

Chapter – 11 | Organisms and Populations

QUIZ
PART-02

1. Population size of any species is:

- A. Always constant
- B. A static parameter
- C. Not a static parameter and changes with time
- D. Independent of environmental factors (C)

Explanation : Population size is not static; it changes with time depending on various factors.

2. Which of the following factors affects change in population size?

- A. Food availability
- B. Predation pressure
- C. Weather conditions
- D. All of the above (D)

Explanation : Population size depends on factors like food availability, predation pressure, and weather conditions.

3. Population density in a habitat increases or decreases due to:

- A. Only reproduction
- B. Four basic processes
- C. Only migration
- D. Only death rate (B)

Explanation : Population density changes due to natality, mortality, immigration, and emigration.

4. Natality refers to:

- A. Number of deaths in a population
- B. Number of births added to initial population density
- C. Movement of individuals out of habitat
- D. Movement of individuals into habitat (B)

Explanation : Natality is the number of births during a given period that are added to the initial density of a population.

5. Mortality causes:

- A. Increase in population
- B. Decrease in population
- C. No change in population
- D. Formation of new habitat (B)

Explanation : Mortality refers to deaths of individuals in a population and results in a decrease in population.

6. The arrival of individuals of the same species into a particular habitat is called:

- A. Emigration
- B. Immigration
- C. Mortality
- D. Natality (B)

Explanation : Immigration is the one-way movement of individuals into a particular habitat.

7. The permanent leaving of individuals from their original habitat is known as:

- A. Immigration
- B. Natality
- C. Emigration
- D. Mortality (C)

Explanation : Emigration is the movement of individuals away from their original habitat to another place.

8. According to the population density equation, which combination increases population density?

- A. Mortality + Emigration
- B. Natality + Immigration
- C. Mortality + Natality
- D. Immigration + Emigration (B)

Explanation : Higher natality and immigration increase population density.

9. Exponential growth of population occurs when:

- A. Resources like food and space are limited
- B. Resources are completely absent
- C. Sufficient resources like food and space are available
- D. Mortality is always higher than natality (C)

Explanation : When sufficient resources are available, population growth continues in an unlimited manner, resulting in exponential growth.

10. The equation for exponential population growth is:

- A. $\frac{dN}{dt} = (b + d) \times N$
- B. $\frac{dN}{dt} = (b - d) \times N$
- C. $\frac{dN}{dt} = (b \times d) + N$
- D. $\frac{dN}{dt} = N - (b + d)$ (B)

Explanation : When population density is N , per capita birth rate is b and death rate is d , the growth rate is represented as $\frac{dN}{dt} = (b - d) \times N$.