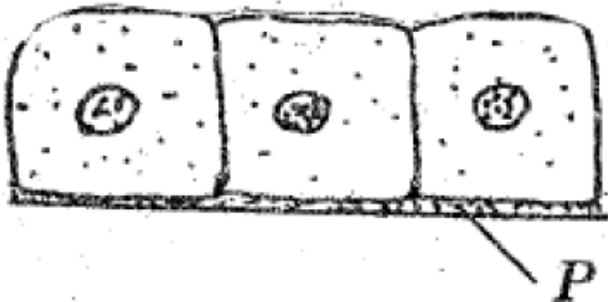


Chapter-04
STRUCTURAL ORGANISATION IN ANIMALS

Each question carry one score

- Tendons and ligaments are examples of tissue.
a) Areolar b) Adipose
c) Dense regular d) Dense irregular
- In cockroach Hepatic caecae are present in.....
a) Alimentary canal
b) Tracheal system
c) Malpighian tubule
d) Reproductive system
- If the head of cockroach is cut off, it will be alive as long as one week. Give clarification for this statement
- The diagram below is a simple epithelium



- Name the part marked as P
- Write any one function of simple epithelium
- Select the odd one out in the following series
a) Areolar tissue, adipose tissue, neuron, tendon
b) Hypopharynx, malpighian tubule, maxillae, labrum
c) Ommatidia, Antennae, Maxillary palp, Hepatic caecae
- Cockroach hasnumber of thoracic ganglia andnumber of abdominal ganglia
a) 3 and 6 b) 6 and 3
c) 1 and 3 d) 3 and 1
- Name any two secretions of exocrine glands?
- Mention the function of the following
a) Hepatic caeca of *periplaneta Americana*
b) Ommatidia of *periplaneta Americana*
- Observe the first pair of words and write a suitable word for the second pair
a) Areolar tissue: support framework for

epithelium
Adipose tissue:.....
b) Tendon : It attach skeletal muscles to bones
Ligament:.....

- To which one of the following categories does adipose tissue belong?
a. Epithelial b. Connective
c. Muscular d. Neural
- Which of the following statement is **False**
a) Neurons are the unit of neural system
b) Neurons are excitable cells.
c) The neuroglial cells protect and support neurons.
d) Neuroglia make more than 75% of the volume of neural tissue in our body
- A muscle fibre tapers at both ends and does not show striations. Name the muscle fibre.
- Which mouth part of cockroach is comparable to our tongue?
- Which one of the following types of cell is involved in making of the inner walls of large blood vessels?
a. Cuboidal epithelium
b. Columnar epithelium
c. Squamous epithelium
d. stratified epithelium

Each question carry two score

- Select the correct option from the following
a) Term for the Upper lip of cockroach
b) Term for the Lower lip of cockroach
c) Term for the Tongue of cockroach
d) Term for the Excretory organ of cockroach (Labium, Hypopharynx, Labrum, Malpighian tubule)

16. Match the following

Column A	Column B
Crop	Grinding of food
Gizzard	Storage food
Malpighian tubule	Secrete digestive juice
Hepatic caecae	Excretory organ

- If the head of a cockroach is cut off, it will still live for as long as one week. Evaluate this statement
- Name any four sensory organs in cockroach?
- Explain the following terms in cockroach
a) Nocturnal vision
b) Mosaic vision
- Compare the vision in Human and Cockroach ?

21. A Student observed muscular tissues under microscope. His observation is given below, based on it, name the muscular tissue he observed

- a) They have a striped appearance under the microscope and Voluntary in function
- b) muscle cells assemble in a branching pattern
- c) muscle fibres taper at both ends (fusiform) and do not show striations

22. Rewrite the given sentences if there is any mistake in the underlined part.

- Neurons make more than one half the volume of neural tissue in our body
- Fat storing tissue is areolar tissue
- Intercalated discs are seen in skeletal muscle.
- Skeletal muscles are striated

23. a) Identify the tissues based on the features given below :

- i) Intercalated disc.
- ii) Involuntary in action
- (b) Mention the function of intercalated disc.

24. Identify the function of the following structures of cockroaches

- (a) Compound eye
- (b) Ommatidia
- (c) Malpighian tubule
- (d) Gastric caecae

25. Observe the pool of Animal tissues carefully, classify those under three headings.

**Skeletal Muscle, Adipose tissue, Neurons,
Areolar tissue, Ciliated epithelium,
Areolar tissue**

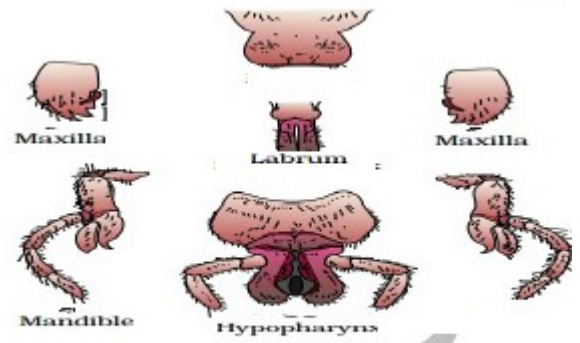
26. On the basis of structural modification of the cells, simple epithelium is divided into three types.

- a) Write the 3 types of simple epithelium
- b) Where do you find these epitheliums

27. Select the connective tissues from the following and write one characters/Function of each tissue

Areolar tissue
Neural tissue
Adipose tissue
Cardiac tissue

28. The mounting of mouth parts of Cockroach are given below. If there is any error, correct it.



29. Identify the following tissues :

- a) Tissue that stores fat
- b) Tissue that connects bones together
- c) 'Tissue that connects bones to muscles
- d) Tissue that conducts impulses

30. a) Among the following body parts squamous epithelium is found in

- i) The ducts of glands and tubular Parts of Nephron
- ii) The lining of stomach and intestine'
- iii) The inner walls of blood vessels and
- iv) Air sacs of lungs
- v) The inner surface of bronchioles and fallopian tubes'

b) Write any one function Ciliated epithelium

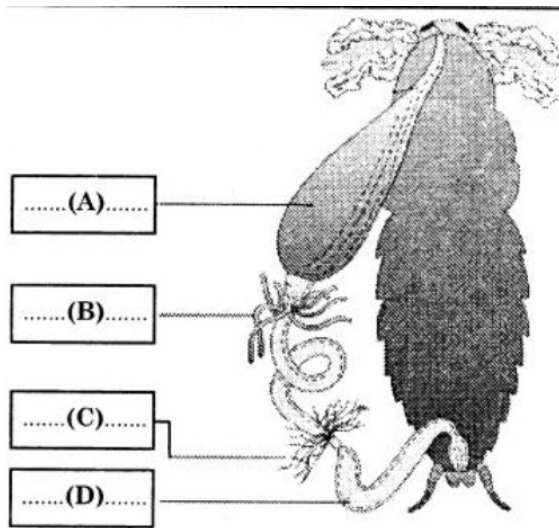
31. Complete the following statement :

- a. In Cockroach grinding of food particle is performed by _____
- b. Malpighian tubules help in removal of _____
- c. Hind gut of Cockroach is differentiated into _____
- d. In Cockroach blood vessels open into spaces called _____

32. Featured of certain connective tissue is given below, name them

- a) it serves as a support framework for epithelium
- b) The cells of this tissue are specialised to store fats.
- c) connective tissue attach skeletal muscles to bones
- d) connective tissue attach one bone to another bone

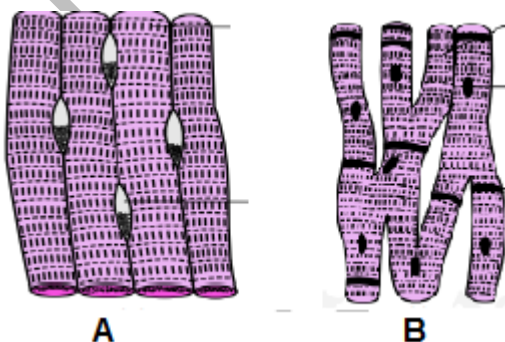
- 33. Mention special features of eye in Cockroach.
- 34. In an informal discussion in your class, your friend made a comment that “malpighian tubules are the kidneys of cockroach “. How will you evaluate this statement?
- 35. Observe the diagram showing the alimentary canal of cockroach. Name the parts labeled A, B, C and D.



- 36. “In cockroaches a special mode of vision is noticed”
 - a) Write speciality of vision in cockroach
 - b) Name the organ and its basic units that perform vision in cockroach.
- 37. Match the following

Column A	Column B
Labrum	Tongue
Labium	Upper lip
Hypopharynx	Lower lip
Mandible	Contain grinding region

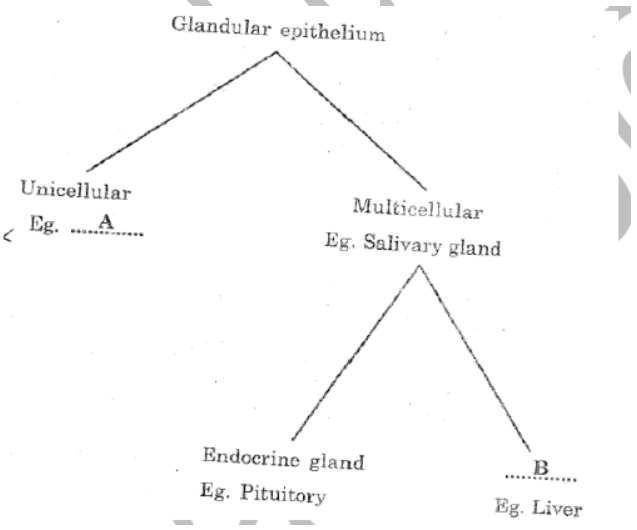
- 38. Identify the figures A and B. Write any one characteristic features of each A and B



Each question carry three score

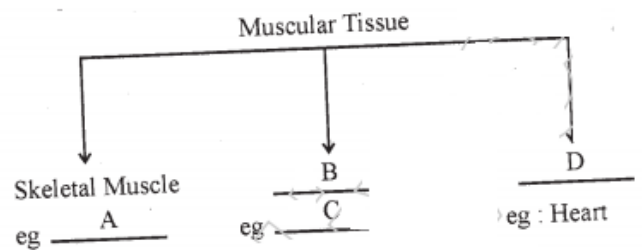
- 39. Prepare 3 correctly matching pairs from the given terms
 - Ommatidia
 - Hepatic caecae
 - Malpighian tubule
 - Sense organ
 - Excretory organ
 - Digestive gland

- 40. Observe the following chart and answer the following question



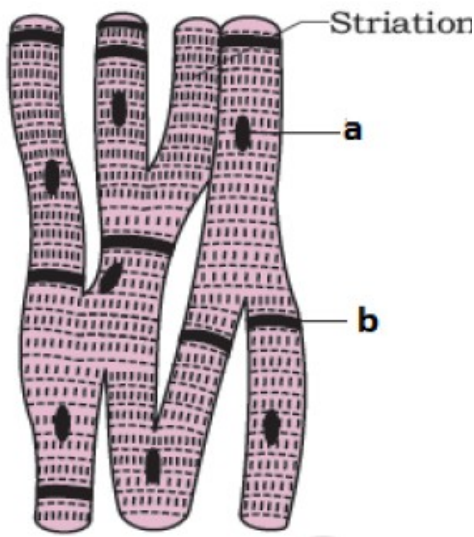
- a) Name A and B
- b) What are the 3 types of simple epithelium

- 41. Complete the schematic diagram



- 42. Where do you find the following structure in human body
 - a) Adipose tissue
 - b) Axons
 - c) Squamous epithelium
 - d) Smooth muscle

- 43. Observe the following figure. No need to redraw the diagram



- a) Cell junction which help to stop substances from leaking across a tissue
- b) Cell junction which facilitate the cells to communicate with each other by connecting the cytoplasm of adjoining cells, for rapid transfer of ions, small molecules and sometimes big molecule
- c) Cell junction which perform cementing to keep neighboring cells together.

48. a) Identify the muscular tissue shown below
 b) Where you can see this kind of muscles in Human Body
 c) Name the shape of these muscle fibre
 d) Write any one function of these muscles in Human body

- a) Name the muscular tissue?
- b) Name A and B ?
- c) Where do you see this kind of muscular tissue in our body?
- d) What is the function of b?



44. Match the following

Column A	Column B	Column C
Squamous epithelium	Cube like cells	Helps in diffusion
Cuboidal epithelium	Thin flattened cells	Present in the duct of gland and tubular part of nephrone
Columnar cells	Tall slender cells	Present in the lining of stomach and intestine

49. Parts of Alimentary canal in cockroach is given below. Arrange them in an order beginning from mouth.

Anus, Colon, Rectum, Mouth, Pharynx, Oesophagus, Crop, Midgut, Gizard

45. Name the different cell junctions found in tissues

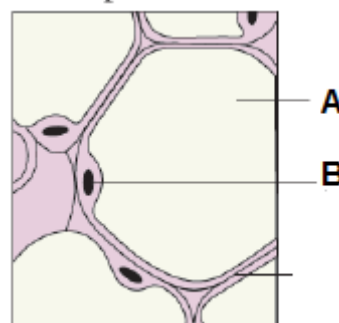
46. Features of a particular tissue visible through a microscopic observation is presented here

- Cells are closely arranged
- Intercellular matrix absent
- Cells are supported by basement membrane
- It is made of a single thin layer of **flattened cells** with irregular boundaries.

- a) Identify the animal tissue
- b) Where do you see this animal tissue?
- c) Mention their functions

47. Features of cell junction found in tissues are given below. Write the name of Cell junction to which it belongs

50. Observe the diagram



- a) Identify the tissue
- b) Label A and B
- c) What is the function of part A



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