

Class: XI
Subject: Biology
Topic: Structural organization in animals
No. of Questions: 22

- Q1. What are the following and where do you find them in animal body?
(a) Chondrocytes
(b) Axons
(c) Ciliated epithelium.
- Q2. (a) While studying the structure of a striated muscle, you come across following terms: Membrane of Krause (Z band), Henson's line (H zone), Sarcomere. Explain these terms.
(b) Name the proteins that comprise primary myofilaments and secondary myofilaments.
- Q3. (a) Name the protein which forms (i) white fibers and (ii) yellow fibers of the areolar tissue
(b) List different types of cells present in the areolar tissue. Also, mention their function(s).
- Q4. One day, Ravinder broke his leg while playing football and so he went to the doctor for treatment. Doctor
Read the above passage and answer the following questions:
(a) What is a tissue ?
(b) What is the function of skeletal tissue?
(c) What value is reflected by doctor?
- Q5. Hari was very fond of eating sweets. One day, his father brought a packet of sweets. On seeing sweets, his mouth started producing saliva and he requested his father to immediately give him some sweets, father was in a jolly mood and put a condition that he will hand over all the sweets to him if he tells the name of tissue involved in salivary glands formation.
Read the above passage and answer the following questions:
(a) Which tissue is involved in salivary glands formation?
(b) What are epithelial tissues?
(c) Why did father put the condition?
- Q6. Mohit used to like balanced food, whereas, his friend Anil was very fond of fried food and high calories junk food. Mohit remained always fit and active, whereas, Anil developed obesity and was not able to do his work swiftly. He, therefore, consulted a doctor.
Read the above passage and answer the following questions :
(a) What type of tissue stores fat in the body "
(b) What is connective tissue?
(c) How can we maintain good health?

- Q7. One day, Sanjeev asked his doctor uncle, "we can control the movement of external organs such as hands and legs but we are not able to control movement of internal organs such as alimentary canal, blood vessels etc. "Why ? His uncle explained that they are composed of different types of muscles and the latter have different functions.
- List different types of muscular tissues.
 - Give any two differences between striated and non-striated muscles.
 - What value is reflected by Sanjeev ?
- Q8. Answer in one word or one line.
- Give the common name of Periplaneta Americana.
 - How many spermathecae are found in earthworm ?
 - What is the position of ovaries in cockroach ?
 - How many segments are present in the abdomen of cockroach ?
 - Where do you find Malpighian tubules ?
- Q9. Distinguish between the following :
- Prostomium and peristomium.
 - Septal nephridium and pharyngeal nephridium.
- Q10. Mention the function of the following:
- Ureter of frog.
 - Malpighian tubules.
 - body wall in earthworm.
- Q11. Give the functions of setae in earthworm.
- Q12. What is the function of the following in earthworm?
- gizzard
 - typhlosole
 - nephridia
- Q13. (a) Name the hard plates (exoskeleton) that cover the entire body of cockroach. What is their composition and function?
(b) List various mouth parts of cockroach.
- Q14. (a) How many sclerites cover each abdominal segment in cockroach ? Name them.
(b) How many terga and sterna are there in abdomen of cockroach?
(c) How many sterna are visible in the male and female abdomen of cockroach ?what is the role of 7th, 8th and 9th abdominal sterna in female cockroach?
- Q15. What are the respiratory organs in cockroach ?by how many apertures they open out ? Name these apertures and mention their position in the body.

- Q16. (a) What type of circulatory system is there in cockroach?
(b) How many, chambered heart helps in the circulation of blood in cockroach's body?
- Q17. (a) Why do frogs croak in the rainy season?
(b) what is the term used for the sexual embrace of male female frogs in which eggs and sperms are discharged in water?
(c) what is meant by 'metachrosis'?
- Q18. (a) What is the significance of brow spot in the median line between the eyes?
(b) Cloacal aperture in frog is an outlet for what?
- Q19. After a rainy day, earthworms were crawling on the moist soil of the fields. Father cautioned Rakesh to be careful so that earthworms are not crushed under his feet. Rakesh asked the reason and father replied that earthworms are farmer's friends.
Read the above passage and answer the following questions:
(a) Why are earthworms regarded as farmer's friend? Give two reasons.
(b) Which habit of the earthworm helps in increasing the soil fertility?
(c) Name the term used for increase in soil fertility by earthworms.
- Q20. Anil, a science student, told his younger brother that he came to know from his teacher that earthworms are farmer's friend. He wanted to show the earthworms to his younger brother and so, on a sunny day, they went to the fields to locate the earthworms. To their surprise, no earthworm was seen on the ground. He asked the reason from his biology teacher, the next day who explained the cause of their absence on a sunny day.
Read the above passage and answer the following questions:
(a) Why are earthworms not seen on sunny days?
(b) Where can you locate earthworms?
(c) What was the reason of Anil's curiosity about earthworms?
- Q21. Whenever Ravi switched on the light of kitchen store at night, he saw a number of cockroaches roaming and few even got crushed under his feet. He noticed a soft whitish substance that came out of the body of crushed cockroaches. He shared this observation with his biology teacher who explained that the whitish substance was fat bodies.
Read the above passage and answer the following questions:
(a) Why are cockroaches seen at night only?
(b) Where are fat bodies present in them? What is the role of these fat bodies?
(c) What value is displayed by Ravi?

Q22. Biology teacher told in the class that cockroaches are of ancient lineage and resembled to those insects who flourished in carboniferous period. Ramesh discussed this with his uncle who was a professor of zoology. His uncle explained that due to their remarkable adaptability, they are still surviving.

Read the above passage and answer the following questions:

- (a) How old is the evolutionary history of cockroach?
- (b) Which adaptations in cockroach help them in their survival ? List few of them.
- (c) What value is reflected in the discussion between Ramesh and his uncle?

askITians