



Class 12 Biology | Organisms And Populations

MCQ WORKSHEET • 15 questions • Choose one correct option • Suggested time: 25 minutes

1. Which is a population attribute rather than an individual attribute?

- A. Body mass
- B. Birth rate
- C. Blood group
- D. Leaf length

2. A population has 200 animals; 20 are born in a year. Per-capita natality is

- A. 0.10 per year
- B. 10 per year
- C. 0.01 per year
- D. 20 per year

3. A population starts at 100; births 12, deaths 5, immigration 4 and emigration 3 occur. Final size is

- A. 110
- B. 104
- C. 114
- D. 108

4. Unlimited resources favour which population growth model?

- A. Logistic at carrying capacity
- B. Zero growth only
- C. Linear decline
- D. Exponential

5. In $\frac{dN}{dt} = rN$, r represents

- A. Intrinsic rate of natural increase
- B. Number of immigrants only
- C. Resource concentration
- D. Carrying capacity

6. In logistic growth, the maximum sustainable population is

- A. Immigration I
- B. Natality b
- C. Mortality d
- D. Carrying capacity K

7. At $N = K$ in the ideal logistic model, net population growth is

- A. Maximum positive
- B. Equal to K
- C. Zero
- D. Equal to rK

8. A broad-based age pyramid generally indicates a population that is

- A. Expanding
- B. Without young individuals
- C. Entirely post-reproductive
- D. Declining rapidly

9. An orchid on a mango tree, with no measurable harm to the tree, illustrates

- A. Predation
- B. Commensalism
- C. Competition
- D. Parasitism

10. An interaction benefiting both partners is

- A. Predation
- B. Amensalism
- C. Mutualism
- D. Competition

11. A tick feeding on a dog exemplifies

- A. Parasitism
- B. Mutualism
- C. Neutralism
- D. Commensalism

12. Two species competing for the same limiting resource are generally affected

- A. Neutrally, neutrally
- B. Positively, neutrally
- C. Positively, positively
- D. Negatively, negatively

13. Predators can maintain diversity by

- A. Stopping all reproduction
- B. Always eliminating every prey species
- C. Removing all resources
- D. Preventing one prey competitor from dominating

14. Gause's competitive exclusion principle concerns species with

- A. Only mutualistic relations
- B. No overlap in resources
- C. Identical limiting-resource requirements
- D. No interaction

15. Different feeding times or sites can allow competitors to coexist through

- A. Absence of evolution
- B. Unlimited predation
- C. Complete resource identity
- D. Resource partitioning

ANSWER KEY — check after completing all 15 questions

1.B 2.A 3.D 4.D 5.A 6.D 7.C 8.A 9.B 10.C 11.A 12.D 13.D 14.C 15.D

Original exam-style practice • Reference notes: www.physics.guru/cbse-practice-papers/ • Not an official paper

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