

Unit 4 Test - Animals - SOLUTION

Preamble:

Answer the following questions in the **Answer** section. Give detailed answers and use proper style and scientific terminology.

Questions

Question 1. What is an exoskeleton?

Solution. A hard outershell covering.

Question 2. What is the purpose of excretion?

Solution. Excretion helps an organism stay healthy by removing waste product's.

Question 3. What class of modern mammals do humans fall under and why?

Solution. Eutherians, due to development within a placenta and the existence of an umbilical cord.

Question 4. What do annelids eat?

Solution. Organic matter within soil.

Question 5. What is the purpose of the umbilical cord?

Solution. A cord which carries food, water and oxygen to the embryo and returns waste back to the mother. (Belly button was the connecting point).

Question 6. Explain the process of metamorphosis.

Solution. Process in which an organism goes through three - four stages of development. Such stages include the Egg, Larva, Puppa, Adult.

Question 7. What are crustaceans?

Solution. Arthropods which contain a head, a thorax and an abdomen.

Question 8. What is one way that a species can adapt to an external environment's change?

Solution. Through a process of evolution.

Question 9. How do chordates filter water?

Solution. Two answers are valid here;

Tunicate: Intake through oral siphon, followed by Branchial Basket, remains exit through Atrial siphon.

Cephalochordates: Use pharyngeal slits to filter, intake through oral cirri, food particles caught by mucus and remaining proceeds through the atripore.

Question 10. What are the two main groups of nonvertebrate chordates?

Solution. Tunicates, Cephalochordates.

Question 11. How do caecilians “see”?

Solution. Caecilians use their skin, feeling for vibrations in the ground.

Question 12. How do animals get their nutrients?

Solution. By eating/consuming other organisms.

Question 13. What is an amnion?

Solution. A thin transparent fluid in which the embryo is enclosed and suspended whilst being cushioned by its surroundings

Question 14. What is the function of the air bladder found in fish?

Solution. Helps them remain afloat and maintain a stable buoyancy

Question 15. Where do starfish hold their vital organs?

Solution. Starfish house an equal share of vital organs in each arm.

Question 16. Why must amphibians undergo metamorphosis? What do they gain?

*Solution. Must undergo a process of **metamorphosis** in order to develop organs to enable the transition to a terrestrial environment. Necessary organs include,*

- *Limbs, to allow manoeuvrability.*
- *Eyes to enable vision on land.*
- *Lungs to enable breathing methods on terrestrial land. (Gas exchange with air not water) (They also breathe through their skin)*

Question 17. What are the scales of reptiles made of?

Solution. Keratin.

Question 18. What are the cells that contain the toxin that cnidarians secrete called?

Solution. Cnidocytes.