

Course: B. Pharmacy

Sem: II

Subject Name: HUMAN ANATOMY AND PHYSIOLOGY-II

Subject Code: BP201T

Max Marks: 75

Date: 25/08/2022

Duration: 3.45 Hr.

Instructions –

1. All questions are compulsory
2. Answers to MCQs should be written in full sentences
3. Draw diagrams / figures wherever necessary
4. Figures to right indicate full marks

Q. 1. Multiple Choice Questions (MCQs) = 20 x 1 = 20 (All the questions are compulsory)

- i) The alpha cells of Islets of Langerhans secretes
 - a. Glycogen
 - b. Insulin
 - c. Glucose
 - d. Glucagon
- ii) Bolus will be converted into chyme when it _____
 - a. Mix with saliva
 - b. Mix with gastric juice
 - c. Mix with amylase
 - c. Mix with intestinal juice
- iii) What is the major function of large intestine
 - a. Absorption of food
 - b. Absorption of water
 - c. Microbial activity
 - d. Propulsive activity
- iv) Sinusoid is the space present between
 - a. Two cells
 - b. Two lobes
 - c. Two plates
 - d. Cells within plate
- v) Trypsinogen is converted into trypsin in the presence of
 - a. Enterokinase
 - b. Gastric lipase
 - c. Enteric lipase
 - d. Trypsinase
- vi) "Cerebral aqueduct" is present between
 - a. Two lateral ventricles
 - b. Lateral ventricle and third ventricle

c. Third ventricle and fourth ventricle

d. Fourth and fifth ventricle

vii) When individual is lying on side, what will be the pressure of CSF?

a. 10 cm of water

b. 20 cm of water

c. 30 cm of water

d. 40 cm of water

viii) Unipolar neuron contains

a. One dendrite and one axon

b. One dendrite or one axon

c. Only dendrite

d. Only axon

ix) Which of the following is major neurotransmitter present in sympathetic nervous system?

a. Adrenaline

b. Nor-adrenaline

c. Dopamine

d. Acetylcholine

x) Fallopian tube is also known as

a. Uterine tube

b. Non-uterine tube

c. Oviducts

d. Both a and c

xi) Vital capacity is the sum of

a. Inspiratory reserve volume + Expiratory reserve volume

b. Inspiratory reserve volume + Expiratory reserve volume + Residual volume

c. Inspiratory reserve volume + Residual volume

d. Inspiratory reserve volume + Expiratory reserve volume + Tidal volume

xii) Transcription means

a. Conversion of DNA to Protein

b. Conversion of DNA to m-RNA

c. Conversion of m-RNA to Protein

d. Conversion of m-RNA to DNA

xiii) Which of the process is involve in biosynthesis of ATP?

a. Substrate level phosphorylation

b. Oxidative phosphorylation

c. Photophosphorylation

d. All of the above

xiv) Progesterone is secreted from

- a. Endometrium
- b. Myometrium
- c. Corpus luteum
- d. Corpus albicans

xv) Micturition process is controlled by

- a. Voluntary nerves
- b. In-voluntary nerves
- c. Both a and b
- d. None of the above

xvi) Which of the following is the secondary messenger?

- a. c-AMP
- b. G-Protein
- c. d-ATP
- d. t-RNA

xvii) Capillary hydrostatic pressure during filtration is built in the glomerulus as

- a. size of Bowman's capsule is significantly large
- b. an afferent arteriole is narrow compared to efferent
- c. Bowman's capsule is cup-shaped
- d. an efferent arteriole is narrow compared to afferent

xviii) Which of the following changes occur in diaphragm and intercostal muscles during expiration

- a. Internal intercostal muscles relax and diaphragm contracts
- b. External intercostal muscles relax and diaphragm contracts
- c. Internal intercostal muscles contract and diaphragm relax
- d. Internal intercostal muscles relax and diaphragm relax

xix) Hypersecretion of human growth hormone leads to

- a. Dwarfism
- b. Gigantism
- c. Acromegaly
- d. Both b and c

xx) The secretion of several anterior pituitary hormones are governed by other hormones from

- a. Hypothalamus
- b. Thyroid gland
- c. Adrenal gland
- d. Pancreatic lobes

Q. 2. Long Answers) = 2 x 10 = 20 (Answer 2 out of 3)

- i) Enlist all the organs of digestive system. Write a detail note on small intestine.
- ii) Draw neat labelled diagram of neuron and explain the neurophysiology.
- iii) Explain in detail physiology of urine formation.

Q. 3. Short Answers = 7 x 5 = 35 (Answer 7 out of 9)

- i) Describe the different roles of ATP.
- ii) Write a note on meninges.
- iii) Explain RAAS Pathway.
- iv) Write a note on posterior pituitary gland.
- v) Discuss the different phases of menstrual cycle.
- vi) Write a note on blood glucose regulation.
- vii) Explain different types of lung volumes and capacities.
- viii) Draw the neat labelled diagram of sperm and shortly explain spermatogenesis.
- ix) Discuss the translation process.

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