

**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. ATTEMPT ALL THE QUESTIONS.
 2. DRAW DIAGRAMS WHEREVER NECESSARY.
 3. FIGURES IN RIGHT INDICATES FULL MARKS

Q – 1 Multiple Choice Questions.

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- 1) Protein factories of cell.....
 - A. Ribosomes
 - B. Peroxisome
 - C. Lysosome
 - D. Cell membranes
- 2) Selectin is a.....
 - A. Cell communicating molecule
 - B. Cell anchoring molecule
 - C. Cell adhesion molecule
 - D. Cell apoptosis molecule
- 3) Carrier protein that transport two different substances in the same direction is called.....
 - A. Diffusion
 - B. Osmosis
 - C. Dialysis
 - D. Sympoter
- 4) Excessive secretion or production of any substance in the body are controlled in and maintain homeostasis by...
 - A. Positive feedback mechanism
 - B. Negative feedback mechanism
 - C. Osmosis
 - D. Haemodynamics
- 5) Total blood volume is....
 - A. 8% of body weight
 - B. 18% of body weight
 - C. 1.8% of body weight
 - D. 45% of body weight
- 6) Pulse pressure means.....
 - A. Pressure produce by blood column on vessel wall
 - B. Difference between systolic blood pressure & diastolic blood pressure
 - C. Sum of the Systolic blood pressure and diastolic blood pressure
 - D. Average blood pressure during cardiac cycle
- 7) The volume of air remaining in the lungs after a quiet expiration is the.....
 - A. Tidal volume
 - B. Expiratory reserve volume
 - C. Functional residual capacity
 - D. Vital capacity
- 8) The normal glomerular filtration rate is....
 - A. 25 ml/min
 - B. 125 ml/min
 - C. 25 liter/day
 - D. 125 liter/ day
- 9) Langerhans cell present in which layer of epidermis...
 - A. Stratum Corneum
 - B. Stratum Lucidum
 - C. Stratum Granulosum
 - D. Stratum Spinosum
- 10) Saltatory conduction is
 - A. Conduction of action potentials from node to node
 - B. Conduction across neuromuscular junction
 - C. Both A & B
 - D. None of the above.

- 1) Mitochondria
- 2) Difference between simple and facilitated diffusion
- 3) Factors preventing blood coagulation inside blood vessels.
- 4) Short term regulation of blood pressure.
- 5) Dead space
- 6) Micturation reflexs
- 7) Glands of skin
- 8) Sarcomere

- 1) Define blood coagulation. Describe the Intrinsic pathway in detail.
- 2) Define erythropoiesis. Describe the stages of erythropoiesis with well labelled diagram.
- 3) Which are the properties of cardiac muscle. Describe the conducting system of the heart.
- 4) Describe the lung volume and lung capacity with well labelled diagram.
- 5) Define GFR. Describe the factors affecting on the GFR.