Epithelial Tissue: Structure, Function, and Classification

Biology · Answer Key · 23 Questions

1. What are the two main types of epithelia mentioned in the text?

A) Surface epithelia and solid organs
B) Apical and basal epithelia
C) Simple and stratified epithelia
D) Covering and glandular epithelia

2. Epithelial tissue consists of closely packed cells with a small amount of what?

A) Intercellular substance
B) Extracellular matrix
C) Cytoplasm
D) Nuclei

3. Which of the following is NOT listed as a function of epithelium?

A) Barrier and protection
B) Energy storage
C) Selective permeability
D) Absorption

4. What is a characteristic of epithelial tissue related to its surfaces?

A) Polarized
B) Avascular
C) Innervated
D) Highly vascular

5. Which of these is an apical surface specialization of epithelial cells?

A) Microvilli
B) Basement membrane
C) Reticular lamina
D) Basal lamina

6. The basement membrane commonly consists of two layers. What are they?

A) Basal lamina and reticular lamina
B) Apical and basal lamina
C) Epithelial and connective layers
D) Serous and mucous layers

7. What is one function of the basement membrane?

A) Restrict passage of larger molecules
B) Facilitate rapid cell division
C) Provide structural support to the lumen
D) Enhance cell-to-cell communication

8. Epithelial tissues are classified according to two main characteristics. What are they?

A) Arrangement of cells into layers and shapes of the cells
B) Presence of microvilli and cilia
C) Location and function
D) Type of secretion and duct structure

9. What term describes an epithelium with a single layer of cells?

A) Simple (unilaminar) epithelium
B) Stratified (multilaminar) epithelium
C) Pseudostratified epithelium
D) Transitional epithelium

10. Which cell shape is characterized by being flat?

A) Squamous
B) Cuboidal
C) Columnar
D) Transitional

11. Simple squamous epithelium is found in what locations?

A) Serous cavity, vessels
B) Kidney tubules, smaller ducts of glands
C) Gastrointestinal tract, gallbladder
D) Respiratory tract

12. What is the primary function of simple squamous epithelium?

A) Filtration, diffusion, secretion
B) Secretion and absorption
C) Protection
D) Stretching

13. Simple cuboidal epithelium is characterized by single layer of what shape cells?

A) Cube-shaped
B) Flat
C) Column-like
D) Domelike

14. Where is simple cuboidal epithelium primarily located?

A) Kidney tubules and smaller ducts of many glands
B) Gastrointestinal tract and gallbladder
C) Respiratory tract
D) Epidermis of skin

15. Simple columnar epithelium has a single layer of what type of cells?

A) Column-like
B) Squamous
C) Cuboidal
D) Transitional

16. The gastrointestinal tract and gallbladder are locations for which type of epithelium?

A) Simple columnar epithelium
B) Simple squamous epithelium
C) Simple cuboidal epithelium
D) Pseudostratified columnar epithelium

17. Pseudostratified columnar epithelium has nuclei that appear to lie in various layers, but all cells are attached to the:

A) Basal lamina
B) Apical surface
C) Reticular lamina
D) Connective tissue

18. The respiratory tract is a common location for which type of epithelium?

A) Pseudostratified columnar epithelium
B) Stratified squamous epithelium
C) Transitional epithelium
D) Simple columnar epithelium

19. Stratified squamous epithelium consists of how many or more layers of cells?

A) Two
B) One
C) Three
D) Four

20. Keratinized stratified squamous epithelium is found mainly in the:

A) Epidermis of skin
B) Mouth, esophagus, and vagina
C) Urinary bladder
D) Conjunctiva of the eye

21. Nonkeratinized stratified squamous epithelium lines wet cavities such as the:

A) Mouth, esophagus, and vagina
B) Epidermis of skin
C) Kidney tubules
D) Bronchi

22. Stratified cuboidal epithelium is found in the ducts of which glands?

A) Sweat glands
B) Mammary glands
C) Salivary glands
D) Thyroid glands

23. Stratified columnar epithelium is described as rare and present in small areas. Where is it found?

A) Conjunctiva of the eye
B) Urinary bladder
C) Epidermis of skin
D) Gastrointestinal tract