



## BRAINWARE UNIVERSITY

### Term End Examination 2020 - 21

Programme – Bachelor of Science in Medical Lab Technology

Course Name – Fundamentals of Histology

Course Code - BMLT303

Semester / Year - Semester III

Time allotted : 75 Minutes

Full Marks : 60

[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 60=60

1. (Answer any Sixty )

(i) \_\_\_\_\_ increases The surface area for absorption

- |                 |                  |
|-----------------|------------------|
| a) Villi        | b) Microvilli    |
| c) Mucosa layer | d) None of these |

(ii) Mucosa is the

- |                    |                    |
|--------------------|--------------------|
| a) Outermost layer | b) Innermost layer |
| c) Second layer    | d) Last layer      |

(iii) Each villus has a network of capillaries and A large lymph capillaries called

- |                  |                     |
|------------------|---------------------|
| a) Payer's patch | b) Myenteric plexus |
| c) Submucosa     | d) Lacteal          |

(iv) Is a muscle present in stomach but absent in other parts from Oesophagus to Rectum

- |                |                  |
|----------------|------------------|
| a) Circular    | b) Oblique       |
| c) Longtudinal | d) None of these |

(v) Gastric glands present in between

- |          |                  |
|----------|------------------|
| a) Villi | b) Gastric rugae |
|----------|------------------|

c) Mucus layer

d) Muscularis mucosa

(vi) From Oesophagus to Rectum alimentary canal possesses how many layers?

a) 8

b) 6

c) 5

d) 4

(vii) Smooth muscles of muscularis are arranged into \_\_\_\_\_ and \_\_\_\_\_

a) inner longitudinal, outer circular muscles

b) outer oblique, inner circular muscles

c) Outer longitudinal, Inner circular muscles

d) inner circular, outer oblique muscles

(viii) Brunners glands secrete

a) Vitamin

b) Mucus

c) Enzymes

d) Water

(ix) Payer's patch is located in the following GI layer

a) Duodenum

b) Jejunum

c) Ileum

d) Large Intestine

(x) Mucosa of small intestine forms

a) Brunners gland

b) Crypts Of Lieberkuhn

c) Goblet cells

d) None of these

(xi) Which part of the GI tract provides motor innervation to both layers of the muscular layer of the gut

a) Meissner's plexus

b) Myenteric plexus (or Auerbach's plexus)

c) Submucous plexus

d) None of these

(xii) Which of the following papillae lack taste buds

a) Circumvallate papillae

b) Filiform papillae

c) Foliate papillae

d) Fungiform papillae

(xiii) The thickest layer of vein is

a) Tunica intima

b) Vasa vasorum

c) Tunica adventitia

d) Tunica media

(xiv) Capillaries are composed of the simple layer of

a) epithelial cells

b) endothelial cells

c) mesenchymal cells

d) muscle cells

(xv) Fenestrated capillaries are the characteristic feature of which organ?

a) Liver

b) Brain

c) kidney

d) Heart

(xvi) Aortic body is located at the

a) in the wall of the arch of the aorta at the junction of the common carotid and subclavian arteries

b) in the wall of the arch of Aorta

c) at the bifurcation of the common carotid artery

d) At the junction between carotid artery and aorta

(xvii) Valves are mainly

a) Myocardial tissue

b) Endocardial tissue

c) Pericardial tissue

d) None of these

(xviii) The portion of a nerve cell which contains the nucleus and most of the metabolic machinery is called the

a) Axon

b) Dendrite

c) Cell body

d) Synapse

(xix) Which structure is principally responsible for the blood-brain barrier?

- a) Endothelium basement membrane
- c) Fenestrated capillary endothelium

- b) Continuous capillary endothelium
- d) Astrocyte foot process

(xx) Cerebrospinal fluid is actively secreted by ependymal cells of the:

- a) Choroid plexus
- c) Arachnoid villi

- b) Stria vascularis
- d) Pia matter

(xxi) Presence of Pyramidal cells is the characteristic feature of which nervous tissue

- a) Cerebral cortex
- c) Spinal cord

- b) Cerebellum
- d) None of these

(xxii) What is neural plasticity?

- a) After brain injury new synapses to replace damaged ones lost by injury in adults.
- c) Embryonic development of the nervous system produces an excess of differentiating neurons

- b) Neuronal differentiation and formation of new synapses during developmental stage.
- d) None of these

(xxiii) Substantia nigra is located in

- a) Cerebellum
- c) Basal nuclei

- b) Cerebral Cortex
- d) Hypothalamus

(xxiv) The supporting and nutritive cells found in brains are

- a) Oligodendrocytes
- c) Microglia

- b) Astrocytes
- d) Ependymal cells

(xxv) The "white" of the eye is primarily

- a) elastic tissue
- c) epithelial tissue

- b) collagen tissue
- d) adipose tissue

(xxvi) The layer of eye which consists of dense fibrous connective tissue is the:

- a) sclera
- b) choroid
- c) retina
- d) lens

(xxvii) Aqueous humor is actively secreted by cells of the:

- a) Cornea
- b) Iris
- c) Ciliary process
- d) Stria vascularis

(xxviii) As is evident from its embryological origin, the lens consists of which tissue type?

- a) Epithelial tissue
- b) Nervous tissue
- c) Connective tissue
- d) Muscle tissue

(xxix) Hair cells of the ear are

- a) Bipolar neurons of spiral ganglion
- b) Columnar mechanoreceptor cells
- c) Ciliated epithelial cells
- d) Bipolar neurons of vestibular ganglion

(xxx) Tympanic membrane is located in

- a) External ear
- b) Middle ear
- c) Inner ear
- d) None of these

(xxxii) In the organ of Corti, apical projections of hair cells (cilia and stereocilia) are in intimate contact with

- a) Reissner's membrane
- b) Basilar membrane
- c) Tectorial membrane
- d) Deceber's membrane

(xxxiii) The middle ear communicates via the Eustachian tube with

- a) vestibule
- b) nasopharynx
- c) endolymphatic sac
- d) external auditory meatus

(xxxiiii) Which of the following layers lies nearest the outer surface of the

epidermis?

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

(xxxiv) The majority of cells comprising the epidermis are called

- a) keratinocytes
- b) melanocytes
- c) langerhans cells
- d) fibroblasts

(xxxv) The loose, adipose connective tissue layer of skin is

- a) epidermis
- b) mucosa
- c) dermis
- d) hypodermis

(xxxvi) How many kinds of taste receptors are present on the tongue?

- a) 4
- b) 5
- c) 7
- d) 3

(xxxvii) Thyrotroph cells are located in which of the part of Pituitary gland?

- a) Pars Tuberalis
- b) Pars Distalis
- c) Pars Intermedia
- d) None of these

(xxxviii) Which of the following cell is Acidophils in nature?

- a) Corticotrophs
- b) Thyrotrophs
- c) Gonadotrophs
- d) Mammatrophs

(xxxix) Corticotrophs is responsible for secretion of

- a) MSH
- b) TSH
- c) STH
- d) LH

(xl) Function of Chromophobes is

- a) Secretion of ACTH
- b) Secretion of GH

c) Undifferentiated cells that are capable of differentiating into various types of chromophils

d) None of these

(xli) Folliculostellate cells are located in

a) Pituitary gland

b) Thyroid gland

c) Adrenal Cortex

d) Pancreas

(xlii) Parafollicular cells of thyroid gland are the source of which hormone?

a) TSH

b) T3

c) T4

d) Calcitonin

(xliii) Chief cells are found in

a) Thyroid gland

b) Parathyroid gland

c) Both Thyroid gland & Parathyroid gland

d) None of these

(xliv) Which layer of Adrenal cortex is the source of cortisol?

a) Zona glomerulosa

b) Zona fasciculata

c) Zona reticularis

d) Adrenal medulla

(xlv) Alpha cells are located at which portion of pancreatic islets?

a) centrally

b) less abundant

c) peripherally

d) both centrally and less abundant

(xlvi) Prolactin is synthesized and secreted by which of the following cells?

a) Acidophils in the pars distalis

b) Mamotrophs in the pars distalis

c) Basophils in the pars tuberalis

d) Basophils in the pars intermedia

(xlvii) The ultrafiltering membrane is composed of which of these layers?

a) Capillary

b) brush border cells of nephron

c) Pedicel process of podocytes

d) None of these

(xlvi) Presence of Umbrella cells is the characteristic feature of which part of Kidney?

- a) Nephron
- b) Urethra
- c) Urinary bladder
- d) Ureter

(xlix) What is the function of mesangium?

- a) Release of Angiotensin II
- b) Ultrafiltration
- c) Phagocytosis of large protein molecules and debris during ultrafiltration
- d) None of these

(l) Which one of the following is not a part of a renal pyramid?

- a) Loop of Henle
- b) PCT
- c) peritubular capillaries
- d) collecting ducts

(li) The renal medulla is composed of tissue called

- a) Renal pelvis
- b) nephrons
- c) Renal sinus
- d) Renal pyramids

(lii) Capillary loops located in the medulla are also known as-

- a) Trigone
- b) Vasa recta
- c) Ureter
- d) None of these

(liii) Urethra contains

- a) pseudostratified columnar epithelium
- b) cuboidal epithelium
- c) squamous epithelium
- d) ciliated epithelium

(liv) Vas deferens connects with

- a) short, straight segments of seminiferous tubule
- b) The long, coiled duct of the epididymis
- c) long folded segments of seminiferous tubule
- d) long straight tube connects with prostatic urethra



(lv) When oocyte leaves the ovary at ovulation the cellular layer which surrounds that

- a) Acrosome
- b) Granulosa cells
- c) Corona radiata
- d) Theca interna

(lvi) Theca interna is the source of

- a) Estradiol
- b) Progesterone
- c) Testosterone
- d) Androstenedione

(lvii) Lutein cells are found in

- a) Primary follicle
- b) Corpus luteum
- c) Corpus albicans
- d) All of these

(lviii) If after ovulation no pregnancy results, the corpus luteum

- a) is maintained by the presence of progesterone
- b) Degenerated in a short time
- c) Becomes active and secretes lot of FSH
- d) produces lot of oxytocin and relaxin

(lix) Graafian follicles are produced by the ovary by the process of

- a) Oogenesis
- b) Ovulation
- c) Oogenolysis
- d) Folliculargenesis

(lx) Stroma is the term applied to

- a) Gall stone
- b) Connective tissue in which graafian follicles are embedded.
- c) Ovarian follicles
- d) All of these