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**B.M.S COLLEGE FOR WOMEN, AUTONOMOUS**  
**BENGALURU – 560004**  
**SEMESTER END EXAMINATION – MARCH/APRIL- 2023**

**B.Sc. Biotechnology – III Semester**

**BIOMOLECULES**  
**(NEP Scheme 2021-22 onwards)**

**Course Code: BT3DSC03**

**Duration: 2 ½ Hours**

**QP Code: 3019**

**Max. Marks: 60**

**PART-A**

**I. Answer any FOUR of the following.**

**(4X2=8)**

1. What are essential and non-essential amino acids? Give an example.
2. Discuss on composition of Sucrose.
3. What is Saponification number?
4. Comment on functions of Epinephrine hormone.
5. Differentiate between Nucleoside and Nucleotide.
6. Discuss on the principle of Electrophoresis.

**PART-B**

**II. Write short notes on any FOUR of the following.**

**(4X5=20)**

7. Explain the structure and properties of Cellulose.
8. Discuss on the concept of Zwitter ion and Isoelectric point.
9. Give a brief account on types of Enzyme inhibition with an example.
10. Explain dietary source, functions and deficiency of Vitamin A.
11. Write a note on principle and applications of thin layer chromatography.
12. Give a brief account on classification of Hormones with an example.

**PART-C**

**III. Answer any FOUR of the following.**

**(8X4=32)**

13. Describe in detail the structural level of organization of Proteins with an example.
14. Explain the factors influencing Enzyme activity.
15. Explain the concept of isomerism and ring structure in Glucose.
16. Give a detailed account on functions and deficiency manifestations of Vitamin B1 & vitamin C.
17. Explain the mechanism of hormone action and their functions.
18. Explain the principle and applications of AAS.

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