

CBSE TEST PAPER-04
CLASS - XI BIOLOGY
(Structural Organization in Animals)

General Instruction:

- All questions are compulsory.
 - Question No. 1 to 4 carry one marks each. Question No. 5 to 9 carry two marks each. Question No. 10 to 11 carry three marks each.
-

1. Name the proteins which constitute muscle fibres.
2. Which type of epithelium is found in urinary bladder ?
3. From which germ layers do the following organs originate
a) kidney b) urinary bladder.
4. What are neuroglia cells?
5. How does saltatory conduction takes place along a nerve fibre?
6. What is mucosa?
7. Write short note on gaseous exchange in cockroach.
8. Draw a well labelled diagram of a nerve cell.
9. Distinguish between tendon and ligament
10. Name the various fibres of connective tissue and compare them.
11. Give an account of alimentary canal of frog.

CBSE TEST PAPER-04

CLASS - XI BIOLOGY (Structural Organization in Animals)

[ANSWERS]

1. Actin & myosin

2. Transitional epithelium.

3. a) Mesoderm b) Endoderm.

4. The neuroglia is the delicate connective tissue which supports and binds together the nervous elements of the central nervous system.

5. Saltatory nerve conduction takes place in myelinated nerve fibres. The insulating schwann cells round the axon allow ions to cross the membrane only at the nodes- the gaps between the schwann cells. As a result, action potentials arise only at the nodes, and conduction occurs in a series of saltatory jumps from node to node.

6. Mucosa is the mucous secreting epithelial tissue along with the supporting connective tissue beneath it. It lines some hollow organs or cavities of the body eg. alimentary canal, nose, trachea & lungs etc.

7. Cockroaches have spiracles on the underside of their abdomen which draw in air which is then distributed to the small adjacent chamber called the atrium. Stigmata bears limit the entry of dust into the tracheal system.

The air then moves out of the atrium to the connecting trachea which carry the air directly to the cells for gas exchange to occur.

8.

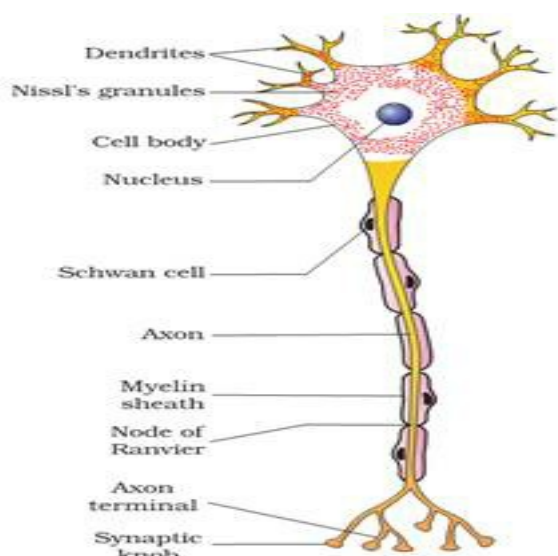


Figure 21.1 Structure of a neuron

9.

TENDON	LIGAMENT
i) It is formed of white fibrous connective tissue	i) It is formed of yellow fibrous tissues
ii) Fibroblasts are arranged in rows between the bundles of white fibres	ii) Fibroblasts are scattered in matrix
iii) It is tough & non flexible	iii) It is elastic & flexible.
iv) It joins muscles to bones	iv) It joins bones together.

10.

Nature	Collagen fibres	Elastin fibres	Reticular fibres
i) colour	White	Yellow	White
ii) Protein	Formed of protein, tropho- collagen	Elastin protein	Reticulin protein
iii) Occurrence	Found in bundles	Singly	Singly
iv) Nature	unbranched	Branched & anastomosing	Branched but form a network
v) fibres	Thick, long wavy	Thin, long straight	Short
vi) elasticity	Tough, non elastic	Elastic	Delicate
vii) Location	Abundant in tendon	Abundant in ligament	Abundant in ambryo in lymphoid as well as blood forming tissues.

11. ALIMENTARY CANAL OF FROG:-

It is a short tube starting from mouth to cloaca. Mouth opens into buccopharyngeal cavity. It

has many maxillary teeth as the margin of upper jaw. Vomerine teeth lie at the floor of this cavity. The tongue is bilobed and muscular. It is used to capture the prey. Gullet opens into the oesophagus which is distended into stomach. Stomach follows small and large intestine. The rectum opens into the cloaca. Liver and pancreas are digestive glands.

