

Fourth Semester FYUGP Degree Examination APRIL 2026**KU4DSCZOO208 - BIOCHEMISTRY**

2024 Admission onwards

Time : 1.5 hours

Maximum Marks : 50

Section A**Answer any 6 questions. Each carry 2 marks.**

1. What are oligosaccharides? Give one example
2. What are monosaccharides? Give an example
3. How does temperature affect enzyme activity?
4. What are oxidoreductases?
5. Why is phosphorus considered an important macronutrient in animals?
6. How does the bicarbonate buffer system regulate blood pH?
7. What is basal metabolism and why is it important for maintaining body functions?
8. Why is oxygen essential for the functioning of the electron transport chain?

Section B**Answer any 4 questions. Each carry 6 marks.**

9. Explain the molecular structure, dipolar nature and dissociation of water
10. Classify minerals based on the requirements. Describe their biological significance in living organisms with suitable examples
11. Define pH and explain the concept of buffers in biological systems
12. Explain gluconeogenesis
13. Explain the chemiosmotic hypothesis
14. Describe the beta oxidation of fatty acids

Section C**Answer any 1 questions. Each carry 14 marks.**

15. Describe the structural levels of protein
16. Write an account on Vitamins and their biological significance