

PAPER CODE: BH2022404

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TELANGANA STATE, WARANGAL – 506 002
BHMS FIRST YEAR DEGREE SUPPLEMENTARY EXAMINATIONS: AUGUST, 2025
HUMAN PHYSIOLOGY AND BIOCHEMISTRY
PAPER-I

Time: 3 Hours

Max Marks: 100

Note: Answer all questions

Give Diagrammatic representation wherever necessary with Black Ball point pen/ HB
Pencil / any dark colour Pencil.

Write ALL of the following Multiple Choice Questions:

10 X 1 = 10

1. Sandwich of Lipid appearance present in
 - a) Mitochondria
 - b) Lysosomes
 - c) Cell Membrane
 - d) Golgi Apparatus
2. Blood PH is
 - a) 7.8
 - b) 7.4
 - c) 7.6
 - d) 7.5
3. Respiratory acidosis can occur due to
 - a) Hyperventilation
 - b) Hypoventilation
 - c) Increased bicarbonate levels
 - d) Alkaline pH of the blood
4. The pH of a solution is a measure of:
 - a) Concentration of hydrogen ions
 - b) Concentration of hydroxide ions
 - c) Concentration of salt ions
 - d) Concentration of bicarbonate ions
5. Haemodialysis is
 - a) Plasmapheresis
 - b) Artificial Kidney
 - c) Liver Transplant
 - d) Pleural Fluid Tapping
6. In intracellular fluid the single substance with the greatest osmotic activity is
 - a) Protein
 - b) Potassium
 - c) Urea
 - d) Phosphate
7. Severe hypoxia may produce
 - a) Hypertension
 - b) Hypotension
 - c) BP fall followed by BP rise
 - d) No change
8. Resting Membrane Potential of Skeletal Muscle Fibre is
 - a) -60mV
 - b) -90mV
 - c) 20 mV
 - d) 10 mV

9. Which of the following is *not* a function of skin?
- | | |
|-----------------------|------------------------|
| a) Calcium Production | b) Vitamin D synthesis |
| c) Protection | d) Excretion of wastes |
10. 1st Heart Sound is caused by
- | | |
|--|---------------------------------------|
| a) Closure of semi lunar valves | b) Closure of Atrioventricular Values |
| c) Sudden rush of blood into ventricle | d) Contraction of Atrial Musculature. |

Write a short essay on the following:

8 X 5 = 40

11. Define Cell. Explain its constituents and their functions.
12. Diffusion
13. Synthesis of Haemoglobin.
14. Pulmonary function tests.
15. What are Heart sounds and its types.
16. Juxtaglomerular apparatus and its functions.
17. Describe the regulation of body temperature through skin
18. Describe the contractions of Smooth muscle.

Write an essay on the following:

5 X 10 = 50

19. Define Cell Mediated Immunity and Humoral Immunity and its developments.
20. Define Electrocardiogram. Describe waves, segments and intervals of Normal ECG.
21. Explain the changes in the body at high altitude and write note on Acclimatization.
22. Describe the mechanism of concentration of Urine.
23. Describe the stages and regulation of Erythropoiesis.
