

THREE YEAR BSCS., (CBCS) DEGREE EXAMINATIONS, APRIL 2018

SIXTH SEMESTER

Part II – Microbiology – Elective

Paper VII C — INSTRUMENTATION AND BIOTECHNIQUES

Time : 3 Hours

Max. Marks : 75

**SECTION – A**

Answer any FIVE of the following.

Draw labelled diagrams wherever necessary.

(Marks : 5 × 5 marks = 25 marks)

1. Phase contrast Microscopy.
2. Confocal Microscopy.
3. Gel filtration Chromatography.
4. Principle of GLC (Gas Liquid Chromatography)
5. Isoelectric focusing.
6. Turbidometry.
7. Ultra centrifugation.
8. Sedimentation coefficient.

**SECTION – B**

Answer FIVE of the following.

Draw labelled diagrams wherever necessary.

(Marks : 5 × 10 marks = 50 marks)

**UNIT – I**

9. Describe the Bright field and Dark field Microscopy.

Or

10. Explain about Fluorescence Microscopy.

## UNIT – II

11. Write about the principle and applications of paper chromatography.

Or

12. Discuss about ion-exchange chromatography.

## UNIT – III

13. Explain about SDS-polyacrylamide gel electrophoresis.

Or

14. Write about the principle and applications of native polyacrylamide gel electrophoresis.

## UNIT – IV

15. Describe about absorption spectra of bimolecular.

Or

16. Explain the Analysis of bimolecular using UV spectroscopy.

## UNIT – V

17. Write about analytical centrifugation.

Or

18. Describe the density gradient centrifugation.
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