

Advanced Zoology Challenge

Zoology · Answer Key · 12 Questions

1. Which specialized organ do sharks use to detect the electromagnetic fields produced by the muscle contractions of their prey?

- A) Lateral line
- B) Ampullae of Lorenzini**
- C) Nictitating membrane
- D) Tapetum lucidum

2. What is the unique biological process by which a marsupial, such as a kangaroo, is born at an extremely premature stage of development?

- A) Oviparity
- B) Diapause
- C) Altricial birth**
- D) Metamorphosis

3. Which group of birds possesses a specialized esophagus chamber called a 'crop' primarily used for what purpose?

- A) To store food temporarily**
- B) To filter water for salt
- C) To produce heat for incubation
- D) To store stones for digestion

4. What is the primary function of the 'tapetum lucidum' found in the eyes of many nocturnal mammals?

- A) To filter harmful UV rays
- B) To reflect light to improve night vision**
- C) To allow color perception in darkness
- D) To protect the eye from dust

5. Which insect order is characterized by having 'complete metamorphosis,' consisting of egg, larva, pupa, and adult stages?

- A) Orthoptera
- B) Hemiptera
- C) Coleoptera**
- D) Blattodea

6. In the classification of animals, which subphylum includes all vertebrates characterized by a dorsal nerve cord and a notochord?

A) Craniata

B) Urochordata

C) Cephalochordata

D) Tunicata

7. What is the scientific term for the shedding of the exoskeleton in arthropods such as crabs and insects?

A) Estivation

B) Ecdysis

C) Hibernation

D) Autotomy

8. Which of these animals is considered a 'monotreme,' a unique mammal that lays leathery eggs instead of giving birth to live young?

A) Wombat

B) Koala

C) Platypus

D) Sugar glider

9. What is the primary respiratory organ used by most aquatic mollusks to extract oxygen from water?

A) Spiracles

B) Ctenidia

C) Book lungs

D) Tracheae

10. Which biological mechanism allows some reptiles, like certain geckos, to voluntarily shed their tail to escape a predator?

A) Autotomy

B) Regeneration

C) Aposematism

D) Parthenogenesis

11. What is the defining feature of the 'cetacean' order that distinguishes them from fish?

A) They have gills

B) They have horizontal tail flukes

C) They are cold-blooded

D) They lack lungs

12. Which chemical substance is responsible for the dark pigment in the feathers and fur of many animals?

- A) Chlorophyll
- B) Hemoglobin
- C) Melanin**
- D) Keratin