



## **Histology Self-Assessment Examination**

### **Second Year Medical Students**

Time allowed: 2 hour

#### **• Section A (20 Marks)**

##### **Choose The Most Correct Answer:**

**1) Both thin and thick skins contain the following EXCEPT:**

- a) Stratum lucidum.
- b) Stratum corneum.
- c) Pain & touch receptors.
- d) Keratinocytes.
- e) Sweet glands.

**2) Which one is true about stratum lucidum:**

- a) Always present in thin skin.
- b) Appear as a translucent layer.
- c) Basophilic in staining.
- d) Contains Langerhan's cells.
- e) Show frequent mitosis.

**3) Each of the following statements concerning the olfactory epithelium is true EXCEPT:**

- a) The secretion of Bowman's glands is serous.
- b) Sustentacular cells contact olfactory cells.
- c) Olfactory have long motile cilia.
- d) Basal cells rest on a basement membrane.
- e) Axons project from the olfactory epithelium into the CNS.

**4) The following statements about the alveolar epithelium is true EXCEPT:**

- a) Type I & II cells are joined by junctional complexes.
- b) The epithelium rests on a well-developed basement membrane.
- c) Alveolar epithelial cells are closely associated with capillary endothelium.
- d) Goblet cells are present in alveoli.
- e) Type II cells contain multi lamellar bodies.

**5) Bronchi of the lung contain the following EXCEPT:**

- a) Goblet cells.
- b) Clara cells.
- c) Cartilage plates.
- d) Numerous ciliated cells.
- e) Small granule cells.

**6) The respiratory epithelium is:**

- a) Pseudostratified columnar ciliated with goblet cells.
- b) Pseudostratified columnar ciliated.
- c) Simple cubical epithelium.
- d) Simple columnar ciliated.
- e) Simple columnar ciliated partly ciliated.

**7) All the following is true about goblet cells EXCEPT:**

- a) They are present in the nasal sinuses.
- b) Their nuclei are always basal.
- c) They secrete mucous droplets.
- d) They are abundant in the trachea.
- e) They are present in respiratory bronchioles.

**8) Each the following about type II alveolar cells is true EXCEPT:**

- a) Secrete lung surfactant.
- b) Contain multi-lamellar bodies.
- c) Secrete substances rich in phospholipids.
- d) Participate in the blood-air barrier.
- e) Show microvilli.

**9) Each of the following statements concerning the teeth is true EXCEPT:**

- a) The dentin is softer than enamel.
- b) The pulp contains blood vessels and nerve fibers.
- c) Ameloblasts secrete the dentin.
- d) The enamel is the hardest structure in the body.
- e) The enamel is ectodermal in origin.

**10) Each of the following about the parotid gland is true EXCEPT:**

- a) Predominantly composed of serous acini.
- b) It has well developed duct system.
- c) It produces about 35% of all salivary secretions.
- d) It has a well-developed capsule.
- e) Its secretions contain lysozymes.

**11) Which one is true about the digestion of lipids:**

- a) Digestion occurs mainly in the ileum.
- b) Its digestion is mediated mainly by pancreatic lipase and bile.
- c) The hydrolyzed lipids actively cross the intestinal membranes.
- d) Protease promotes the hydrolysis of lipids.
- e) Chylomicrons are transferred to the ribosomes.

**12) The following statements about the stomach is true EXCEPT:**

- a) Mucous neck cells are present in the upper parts of gastric glands.
- b) Parietal cells secrete hydrochloric acid.
- c) The pyloric musculosa is similar to that of the fundus.
- d) Chief cells secrete pepsinogen.
- e) The adventitia is coated with a mesothelium.

**13) The following is true about the small intestines EXCEPT:**

- a) Jejunal villi are longer than those of duodenum and ileum.
- b) The ileum does not contain Brunner's glands.
- c) Brunner's glands are present in the jejunum.
- d) Peyer's patches are most prominent in the ileum.
- e) The musculosa of the duodenum has two layers.

**14) Hepatocytes are characterized by:**

- a) Contain few mitochondria.
- b) Surrounded by Bowman's membrane.
- c) Show cilia in the space of Disse.
- d) One or two pale vesicular nuclei.
- e) Absence of glycogen.

**15) The adenohypophysis develops from:**

- a) Rathke's pouch.
- b) Hypothalamus.
- c) Third ventricle.
- d) Endoderm.
- e) Diencephalon.

**16) The hypophyseal portal system is formed by:**

- a) Dorsal and ventral hypophyseal arteries.
- b) Anterior and posterior hypophyseal arteries.
- c) Superior hypophyseal arteries.
- d) Right and left inferior hypothalamic arteries.
- e) Right and left hypothalamic veins.

**17) Prolactin hormone is secreted by:**

- a) Pituitary acidophils (Alpha).
- b) Pituitary basophils (Beta).
- c) Pituitary chromophobes.
- d) Pars intermedia.
- e) Pituicytes.

**18) Which one of the following is true about the pineal gland:**

- a) Disappears gradually after puberty.
- b) Covered with pia matter.
- c) Secretes melanin.
- d) Also called hypophysis.
- e) Have no microglia.

**19) Which one of the following is true about the adrenal cortex:**

- a) It is ectodermal in origin.
- b) It is endodermal in origin.
- c) It secretes ACTH.
- d) It is stimulated by TSH.
- e) None of the above.

**20) Zona glomerulosa of the adrenal gland:**

- a) Represents the middle layer of the cortex.
- b) Represents the deeper layer of the cortex.
- c) Secretes sex hormones.
- d) Secretes aldosterone.
- e) Secretes glucocorticoids.

**21) Renal glomeruli are found in:**

- a) Cortex.
- b) Medulla.
- c) Calyces.
- d) Pelvis.
- e) Papillae.

**22) The main function of the glomerulus is:**

- a) Filtration of blood into the urinary space.
- b) Reabsorption of amino acids.
- c) Reduction of tubular fluids.
- d) Passive reabsorption of water.
- e) Regulation of blood pressure.

**23) The lumen of glomerular capillaries is lined by:**

- a) Mesangial cells.
- b) Podocytes foot processes.
- c) Juxtaglomerular cells.
- d) Continuous endothelium.
- e) Fenestrated endothelium.

**24) The macula densa cells are located in:**

- a) Proximal convoluted tubules.
- b) Distal convoluted tubules.
- c) Afferent artery.
- d) Collecting ducts.
- e) Loop of Henle.

**25) Fallopian tubes are lined with:**

- a) Simple columnar ciliated epithelium.
- b) Pseudo stratified columnar epithelium.
- c) Simple columnar epithelium partly ciliated.
- d) Simple columnar ciliated epithelium with stereo cilia.
- e) Simple columnar ciliated epithelium with goblet cells.

**26) Mucosa of the uterus may run through the following phases EXCEPT:**

- a) Secretory phase.
- b) Proliferative phase.
- c) Luteal phase.
- d) Ovulation phase.
- e) Menstrual phase.

**27) Fertilization usually occurs in:**

- a) The lateral third of the Fallopian tubes.
- b) The middle of the Fallopian tubes.
- c) The medial third of the Fallopian tubes.
- d) Fundus of the uterus.
- e) Body of the uterus.

**28) The vagina has the following layers EXCEPT:**

- a) Mucosa.
- b) Muscularis mucosa.
- c) Circular smooth muscles.
- d) Longitudinal smooth muscles.
- e) Adventitia.

**29) Active mammary glands have the following cells EXCEPT:**

- a) Connective tissue cells.
- b) Myoepithelial cells.
- c) Alveolar cuboidal cells.
- d) Epithelial duct cells.
- e) Goblet cells.

**30) The cornea contains the following layers EXCEPT:**

- a) Stratified squamous epithelium.
- b) Connective tissue stroma.
- c) Bruch membrane.
- d) Descemet's membrane.
- e) Simple squamous endothelium.

**31) The human retina has approximately:**

- a) 3 million cones.
- b) 6 million cones.
- c) 100 million rods.
- d) 140 million rods.
- e) 150 million rods.

**32) Starting from the ear drum, the three ossicles are arranged as follows:**

- a) Incus - malleus – stapes.
- b) Incus – stapes – malleus.
- c) Malleus – incus – stapes.
- d) Stapes – incus – malleus.
- e) Stapes – malleus – incus.

**33) The organ of Corti contains the following cells EXCEPT:**

- a) Outer hair cells.
- b) Neuro-endocrine cells.
- c) Inner hair cells.
- d) Outer phalangeal cells.
- e) Inner phalangeal cells.

**34) Which statement is true about scala tympani:**

- a) Found in the middle ear.
- b) Found below the organ of Corti.
- c) Found above the organ of Corti.
- d) Contains the organ of Corti.
- e) Contains macula sacculi.

**35) The thickest layer in the wall of the vas deferens is:**

- a) Mucosa.
- b) Muscularis mucosa.
- c) Submucosa.
- d) Musculosa.
- e) Adventitia.

**36) Testosterone is secreted by:**

- a) Primary spermatocyte.
- b) Secondary spermatocyte.
- c) Sertoli cell.
- d) Interstitial cell of Leydig.
- e) Spermatogonia.

**37) The largest spermatogenic cells are:**

- a) Primary spermatocyte.
- b) Secondary spermatocyte.
- c) Type-A spermatogonia.
- d) Type-B spermatogonia.
- e) Spermatid.

**38) The cerebral cortex is composed of the following layers EXCEPT:**

- a) Molecular layer.
- b) External granular layer.
- c) Internal satellite layer.
- d) External pyramidal layer.
- e) Internal granular layer.

**39) The molecular layer of the cerebral cortex is composed of:**

- a) Neuroglial cells.
- b) Small pyramidal cells.
- c) Association fibers.
- d) Purkinje neurons.
- e) Basket cells.

**40) Section in the spinal cord at cervical level is characterized by:**

- a) Rounded outline.
- b) The central canal is more posterior.
- c) Small amount of white matter.
- d) Thin and diverging posterior horns.
- e) Presence of lateral horns.



• **Section B: (8 Marks)**

**Give Reason For The Following Facts:**

- a) The number of goblet cells gradually decreases along the respiratory passages downwards.
  - b) The mucosa of the stomach is not affected by gastric acidity.
  - c) The marked basophilia of the pancreatic acini.
  - d) Presence of hypophyseal portal circulation in the pituitary gland.
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• **Section C: (8 Marks)**

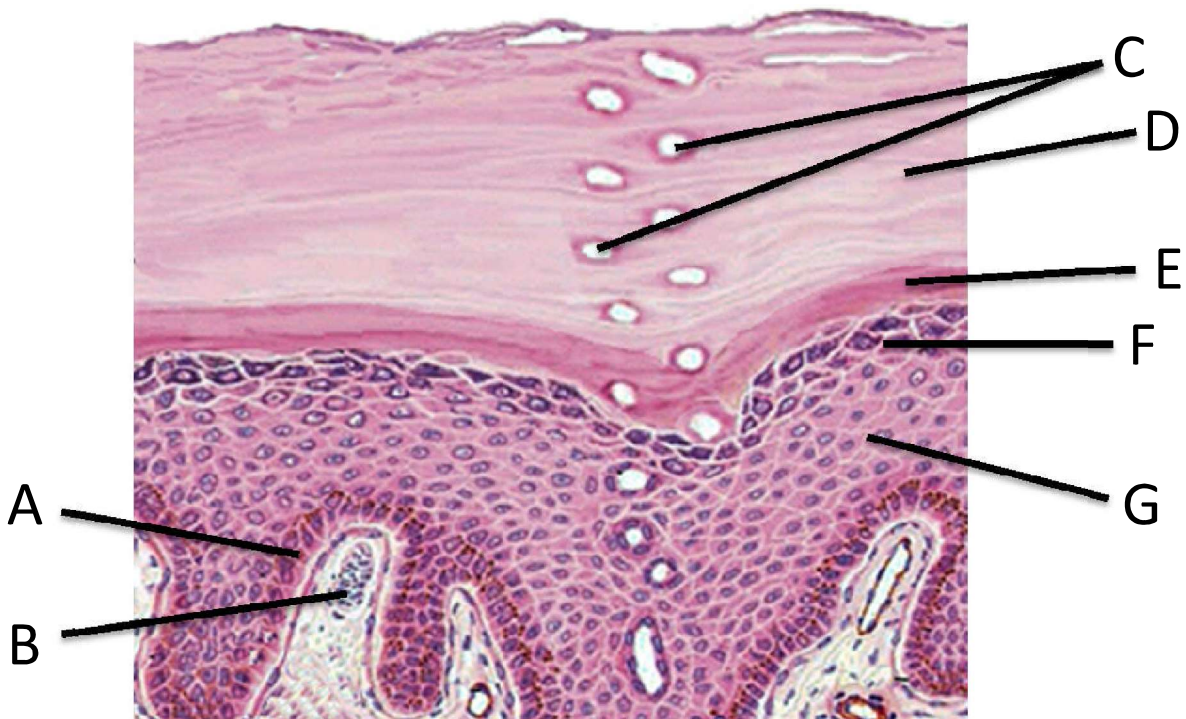
Answer the following, **BY USING TABLES:**

- a) Compare between the trachea and the intrapulmonary bronchus.
- b) Compare between the esophagus and vagina.

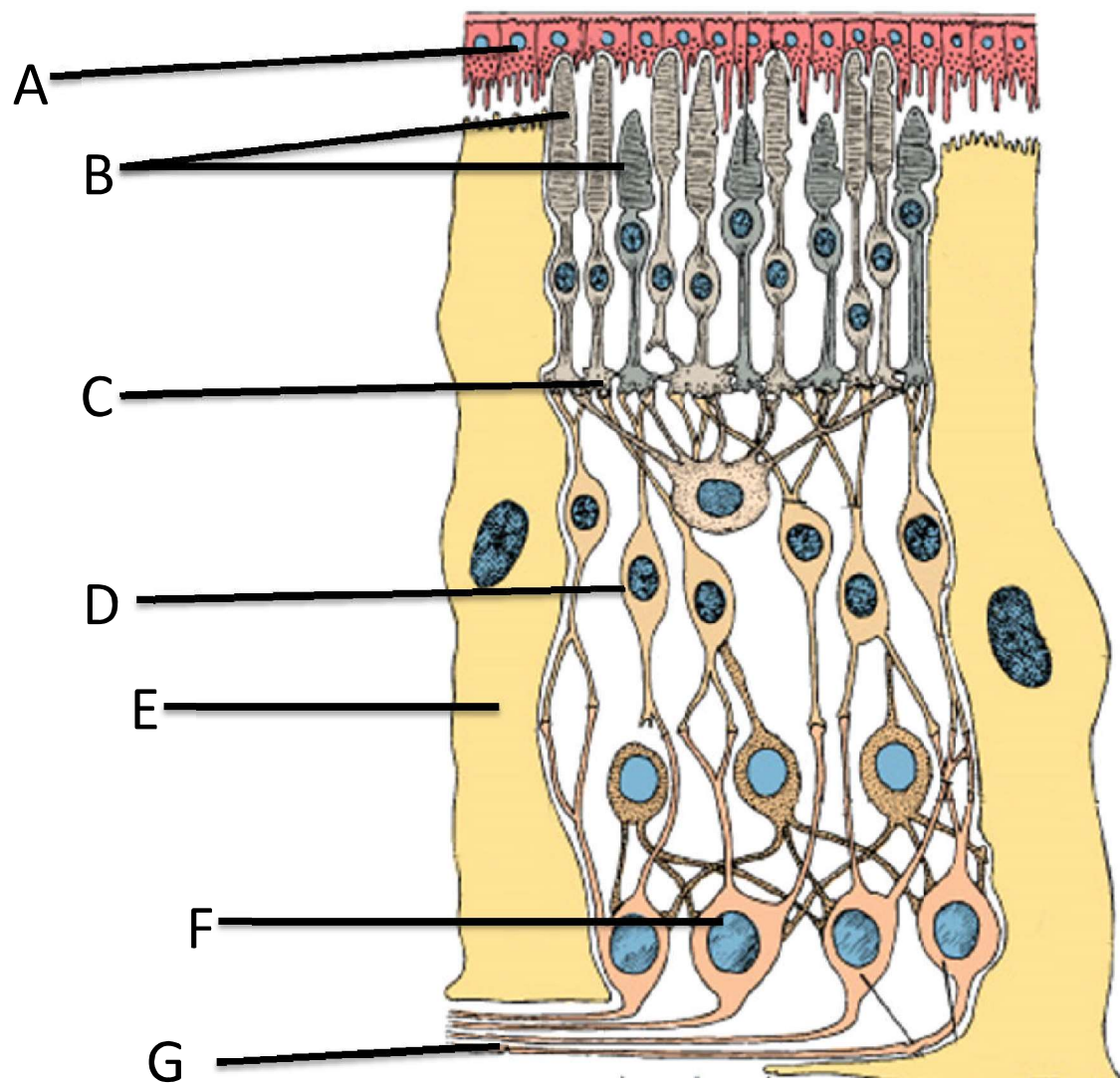
- **Section D: (4 Marks)**

**Write down the missing labels**

**Diagram A:**



**Diagram B:**



## MCQ Answer Sheet

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

Good Luck

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