QUIZ Time

Histology 25

done by:layan almuhaisen

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Histology 25

Digestive System (Histology)

1. Which of the following correctly matches the structure with its secretory content?
A. Chief cells – Hydrochloric acid
B. Parietal cells – Pepsinogen
C. Paneth cells – Lysozyme
D. Goblet cells – Digestive enzymes
Answer: C

2. What histological feature is unique to the duodenum among small intestinal sections?
A. Peyer's patches
B. Long villi
C. Brunner's glands
D. Absence of goblet cells
Answer: C

3. The striated ducts found in salivary glands are lined by:
A. Simple cuboidal epithelium
B. Stratified squamous epithelium
C. Simple columnar ion-transporting cells
D. Pseudostratified columnar epithelium
Answer: C

4. The presence of taenia coli is a distinguishing feature of the:
A. Duodenum
B. Appendix
C. Colon
D. Rectum
Answer: C

5. Which part of the alimentary canal has both smooth and striated muscles in its musculosa?
A. Upper esophagus
B. Middle esophagus
C. Lower esophagus
D. Stomach
Answer: B

Histology 25

6. If a section of the intestine shows broad leaf-like villi and an absence of both Peyer's patches and Brunner's glands, it is most likely:
A. Duodenum
B. Jejunum
C. Ileum
D. Appendix
Answer: B

7. Which of the following would best help distinguish a serous acinus from a mucous tubule in histological slides?
A. Size of lumen
B. Presence of myoepithelial cells
C. Acidophilic cytoplasm
D. Reticular network presence
Answer: C

8. Which gland has no striated ducts, helping differentiate it from the parotid gland?
A. Submandibular
B. Sublingual
C. Pancreas
D. Parotid
Answer: C

9. The gall bladder is histologically unique because it:
A. Has muscularis mucosa
B. Contains goblet cells
C. Has no glands in mucosa
D. Contains Brunner's glands
Answer: C

10. Which cell type regulates intestinal secretion via hormonal signaling?
A. Goblet cells
B. Enteroendocrine cells
C. Paneth cells
D. Absorptive cells
Answer: B

11. The absence of taenia coli and the presence of abundant lymphoid follicles most likely indicate the:
A. Colon
B. Duodenum
C. Appendix
D. Ileum
Answer: C

12. What structure, although rich in digestive enzymes, does not contain striated ducts?
A. Liver
B. Parotid gland
C. Pancreas
D. Submandibular gland
Answer: C

Histology 25

13. A cross-section of GIT shows simple columnar epithelium with crypts only and no villi. This is characteristic of:
A. Jejunum
B. Duodenum
C. Ileum
D. Large intestine
Answer: D

14. The central vein, blood sinusoids, and cords of hepatocytes are all components of:
A. Gall bladder
B. Pancreas
C. Classic hepatic lobule
D. Portal triad
Answer: C

15. In histological sections, the liver cells with prominent mitochondria and abundant SER are most likely responsible for:
A. Enzyme digestion
B. Glucose storage and detoxification
C. Hormone synthesis
D. Absorption of lipids
Answer: B

16. A student notices prominent basal basophilia and acidophilic apical granules in glandular cells. The tissue is likely from:
A. Liver
B. Parotid gland
C. Pancreas
D. Gall bladder
Answer: C

17. If a section of GIT shows mucosa with crypts, lamina propria full of lymphocytes, and taenia coli in musculosa, it is:
A. Colon
B. Appendix
C. Ileum
D. Stomach
Answer: A

18. Which component of the digestive system has simple columnar epithelium, no villi, and no goblet cells?
A. Ileum
B. Gall bladder
C. Large intestine
D. Duodenum
Answer: B

19. A rare cell type in the islets of Langerhans involved in inhibiting hormone release is the:
A. Alpha cell
B. Beta cell
C. Delta cell
D. F cell
Answer: C

20. Damage to parietal cells in the stomach could result in:
A. Reduced mucus protection
B. Inability to digest carbohydrates
C. Impaired absorption of vitamin B12
D. Overproduction of digestive enzymes
Answer: C

QUIZ Time

Histology 26

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Histology 26

Special Sense Organs

1. Which of the following correctly pairs the receptor type with its primary function?
A. Ruffini corpuscle – Taste detection
B. Merkel cells – Mechanoreception
C. Meissner corpuscle – Color vision
D. Rods – Sound perception
Correct Answer: B

2. A patient has difficulty distinguishing colors but has no issue with night vision. What is the likely deficiency?
A. Rod dysfunction
B. Cone dysfunction
C. Cochlear damage
D. Merkel cell damage
Correct Answer: B

3. What is the correct sequence of the three layers of the eyeball from outermost to innermost?
A. Retina → Sclera → Choroid
B. Choroid → Retina → Sclera
C. Sclera → Choroid → Retina
D. Retina → Choroid → Sclera
Correct Answer: C

4. Which of the following structures contains neuroepithelium responsible for hearing?
A. Vestibular apparatus
B. Meissner corpuscle
C. Organ of Corti
D. Root hair plexus
Correct Answer: C

5. A child complains of imbalance (problem in the postural equilibrium) and vertigo. Which part of the ear is most likely affected?
A. Cochlea
B. External ear
C. Vestibular apparatus
D. Eustachian tube
Correct Answer: C

6. Which sensory receptor type is NOT encapsulated?
A. Meissner corpuscle
B. Free nerve endings
C. Ruffini corpuscle
D. Krause end bulb
Correct Answer: B

Histology 26

7. Which pigment is responsible for night vision?
A. Melanin
B. Iodopsin
C. Rhodopsin
D. Hemoglobin
Correct Answer: C

8. Which encapsulated cell type would most likely be stimulated by gently brushing the skin with a feather?
A. Ruffini corpuscle
B. Merkel cells
C. Meissner corpuscle
D. Cone cells
Correct Answer: C

9. Which structure in the eye is directly responsible for detecting the direction and intensity of light, thereby contributing to image formation?
A. Choroid
B. Rod and cone cells
C. Ciliary body
D. Sclera
Correct Answer: B

10. If the rods in the retina were destroyed, which of the following abilities would be most impaired?
A. Reading fine print
B. Recognizing colors
C. Seeing in dim light
D. Hearing faint sounds
Correct Answer: C

QUIZ Time

Histology 27

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Histology 27

Urinary system (Histology)

1. Which structural feature most contributes to the granular appearance of the renal cortex under the microscope?
A. Loop of Henle
B. Collecting ducts
C. Renal corpuscles and convoluted tubules
D. Medullary pyramids
Answer: C

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2. What is the correct flow of urine from the nephron to the ureter?
A. Bowman's capsule → DCT → PCT → Loop of Henle → Collecting duct
B. Renal corpuscle → PCT → Loop of Henle → DCT → Collecting tubules → Minor calyx → Major calyx → Renal pelvis → Ureter
C. Glomerulus → Loop of Henle → PCT → DCT → Minor calyx
D. PCT → Bowman's capsule → Loop of Henle → CD → Bladder
Answer: B

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3. Which part of the nephron is composed of cells specialized in reabsorption and has a brush border?
A. Distal convoluted tubule
B. Bowman's capsule
C. Proximal convoluted tubule
D. Loop of Henle (thin segment)
Answer: C

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4. Podocytes in the visceral layer of Bowman's capsule are specialized for what function?
A. Ion exchange
B. Phagocytosis
C. Ultrafiltration via foot processes
D. Active secretion
Answer: C

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5. Which of the following correctly pairs the nephron segment with its epithelial lining?
A. Thick ascending limb – simple squamous epithelium
B. Collecting tubule – stratified squamous epithelium
C. PCT – acidophilic cuboidal cells with brush border
D. DCT – pseudostratified columnar epithelium
Answer: C

Histology 27

6. Which of the following histological features best distinguishes the DCT from the PCT?
A. Brush border in DCT
B. Narrower lumen in DCT
C. Less acidophilic cytoplasm and apical nuclei in DCT
D. More cells per cross-section in DCT
Answer: C

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7. Which part of the urinary system contains three layers of interlacing smooth muscle?
A. Ureter
B. Collecting duct
C. Loop of Henle
D. Urinary bladder
Answer: D

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8. Why are glomerular capillaries uniquely suited for filtration?
A.They are continuous and rest on a thick basement membrane
B. They are fenestrated and rest on a thick basement membrane
C. They have valves to control flow
D. They contain tight junctions
Answer: B

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9. Which statement is true regarding the ureter's musculosa?
A. It has a uniform layer of skeletal muscle
B. It has an inner circular and outer longitudinal layer only
C. It has three muscle layers in its upper third
D. It gains a third longitudinal layer in its lower third
Answer: D

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10. A student finds a renal structure with pale cells, wide lumen, and simple cuboidal to columnar epithelium. What is the most likely identity?
A. PCT
B. DCT
C. Loop of Henle
D. Collecting tubule
Answer: D