

Duration:3Hrs.

Marks:75

Q. 1 Attempt all multiple-choice questions (MCQ)

20M

| Sr No | Questions | Options | |
|-------|--|---------|---------------------------|
| 1 | _____ joint allows the rotatory movement of one bone on the other which remains fixed. | a | Saddle |
| | | b | Pivot |
| | | c | Gliding |
| | | d | Angular |
| 2 | Phagocytosis is _____ type of cell transport | a | Diffusion |
| | | b | Osmosis |
| | | c | Exocytosis |
| | | d | Endocytosis |
| 3 | Transmembrane glycoproteins present in Adherence junctions is _____ | a | Integrins |
| | | b | Cadherins |
| | | c | Laminin |
| | | d | Actin |
| 4 | _____ are unique to cardiac muscle fibers | a | Epimysium |
| | | b | Endomysium |
| | | c | Intercalated discs |
| | | d | Perimysium |
| 5 | _____ is a regulatory protein that blocks the myosin-binding sites. | a | Titin |
| | | b | Troponin |
| | | c | Nebulin |
| | | d | Epimysium |
| 6 | _____ is an example of liquid connective tissue | a | Adipose tissue; |
| | | b | Elastic connective tissue |
| | | c | Bone |
| | | d | Blood |
| 7 | The percentage of total blood volume occupied by RBCs is called the | a | Haemoglobin |
| | | b | Density of RBC |
| | | c | Hematocrit |
| | | d | Cellular contain |
| 8 | The vertebral column in the adult typically contains _____ vertebrae | a | 26 |
| | | b | 22 |
| | | c | 36 |
| | | d | 14 |
| 9 | _____ pairs of spinal nerves are present in nervous system | a | 12 |
| | | b | 31 |
| | | c | 30 |
| | | d | 10 |

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| 10 | The fluid that passes through the lymphatic vessels_____. | a | Moves in a single direction toward the heart |
| | | b | Passes from the lymphatic vessels into the arteries |
| | | c | Enters the left ventricle of the heart through the right thoracic duct |
| | | d | Flows toward the lungs |
| 11 | Phagocytic cells are involved in _____ | a | Haemolysis |
| | | b | Formation of haemoglobin |
| | | c | Formation of WBC |
| | | d | Formation of RBC |
| 12 | The tricuspid valve is present between_____ | a | Ventricle and pulmonary artery |
| | | b | Ventricle and aorta |
| | | c | Left auricle and left ventricle |
| | | d | Right auricle and right ventricle |
| 13 | The artery that carries deoxygenated blood is_____ | a | Renal artery |
| | | b | Hepatic artery |
| | | c | Pulmonary artery |
| | | d | Mesenteric artery |
| 14 | _____part of eye ball is also known as blind spot. | a | Fovea |
| | | b | Optic disc |
| | | c | Iris |
| | | d | Ciliary body |
| 15 | Person with Blood group _____have Red blood cells that do not contain either A or B antigens on their surface | a | O |
| | | b | AB |
| | | c | B |
| | | d | A |
| 16 | The heart is specifically located in _____ | a | Thoracic cavity |
| | | b | Mediastinum |
| | | c | Pleural cavity |
| | | d | Ventral cavity |
| 17 | The QRS complex in the ECG marks the onset of_____. | a | Ventricular depolarization |
| | | b | Ventricular repolarization |
| | | c | Atrial systole |
| | | d | Atrial depolarization |
| 18 | _____cells in blood do not have a nucleus. | a | Lymphocyte |
| | | b | Erythrocyte |
| | | c | Monocyte |
| | | d | Basophil |

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| 19 | The only movable bone of the skull is _____ | a | Maxilla |
| | | b | Mandible |
| | | c | Temporal bone |
| | | d | Frontal bone |
| 20 | In peripheral nervous system the nerves that arise from brain are called as _____ | a | Spinal nerves |
| | | b | Temporal nerves |
| | | c | Cranial nerves |
| | | d | Frontal nerves |

Q 2. A. Attempt ANY TWO questions of the followings 10×2= 20M

- a. i. Explain principle of diffusion & factors affecting rate of diffusion.
- ii. Explain the structure of plasma membrane.
- b. i. Write a note on ECG.
- ii. Explain the conduction system of the heart.
- c. i. Compare and contrast sympathetic and parasympathetic nervous system.
- ii. Write the functions of lymph node and describe formation and circulation of lymph.

Q 2.B. Attempt ANY SEVEN questions of the followings 5×7= 35M

- a. Define Homeostasis. Explain positive and negative feedback mechanisms.
- b. Give the composition and functions of Blood.
- c. Give the structural and functional classification of joints with examples.
- d. Draw a neat labelled diagram of the sarcomere and enlist various types of proteins present in the skeletal muscle.
- e. Write a detailed note on blood groups.
- f. Draw a well-labelled diagram of the eye showing internal parts.
- g. Describe the physiology of vision.
- h. Differentiate between artery and vein.
- i. Explain the sequence of events in cardiac cycle.
