

Worksheet (Histology)

Epithelial tissue

1) Epithelial tissues are composed of?

- a) Loosely aggregated cells
- b) Closely aggregated cells
- c) Dispersed cells
- d) None of the above

2) Adjacent epithelial cells are adhering strongly to one another by?

- a) Loose attachments
- b) Cellular junctions
- c) Extracellular matrix
- d) None of the above

3) Epithelia themselves normally do not contain?

- a) Blood vessels
- b) Lymphatic vessels
- c) Nerves
- d) All of the above

4) Which type of epithelial tissue lines the body cavities, blood vessels?

- a) Simple Squamous
- b) Simple Cuboidal
- c) Simple Columnar
- d) Pseudostratified Columnar

5) What is the primary characteristic of glandular epithelium?

- a) Absorption function
- b) Protective function
- c) Secretory function
- d) Contractile function

6) How are epithelial tissues renewed?

- a) By apoptosis
- b) By phagocytosis
- c) By mitotic activity and stem cell populations
- d) By differentiation from mesenchymal cells

7) What do you call the simple squamous epithelium that lines the blood vessels ?

- a) Epithelioid tissue
- b) Mesothelium
- c) Endothelium
- d) Transitional
- e) Pseudostratified

8) What type of tissue lines most of the gastrointestinal tract?

- a) Simple squamous epithelium
- b) Simple cuboidal epithelium
- c) Simple columnar epithelium
- d) Stratified squamous epithelium
- e) Transitional epithelium

9) What type of epithelial cells are taller than they are wide?

- a) Simple
- b) Stratified
- c) Squamous
- d) Cuboidal
- e) Columnar

10) Which of the following describes the function of the basal layer in stratified epithelium?

- a) Producing digestive enzymes
- b) Providing support and cell renewal
- c) Secreting mucus
- d) Allowing active ion transport

11) In which type of epithelium does the free surface of the cell have finger-like projections containing actin filaments and is covered by a glycocalyx layer?

- a) Simple cuboidal epithelium
- b) Stratified squamous epithelium
- c) Simple columnar epithelium
- d) Pseudostratified epithelium

12) What is the primary function of gap junctions in epithelial cells?

- a) Preventing the passage of substances between cells
- b) Providing the strongest adhesion between adjacent cells
- c) Facilitating intercellular exchange of ions and small molecules
- d) Anchoring epithelial cells to the basal lamina

13) Which type of glandular epithelium has secretory cells that lose their entire cytoplasm during secretion?

- a) Merocrine glands
- b) Apocrine glands
- c) Holocrine glands
- d) Endocrine glands

14) Which structure in epithelial cells is responsible for maintaining a selective barrier by forming a seal between adjacent cells?

- a) Desmosomes
- b) Hemidesmosomes
- c) Zonula occludens
- d) Gap junctions

15) Which epithelium can change its number of layers depending on the organ's functional state?

- a) Simple squamous epithelium
- b) Stratified squamous epithelium
- c) Transitional epithelium
- d) Pseudostratified columnar epithelium

16) Which feature of ion-transporting cells helps prevent back diffusion of transported materials?

- a) Apical microvilli
- b) Lateral interdigitations
- c) Basal infoldings
- d) Tight junctions

17) What distinguishes serous cells from mucous cells in glandular epithelium?

- a) Serous cells contain a flattened basal nucleus, while mucous cells have a central rounded nucleus
- b) Mucous cells stain intensely with hematoxylin, while serous cells appear pale
- c) Serous cells have abundant rough ER and apical acidophilic secretory granules
- d) Mucous cells produce watery secretion, while serous cells produce a viscous secretion

18) Which epithelial modification is unique to sperm cells and allows movement?

- a) Microvilli
- b) Stereocilia
- c) Cilia
- d) Flagella

19) What is the main function of myoepithelial cells?

- a) Absorption of nutrients
- b) Secretion of mucus
- c) Contraction to aid in glandular secretion
- d) Providing mechanical support

20) Which type of epithelial cell contains abundant smooth endoplasmic reticulum (SER) and mitochondria with tubular cristae?

- a) Protein-secreting cells
- b) Mucus-secreting cells
- c) Ion-transporting cells
- d) Steroid-secreting cells

Answers :-

- | | |
|-------|-------|
| 1) B | 11) C |
| 2) B | 12) C |
| 3) A | 13) C |
| 4) A | 14) C |
| 5) C | 15) C |
| 6) C | 16) D |
| 7) C | 17) C |
| 8) C | 18) D |
| 9) E | 19) C |
| 10) B | 20) D |

Prepared by : Mohammed Ramadan