

**I B. Pharmacy I Semester Regular/Supplementary Examinations, February - 2020**  
**HUMAN ANATOMY & PHYSIOLOGY-I**

Time: 3 hours

Max. Marks: 75

- Note: 1. Question paper consists of three parts (**Part-I, Part-II & Part-III**)  
 2. Answer ALL (Multiple Choice) Questions from **Part-I**  
 3. Answer any **TWO** Questions from **Part-II**  
 4. Answer any **SEVEN** Questions from **Part-III**

**PART - I**

1. (i) In human cell, which organelle stores  $Ca^{2+}$  (1M)  
 (a) Mitochondria (b) Nucleus  
 (c) Sarcoplasmic reticulum (d) None of the above
- (ii) Power house of the cell (1M)  
 (a) Mitochondria (b) Nucleus  
 (c) Sarcoplasmic reticulum (d) None of the above
- (iii) Which matured cells in the blood do not have a nucleus? (1M)  
 (a) RBC (b) WBC (c) Platelets (d) None of the above
- (iv) Which of the following is flexible connective tissue that is attached to bones at the joints? (1M)  
 (a) Nerve (b) Cartilage (c) Epithelial (d) Muscle
- (v) The principal extracellular cation is (1M)  
 (a)  $Na^+$  (b)  $Ca^+$  (c)  $K^+$  (d)  $Cl^-$
- (vi) Which blood cell function as defense mechanism against bacteria (1M)  
 (a) RBC (b) WBC (c) Platelets (d) None of the above
- (vii) Name the basic structural and functional unit of the nervous system. (1M)  
 (a) Neuroglia (b) Glial cells (c) Neurons (d) Perikaryon
- (viii) Which of the following is NOT the component of the PNS? (1M)  
 (a) Elastic connective tissue (b) Cranial nerves  
 (c) Spinal nerves (d) Ganglia
- (ix) What is the main function of the rods in the eye? (1M)  
 (a) depth perception (b) color vision  
 (c) vision in dim light (d) accommodation for near vision
- (x) Receptors for hearing are located in the (1M)  
 (a) cochlea (b) semicircular canals  
 (c) tympanic membrane (d) vestibule
- (xi) In ECG P wave represents (1M)  
 (a) Ventricular depolarization (b) Atrial repolarization  
 (c) Atrial depolarization (d) None of the above
- (xii) Which part of the intrinsic conduction system starts the heart beat (1M)  
 (a) SA node (b) AV node (c) The Bundle of His (d) all of the above
- (xiii) The muscular layer of the heart that is responsible for pumping is the (1M)  
 (a) Endocardium (b) Epicardium (c) Myocardium (d) Mucous membrane
- (xiv) Which would be indicative of hypotension? (1M)  
 (a) 120/80 (b) 180/140 (c) 80/60 (d) 135/120
- (xv) pulse can check at neck using the (1M)  
 (a) Brachial artery (b) Jugular vein (c) Carotid artery (d) Popliteal vein

- (xvi) Name the longest and heaviest bone of the body? (1M)  
(a) Femur (b) Fibula (c) Tibia (d) Ilium
- (xvii) Name the only movable bone in the skull of man? (1M)  
(a) Ethmoid bone (b) Mandible bone (c) Nasal bone (d) Lacrimal bone
- (xviii) How many types of Joints are present in our body? (1M)  
(a) 2 (b) 3 (c) 4 (d) 5
- (xix) Lymph nodes are found in (1M)  
(a) neck region (b) axilla (c) groin (d) All of Above
- (xx) Which blood type is the universal recipient for blood transfusions? (1M)  
(a) A (b) B (c) AB (d) O

**PART -II**

2. a) Explain in detail structure and functions of cell with neat labelled diagram. (5M)  
b) Classify Tissues with examples. (5M)
3. a) Write the Structure and functions of ear. (5M)  
b) Define neuromuscular junction and explain physiology of muscle contraction. (5M)
4. a) Write the importance of the left ventricular in pumping of blood, and explain the role of valves in heart. (5M)  
b) Explain any two blood disorders. (5M)

**PART -III**

5. Write a short note on cellular signaling. (5M)
6. Explain in detail nerve action potential. (5M)
7. Define coagulation? Explain detailed coagulation mechanism. (5M)
8. Write the significance of Reticulo endothelial system. (5M)
9. Explain functions of the lymphatic system. (5M)
10. Write the differences between sympathetic and parasympathetic nervous system. (5M)
11. Explain in detail hypertension and angina pectoris. (5M)
12. Write a short note on spinal nerves. (5M)
13. Explain the conduction system of heart. (5M)