

Examination for: Second year medical students
Course Title: Histology and Cell Biology
Date: 30/5/2018 (Final Exam)
Time Allowed: Three hours
Total Assessment Marks: 75 marks
(25 for short questions, 30 long questions, 10 drawings, 10 MCQ,)
This exam consists of 3pages (1-3).



Answer all of the following questions

Q1- Compare between: (11 marks)

- A. Extrapulmonary & Intrapulmonary bronchi. (2 marks)
- B. Primary multilaminar follicle and secondary ovarian follicle. (2 marks)
- C. Proximal and distal convoluted tubules. (2 marks)
- D. Parotid and pancreas (Five differences). (5 marks)

Q2- Draw only: (10 marks)

- A. Labeled colored diagram of organ of corti. (3 marks)
- B. Labeled colored diagram of Gastro-esophageal junction. (4 marks)
- C. Lactating mammary gland. (3 marks)

Q3- Enumerate: (6 marks)

- A. The three layers of cerebellar cortex. (1.5marks)
- B. Mention the three parts of Juxtaglomerular apparatus. (1.5 marks)
- C. Cytoplasmic organelles of hepatocytes. (1.5 marks)
- D. The components of blood brain barriers. (1.5 marks)

Q4- Give the scientific name for the following statements:(3 marks,0.5 each)

- A. Calcified matrix in pineal gland.
- B. Dome shaped cells lowers surface tension of terminal bronchioles.
- C. Minute areas of basal lamina between implanted ends of minor processes of podocytes.
- D. Endocrine cells arranged in cords with central nuclei, their cytoplasm is rich in smooth endoplasmic reticulum, mitochondria and lipid droplets.
- D. A homogenous thick layer of collagenous fibrils act as protective corneal barrier.

E. Branching stellate cells embrace the acini and ducts located between the basal lamina and the base of secretory cells.

- Q5-Describe APUD cells as regards their (origin- stain- sites- structure- function). (5 marks)
- Q6- Give an account on the process of spermatogenesis. (10 marks)
- Q7- Describe the histological structure of retina. (10 marks)
- Q8- Mention the cyclic changes of endometrium and cervix. (10 marks)
- Q9- Choose the best correct answer (10 marks)

- 1- Where are Hofbauer's cells present in?
a. Chorionic villi.
b. Jejunal villi.
c. Duodenal villi.
d. Arachnoid villi.
- 2- What is the lining epithelium of the seminal vesicle?
a. Simple columnar.
b. Pseudostratified columnar.
c. Stratified columnar.
d. Stratified squamous.
- 3- Which one of the following cells is stimulated by LH to secrete testosterone?
a. Leydig cell.
b. Sertoli cell.
c. Spermatid.
d. Spermatogonia.
- 4- A histologist while examining a slide for small intestine, he observed tall columnar cells with basal oval nuclei and apical acidophilic thick brush border. What is the name of this cell?
a. Absorptive columnar cells.
b. Goblet cells.
c. Enteroendocrine cells.
d. M cell.
- 5- Which one of the following organs lacks glands?
a. Vagina.
b. Cervix of uterus.
c. Endometrium.
d. Fundus of the stomach.

6- Which one of the following statement is true as regards Vermiform Appendix?

- a. Lumen is wide and irregular.
- b. Crypts are regular and long.
- c. Muscularis mucosa is thick and prominent.
- d. Submucosa contains prominent accumulation of lymphatic follicles.

7- The sensory organ present in the semicircular canal of inner ear is which one of the following?

- a. Macula utriculi.
- b. Macula sacculi.
- c. Crista ampullaris.
- d. Organ of Corti.

8- What is the source of all hormones of the placenta?

- a. Cytotrophoblast.
- b. Syncytiotrophoblast.
- c. Hofbauer cell.
- d. CT mesoderm.

9- What is the lining epithelium of the inner side of tympanic membrane?

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

10- Leptomeninges include which one of the following layers?

- a. Pia and arachnoid maters.
- b. Dura and pia maters.
- c. Dura and arachnoid maters.
- d. Arachnoid only.

GOOD LUCK