25U127 (Pages: 2) Name : .....

Reg. No : .....

FIRST SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2025

(FYUGP)

(Regular/Supplementary/Improvement)

CC24UZOO1CJ101 - AN OVERVIEW OF HUMAN PHYSIOLOGY: LIFE SUSTAINING SYSTEMS

(B.Sc. Zoology - Major Course)

(2024 Admission onwards)

Time: 2.0 Hours Maximum: 70 Marks

Credit: 4

Part A (Short answer questions)

Answer ***all*** questions. Each question carries 3 marks.

1. Explain any two major organ systems of human. [Level:2] [CO1]
2. Summarize the role of platelets in the immune response. [Level:2] [CO1, CO2]
3. Explain COVID associated problems. [Level:2] [CO1, CO2]
4. Distinguish between tidal volume and vital capacity. [Level:4] [CO1, CO2]
5. Evaluate how participation in high-intensity sports can reduce the risk of lifestyle diseases like diabetes and hypertension. [Level:4] [CO1, CO3]
6. Explain how the breakdown of the cross-bridges between actin and myosin contributes to muscle relaxation. [Level:2] [CO1, CO3]
7. Compare the conditions leading to muscle fatigue during prolonged tetanus. [Level:4] [CO1, CO3]
8. Compare Hematuria and ketonuria. [Level:4] [CO1, CO4]
9. Explain the physiological factors that contribute to the development of cachexia. [Level:2] [CO1, CO4]
10. Apply your understanding of the small intestine's villi structure to explain how it maximizes nutrient absorption in the digestive process. [Level:3] [CO1, CO4]

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

Answer ***all*** questions. Each question carries 6 marks.

11. Explain anthropometry. [Level:2] [CO1]
12. Explain artherosclerosis. [Level:2] [CO1, CO2]

13. Decribe the way of transport of gas. [Level:2] [CO1, CO2]

14. Analyze the importance of the neuromuscular junction in skeletal muscle contraction. [Level:4] [CO1, CO3]

15. Analyze the structural and functional differences between chemical and electrical synapses, and explain how these differences influence the speed and fidelity of signal transmission. [Level:4] [CO1, CO3]

16. Summarize the steps involved in the ornithine cycle [Level:2] [CO1, CO4]

17. Explain the physiological mechanism behind vomiting and hiccups and its causes. [Level:2] [CO1, CO4]

18. Describe the structure of the juxtaglomerular apparatus and its location in the nephron. [Level:2] [CO1, CO4]

(Ceiling: 36 Marks)

Part C (Essay questions)

Answer any ***one*** question. The question carries 10 marks.

19. Explain the biochemical pathway of blood coagulation and clotting factors. [Level:2] [CO1, CO2]

20. Compare the structure and types of neuron. [Level:4] [CO1, CO3]

(1 × 10 = 10 Marks)

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