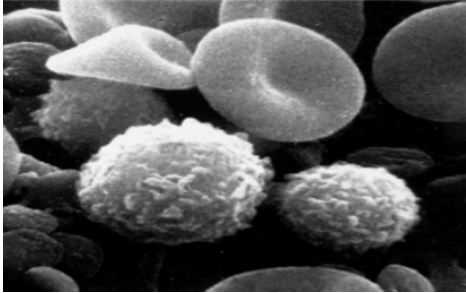




Scientific team

## Histology Quiz

1) The image shown was obtained by :



- a) Transmission electron microscope
- b) Scanning electron microscope
- c) Bright-field light microscope
- d) Fluorescence microscope
- e) Autoradiography

answer: b

2) You are examining a tissue under a bright-field light microscope. The image is slightly unclear. To make the image very clear, you should move:

- a) The eyepiece
- b) The stage to the right
- c) The fine adjustment knob
- d) The revolving nose-piece
- e) The light source

answer: c

3) All are features of the epithelial lining of the small intestine except:

- a) Single layer of cells
- b) Innervated
- c) Avascular
- d) Goblet cells
- e) Ciliated simple columnar

answer: e

4) Fibers in white adipose tissue are formed by:

- a) Plasma cells
- b) Mast cells
- c) White adipocytes
- d) Fibroblasts

answer: d



Scientific team

5)The most apical intercellular junction between two adjacent cells that function in sealing the space between cells is:

- a) Desmosome
- b) Gap junction
- c) Tight Junction
- d) Hemidesmosome

answer: c

6)Which of the following pairs of a cell and its feature is correctly matched?

- a) Goblet cell --- Acidophilic cytoplasm
- b) Plasma cells --- Clock-face appearance of the nucleus
- c) Macrophages --- Synthesizes reticular fibers
- d) Inner ear hair cells --- Possess cilia
- e) Mast cells --- Nucleus is multilobed

answer: b

7)The fibers of the connective tissue that give strength to the tissue are:

- a) Elastic fibers
- b) Reticular fibers
- c) Collagen fibers

8)A connective tissue formed mainly of loosely arranged reticular fibers is called:

- a) Dense collagenous regular connective tissue
- b) Dense elastic tissue
- c) Loose reticular tissue
- d) Loose areolar connective tissue

answer: c

9)Functions of the basement membrane include which of the following?

- a) Modification of secreted proteins
- b) Contractility
- c) Active ion transport
- d) Molecular filtering
- e) Excitability

answer: d



Scientific team

10) Which of the following cellular features is used in naming types of epithelia?

- a) Number of cell layers
- b) Size of the nuclei
- c) Shape of cells in the basal layer
- d) Nature of the cell junctions that are present
- e) Presence of a basal lamina

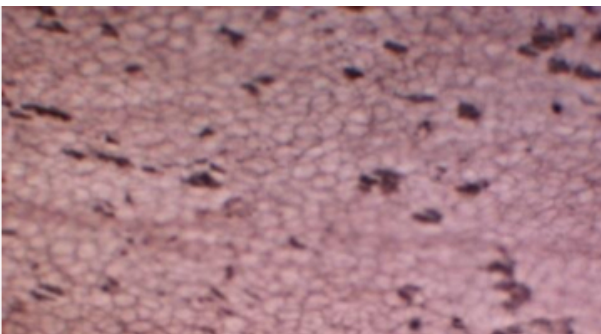
answer: a

11) Using immunohistochemistry a population of cells is shown to be positive for the protein CONNEXIN. From this we can infer that the cells are connected by what type of junction?

- a) Zonula adherens
- b) Hemidesmosomes
- c) Tight (occluding) junctions
- d) Gap junctions
- e) Desmosomes (macula adherens)

answer: d

12) The image shows a top-view of mesothelium. What is the type of epithelium shown?



- a) Simple cuboidal
- b) Simple columnar
- c) Stratified squamous non-keratinized
- d) Simple squamous
- e) Cannot be determined

answer: d



Scientific team

13) In general, light microscopes have a maximum magnification of 1,500x. In electron microscopes, on the other hand, the maximum magnification may reach 1,000,000x. Which of the following is the most important factor in determining the maximum magnification of an optical device?

- a) Maximum magnification of the objective lenses
- b) The clarity of the slide examined
- c) Resolving power
- d) Number of ocular lenses
- e) Number of objective lenses

answer: c

14) Which of the following is not a proper connective tissue?

- a) Cartilage
- B ) Reticular connective tissue
- c) Dense elastic connective tissue
- d) Dense collagenous connective tissue
- d) Areolar connective tissue

answer: a

15) All of the following are simple squamous epithelium except :

- a) Endothelium
- b) Pneumocystis
- c) Urothelium
- d) Mesothelium

answer: c

16) All of the following are related to the epithelial tissue except:

- a) Innervated
- b) Regenerative
- c) Nonpolar cells
- d) Not vascularized

answer: c



Scientific team

17) An individual genetically unable to synthesize normal OCCLUDIN is likely to have epithelia with defective regulation in which of the following?

- a) Material crossing the epithelium between the cells (paracellular movement)
- b) Strong attachment to neighboring cells
- c) Attachment to the basement membrane
- d) Movement of membrane proteins in the apical domains of cells
- e) Communication between the cells

answer: a

18) All have stratified squamous non keratinized epithelial tissue in its lining except:

- a) Epidermis
- b) Vagina
- c) Esophagus
- d) Pharynx

answer: a