

Histology Evaluation Examination

Second Year Medical Students – 15 April 2015

جميع الأحوبة في ورقة الإجابة

Time allowed: 2 hours

Section A: (15 Marks)

Choose The Most Correct Answer:

1) *The skin cells that provide surface immunity are:*

- a) Adipocytes
- b) Keratinocytes
- c) Langerhan's cells
- d) Melanocytes
- e) Kupffer cells

2) *Sebaceous glands are usually associated with:*

- a) Hair follicles
- b) Keratinocytes
- c) Melanocytes
- d) Nails
- e) Sweat glands

3) *Which pigment provides dark color in the skin:*

- a) Carotene
- b) Hemoglobin
- c) Melanin
- d) Myoglobin
- e) Bilirubin

4) *All the following about the olfactory epithelium is true EXCEPT:*

- a) Bowman's glands are present underneath.
- b) Olfactory cells are supported by sustentacular cells.
- c) The neuro-epithelium have olfactory vesicles
- d) Basal cells rest on Descement's membrane
- e) Sustentacular cells have microvilli.

5) *All the following about the alveolar epithelium is true EXCEPT:*

- a) Type II cells are more abundant.
- b) Type I and type II cells are joined by junctional complexes.
- c) The epithelium rests on a well-developed basement membrane.
- d) Alveolar epithelial cells are closely associated with capillary endothelium.
- e) Type II cells secrete lung surfactant.

6) *Which of the following is TRUE about bronchi of the lung:*

- a) They contain few goblet cells
- b) The mucosa contain brush cells
- c) Have well-developed smooth muscles
- d) Have a continuous cartilaginous layer
- e) They have no small granule cells

7) *The inner side of the lip is lined by:*

- a) Keratinized stratified squamous epithelium
- b) Non-keratinized stratified squamous epithelium
- c) Simple columnar epithelium
- d) Stratified columnar squamous epithelium
- e) Simple squamous epithelium

8) *Which of the following represents the exocrine pancreas:*

- a) Islets of Langerhans
- b) Alpha cells
- c) Acini
- d) Beta cells
- e) Delta cells

9) What structure is in the middle of the hepatic lobule?

- a) Portal triad
- b) Central vein
- c) Portal vein
- d) Hepatic artery
- e) Sinusoids

10) The fundic gland contains:

- a) Somatotrophic cells.
- b) Principle cells.
- c) Oxyphil cells.
- d) Paneth cells.
- e) Oxyntic cells.

11) Auerbach's plexus is present in:

- a) Mucosa.
- b) Muscularis mucosa.
- c) Submucosa.
- d) Between the inner and outer muscle layers.
- e) The adventitia.

12) Cells of the small intestine include the following EXCEPT:

- a) Absorptive cells.
- b) Goblet cells.
- c) Paneth's cells.
- d) M (Microfold) cells.
- e) Kupffer cells.

13) The pectinate line is found in:

- a) Duodenal mucosa.
- b) Rectal mucosa.
- c) Anal mucosa.
- d) Esophageal mucosa.
- e) Gastric fundus.

14) Spongiocytes are present in:

- a) Zona glomerulosa.
- b) Zona fasciculata.
- c) Zona reticularis.
- d) Pars distalis
- e) Pars nervosa.

15) Calcitonin is secreted by:

- a) Follicular cells.
- b) Parafollicular cells.
- c) Chief cells.
- d) Oxyphil cells.
- e) Osteocytes.

16) Oxytocin is synthesized by:

- a) Pars nervosa.
- b) Pars distalis.
- c) Pars intermedia.
- d) Supraoptic nucleus.
- e) Paraventricular nucleus.

17) The longest part of Henle loop is located in:

- a) Renal cortex.
- b) Renal medulla.
- c) Renal calyx.
- d) Renal pelvis.
- e) Renal papillae.

18) The capsule of the kidney consists of:

- a) Transitional epithelium.
- b) Dense fibrous connective tissue.
- c) Loose connective tissue.
- d) Adipose connective tissue.
- e) Endothelium.

19) The main function of the juxtaglomerular apparatus is:

- a) Filtration of blood from capillaries into the urinary space.
- b) Active reabsorption of nutrients into the blood.
- c) Reabsorption of water.
- d) Secretion of angiotensinogen.
- e) Regulation of blood pressure.

20) The diameter of a seminiferous tubule is:

- a) 50-90 um
- b) 80-110 um
- c) 150-250 um
- d) 270-290 um
- e) 300-350 um

21) Spermatogenesis occurs in the following order:

- a) Spermatocytogenesis - meiosis - spermiogenesis
- b) Meiosis - spermatocytogenesis - spermiogenesis
- c) Spermiogenesis - spermatocytogenesis - meiosis
- d) Spermiogenesis - mitosis - spermatocytogenesis
- e) Spermatocytogenesis - spermiogenesis - meiosis

22) Which step occurs first during spermiogenesis

- a) Acrosomal Phase
- b) Golgi Phase
- c) Maturation Phase
- d) Sertoli phase
- e) Endocrine phase

23) 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.

24) The vagina has the following features EXCEPT:

- a) Mucosa contain glycogen.
- b) Has longitudinal folds.
- c) Circular smooth muscles.
- d) Longitudinal smooth muscles.
- e) Adventitia.

25) Active mammary glands have the following cells EXCEPT:

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

26) The human retina has approximately:

- a) 1 million cones.
- b) 2 million cones.
- c) 4 million cons.
- d) 120 million rods.
- e) 150 million rods.

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

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

28) The organ of Corti contains the following cells EXCEPT:

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

29) Which of the following is TRUE about the cerebrospinal fluid:

- a) It is a turbid fluid.
- b) Absorbed by the arachnoid villi.
- c) Rich in protein content.
- d) Contains many desquamated and blood cells.
- e) It passes in-between the neurons of the brain.

30) The pia mater has the following features EXCEPT:

- a) Composed of loose connective tissue.
- b) Rich in blood vessels.
- c) Continuous with the periosteum of the skull
- d) Does not contact nerve cells.
- e) Supply the CNS with blood vessels.

• **Section B: (10 Marks)**

Give Reason For The Following Facts:

- 1) The inactive thyroid follicles contain more colloid than the active follicles.
 - 2) The number of goblet cells gradually decreases along the respiratory passages downwards.
 - 3) The sublingual salivary gland has more myo-epithelial cells than the parotid gland.
 - 4) The fovea of the retina contains cones only and has less number of layers, if compared to other parts of the retina.
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• **Section C: (15 Marks)**

Write short notes about the following, demonstrating with diagrams when possible:

- 1) Skin receptors, types, structure and function.
- 2) Hepatic lobule, hepatic acinus and portal lobule.
- 3) Structure of the nephron.
- 4) Enumerate steps of spermatogenesis.
- 5) Compare different levels of the spinal cord.

MCQ Answer Sheet

1	a	b	c	d	e	16	a	b	c	d	e
2	a	b	c	d	e	17	a	b	c	d	e
3	a	b	c	d	e	18	a	b	c	d	e
4	a	b	c	d	e	19	a	b	c	d	e
5	a	b	c	d	e	20	a	b	c	d	e
6	a	b	c	d	e	21	a	b	c	d	e
7	a	b	c	d	e	22	a	b	c	d	e
8	a	b	c	d	e	23	a	b	c	d	e
9	a	b	c	d	e	24	a	b	c	d	e
10	a	b	c	d	e	25	a	b	c	d	e
11	a	b	c	d	e	26	a	b	c	d	e
12	a	b	c	d	e	27	a	b	c	d	e
13	a	b	c	d	e	28	a	b	c	d	e
14	a	b	c	d	e	29	a	b	c	d	e
15	a	b	c	d	e	30	a	b	c	d	e

Good Luck

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