

GENESIS

(Post Graduation Medical Orientation Centre)

Friday Mage Batch

Total Number- 100

Pass Mark: 70

Subject: Histology

Question 31-50 is based on Single answers

Time: 50 Min

Date: 20/12/19

1. Regarding histological layer of GI tract

- a) Meissner nerve plexus present in muscularis layer
- b) Serosa contain thin layer of connecting tissue
- c) Muscularis interna presents in submucosal layer
- d) Auerbach plexus present in muscular layer
- e) Serosa is for lubrication & adventitia is to bind structures together

F (Submucosal layer) F (Mucosa layer) T T

2. Gastric mucosa consists of

- a) Goblet cells
- b) Crypts of lieberkum
- c) A layer of smooth muscle
- d) Loose connective tissue
- e) Gastric pits

F T F F T

3. The histological features of the small intestine are

- a) Plica circularis
- b) Interstitial villi
- c) Crypts of lieberkuin
- d) Paneth cell
- e) Peyer's patches

T T T T T

4. Primary lymphoid organ

- a) Thymus
- b) Bone marrow
- c) Lymph node
- d) Spleen
- e) Peyer's patches

T T F F F

5. Lymph node

- a) Has a connective tissue framework consisting entirely of collagen
- b) Contains large number of macrophages as well as lymphocytes
- c) Receives afferent lymphatic vessels which have on valves
- d) Has B lymphocytes in both the cortex and medulla
- e) Has T lymphocytes mainly between the germinal center and the medulla

F T F T T

6. Which statements are correct

- a) Trabecular lymph sinus present in thymus
- b) Crypts are found in lymph nodes
- c) Hassall's corpuscles are found in cortex of thymus
- d) Spleen has got both efferent & afferent lymph vessels
- e) Outer dark staining region of thymus is called cortex

F (Absent) F (Tonsils) F (Medulla) F (Lymph node) T

7. Cells present in mucosa associated lymphoid tissue are

- a) Plasma cell
- b) Mast cell
- c) Fibrocyte
- d) Macrophage
- e) Lymphocyte

T F F T T

8. Regarding histological structure of liver

- a) Structural unit is hexagonal
- b) Portal lobule emphasizes the hepatocytes exocrine function
- c) Hepatic acinus is metabolic unit
- d) Area closes to periportal lepatocytes are less oxygenated
- e) Nutritional unit is triangular

T T T F (more oxygenated) F

9. Regarding histology of thyroid gland

- a) Follicles are densely packed together
- b) Follicular cell are squamous when stimulated
- c) Follicular cell contain colloid
- d) Follicular cell synthesize triiodothyronine
- e) Parafollicular cells are larger than follicular cell

T F (Columnar when stimulated) F (Colloids present in central lumen) T T

10. Regarding spleen

- a) There is no cortex & Medulla in the spleen
- b) B lymphocyte form the periarteriolar lymphatic sheath
- c) Germinal centre presents in white pulp
- d) Stave cells present in splenic cord
- e) Antigen presenting cells present in marginal zone of red pulp

T F (T lymphocyte) T F (Splenic sinusoids) F (White pulp)

11. The thymus

- a) Is a glandular structure which normally atrophies shortly after birth
- b) Lies posterior to the trachea
- c) Contains large numbers of lymphocytes
- d) Is derived from the fourth pair of pharyngeal pouches
- e) Is derived from thyroid tissue

F T T F F

12. The sinusoids are present in the following organs

- a) Liver
- b) Spleen
- c) Thyroid
- d) Adenohypophysis
- e) Parathyroid

T T F F F

13. The following organs are provided with rich capillary network

- a) Kidney
- b) Skeletal muscle
- c) Smooth muscle
- d) Dense connective tissue
- e) Cardiac muscle

T T F F T

14. Continuous capillary are found in

- a) Endocrine glands
- b) Exocrine glands
- c) Glomerular capillary
- d) Liver
- e) Nervous tissue

F T F F T

15. Terminal bronchioles

- a) Contain plenty of goblet cells
- b) Contain clara cells
- c) Contain plates of cartilage
- d) Are lined by simple columnar epithelium
- e) Contains alveoli

F T T F F

16. Elastic cartilage is present in

- a) Auditory tube
- b) Trachea
- c) Thyroid cartilage
- d) Intervertebral disc
- e) Epiglottis

T F F F T

17. Regarding articular cartilage

- a) Devoid of perichondrium
- b) Hyaline cartilage
- c) Rich of nerve supply
- d) Has no blood supply
- e) Can't regenerate

T T F T T

18. Following are true statements

- a) Elastic cartilage is very similar to hyaline cartilage
- b) Fresh elastic cartilage is bluish white in color due to elastin in the elastic fibres
- c) Perichondrium largely consists of Type II collagen fibres
- d) Elastic cartilage contains abundant fine elastic fibres
- e) Fibrocartilage contains chondrocytes

T F F T T

19. True statements about cell membrane

- a) Thickness is 7.5 to 10µm
- b) Lipid content is 55%
- c) Protein is 42%
- d) Integral protein of cell membrane acts as adhesion molecules
- e) Hydrophilic regions are situated in inner surface of lipid bi layer

F(7.5-10NM) F(42%) F(55%) T F (hydrophobic)

20. Regarding cell cycle

- a) The daughter cells formed during mitosis enter the G1 phase
- b) RNA & proteins essential to cell division are synthesized in G1 phase
- c) S phase takes around 25 hours
- d) Genome is duplicated in S phase
- e) Permanent cell enters into G1 phase

T F(G2 phase) F(8 hours) T F (Go phase)

21. In meiotic cell division

- a) The first meiotic division does not reduce the chromosome number
- b) The first meiotic division begins in the intrauterine life
- c) The first meiotic division reduces the DNA amount
- d) The second meiotic division in females completes after fertilization
- e) The second meiotic division reduces the chromosome number.

F T F F F

22. Regarding cellular junction

- a) At the site of zonula adherens, gap between the adjoining cells is 20 – 90 nm
- b) Desmosome present in epidermis of skin
- c) Gap junction present in smooth muscle cells where the cells separated by gap of 2 – 3 nm
- d) Desmosome is synonymous of zonula adherence
- e) Zonula occludens is located at most apical portion of cell membrane

T T T F T**23. Stereocilia found in**

- a) Epididymis
- b) Hair cells of inner ear
- c) Seminal vesicles
- d) Uterine tube
- e) Vas deferens

T T F F T**24. Epithelial tissue is**

- a) Avascular
- b) Has no nerve supply
- c) Cells has polarity
- d) Derived from all germ layer
- e) Lamina propria provides nutrition

T F T T T**25. Transitional epithelium**

- a) Is Pseudomultilayered
- b) Cell layers are less than Stratified squamous epithelium
- c) Extend from duct of Bellini upto prostatic urethra
- d) Allow free distension & contraction
- e) Deeper cell layers stained lightly than that of superficial

F T F T T**26. Apocrine glands**

- a) Some loss of cytoplasm occurs during secretion
- b) Apocrine sweat glands present in axilla, and anal region and areola of nipple
- c) Lactating mammary gland is an example
- d) Secretory products are released by exocytosis
- e) Pancreas, Pituitary, Parotid glands are example of apocrine gland

T T T F F**27. Distribution of type-I collagen**

- a) Tendon
- b) Ligament
- c) Bone
- d) Cartilage
- e) Basement membrane

T T T F F**28. Followings are correctly matched**

- a) Knee joint → hinge type
- b) Wrist joint → Saddle type
- c) Hip joint → Condylar type
- d) Radioulnar joint → Plane type
- e) Elbow joint → Pivot type

F (condylar) F (ellipsoid) F (Ball socket) F (Pivot) F (Hinge)**29. Striated (voluntary muscle)**

- a) Contains alternating A and Z bands.
- b) Fibers are multinucleated
- c) Is present in the upper part of the esophagus.
- d) Fibers are bound together by the sarcolemma
- e) Is predominantly supplied from lateral horn efferent fibers

F T T F F (Lumley-15)**30. Nucleus of cell**

- a) Has membrane with pores without septa
- b) Continuous with endoplasmic reticulum of cell
- c) Has nucleoli & which disappear during cell division
- d) Colchicine used to arrest all cell cycle at anaphase to study genetics
- e) Contains histone – non histone proteins

F (guarded by septa) T T F (metaphase) T

Each question below contains five suggested answers- choose the one best response to each question (31-50)

31. Which layer of the epidermis is present only in thick skin?

- a) Stratum basale
- b) Stratum spinosum
- c) Stratum granulosum
- d) Stratum lucidum
- e) Stratum corneum

D**32. Which of the following is the exocrine portion of the pancreas?**

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

E**33. Mononuclear phagocyte system include all except**

- a) Osteoclast
- b) Lymphocyte
- c) Tissue histiocyte
- d) Langerhans cell
- e) Macrophage

B

34. Basement membrane contain following collagen fibres

- a) Type I
- b) Type II
- c) Type III
- d) Type IV
- e) Type V

D

35. In small gut excessive proliferation of which cell give rise to carcinoid tumor

- a) Solitary lymphoid follicle
- b) Argentaffin cell
- c) Paneth cell
- d) Microfold cell
- e) Mast cell

B

36. On examination of histological slide a student found a 4 layered structure, very few goblet cell, some MALT in mucosa and tongue shaped villi. It is a slide of

- a) Colon
- b) Stomach
- c) Duodenum
- d) Jejunum
- e) Ileum

D

37. Microvillus is on epithelial surface indicate following except

- a) Brush border of kidney tubular cell
- b) Increase cell surface area
- c) Involved in absorption
- d) Striated border of intestinal absorptive cell
- e) Active in secretory activities

E

38. Drug detoxification occurs in

- a) Nucleus
- b) Rough endoplasmic reticulum
- c) Lysosomes
- d) Golgi complex
- e) Smooth endoplasmic reticulum

E

39. In accumulation of misfolded protein which of the cellular component undergo stress-

- a) Mitochondria
- b) Endoplasmic reticulum
- c) Nucleus
- d) Ribosome
- e) Golgi complex

B

40. Submucous coat is present

- a) FT
- b) Uterus
- c) Vagina
- d) UB
- e) Ureters

C

New

41. Types of collagen not correctly matched

- a) Type-I: Tendon
- b) Type-II: Cartilage
- c) Type-IV: Basal laminae
- d) Type-X: Placenta
- e) Type-IX: Cartilage

D [Junq-104]

42. Histologically most of the brain tumors are

- a) Meningioma
- b) Neuroma
- c) Ependymoma
- d) Astrocytoma
- e) Schwannoma

D [Junq-168]

43. Which characteristic is unique to cardiac muscle

- a) Centrally located nuclei
- b) Striated
- c) Often branched
- d) Multinucleated
- e) Lack of T-tubule

C [Junq-205]

44. Which biochemical component of the erythrocyte cell surface is primarily responsible for determining blood type (ABO SYSTEM)

- a) Fatty acid
- b) Carbohydrate
- c) Nucleic acid
- d) Protein
- e) Cholesterol

B

45. Mitochondria contains enzyme that take part in cell except

- a) Respiratory chain
- b) TCA cycle
- c) β -oxidation of fatty acid
- d) Ketogenesis
- e) Glycolysis

E

46. In cell division ,which event is not relevant to meiosis

- a) Occurs in sex cells
- b) Redistribution of genetic material
- c) Crossing over take place
- d) Two daughter cells,are produced
- e) Interphase in short duration

D

47. Which of the following cellular features is used in naming types of epithelia?

- a) Shape of the cells in basal layer
- b) Number of cell layer
- c) Presence of basal lamina
- d) Size of the nuclei
- e) Nature of the cell junction present

B [Junq-94]

48. Taste buds are much more abundant on which papillae

- a) Filiform
- b) Funiform
- c) Foliate
- d) Vallate
- e) None of above

D[June-299]

49. Which function is carried out by all lymphoid tissue & organs

- a) Filtration of lymph
- b) Filtration of blood
- c) Extramedullary hemopoiesis
- d) Production of lymphocyte
- e) Destruction of old erythrocyte

B

50. The tenia coli of large intestine represent an organ specific specialization of which layer of the intestinal tract

- a) Epithelium
- b) Lamina propria
- c) Muscularis mucosa
- d) Muscularis externa
- e) Serosa

D