

THREE YEAR B.Sc. (CBCS) DEGREE EXAMINATION, NOVEMBER 2017

THIRD SEMESTER

Part II – Biotechnology

BIO PHYSICAL TECHNIQUES

Time : 3 Hours

Max. Marks : 75

SECTION – A

Answer any FIVE of the following.

Each question carries 5 marks.

(Marks : 5 × 5 marks = 25 marks)

1. Electro magnetic radiation.
2. Partition coefficient.
3. Affinity chromatography.
4. Paper electrophoresis.
5. Iso electric focusing.
6. Radio activity decay.
7. Ultracentrifuge.
8. Standard deviation.

SECTION – B

Answer ONE question from each Unit.

(Marks : 5 × 10 marks = 50 marks)

UNIT – I

9. Explain absorption and emission flame photometry.

Or

10. What is extinction coefficient? Explain different spectrophotometers and their applications.

UNIT – II

11. Give an account on HPLC and its applications.

Or

12. Describe gel filtration and ion exchange chromatography.

UNIT - III

13. What is gel electrophoresis? Explain types of gels and procedure of column and slab gel electrophoresis.

Or

14. Explain separation of proteins in SDS PAGE.

UNIT - IV

15. Explain the application of isotopes in biotechnology.

Or

16. Write about the methods for the measurement of isotopes.

UNIT - V

17. Explain principle, procedure and applications of analytical centrifugation.

Or

18. Write about different databases.
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