



# BIOLOGY

## BOOKS - JBD PUBLICATION

### STRUCTURAL ORGANISATION IN ANIMALS

#### Exercise

1. In order to form tissue from cells, they must:

- A. have different membrane proteins.
- B. have different membrane potentials.
- C. receive a command from central nervous system
- D. recognize one another.

**Answer:**



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2. Which type of tissue changes the diameter of a blood vessel?

A. Epithelial

B. Connective

C. Nervous

D. Muscle.

**Answer:**



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3. Which type of tissue forms glands?

A. Epithelial

B. Connective

C. Nervous

D. Muscle.

**Answer:**



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4. Tendon connects:

A. ligament with muscle

B. bone with muscle

C. cartilage with muscle

D. bone with bone

**Answer:**



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**5. Tendon is made up of:**

A. inelastic connective tissue fibres

B. elastic connective tissue fibres

C. both (A) and (B)

D. only collagen fibres.

**Answer:**



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**6. Ligaments and tendons are formed of:**

A. epithelial tissue

B. muscular tissue

C. cartilage

D. connective tissue.

**Answer:**



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**7. Example of loose connective tissue is:**

A. areolar tissue

B. adipose tissue

C. both (A) and (B)

D. none of these.

**Answer:**



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**8. Ciliated epithelium is found in:**

A. tongue

B. oesophagus

C. trachea

D. uterus



**Answer:**



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**9. Bone forming cells are called:**

A. chondroblasts

B. chondroclasts

C. osteoclasts

D. osteoblasts.

**Answer:**



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**10.** Unlike frog, the human red blood cells are:

A. oval

B. non-nucleated

C. biconvex

D. suspended in plasma

**Answer:**



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**11. Protein present in cartilage is:**

A. chondrin

B. ossein

C. keratin

D. thrombin

**Answer:**



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12. Lining of intestine in man is:

A. ciliated

B. keratinized

C. brush bordered

D. non-keratinized.

**Answer:**



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**13. Fat is abundant in:**

- A. areolar tissue
- B. adipose tissue
- C. liver cells
- D. lymph glands.

**Answer:**



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**14.** Intercalated discs occur in:

A. between cardiac muscle fibres

B. between neurons

C. between striated muscles

D. between smooth muscles.

**Answer:**



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15. Which one of the following contains the largest quantity of extracellular material?

- A. Striated muscle
- B. Areolar tissue
- C. Stratified epithelium
- D. Myelinated nerve fibres.

**Answer:**



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**16.** Inner lining of blood vessels is made of which type of tissues?

- A. Squamous epithelial
- B. Columnar epithelium
- C. Collagen fibres
- D. Areolar connective tissue.

**Answer:**



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17. Mast cells of connective tissue contain:

- A. serotonin and melanin
- B. vasopressin and relaxin
- C. heparin and histamine
- D. heparin and calcitonin.

**Answer:**



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**18.** Areolar connective tissue joins:

- A. bones with muscles
- B. bones with bones
- C. fat body with muscles
- D. integument with muscles.

**Answer:**



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19. Which one has alternate striations and is correctly matched?

A. Biceps under autonomous control

B. Iris muscles under control of will

C. Heart muscles involuntary.

D. Muscles of visceral organs under autonomous control.

**Answer:**



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20. Which type of tissue forms glands?

A. Epithelial

B. Muscular

C. Squamous

D. Cuboidal

**Answer:**



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21. The epithelial tissue present on the inner surface of bronchioles and fallopian tubes is:

A. glandular

B. ciliated

C. Squamous

D. cuboidal

**Answer:**



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22. The kind of tissue that forms the supportive structure in our pinna (external ears) is also found in:

A. nails

B. ear ossicles

C. tip of the nose

D. vertebrae.

**Answer:**



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**23.** Fibroblasts, macrophages and mast cells are present in:

- A. cartilage tissue
- B. adipose tissue
- C. areolar tissue
- D. glandular epithelium

**Answer: compound epithelium.**



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24. The kind of epithelium which forms the inner walls of blood vessels is:

- A. cuboidal epithelium
- B. Columnar epithelium
- C. ciliated columnar epithelium
- D. squamous epithelium

**Answer:**



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25. The outer covering of cartilage is called:

- A. peritonium
- B. periosteum
- C. endosteum
- D. perichondrium.

**Answer:**



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26. The study of a tissue is known as:

A. physiology

B. anatomy

C. ecology

D. histology.

**Answer:**



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**27. Which of the following is not a connective tissue?**

A. Blood

B. Lymph

C. Nerve

D. Bone

**Answer:**



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**28.** What type of cartilaginous tissue is found in the intervertebral discs?

A. Costal cartilage

B. Hyaline cartilage

C. White fibrous cartilage

D. Yellow elastic cartilage.

**Answer:**



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**29.** In multicellular animals, a group of similar cells along with intercellular substances

perform a specific function. Such an organisation is called:

A. tissue

B. organ

C. organ system

D. ground substance.

**Answer:**



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**30.** The epithelium composed of a single layer of cells and functions as a lining for body cavities, ducts and tubes is called:

- A. compound epithelium
- B. transitional epithelium
- C. simple epithelium
- D. pseudostratified epithelium

**Answer:**



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31. Compound epithelium has protective function as it does in our skin, is made up of:

- A. single layer of cells
- B. many layers of cells
- C. made up of Keratin
- D. made up of ciliated epithelium

**Answer:**



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32. Which of the following help to stop substances from leaking across a tissue?

- A. Gap junctions
- B. Adhering junctions
- C. Desmosomes
- D. Tight junctions.

**Answer:**



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**33.** Which of the following performs cementing to keep neighbouring cells together?

- A. Gap junctions
- B. Adhering junctions
- C. Desmosomes
- D. Tight junctions.

**Answer:**



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**34.** Which of the following facilitate the cells to communicate with each other by connecting the cytoplasm of adjoining cells for rapid transfer of ions and molecules?

- A. Gap junctions
- B. Tight junctions
- C. Adhering junctoins
- D. All of these

**Answer:**



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35. Which of the following is a kind of specialised connective tissue?

A. Cartilage

B. Bone

C. Blood

D. All of these

**Answer:**



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**36.** Which of the following make up more than one half of the volume of neural tissue in our body.

- A. Neuroglia
- B. Mesogloea
- C. Areolar tissue
- D. Muscle tissue.

**Answer:**



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37. earthworms move with the help of :

A. setae, muscles and hydrostatic skeleton

B. setae alone

C. muscles alone

D. parapodia.

**Answer:**



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**38.** In earthworms, the typhosole is a part of:

A. reproductive tract

B. intestine

C. circulatory system

D. gizzard.

**Answer:**



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**39.** Haemoglobin is found dissolved in blood plasma of:

A. cockroach

B. earthworm

C. frog

D. rat.

**Answer:**



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40. Excretory organs in earthworms are:

- A. flame cells
- B. malpighian tubules
- C. nephridia
- D. renal tubules.

**Answer:**



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41. Clitellum in earthworm includes:



A. first three segments

B. segments 19, 20 and 21

C. last three segments

D. segments 14, 15 and 16.

**Answer:**



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**42.** Segment of earthworm bearing mouth is,

A. clitellar

B. peristomium

C. prostomium

D. deuterostomium.

**Answer:**



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**43.** Segment (s) having male genital pores in earthworm is/are:

A. 10<sup>th</sup> and 11<sup>th</sup>

B. 13<sup>th</sup>

C. 14<sup>th</sup>

D. 18<sup>th</sup>

**Answer:**



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**44.** Clitellum of earthworm is primarily concerned with:

A. copulation

B. excretion

C. cocoon formation

D. locomotion.

**Answer:**



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**45.** A ventral nerve cord is found in:

A. earthworm

B. Hydra

C. man

D. frog.

**Answer:**



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**46.** Earthworms help farmers by:

A. making soil porous and increasing its fertility.

B. reducing alkalinity and acidity of soil

C. causing soil erosion.

D. destroying bacteria present in the soil.

**Answer:**



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**47.** Function of Malpighian tubules in cockroach is:

A. respiration

B. excretion and osmoregulation

C. reproduction

D. digestion

**Answer:**



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**48.** The body cavity of cockroach is:

A. coelom

B. pseudocoelom

C. haemocoel

D. ceolenteron.

**Answer:**



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**Example**

**1. Name the tissue which stores fat.**



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2. Which tissue is called river of life.



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3. Name the sheath of cartilage and bone.



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4. Which tissue acts as middleman?



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5. Name the protein found in white collagen fibres and yellow elastic fibres.



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6. Name the tissues which lack intercellular material?



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7. Which muscle tissue is self-excitatory and which is voluntary?



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8. Name the tissue in which matrix is not produced by the cells it contains.



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**9.** Name the tissue in which cells occur in lacunae.



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**10.** What type of tissue is a bone?



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**11.** Where do you find ciliated epithelium in human body?



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**12.** What type of cartilage is present between the vertebrae to allow limited movement?



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**13.** What do fibroblasts synthesis?



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**14.** Name the epithelium which lines the fallopian tubes.



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**15.** Name the tissue which connects a bone with the muscle.



**Watch Video Solution**

**16.** The kind of epithelium which forms the inner walls of blood vessels is:



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**17.** Name the type of tissue which supports the pinna of the external ear.



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**18.** What is a ligament?



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**19.** Mention the role of mast cells.



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**20.** What is a tissue? What are its kinds?



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**21.** What is a dense regular connective tissue?





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**22.** Distinguish between

Dense regular and dense irregular connective tissues



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**23.** Name the cells which secrete matrix of the cartilage.



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**24.** Name the cells which secrete matrix of bone.



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**25.** What is blood? Describe its components.



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26. Name the muscular tissue having intercalated discs.



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27. Name the four main types of tissues.



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28. What is epithelial tissue?



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**29.** Differentiate two types of epithelial tissue.



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**30.** Define squamous epithelial tissue.



**Watch Video Solution**

**31.** Define cuboidal epithelium.



**Watch Video Solution**

**32.** Define columnar epithelium.



**Watch Video Solution**

**33.** Briefly describe ciliated epithelium.



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**34.** What is a gland? Name the two types of glands



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**35.** Differentiate between an endocrine and an exocrine gland.



**Watch Video Solution**

**36.** What is compound epithelium? What is its functions?



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**37.** Name the three types of junctions found in epithelial tissues.



**Watch Video Solution**

**38.** Write a note on areolar tissue.



**Watch Video Solution**

**39.** Write a note on adipose tissue.



**Watch Video Solution**

**40.** What is dense connective tissue? What are its types?



**Watch Video Solution**

**41.** Distinguish between

Dense regular and dense irregular connective tissues



**Watch Video Solution**



**42.** What is blood? Describe its components.



**Watch Video Solution**

**43.** Name the various types of specialised connective tissue.



**Watch Video Solution**

**44.** Write the economic importance of earthworm.



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**45.** Write the economic importance of a cockroach.



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**46.** Differentiate male and female cockroach. .



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**47.** Differentiate between a male and a female frog.



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**48.** Where the calciferous glands are located in earthworm? What is their function?



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**49.** What is cartilage?



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**50.** Describe bone briefly.



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**51.** Give a brief account of muscle tissue.



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**52.** How many types of muscles are found in your body? Explain skeletal muscles briefly.



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**53.** Describe briefly smooth muscles.



**Watch Video Solution**

**54.** Give a brief account of neural tissue.



**Watch Video Solution**

**55.** Give a brief account of cardiac muscles.



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**56.** Describe the structure of body wall and its function in earthworm.



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**57.** Write a note on respiration in earthworm.



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**58.** Describe briefly sensory system of earthworm.



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**59.** Write habitat and habits of cockroach.



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**60.** Describe head of cockroach.



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**61.** Write a note on exoskeleton of cockroach.



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**62.** Name the respiratory structures of cockroach.



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**63.** Which type of excretion of found in cockroach and other insects?



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**64.** Describe the development of eggs in cockroach.



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**65.** Explain how a frog protects itself from its enemies?



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**66.** Draw a well labelled diagram of blood vascular system of earthworm.



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**67.** Give a brief account of excretory organs of earthworm.



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**68.** Describe nervous system of earthworm?



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**69.** Give a well labelled of mouth parts of cockroach.



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70. Describe reproductive system of earthworm.



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71. Describe male reproductive system of cockroach.



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**72.** Describe briefly female reproductive system of cockroach.



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**73.** Draw a well labelled diagram of female reproductive system of cockroach.



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**74.** Answer in one word or one line.

Give the common name of *Periplaneta americana*.



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**75.** Answer in one word or one line.

How many spermathecae are found in earthworm?



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**76.** Answer in one word or one line.

What is the position of ovaries in cockroach?



**Watch Video Solution**

**77.** Answer in one word or one line.

How many segments are present in the abdomen of cockroach?



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**78.** Answer in one word or one line.

Where do you find Malpighian tubules?



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**79.** What is the function of nephridia?



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**80.** How many types of nephridia are found in earthworm based on their location?





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**81.** Draw a well labelled diagram of reproductive system of earthworm?



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**82.** Draw a well labelled diagram of digestive system of cockroach?



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**83.** Distinguish between the following

Prostomium and peristomium



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**84.** Distinguish between the following

Septal nephridium and Pharyngeal nephridium.



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**85.** what are the components of blood?



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**86.** What are the following and where do you find them in animal body?

Chondrocytes



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**87.** What are the following and where do you find them in animal body?

Axons



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**88.** What are the following and where do you find them in animal body?

Ciliated epithelium



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**89.** Describe various types of epithelial tissues with the help of labelled diagrams.



**Watch Video Solution**

**90.** Distinguish between

Simple epithelium and compound epithelium



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**91.** Write the similarities between cardiac muscles and striped muscles.



**Watch Video Solution**

**92.** Distinguish between

Dense regular and dense irregular connective tissues



**Watch Video Solution**

**93.** Distinguish between

Adipose and blood tissue.



**Watch Video Solution**

**94.** Distinguish between

Simple gland and compound gland.



**Watch Video Solution**

**95.** Mark the odd one in each series:

Areolar tissue, blood , neuron,tendon,



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**96.** Mark the odd one in each series:

RBC, WBC, platelets , cartilage



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**97.** Mark the odd one in each series:

Exocrine, endocrine, salivary gland, ligament



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**98.** Mark the odd one in each series:

Maxilla, mandible, labrum, antennae



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99. Mark the odd one in each series:

Protonema, mesothorax, metathorax, coxa.



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100. Match the terms in Column I with those in Column II.

Column I	Column II
(a) Compound epithelium	(i) Alimentary canal
(b) Compound eye	(ii) Cockroach
(c) Septal nephridia	(iii) Skin
(d) Open circulatory system	(iv) Mosaic vision
(e) Typhlosole	(v) Earthworm
(f) Osteocyte	(vi) Phallomere
(g) Genitalia	(vi) Bone.



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**101.** Mention briefly about the circulatory system of earthworm.



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**102.** Mention the function of the following :

Ureters in frog



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**103.** Mention the function of the following :

Malpighian tubules



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**104.** Mention the function of the following :

Body wall in earthworm.



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