Code No: 5042/R21

FACULTY OF SCIENCE

B.Sc. **CBCS** I-Year (II-Semester) Regular Examinations, August-2023

Biochemistry-II

(Chemistry of Nucleic Acids and Biochemical Techniques)

Time: 3 Hours Max Marks: 80

SECTION-A (4x5=20 Marks)

(Short Answer Type)

Answer any Four questions from the following

1. Nucleosides.
2. Formation of Phosphodiester linkages.
3. T_m value.
4. Hyperchromic effect.
5. Beer-Lambert's law.
6. Affinity chromatography.
7. Agarose Gel Electrophoresis.
8. Paper Chromatography.

SECTION-B (4x15=60 Marks)

(Essay Answer Type)

Answer the following questions

9. (a) Draw the structures of Purines and Pyrimidines. Add a note on the DNA.

(OR)

(b) Explain the effect of acids, alkalies and nucleases on phosphodiester linkages.

10. (a) Write in detail about the Watson-Crick DNA double helix structure.

(OR)

(b) Write a detailed note on the different types of RNA and their biological functions.

11. (a) How do you differentiate Colorimetry and Spectrophotometry. Explain.

(OR)

(b) Describe the principle of Fluorimetry and Centrifugation. Add a note on Molar extinction coefficient.

12. (a) Explain – Gel filtration Chromatography and its applications.

(OR)

(b) Give a detailed note on principle and applications of Native PAGE and SDS-PAGE.