

THREE YEAR BSCS (CBCS) DEGREE EXAMINATIONS, APRIL 2017.

SECOND SEMESTER

Part II — Biochemistry

NUCLEIC ACIDS AND BIOCHEMICAL TECHNIQUES

Time : 3 Hours

Max. Marks : 75

**SECTION - A**

Answer any FIVE questions. Each question carries 5 marks.

(Marks : 5 × 5 marks = 25 marks)

1. Structure of nucleotides.
2. Cot curves and their significance.
3. Super coiling of DNA
4. Structure of Heme.
5. Density gradient centrifugation.
6. Paper chromatography.
7. Beer-Lambert law.
8. Respiratory exchange.

**SECTION - B**

Answer ONE question from each Unit.

Each question carries 10 marks.

(Marks : 5 × 10 marks = 50 marks)

**UNIT - I**

9. Describe the structure of mRNA and tRNA with diagram.

Or

10. Describe the structure of DNA with diagram.

**UNIT - II**

11. Give an account on structure and identification of porphyrins.

Or

12. Explain the structure of chlorophylls.

**UNIT - III**

13. Write a note on principle and applications of thin layer chromatography.

**Or**

14. Write a note on principle and applications of agarose gel electrophoresis.

**UNIT - IV**

15. Describe the principle and applications of spectrophotometer.

**Or**

16. Write a note on applications of radioactive isotopes in biology.

**UNIT - V**

17. Write a note on isotope tracer studies.

**Or**

18. Explain about standard deviation.
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