
	INDIAN SCHOOL AL WADI AL KABIR		
Class: XI	Department: SCIENCE 2021 -2022 SUBJECT: BIOLOGY		Date of submission: first week of September
Worksheet no.5 with answers	CHAPTER: Structural Organisation in animals		Note: A4 FILE FORMAT
NAME OF THE STUDENT		CLASS & SEC:	ROLL NO.

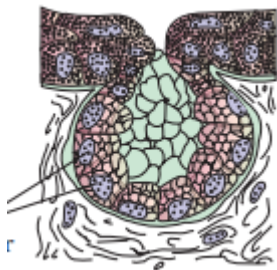
CASE STUDY

Read the passage given below and answer the questions that follows.

Some of the columnar or cuboidal cells get specialized for secretion and are called glandular epithelium. They are mainly of two types: unicellular, consisting of isolated glandular cells (goblet cells of the alimentary canal), and multicellular, consisting of cluster of cells (salivary gland).

On the basis of the mode of pouring of their secretions, glands are divided into two categories namely exocrine and endocrine glands. Exocrine glands secrete mucus, saliva, earwax, oil, milk, digestive enzymes and other cell products. These products are released through ducts or tubes. In contrast, endocrine glands do not have ducts. Their products called hormones are secreted directly into the fluid bathing the gland.

1.The figure given below represents



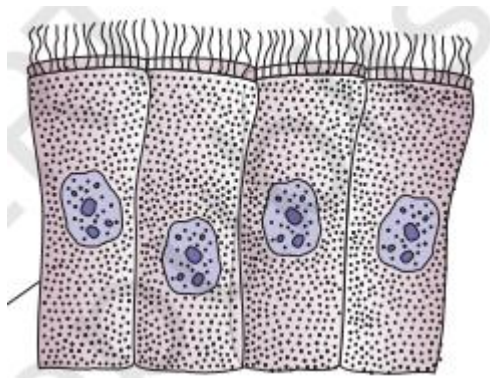
- a) Unicellular gland
- b) Multicellular gland
- c) Endocrine gland
- d) All of these

2. **Assertion:** Endocrine glands do not have ducts.

Reason: Their products called hormones.

- a. Both assertion and reason are true, and the reason is the correct explanation of the assertion.
- b. Both assertion and reason are true, but the reason is not the correct explanation of the assertion.
- c. Assertion is true but reason is false.
- d. Both assertion and reason are false

3. The figure given below represents a specialized epithelium Tissue, identify the tissue



- a) Columnar epithelial
- b) Cuboidal epithelial
- c) Glandular epithelial
- d) Stratified epithelial

4. Salivary gland is an example of multicellular gland

- a) True
- b) False

Objective type questions (MCQs)

1. Areolar and adipose tissue are examples for:

- (a) Loose connective tissue
- (b) Dense connective tissue
- (c) Compound epithelium
- (d) Specialized connective tissue

2. The type of epithelium which is made up of single, thin layer of flattened cells with irregular boundaries

- (a) Squamous epithelium
- (b) Cuboidal epithelium
- (c) Columnar epithelium

(d) Glandular epithelium

3. 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

4. Which of the following is not a connective Tissue.

(a) Bones

(b) Muscles

(c) Cartilage

(d) Blood

5. To which category does Adipose tissue belong

(a) Epithelial Tissue

(b) Muscular Tissue

(c) Connective Tissue

(d) Neural Tissue

6. Mark the odd one in the series

a) Areolar tissue, blood, neuron, tendon

b) RBC, WBC, platelets, cartilage

c) Exocrine, endocrine, salivary gland, ligament

2 Marks questions

7. Match the followings

- | | |
|----------------------------|-----------------|
| A. Adipose tissue | i. Nose |
| B. Stratified epithelium | ii. Blood |
| C. Hyaline cartilage | iii. skin |
| D. Fluid connective tissue | iv. Fat storage |

8. Name the different cell junctions found in tissues.

3 Marks questions

9. Answer briefly:

- Stratified epithelial cells have limited role in secretion. Justify
- How does a gap junction facilitate intercellular communication?

c) Why are blood, bone and cartilage called connective tissue?

10. Classify and describe epithelial tissue on the basis of structural modifications of Cells in the form of a table, indicating any one location and function.

ANSWERS

MCQ- QUESTIONS 1 to 5 Objective type questions

1- a	2- a	3- c	4- b	5- c
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6.a—neuron b----cartilage c—ligament

2-mark questions answers

7. A-iv B-iii C-I D-ii

8. All cells in epithelium are held together with intercellular material, these specialized junctions are called cell junctions

- Cell junctions provide structural and functional links between individual cells.
- The three types of cell junctions are

i) TIGHT ii) ADHERING iii) GAP

3 Marks questions answers

9.a) Many Layered-Compound epithelium—protection

b) Helps the cells to communicate with each other by connecting the cytoplasm of adjoining cells, for rapid transfer of ions, small molecules and sometimes big molecules.

c) They carry out the function of supporting, connecting and have cells embedded in the matrix

10.

TYPE	STRUCTURE	LOCATION	FUNCTIONS
SQUAMOUS	Single thin layer of <u>FLATTENED</u> cells <u>IRREGULAR</u> boundaries	Walls of blood vessels and air sacs of lungs	Forms a diffusion boundary
CUBOIDAL	Single layer of <u>CUBE-LIKE</u> cells	Ducts of glands Tubular parts of nephrons in kidneys	Secretion and absorption
COLUMNAR	Single layer of <u>TALL</u> and <u>SLENDER</u> cells. Nuclei located at the base	Lining of stomach and intestine	Secretion and absorption
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