

Chapter – 6 | Evolution

QUIZ PART-03

1. Adaptive radiation was extensively studied by Darwin on:

- A. Hawaiian Islands
- B. Galapagos Islands
- C. Australian continent
- D. Malay Archipelago (B)

Explanation : Darwin observed adaptive radiation among finches during his visit to the Galapagos Islands.

2. Darwin's finches are an example of:

- A. Artificial selection
- B. Adaptive radiation
- C. Genetic drift
- D. Mutation only (B)

Explanation : Different species of finches evolved from a common ancestor and adapted to different food habits.

3. Adaptive radiation refers to:

- A. Evolution of one species into many forms in a geographical area
- B. Extinction of all species
- C. Formation of identical organisms
- D. Random movement of organisms (A)

Explanation : Adaptive radiation is the evolution of different species from a single ancestral species in a particular geographical region.

4. The Australian marsupials evolved from:

- A. Multiple unrelated ancestors
- B. A single ancestral lineage
- C. Birds
- D. Reptiles (B)

Explanation : Most Australian marsupials evolved from a single ancestral lineage and diversified into different forms.

5. Different marsupials found in Australia represent:

- A. Marsupial radiation
- B. Mutation
- C. Artificial selection
- D. Fossil evidence (A)

Explanation : Australian marsupials show adaptive radiation where different species evolved from one ancestor.

6. When more than one adaptive radiation occurs in an isolated geographical area, it is called:

- A. Divergent evolution
- B. Convergent evolution
- C. Mutation
- D. Natural selection (B)

Explanation : Multiple adaptive radiations in different habitats of an isolated area represent convergent evolution.

7. Placental mammals showing similarities with Australian marsupials are an example of:

- A. Adaptive convergence
- B. Homologous organs
- C. Vestigial organs
- D. Artificial breeding (A)

Explanation : Placental mammals and marsupials developed similar adaptations independently, showing adaptive convergence.

8. The original seed-eating finches gave rise to:

- A. Only seed-eating birds
- B. Insectivorous and vegetarian finches
- C. Mammals
- D. Reptiles (B)

Explanation : Changes in beak structure allowed finches to adapt to different food sources.

9. Adaptive radiation is considered a type of:

- A. Evolutionary process
- B. Respiration process
- C. Reproductive process
- D. Mutation repair (A)

Explanation : Adaptive radiation describes evolutionary diversification of species from a common ancestor.

10. Tasmanian wolf and wolf represent:

- A. Homologous evolution
- B. Adaptive convergence
- C. Fossil evidence
- D. Vestigial organs (B)

Explanation : Tasmanian wolf (marsupial) and wolf (placental mammal) evolved similar features independently due to similar ecological roles.