



## BRAINWARE UNIVERSITY

Term End Examination 2023-2024

Programme – B.Sc.(MLT)-2021

Course Name – Fundamentals of Histology

Course Code - BMLT303

( Semester III )

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Which one of these is phagocytic cell in nature?
  - a) Astrocyte
  - b) Oligodendrocyte
  - c) Schawan cell
  - d) Microcyte
- (ii) The layer of eye which consists of dense fibrous connective tissue is the
  - a) sclera
  - b) choroid
  - c) retina
  - d) lens
- (iii) Select the Aqueous humor is actively secreted by cells of the
  - a) Cornea
  - b) Iris
  - c) Ciliary process
  - d) Stria vascularis
- (iv) Select The fluid environment for hair cells is
  - a) Perilymph
  - b) Mesolymph
  - c) Endolymph
  - d) CSF
- (v) Identify what the middle ear communicates with via the Eustachian tube
  - a) vestibule
  - b) nasopharynx
  - c) endolymphatic sac
  - d) external auditory meatus
- (vi) Identify which cell type in the basal layer of the epidermis contains most of the melanin
  - a) keratinocytes
  - b) melanocytes
  - c) langerhans cells
  - d) fibroblasts
- (vii) How many kinds of taste receptors are present on the tongue?
  - a) 4
  - b) 5
  - c) 7
  - d) 3
- (viii) Where are the Islets of Langerhans inferred to be located in the body?
  - a) Anterior Pituitary
  - b) Adrenal cortex
  - c) Spleen
  - d) Pancreas
- (ix) What hormone is secreted by corticotropes in the body?
  - a) MSH
  - b) TSH

- c) STH  
 (x) Aldosterone is secreted from which layer of the Adrenal gland?  
 a) Zona glomerulosa  
 b) Zona fasciculata  
 c) Zona reticularis  
 d) Adrenal medulla
- (xi) Presence of Umbrella cells is the characteristic feature of which part of Kidney?  
 a) Nephron  
 b) Urethra  
 c) Urinary bladder  
 d) Ureter
- (xii) Indicate the Urethra contains with  
 a) pseudostratified columnar epithelium  
 b) cuboidal epithelium  
 c) squamous epithelium  
 d) ciliated epithelium
- (xiii) Which cells provides nutrition to the sperms ?  
 a) Germinal cells  
 b) Epithelial cell  
 c) Sertoli cell  
 d) None of them
- (xiv) Choose the Primary Oocyte is  
 a) Haploid  
 b) Diploid  
 c) Triploid  
 d) Polyploid
- (xv) The nutritive medium for the ejaculated sperms is given by which one  
 a) Vaginal fluid  
 b) Uterine fluid  
 c) Seminal fluid  
 d) fallopian tube

**Group-B**

(Short Answer Type Questions)

3 x 5=15

2. Define the function of the artery layer of tunica media (3)  
 3. Explain the different histological structure of liver (3)  
 4. write a short note on Kupffer cells (3)  
 5. Discuss on Basal Ganglia (3)  
 6. Explain the three main histological sections of the kidney (3)

OR

Explain the pineal gland (3)

**Group-C**

(Long Answer Type Questions)

5 x 6=30

7. Evaluate the significance of the follicular cells within the ovarian cortex. (5)  
 8. Identify the Master gland and summarize the structure of that gland (5)  
 9. Briefly discuss the histological structure of the adrenal gland with a diagram (5)  
 10. Define the components of the stomach and identify the layer (5)  
 11. How does the histological structure of the stomach differ from that of the small intestine, and what are the implications of these differences in their respective functions? (5)  
 12. Describe the histological features that distinguish elastic arteries from other types of arteries, such as muscular arteries and arterioles (5)

OR

Compare and contrast the histological features of the ovarian cortex with those of the medulla. What are the key differences and similarities between these regions? (5)

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