy, IUD.**
- (iv) **Land, Industry, Water, Energy, Minerals.**

Answers:

- (i) Emigration
- (ii) Progestins
- (iii) IUD
- (iv) Industry

5. Multiple choice questions:

(i) The primary reason for increase in human population is:

- a) The increase in agricultural production
- b) The increase in birth rate and decrease in death rate
- c) The improvement in medical technology
- d) All of the above

(ii) Population density of a particular area can be computed by

- a) Dividing the total number of individuals living in the area by the total land area
- b) Dividing the total number of individuals living in the area by the total fertile land area
- c) Dividing the total number of individuals living in the area by total urban and rural area
- d) Dividing the total number of individuals living in the area by total urban area

(iii) Sigmoid - shaped growth curve has:

- a) Lag and exponential phases
- b) Lag and stationary phases.
- c) Exponential stationary phases
- d) Lag, exponential and stationary phases

(iv) Which mechanical means is used to cover the penis before coital activity?

- a) Diaphragm
- b) Condom
- c) Loop
- d) Copper-T

Answers:

- (i) The increase in birth rate and decrease in death rate

- (ii) Dividing the total number of individuals living in the area by the total land area
- (iii) Lag and exponential phases
- (iv) Condom

6. Give technical terms:

- (i) A statistical study of human population of a region.
- (ii) The comparative number of males and females in a population.
- (iii) What is the present population of Delhi, India and the world?
- (iv) The zoological name of man.

Answers:

- (i) Demography
- (ii) Sex ratio
- (iii) More than 10 million, 1000 million (1 billion) and 6 billion
- (iv) Homo sapiens

7. Name the following:

- (i) A group of organisms of the same species living in a geographically localized area and capable of interbreeding.
- (ii) Changes that occur in population due to alteration in mortality, sex ratio, age groups.
- (iii) The addition of new individuals to the population from other localities is called.

Answers:

- (i) Population
- (ii) Population dynamics
- (iii) Immigration

8. Explain the terms:

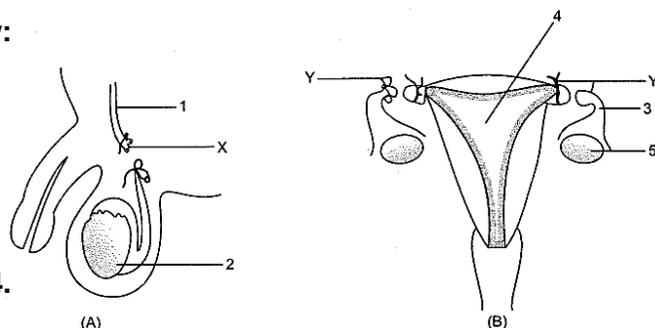
- (i) Age-ratio
- (ii) Natality
- (iii) Physical enumeration

Answers:

- (i) Age ratio: The number of individuals belonging to different age groups is called age-ratio.
- (ii) Natality: The number of offspring produced per unit of population is termed natality.
- (iii) Physical enumeration: The estimation of human population by physically counting of individuals per unit area. The census Bureau physically verifies the number of persons living in each house.

9. Observe the diagram A and B given below:

- (i) Label parts 1 – 5.
- (ii) What does diagram A depict?
- (iii) What does diagram B depict?
- (iv) What comment on X and Y.
- (v) State one function each of part 2 and 4.



Answers:

- (i) 1. Vas deferens, 2. Testis, 3. Oviduct, 4. Uterus, 5. Ovary.
- (ii) Diagram A depicts vasectomy in males (i.e., cutting and tying the vas deferens).
- (iii) Diagram B depicts tubectomy in females (i.e., cutting and tying the oviducts).
- (iv) 'X' represents the cut and tied end of vas deferens in male. Cutting and tying of vas deferens prevents the passage of sperms and avoids pregnancy. 'Y' represents the cut and tied ends of oviducts of female. Cutting and tying of oviducts prevents the passage of ovum and avoids pregnancy.
- (v) Part 2 (Testis) produces sperms (male gametes). Part 4 (Uterus) carries and protects the foetus till its birth.

10. Differentiate between Natality rate and mortality rate.

Answers:

Natality rate	Mortality rate
It is the number of offspring's produced per unit time per unit of population.	It is the rate at which the individuals die from a given population.
It increases population.	It decreases population.

Give Reasons:

11. Birth rate is high in India. Give Reasons.

Answers:

- (1) Most of rural population which forms the bulk of our society is illiterate, ignorant and superstitious.
- (2) Children are considered to be the helping hand to increase the family income.

12. Medical discoveries such as antibiotics and vaccinations have indirectly contributed to the sharp rise in human population in the present century. Give reasons.

Answers:

Medical discoveries such as antibiotics and vaccinations have resulted in the decrease of death rate resulting in a corresponding rise in growth rate which leads to an increase in population.

13. State two methods of contraception, one a barrier method and one which is not a barrier method. For each method named give two advantages and one disadvantage of the method.

Answers:

A barrier method—the condom.

Non-barrier—the contraceptive pill.

Advantages of the condom include the fact that it is readily available, needs no medical supervision, can help reduce the transmission of venereal diseases. A disadvantage is that it is not the most reliable method. Advantages of the contraceptive pill are that it is highly reliable if taken according to instructions and that a woman can take responsibility for her own fertility. A disadvantage is that it should be taken under medical supervision as there is a small risk of side effects.

14. Mention three steps to control the increasing human population in India.

Answers:

Three steps by which the increasing human population can be controlled are:

(i) Family Planning: There can be a decrease in birth rate by voluntary family planning aided by incentives. The methods include sterilization, use of contraceptives, use of pills, drugs and abortions.

(ii) Education of the people about small family norms and its benefits.

(iii) Raising the age of marriage to 18 in girls and 21 among boys.

15. How is human population checked at present?

Answers:

At present human population is checked by disease, death due to old age, wars, epidemics, natural calamities such as earthquakes and floods and also by family planning methods.

16. (i) Describe the four methods of birth control practiced in India.

(ii) Name two surgical techniques (for man and woman) to prevent pregnancy.

Answers:

(i) The four methods of birth control are:

(a) Vasectomy: This involves the breaking of the contact between the sperms and ovum, by cutting the vas deferens or sperm duct which carries sperms from the testes to the outside in the man. It prevents pregnancy.

(b) Tubectomy: Severing and sealing off the fallopian tubes so that the mature ovum may not come in contact with the incoming sperms.

(c) Contraceptives: Loops, condoms, creams, etc., are used as contraceptive which keep away sperms from meeting the ovum.

(d) Voluntary methods: Which include: (a) avoiding from sexual intercourse during the unsafe period of ovulation, (b) Frequent use of contraceptive.

(ii) For man—Vasectomy and contraceptive, for woman—Tubectomy and pills.

17. Explain briefly the relation between poverty and population.

Answers:

The poorer and lower classes of people feel that children will be able to supplement the income of the parents by working. The more children, the more will be the income of the family. Infant mortality is very high among the poor people because the mothers do not receive pre-natal and anti-natal care. Further, many children die at an early age. This high infant mortality causes many of the poor to have more children so that some of them may survive.

18. Define growth rate of population. In what situation can this rate be negative?

Answers:

The growth rate of population is the difference between birth rate and death rate. The growth rate of population can be negative when the death rate is higher than the birth rate of the population.

19. What is meant by 'population density'? How are women operated to prevent the flow of eggs into oviduct?

Answers:

Population density is defined as the size of a population in relation to a particular unit area at a given time. Women are operated to prevent the flow of eggs into the oviduct by tubectomy.

20. Write difference between immigration and Emigration.

Answers:

Immigration refers to the addition of individuals to a population while emigration refers to the decrease in a population due to the outgoing population of individuals.