

7 APR 2025

25676

SEAT NO. _____

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.

10

- 1) Ribosomes are responsible for synthesis of....
 - A. Lipids
 - B. Steroids
 - C. Protein
 - D. Glucose
- 2) Apoptosis means.....
 - A. Programmed cell growth
 - B. Programmed cell death
 - C. Programmed cell division
 - D. Intercellular cell junction
- 3) Osmosis is a.....
 - A. Net movement of solvent from lower concentrations to higher concentrations of solutes
 - B. Net movement of solvent from higher concentrations to lower concentrations of solutes.
 - C. Net movement of solutes from lower concentrations to higher concentrations of solvent.
 - D. Net movement of solutes from higher concentrations to lower concentrations of solvent.
- 4) Which of the following is an energy requiring process to move substance through cell membranes...
 - A. Simple diffusion
 - B. Facilitated diffusion
 - C. Osmosis
 - D. Active transport.
- 5) Normal P^H of blood is.....
 - A. 4.7
 - B. 6.8
 - C. 8.6
 - D. 7.4
- 6) This part of the heart is known as Pacemaker....
 - A. Sino atrial Node
 - B. Atrio ventricular Node
 - C. Bundle branch
 - D. Purkinje fibers
- 7) The air that can be breathed out by maximum expiratory efforts after an ordinary expiration is the.....
 - A. Tidal volume
 - B. Inspiratory reserve volume
 - C. Expiratory reserve volume
 - D. Residual volume
- 8) Facultative reabsorption of water from renal tubules required....
 - A. Oxytocin
 - B. Aldosterone
 - C. Cortisol
 - D. ADH
- 9) This epidermis layer also known as Stratum Basale.....
 - A. Stratum Corneum
 - B. Stratum Lucidum
 - C. Stratum Granulosum
 - D. Stratum Germinatum
- 10) Function of tropomyosin in skeletal muscle is
 - A. Regulates muscle contraction and relaxation
 - B. Releasing calcium after contraction
 - C. Binding to myosin during contraction
 - D. Covering of action binding site of myosin at rest.

Q – 2 Short Answer Questions

40

- 1) Nucleus
- 2) Colloidal osmotic pressure
- 3) Rh Incompability
- 4) Long term regulation of blood pressure
- 5) Respiratory centers
- 6) Factors affecting on GFR.
- 7) Functions of skin
- 8) Neuromuscular transmission

Q – 3 Long Answer Questions

50

- 1) Difine blood coagulation. Describe extrinsic pathway in detail.
- 2) Define erythropoisis. Discuss factors affecting on erythropoisis.
- 3) Discuss the various events of cardiac cycle.
- 4) Discuss the mechanism of oxygen transport across lungs.
- 5) Define nephron. Types of nephron. Describe roles PCT in tubular reabsorption.