

25676

**FIRST PROFESSIONAL B.H.M.S. EXAMINATION
HUMAN PHYSIOLOGY AND BIOCHEMISTRY PAPER - I
SUBJECT CODE: HOM UG-PB**

TIME: 3 HOURS

TOTAL MARKS: 100

Instructions:

- [1] Draw Diagrams Wherever Necessary.
[2] Figures to The Right Indicate Full Mark.
[3] All Questions Are Compulsory

Q – 1 Multiple Choice Questions.

10

- 1) Which structure within the cell produces ATP (Adenosine Triphosphate)?
 - a) The Mitochondria
 - b) The Nucleus
 - c) Peripheral Proteins
 - d) The Endoplasmic Reticulum
- 2) Which of the following is not a component of the cell plasma membrane?
 - a) Cholesterol
 - b) Proteins
 - c) Microfilaments
 - d) Phospholipids
- 3) Which form of transport through the plasma membrane requires the expenditure of energy by the cell?
 - a) Facilitated Diffusion
 - b) Osmosis
 - c) Active Transport
 - d) Diffusion
- 4) The diffusion of water through a membrane is referred to as.....
 - a) Secondary Active Transport
 - b) Bulk Transport
 - c) Osmosis
 - d) Endocytosis
- 5) What is found in blood serum that is also in blood plasma?
 - a) Blood Cells
 - b) Platelets
 - c) Plasma Proteins
 - d) Clotting Factors
- 6) Choose the structure known as the pacemaker of the heart from the following.
 - a) Atrio- ventricular Node
 - b) Sino- atrial Node
 - c) Atrio- ventricular Bundle
 - d) The Bundle of Hiss
- 7) What is the number of breaths per minute called? The....
 - a) Respiratory Rate
 - b) Respiratory Speed
 - c) Pulmonary Index
 - d) Respiratory Volume
- 8) Where are all of the glomeruli of the kidney located?
 - a) In the Medulla
 - b) In the columns
 - c) In the Pyramids
 - d) In the Cortex
- 9) Where are sebaceous glands found?
 - a) In the Digestive system
 - b) In the Hypodermis
 - c) In the Dermis
 - d) In the Stratum Corneum
- 10) What is a sarcomere?
 - a) It is the plasma membrane of a muscle cell
 - b) It is the cytoplasm of a muscle cell
 - c) It is a section of Myofibril
 - d) It is a bundle of thick and thin myofilaments

Q - 2 Short Answer Questions

40

- 1) Mitochondria
- 2) Osmosis
- 3) Lymphnode
- 4) Factor affecting Cardiac Output
- 5) Dead Space
- 6) Nephron
- 7) Function of Skin
- 8) Neuro-muscular Transmission

Q - 3 Long Answer Questions

50

- 1) Enumerate the factors involved in blood coagulation. Describe the mechanism of coagulation in detail. (Extrinsic Pathway)
 - 2) Define Immunity. Type of Immunity. Describe in detail Antibody mediated Immunity.
 - 3) Which are properties of cardiac muscle? Describe in detail. (Any two)
 - 4) Describe in detail nervous regulation of Respiration.
 - 5) Define GFR. Describe in detail the factors affecting on GFR.
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