

**PAPER CODE: BH2022404**

**KALOJI NARAYANA RAO UNIVERSITY OF HEALTH SCIENCES**  
**TELANGANA STATE, WARANGAL – 506 002**  
**BHMS FIRST PROFESSIONAL DEGREE EXAMINATIONS: MARCH, 2026**  
**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.

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**Write ALL of the following Multiple Choice Questions:**

**10 X 1 = 10**

1. Cytoskeleton comprises
  - a) Microtubules and Microfilaments
  - b) Cell membrane
  - c) Golgi complex
  - d) Cell junctions.
2. Cell is the
  - a) Structural unit
  - b) Functional unit
  - c) Both A and B
  - d) None
3. Which as First Site of Hemopoiesis
  - a) Liver
  - b) Bone Marrow
  - c) York sac
  - d) Spleen
4. Which of the following organs is primarily responsible for regulating blood pH.
  - a) Liver
  - b) Kidneys
  - c) Pancreas
  - d) Spleen
5. Which of the following conditions would likely result in respiratory alkalosis.
  - a) Decreased respiratory rate
  - b) Increased respiratory rate
  - c) Decreased bicarbonate levels
  - d) Increased hydrogen ion concentration
6. Respiratory mechanism is controlled by
  - a) Central Nervous system
  - b) Sympathetic nervous system
  - c) Parasympathetic nervous system
  - d) Autonomic nervous system
7. Kidneys produce
  - a) Erythropoietin
  - b) ADH
  - c) ANP
  - d) Cholecalciferol
8. What is system? the Function of the muscular
  - a) Posture
  - b) Movement
  - c) Heat production
  - d) All the above
9. “A” wave of Jugular Venous pulse is caused by
  - a) Atrial systole
  - b) Ventricle systole
  - c) Atrial diastole
  - d) Ventricular diastole

10. Which of the following is not a function of skin?
- |                       |                        |
|-----------------------|------------------------|
| a) Calcium production | b) Vitamin D synthesis |
| c) Protection         | d) Excretion of wastes |

**Write a short essay on the following:**

**8 X 5 = 40**

11. Explain the mechanism of vasoconstriction and platelet plug Formation in Haemostasis.
12. Osmosis.
13. Explain the role of baroreceptors in controlling the heart rate.
14. Describe in detail about the lung volumes.
15. Define Nephron Part and Structure of Nephron.
16. Homeostasis.
17. Define Muscle tone. How is muscle tone maintained?
18. Describe regulation of body temperature by skin.

**Write an essay on the following:**

**5 X 10 = 50**

19. Enumerate and explain the factors necessary for Erythropoiesis.
20. Define Arterial Blood Pressure, Explain the Factors maintaining the Arterial Blood Pressure.
21. Define Hypoxia? Classification, causes and effect of Hypoxia add a note on oxygen therapy.  
Define Glomerular Filtration Rate Enumerate the factors affecting
22. Glomerular Filtration rate and describe in brief to determine Glomerular Filtration rate.
23. Describe synthesis and function of Haemoglobin and add a note on the factors controlling Haemoglobin formation.

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