REV-01 BP11/06/11

> B. PHARM. FIRST SEMESTER **HUMAN ANATOMY & PHYSIOLOGY** BP101T [REPEAT]

> > [USE OMR FOR OBJECTIVE PART]

2023/12

Duration: 3 hrs.

Time: 30 min.

Choose the correct answer from the following:

Marks: 20

Full Marks: 75

1×20=20

- The passage of solvent across a selectively permeable membrane from an area of higher to lower solven' concentration is a. Osmosis b. Diffusion

  - c. Active transport

- d. Facilitated diffusion
- 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
- 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
- 4. 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
- 5. Haemopoeisis means formation of
  - a. Frythrocyte

b. Platelet

c. Leukocyte

- d. All of the above
- 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
- Each hemoglobin contains
- molecules of iron

a. 4

- b. 2 d. 5
- In human cell, which organelle stores Ca21
  - a. Mitochondria

- b. Nucleus
- c. Sarcoplasmic reticulum
- d. Golgi complex
- 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

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| 10. | The muscular layer of the heart that is responsible for pumping is                    |  |  |  |  |  |
|-----|---|--|--|--|--|--|
|     | a. Endocardium  | b. Myocardium                          |  |  |  |  |
|     | c. Epicardium   | d. Mucous membrane                     |  |  |  |  |
| 11. | The formation of erythrocyte in foetus take   | s place in                             |  |  |  |  |
|     | a. Red bone marrow  | b. Liver and spleen                    |  |  |  |  |
|     | c. Sarcoplasm   | d. blood                               |  |  |  |  |
| 12. | Number of bones in human appendicular s   | keleton is                             |  |  |  |  |
| 12. | a. 80   | b. 126                                 |  |  |  |  |
|     | c. 120  | d. 206                                 |  |  |  |  |
|     |   |  |  |  |  |  |
| 13. | Find the correct statement about the Eustac  a. Connects internal ear to external ear | b. Connects middle ear to pharynx      |  |  |  |  |
|     | c. It equalises pressure between middle   | d. Both b and c                        |  |  |  |  |
|     | ear and outer atmosphere  | d. Dour banker                         |  |  |  |  |
|     | ·   |  |  |  |  |  |
| 14. | Endocytosis is  | h A                                    |  |  |  |  |
|     | a. A process by which cells release   | b. A process by which cells create new |  |  |  |  |
|     | molecules to the outside environment  | molecules                              |  |  |  |  |
|     | <ul> <li>A process by which cells take in<br/>molecules from the outside</li> </ul>   | d. All of the above                    |  |  |  |  |
|     | environment   |  |  |  |  |  |
|     |   |  |  |  |  |  |
| 15. | At the Neuromuscular junction, the post sy  |  |  |  |  |  |
|     | a. Adrenaline   | b. Acetylcholine d. None of the above  |  |  |  |  |
|     | c. Epinephrine  |  |  |  |  |  |
| 16. | In the skeletal muscles, the functional unit  |  |  |  |  |  |
|     | a. Z band   | b. Myotibril                           |  |  |  |  |
|     | c. Cross bridges  | d. Sarcomere                           |  |  |  |  |
| 17. | Joint between bones in the form of sutures  | of human skull is                      |  |  |  |  |
|     | a. Hinge joint  | b. Cartilaginous joint                 |  |  |  |  |
|     | c. Synovial joint   | d. Fibrous join!                       |  |  |  |  |
| 18. | The lymphatic system consists of all the fol  | lowing except                          |  |  |  |  |
|     | a. Lymph  | b. Blood                               |  |  |  |  |
|     | c. Lymph node   | d. Lymphatic vessel                    |  |  |  |  |
| 10  | * *   |  |  |  |  |  |
| 19. | Which of the following has the thickest wa<br>a. Left ventricle                       |  |  |  |  |  |
|     |   | b. Right atrium d. Left atrium         |  |  |  |  |
|     | c. Right ventricle  | a. Terratrium                          |  |  |  |  |
| 20. | Which statement regarding the Desmosome and Hemidesmosome is correct                  |  |  |  |  |  |
|     | a. Transmembrane glycoproteins in   | b. As like Desmosome,                  |  |  |  |  |
|     | Hemidesmosome are integrins unlike  | Hemidesmesome also link to             |  |  |  |  |
|     | the cadherins in Desmosome  | adjacent cell                          |  |  |  |  |
|     | c. Both Desmosome and   | d. Both a and b                        |  |  |  |  |
|     | Hemidesmosome are exactly same  |  |  |  |  |  |

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## PART-B: Descriptive

Marks: 35 Time: 2 hrs. 30 min. [ Answer any seven (7) questions ] 5 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 Write a note on spinal nerves. 5 5. Explain the structure, function and location of epithelial tissue. 5 Describe the basic life processes. 5 7. Write a short note on Lymphatic system. 8. Write the anatomy and diseases of eye. 5 G. Name the bones of Axial and Appendicular skeleton.

## (PART-C: Long type questions)

## [ Answer any two (2) questions ]

| 1. | Explain the mechanism of blood coagulation.                         |   |  |  |  |
|----|---|---|--|--|--|
| 2. | Describe the anatomy of heart. Enumerate the pulmonary circulation. | 1 |  |  |  |
| 3. | 3. What is blood? Describe its composition.                         |   |  |  |  |
|    |   |   |  |  |  |

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