

**B. Sc. DEGREE END SEMESTER EXAMINATION -OCT. 2020: JANUARY 2021****SEMESTER –5: ZOOLOGY (CORE COURSE)****COURSE: 15U5CRZOO08: BIOCHEMISTRY, HUMAN PHYSIOLOGY AND ENDOCRINOLOGY***(Common for Regular 2018 admission & Improvement 2017/Supplementary 2017 /2016/2015 admissions)*

Time: Three Hours

Max. Marks: 60

Answer **all** questions in part A. Answer **any 6** questions from part B,  
**any 4** from part C and **any 2** from part D.

**PART A**

1. What is gluconeogenesis?
2. What are allosteric enzymes?
3. Give one example each for an aldotriose and a ketotriose.
4. Which blood antibodies are present in an AB<sup>+</sup> blood?
5. Name the two *Pontine* respiratory centres.
6. What is tachycardia?
7. What is known as myocardial infarction?
8. Name two pituitary hormones. (1 x 8 = 8)

**PART B**

9. What is ornithine cycle?
10. What is hexose monophosphate shunt pathway?
11. Describe Haldane effect.
12. What is nitrogen narcosis?
13. What is blood-brain barrier?
14. What is the role of receptors in hormone action?
15. What are the functions of testosterone?
16. What is transmethylation? (2 x 6 = 12)

**PART C**

17. Explain the process of  $\beta$ -oxidation.
18. Describe the influence of different factors on enzyme action.
19. Describe the process of haemostasis.
20. Explain oxygen toxicity and CO<sub>2</sub> poisoning.
21. Write on the regulation of glucagon and insulin secretion.
22. What are the functions of adrenal hormones (4 x 4 = 16)

**PART D**

23. Explain the process of glycolysis-citric acid cycle of ATP synthesis.
24. Elaborate on different kidney disorders.
25. Describe the process of skeletal muscle contraction.
26. Write an essay on thyroid and parathyroid hormones. (12 x 2 = 24)