REV-01
BPH/95/32/37

2023/12

SET C

B. PHARM.
FIRST SEMESTER
HUMAN ANATOMY & PHYSIOLOGY
BP101T
[USE OMR FOR OBJECTIVE PART]

Duration : 3 hrs. **Full Marks : 75**

PART-A: Objective

Time : 30 min. **Marks : 20**

Choose the correct answer from the following: ***1×20=20***

1. Joint between bones in the form of sutures of human skull is
   a. Hinge joint
   b. Cartilaginous joint
   c. Synovial joint
   d. Fibrous joint

2. The muscular layer of the heart that is responsible for pumping is
   a. Endocardium
   b. Myocardium
   c. Epicardium
   d. Mucous membrane

3. The formation of erythrocyte in foetus takes place in
   a. Red bone marrow
   b. Liver and spleen
   c. Sarcoplasm
   d. blood

4. Endocytosis is
   a. A process by which cells release molecules to the outside environment
   b. A process by which cells create new molecules
   c. A process by which cells take in molecules from the outside environment
   d. All of the above

5. At the Neuromuscular junction, the post synaptic bulb discharges
   a. Adrenaline
   b. Acetylcholine
   c. Epinephrine
   d. None of the above

6. Number of bones in human appendicular skeleton is
   a. 80
   b. 126
   c. 120
   d. 206

7. Which of the following has the thickest wall
   a. Left ventricle
   b. Right atrium
   c. Right ventricle
   d. Left atrium

8. Which statement regarding the Desmosome and Hemidesmosome is correct
   a. Transmembrane glycoproteins in Hemidesmosome are integrins unlike the cadherins in Desmosome
   b. As like Desmosome, Hemidesmosome also link to adjacent cell
   c. Both Desmosome and Hemidesmosome are exactly same
   d. Both a and b

9. What is the main function of rods in the eyes
   a. Depth perception
   b. Color vision
   c. Vision in dim light
   d. Accommodation for near vision

10. The lymphatic system consists of all the following except
   a. Lymph
   b. Blood
   c. Lymph node
   d. Lymphatic vessel

11. In the skeletal muscles, the functional unit of contractile system is
   a. Z band
   b. Myofibril
   c. Cross bridges
   d. Sarcomere

12. The passage of solvent across a selectively permeable membrane from an area of higher to lower solvent concentration is
   a. Osmosis
   b. Diffusion
   c. Active transport
   d. Facilitated diffusion

13. Each hemoglobin contains _____ molecules of iron
   a. 4
   b. 2
   c. 6
   d. 5

14. The name of most numerous, large, flat cells with branching processes found in connective tissue is
   a. Fibroblast
   b. Plasma cell
   c. Adipocyte
   d. Mast cell

15. Which of the following nerve transmits sensory information to the brain regarding smell
   a. Optic nerve
   b. Olfactory nerve
   c. Trigeminal nerve
   d. Oculomotor nerve

16. Which is not the characteristic of skeletal muscle
   a. Multinucleated in nature
   b. Presence of striations
   c. Involuntary in nature
   d. Helps in movement of skeleton

17. The reason why the Sino Atrial node is the natural pacemaker of heart
   a. Only part of the conducting system generating impulse
   b. Generates the highest number of action potentials in the conducting system
   c. Located in the right atrium
   d. None of the above

18. Find the correct statement about the Eustachian tube
   a. Connects internal ear to external ear
   b. Connects middle ear to pharynx
   c. It equalises pressure between middle ear and outer atmosphere
   d. Both b and c

19. Haemopoeisis means formation of
   a. Erythrocyte
   b. Platelet
   c. Leukocyte
   d. All of the above

20. In human cell, which organelle stores Ca^{2+}

a. Mitochondria
b. Nucleus
c. Sarcoplasmic reticulum
d. Golgi complex

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PART-B: Descriptive

Time : 2 hrs. 30 min. Marks : 35

[Answer any seven (7) questions]

1. Write the structure and functions of skin? 5

2. Name the three major types of blood vessels and write the structure and functions of blood vessel? 5

3. Write the structural and functional classification of joints. 5

4. Write a note on spinal nerves. 5

5. Explain the structure, function and location of epithelial tissue. 5

6. Describe the basic life processes. 5

7. Write a short note on Lymphatic system. 5

8. Write the anatomy and diseases of eye. 5

9. Name the bones of Axial and Appendicular skeleton. 5

PART-C : Long type questions

[Answer any two (2) questions]

1. Explain the mechanism of blood coagulation. 10

2. Describe the anatomy of heart. Enumerate the pulmonary circulation. 10

3. What is blood? Describe its composition. 10