

QP CODE :

Reg.No.....

**First Professional B.H.M.S Regular Examination, Model Question Paper
HUMAN PHYSIOLOGY & BIOCHEMISTRY(Hom UG-PB) - PAPER I
(2022 Scheme)**

Time 3 hours

Total Marks :100

Answer all questions to the point, neatly and legibly.

Do not leave any blank pages between answers.

Indicate the question number correctly for the answer ,in the margin space.

Answer all parts of a single question together.

Leave sufficient space between answers.

Draw diagrams wherever necessary.

1.MULTIPLE CHOICE QUESTION (10 X 1 = 10)

The answers to MCQ (Q.NO.1 to 10) shall be written continuously on the first two writing sheets (ie Page No.3& 4)only

i. A membrane-bound organelle involved in the processing of proteins

a. Mitochondria b. Endoplasmic reticulum c. Golgi body d. Lysosome

ii. The maintenance of constant internal environment of the body is

a. Haemostasis b. Homeostasis c. Apoptosis d. Exocytosis

iii. The acid-base imbalance caused by loss of excess H⁺ resulting in increased HCO₃⁻ concentration is

a. Metabolic alkalosis b. Respiratory acidosis c. Metabolic acidosis d. Respiratory alkalosis

iv. Cell junction which prevents intercellular exchange of substances

a. Anchoring junction b. Communicating junction c. Occluding junction d. Gap junction

v. Which is not a layer of epidermis of skin

a. Stratum corneum b. Stratum intermedium .c Stratum granulosum d. Stratum spinosum

vi. An autoimmune disorder of neuromuscular junction caused by antibodies to cholinergic receptors.

a. Eaton lambert syndrome b. WPW syndrome c. Cushing syndrome d. Myasthenia gravis

vii. Anaemia due to deficiency of vitamin B12

a. Aplastic anaemia pernicious anaemia c. Cooley's anaemia microcytic anaemia

viii. The interval between the onset of 'P' wave and onset of 'Q' wave.

a.PR interval b. QT interval c.ST interval d. RR interval

ix. The volume of air remaining in lungs after normal expiration

a. Residual volume b. functional residual capacity c. Vital capacity d. Tidal volume

v. The segment of nephron functioning as counter current multiplier

a.Proximal convoluted tubule b. Distal convoluted tubule c. Collecting duct d. Loop of henle

Short Answer Questions (5 X 8= 40)

- 2. Classify hypoxia**
- 3. Explain heart sounds**
- 4. Define and Classify different types of immunity**
- 5. Discuss the cause and grade of the nerve injury**
- 6. Explain the regulation of body temperature through skin**
- 7. Describe the maintaining of pH buffer system**
- 8. Enumerate the functions of endoplasmic reticulum**
- 9. Describe the process of reabsorption in kidney**

Long Answer Question (5 X 10= 50)

10. An 18 years old boy meets with a road traffic accident, gets injured and loses 20% of blood volume.

Answer the following

- Define shock**
- Describe the Baroreceptor Mechanism of blood pressure regulation**
- Classification and major causes of various types of shock (2+4+4)**

- 11. Describe the physiology of micturition**
- 12. Describe the different blood groups. Add a note on the clinical importance of blood grouping.**
- 13. Describe the composition and functions of blood components**
- 14. Explain the transport of oxygen in blood.**