

- 8 APR 2025

25677

SEAT NO. \_\_\_\_\_

**FIRST PROFESSIONAL B.H.M.S. EXAMINATION**  
**HUMAN PHYSIOLOGY AND BIOCHEMISTRY PAPER - II**  
**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) Which hormone plays a role in circadian rhythm?
  - a) Melatonin
  - b) Insulin
  - c) Cortisol
  - d) ADH
- 2) Which system controls involuntary functions like heart rate and digestion?
  - a) Somatic nervous system
  - b) Autonomic nervous system
  - c) Central nervous system
  - d) Peripheral nervous system
- 3) Which hormone stimulates gastric acid secretion?
  - a) Gastrin
  - b) Secretin
  - c) Cholecystikinin
  - d) Somatostatin
- 4) Menstruation occurs due to a drop in:
  - a) FSH and LH
  - b) Progesterone and estrogen
  - c) Oxytocin and prolactin
  - d) Testosterone and hCG
- 5) Which cells in the testes produce testosterone?
  - a) Sertoli cells
  - b) Leydig cells
  - c) Spermatogonia
  - d) Epididymal cells
- 6) The semicircular canals are responsible for:
  - a) Hearing
  - b) Taste perception
  - c) Smell perception
  - d) Balance and equilibrium
- 7) Which types of receptors are responsible for detecting light?
  - a) Mechanoreceptors
  - b) Chemoreceptors
  - c) Photoreceptors
  - d) Thermoreceptors
- 8) Which of the following is the building block of proteins?
  - a) Monosaccharides
  - b) Nucleotides
  - c) Amino acids
  - d) Fatty acids
- 9) Which of the following is NOT a function of lipids?
  - a) Energy storage
  - b) Structural component of membranes
  - c) Hormone synthesis
  - d) Enzymatic function
- 10) The final product of anaerobic glycolysis is:
  - a) Pyruvate
  - b) Acetyl-CoA
  - c) Lactic acid
  - d) Oxaloacetate

**Q – 2 Short Answer Questions**

**40**

- 1) Discuss the functions of hormones secreted by posterior pituitary
- 2) Parathormone
- 3) CSF
- 4) Functions of limbic system
- 5) Composition and functions of bile
- 6) Define menopause. Explain changes during menopause
- 7) Colour blindness
- 8) Vitamin A deficiency

**Q – 3 Long Answer Questions**

**50**

- 1) Describe functions and regulation of growth hormone. Describe briefly growth hormone insufficiency
- 2) Describe the functions of hypothalamus in detail
- 3) Describe composition and functions of gastric juice
- 4) Discuss the role testosterone
- 5) Describe the mechanism of hearing