

C 2301

B.Sc. (Three Year) DEGREE EXAMINATION, MARCH/APRIL 2017.

End Semester Examination

Second Semester

Part II : Biochemistry

NUCLEIC ACID AND BIOCHEMICAL TECHNIQUES

Time : 3 Hours

Max. Marks : 70

PART — A

Answer any FIVE of the following questions. **(5 × 4 = 20 Marks)**

1. Structure of nucleic acid.
2. Porphobilinogen properties.
3. Paper chromatography.
4. Use of radioactive isotopes in biology.
5. Tissue slice technique.
6. Cot curve and their significance.
7. Heme.
8. SDS PAGE.

PART — B

Answer ALL the following questions. **(5 × 10 = 50 Marks)**

9. (a) Discuss about Watson and Crick model of DNA.

Or

- (b) What is denaturation and renaturation of DNA? Discuss about T_m values and their significance.

10. (a) Define porphyrin. Write about properties and identification of porphyrin.

Or

- (b) Discuss about structure of metalloporphyrin heme, cytochrome and chlorophylls.

Turn Over

11. (a) Write a principle and applications of centrifugation techniques.

Or

(b) Write a principle and applications of thin layer chromatography.

12. (a) Define Beer-Lambert law. Discuss about a principle and applications of UV-visible spectroscopy.

Or

(b) Write an account on principle and applications of fluorimetry.

13. (a) Discuss about intermediary metabolism in vivo studies of removal of organs and perfusion studies.

Or

(b) What is intermediary metabolism? Discuss in a brief about methods of investigation of intermediary metabolism.
