Test Bank Histology

Involve :
Tissue preparation
microscopes
epithelium tissue

1. What does the process of embedding involve in tissue preparation?

a) Attaching tissue sections to glass slides
b) Staining tissue sections with dyes
c) Surrounding tissue with a solid medium for support during sectioning
d) Drying tissue sections to remove excess water
E) All of the Above

2. What is the purpose of fixation in tissue preparation?

a) To remove excess water from the tissue
b) To preserve cellular structure and prevent decay
c) To increase tissue flexibility
d) To enhance contrast under the microscope
E) A and B

3. Which of the following best describes a key difference between TEM and SEM?

a) TEM provides 3D images, while SEM provides 2D images.

b) TEM uses electrons to produce images, while SEM uses photons.

c) SEM scans the surface of a specimen, while TEM passes electrons through the specimen.

d) TEM has lower resolution than SEM.

4. What is the primary difference between a light microscope and an electron microscope?

a) Light microscopes use visible light to illuminate specimens, while electron microscopes use electrons.

b) Light microscopes provide higher magnification than electron microscopes.

c) Electron microscopes can visualize living cells, while light microscopes cannot.

d) Light microscopes are cheaper and easier to operate than electron microscopes.

5. What is the defining characteristic of resolving power in microscopy?

a) The ability to distinguish between two closely spaced objects as separate entities.

b) The total magnification achieved by the microscope.

c) The intensity of light used to illuminate the specimen.

d) The speed at which images can be captured and processed.

e) non of the above

6. Which type of cell junction forms a strong, waterproof seal between adjacent epithelial cells?
a) Desmosomes
b) Tight junctions
c) Gap junctions
d) Adherens junctions
e) hemidesmosome

7. Which of the following statements best describes the role of gap junctions in epithelial tissue?
a) They anchor cells to the extracellular matrix.

b) They allow for direct communication and exchange of ions and small molecules between neighboring cells.

c) They provide mechanical strength and stability to tissues.

d) They help to prevent the passage of substances between cells.

8. Where are stereocilia commonly found in the human body?
a) Respiratory organs
b) Uterine tubes
c) Inner ear
d) Skin
E) epididymis only

9. Which of the following best describes the structure of a hemidesmosome?

a) It consists of transmembrane proteins connecting adjacent cells.

b) It is a protein complex that forms a strong, adhesive connection between cells.

c) It is a half-desmosome that anchors epithelial cells to the basal lamina.

d) It is a type of gap junction that allows for direct communication between neighboring cells.

10. Which of the following best describes the structure of microvilli?

a) Long, hair-like projections with a central core of microtubules

b) Short, finger-like protrusions containing actin filaments

c) Whiplike structures with a 9 + 2 arrangement of microtubules

d) Cylindrical extensions with a doublet arrangement of microtubules

11. Simple squamous epithelium is best suited for:
a) Absorption
b) Filtration
c) Protection
d) Movement

12. Which of the following epithelial types is found lining the stomach and intestines?
a) Simple squamous epithelium
b) Simple cuboidal epithelium
c) Simple columnar epithelium
d) Stratified squamous epithelium

13. The lining of blood vessels is composed of which type of epithelium?
a) Simple squamous epithelium
b) Simple cuboidal epithelium
c) Simple columnar epithelium
d) Stratified squamous epithelium

14. Which epithelial tissue type lines the urinary bladder?
a) Transitional epithelium
b) Stratified squamous epithelium
c) Simple cuboidal epithelium
d) Pseudostratified columnar epithelium

15. What is the main diference between autocrine and paracrine signaling?

a) Autocrine signaling affects nearby cells, while paracrine signaling affects the same cell.

b) Autocrine signaling affects multiple cells, while paracrine signaling affects a single cell.

c) Autocrine signaling involves long-distance communication, while paracrine signaling is local.

d) Autocrine signaling occurs within the same cell, while paracrine signaling affects nearby cells.

16. Which of the following mismatch :
A) Serous>>>>>Notglycosated
B) Seromucous>>>>> salivary glands
C) mucous >>>>> Glycoprotein
D) Serous>>>>> parotid glands
E) Non of the above

17. What mode of exocrine secretion involves the release of hormones directly into the bloodstream?
a) Merocrine
b) Apocrine
c) Holocrine
d) Endocrine

18. Which mode of exocrine secretion is characterized by the pinching off of the apical portion of the cell containing secretory products?
a) Merocrine
b) Apocrine
c) Holocrine
d) Endocrine

19. Which of the following glands has a Compound tubuloacinar structure?
a) Salivary gland
b) Sebaceous gland
c) Gastric gland
d) Sweat gland

20. Compound acinar glands are commonly found in:
a) The liver
b) The pancreas
c) The thyroid gland
d) The adrenal gland

21. Branched tubular glands are commonly found in which organ?
a) Liver
b) Pancreas
c) Kidneys
d) Stomach

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

Done by : Mahmoud Hasan