

Chapter – 10 | Biotechnology and Its Applications

QUIZ
PART-05

1. In commensalism, the interaction between two species is represented as:
- A. Both species are benefited
 - B. One species is benefited and the other is harmed
 - C. One species is benefited and the other is unaffected
 - D. Both species are harmed (C)

Explanation : In commensalism, one species gets benefit while the other species is neither benefited nor harmed.

2. Orchid growing as an epiphyte on the branch of a mango tree is an example of:
- A. Mutualism
 - B. Commensalism
 - C. Parasitism
 - D. Competition (B)

Explanation : The orchid gets support from the mango tree, but the mango tree is not affected.

3. Barnacles growing on the back of a whale show:
- A. Predation
 - B. Mutualism
 - C. Commensalism
 - D. Parasitism (C)

Explanation : Barnacles obtain support and transportation from the whale, while the whale is neither benefited nor harmed.

4. Cattle egrets follow grazing cattle because cattle:
- A. Provide shelter for egrets
 - B. Stir up and flush out insects from vegetation
 - C. Protect egrets from predators
 - D. Provide food directly (B)

Explanation : Grazing cattle disturb vegetation and make insects available for egrets to catch easily.

5. Mutualism is an interaction in which:
- A. Only one species is benefited
 - B. Both species are benefited
 - C. One species is harmed
 - D. Both species are unaffected (B)

Explanation : In mutualism, both interacting species receive benefits from the association.

6. The mutualistic association between fungus and photosynthesizing algae or cyanobacteria is called:
- A. Mycorrhiza
 - B. Lichen
 - C. Parasitism
 - D. Commensalism (B)

Explanation : Lichen is an intimate mutualistic relationship between fungus and photosynthesizing algae or cyanobacteria.

7. In mycorrhizal association, fungi help plants by:
- A. Producing carbohydrates
 - B. Absorbing essential nutrients from soil
 - C. Preventing plant growth
 - D. Destroying roots (B)

Explanation : Fungi help plants absorb essential nutrients from the soil, while plants provide carbohydrates to fungi.

8. Plants need the help of animals mainly for:
- A. Respiration and growth
 - B. Pollination and seed dispersal
 - C. Photosynthesis and transpiration
 - D. Mineral formation (B)

Explanation : Plants depend on animals for pollinating flowers and dispersing their seeds.

9. A fig species can be pollinated only by:
- A. Any insect species
 - B. Its partner wasp species
 - C. Birds only
 - D. Wind (B)

Explanation : Fig trees have a strong mutualistic relationship with their specific pollinator wasp species.

10. The Mediterranean orchid Ophrys uses which method for pollination?
- A. Chemical defence
 - B. Sexual deceit
 - C. Seed dispersal
 - D. Self-pollination (B)

Explanation : Ophrys attracts male bees because one petal resembles a female bee in size, colour, and markings, leading to pollination.