

22P114

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Name: .....

Reg.No: .....

**FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2022**

(CBCSS - PG)

(Regular/Supplementary/Improvement)

**CC19P ZOL1 C01 - BIOCHEMISTRY AND BIOPHYSICS**

(Zoology)

(2019 Admission onwards)

Time : 3 Hours

Maximum : 30 Weightage

**Part-A**

Answer any *four* questions. Each question carries 2 weightage.

1. Biological role of lactose.
2. What are steroids? Give two examples of steroid hormone.
3. Comment on enthalphy.
4. What is the significance of TCA cycle?
5. Give the structure of Cholesterol. Describe the synthesis of mevalonate from acetate
6. Explain the mechanism of sodium potassium pump.
7. Write a short note on the biological effects of ionizing radiations.

**(4 × 2 = 8 Weightage)**

**Part-B**

Answer any *four* questions. Each question carries 3 weightage.

8. Write a short note on ozazone.
9. Explain the classification of amino acids with suitable examples.
10. Describe the characteristic features of A-DNA and Z-DNA.
11. Explain allosteric enzymes and write a note on positive and negative regulations.
12. Explain Glycogenesis and its regulation.
13. Explain Biosynthesis of cholesterol.
14. What is audible sound frequency? Write a short note on echolocation ? Explain with suitable examples.

**(4 × 3 = 12 Weightage)**

### **Part-C**

Answer any *two* questions. Each question carries 5 weightage.

15. Explain the biological importance of carbohydrates.
16. Explain Shikimate pathway. Elaborate the biosynthetic pathway of Tryptophan starting from Chorismate.
17. Explain the biosynthesis and degradation of different Pyrimidine nucleotides.
18. What are the properties of colloids? Explain the biological importance of colloids.

**(2 × 5 = 10 Weightage)**

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