

General Histology Midterm Test

For Premed Year 2018/2019

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1- 1cm is equal to:

a- 100mm.

b- $10^5 \mu\text{m}$.

c- 10^7 nm .

d- $10^3 \mu\text{m}$.

e- 10^9 nm .

2-Which of the following statements is true about myoepithelia?

a-They rest on basement membrane.

b-They contain a huge amount of ER.

c-They have no processes.

d-It is considered a part of the connective tissue.

3-An apical modification that can't be individually resolved under LM:

a-Stereocilia.

b-Microvilli.

c-Cilia.

d-Goblet cells.

4-Which of the following is true about transitional epithelium?

- a-It can be stratified or simple.
- b-They all look like flattened cells.
- c-It is found in the urinary system only.
- d-All cells are in contact with basal lamina.

5-How to calculate the total magnification of a light microscope?

- a-By multiplying the magnifying power of the ocular and objective lenses.
- b- By dividing the magnifying power of the ocular and objective lenses.
- c- By multiplying the resolving power of the ocular and objective lenses.
- d- By multiplying the magnifying power of the ocular lens by 10.
- e- By summing the resolving power of the ocular and objective lenses.

6-Which of the following structures contain connexin subunits?

- a-Zonula occludens.
- b-Macula adherens.
- c-Zonula adherens.
- d-Desmosomes.
- e-Gap junction.

7-An apical modification that is motile and has 9+2 axoneme core:

- a-Stereocilia.
- b-Centriole.
- c-Microvilli.
- d-Cilia.

8-You did a surgery and after it has finished you need a quick decision to make sure that there's no tumour at the borders of surgery site, which of the following would you order?

- a-Scanning electron microscopy.**
- b-Routine light microscopy.**
- c-Transmission electron microscopy.**
- d-Freezing technique.**
- e-Phase contrast microscopy.**

9-What is the shape of nucleus in simple cuboidal epithelium?

- a-Elongated.**
- b-Circular.**
- c-Flattened.**
- d-Ovoid.**
- e-Any of the above.**

10-Which epithelium lines the duct that is closest (nearest) to secretory units?

- a-Simple columnar.**
- b-Stratified squamous.**
- c-Simple cuboidal.**
- d-Stratified columnar.**
- e-Stratified cuboidal.**

11-Which structure is targeted by *Helicobacter pylori*?

- a-ZO-1 of zonula occludens.**

b-Laminin V of basal lamina.

c-Desmogleins of desmosomes.

d-Cadherins.

12-Which of the following is true about hemidesmosomes?

a-They are not associated with integrins.

b-Cytoplasmic plaque is attached to actin filaments.

c-They are only found in the basal side of the cell.

d-Mediates attachment to reticular lamina.

13-Which of the following structures function in influencing cell polarity?

a-Reticular lamina.

b-Basal lamina.

c-Cytoplasm.

d-Cilia and Microvilli.

14-What is the major component of lamina densa?

a-Collagen VII.

b-Laminin.

c-Collagen III.

d-Integrins.

e- Collagen IV.

15-Where is endothelium found?

a-Lining blood vessels.

b-Covering the external body.

c-In lungs.

d-Covering large cavities.

16-Which of these gland's secretion mode is apocrine?

- a-All sweat glands.
- b-Goblet cells.
- c-Mammary glands.
- d-Salivary glands.
- e-Pancreas.

17-Which of these glands is mixed (seromucous)?

- a-Parotid gland.
- b-Pancreas.
- c-Goblet cells.
- d-Submandibular salivary gland.

18-Which of the following glands is an example of simple branched acinar?

- a-Sebaceous glands.
- b-Pancreas.
- c-Salivary glands.
- d-sweat glands.

19-Which of these is found most apically in TEM?

- a-Gap junction.
- b-Zonula occludens.
- c-Zonula adherens.
- d-Desmosomes.

20-Where are the non-classical cadherins found?

- a-Zonula occludens.
- b-Gap junction.
- c-Zonula adherens.
- d-Tight junction.
- e-Macula adherens.

21-Which of the following is true about the basement membrane?

- a-It is a real membrane lying under the epithelium.
- b-Usually formed by the fusion of basal lamina and reticular lamina.
- c-It is equivalent to basal lamina.
- d-In skin, they're made of secretions of epithelia.

22-Which one of these organelles makes the cytoplasm acidophilic?

- a-ER.
- b-Golgi.
- c-Ribosomes.
- d-Nucleus.
- e-Mitochondria.

23-What is the process name of replacing the dehydrating fluid with one that is totally miscible with both the dehydrating fluid and embedding medium?

- a-Clearing.
- b-Embedding.
- c-Impregnation.
- d-Fixation.

24-What makes the nucleus stain blue when using H&E?

- a-Presence of negatively charged nucleic acids in the nucleus.
- b-Presence of positively charged proteins.
- c-Presence of negatively charged proteins which are acidophilic.
- d-Presence of negatively charged structures which attract eosin.

25- Which stain is most used in routine light microscopy?

- a-PAS stain.
- b-Orcein.
- c-Masson's trichrome.
- d-H&E.
- e-Silver stain.

26-What provides controlled communication between nucleus and cytoplasm?

- a-Outer membrane.
- b-Inner membrane.
- c-Nuclear pores.
- d-Perinuclear space.
- e-Chromatin.

27-Which fixative is most commonly used in electron microscopy?

- a-Glutaraldehyde.
- b-Xylene.
- c-Alcohol.
- d-Formalin.

28-Which of the following is true about heterochromatin?

- a-Abundant in active cells.
- b-Appears dark dense under EM.
- c-Cannot be distinguished under LM.
- d-Pale and loose form of chromatin.

29-Which of the following appears under EM as uniformly granular dense structure?

- a-Secondary lysosomes.
- b-Centrioles.
- c-Primary lysosomes.
- d-Nucleus.

30- In which of these cells the nucleus is eccentric and clock-face?

- a-Fibroblast.
- b-Mast cell.
- c-Plasma cell.
- d-Monocyte.
- e-Neutrophils.

31-Which of the following is responsible for the immediate hypersensitivity reaction?

- a-Mast cell.
- b-Macrophage.
- c-Plasma cells.
- d- Monocytes.

32-If you want to make a research about intracellular lipid metabolism, which organelle would you choose?

a-rER.

b-Golgi.

c-Mitochondria.

d-sER.

33-What produces a negative image in H&E stain?

a-Nucleus.

b-sER.

c-Ribosomes.

d-Golgi.

34-Which of the following is a fixed cell in the connective tissue?

a-Adipocytes.

b-Plasma cells.

c-Monocytes.

d-Neutrophils.

e-Macrophages.

35-Which of the following is true about epithelium?

a-Can be derived from ectoderm and endoderm only.

b-It is highly polarized.

c-It is highly vascular.

d-Contains much intercellular material.

36-Where is non-keratinized stratified squamous epithelium found?

a-Skin.

b-Lungs.

c-Oral cavity.

d-Intestine.

37-The name of stratified epithelium depends on:

a-Size of the apical layer.

b-Stain of the basal layer.

c-Shape of the basal layer cells.

d-Size of the apical layer.

e-Shape of the apical layer cells.

38-Which of the following is true about goblet cells?

a-They secrete mucous and serous.

b-They are found in the respiratory tract.

c-They are not polarized.

d-They use the apocrine mode of secretion.

e-They have no well-developed golgi.

39-What macrophages are found in the liver?

a-Dust cells.

b-Dendritic cells.

c-osteoclasts.

d-Langerhans cells.

e-Kupffer cells.

40-Which of the following statements describes inactive fibroblast (fibrocyte)?

a-Has few processes.

b-Has euchromatin and a prominent nucleolus.

c-Has prominent golgi.

d-Has a prominent rER.

ANSWER KEY

1	c	21	b
2	a	22	e
3	b	23	a
4	c	24	a
5	a	25	d
6	e	26	c
7	d	27	a
8	d	28	b
9	b	29	c
10	c	30	c
11	a	31	a
12	c	32	d
13	b	33	d
14	e	34	a
15	a	35	b
16	c	36	c
17	d	37	e
18	a	38	b
19	b	39	e
20	e	40	a

GOOD LUCK