

(041210402)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2017

FIRST SEMESTER

Branch - Zoology

Paper IV — BIOPHYSICAL AND BIOCHEMICAL TECHNIQUES

(Old Syllabus)

Time : 3 Hours

Max. Marks : 70

PART - A

Answer any FIVE of the following.

(Marks : 5 × 4 marks = 20 marks)

1. Sonication.
2. Freeze-thaw techniques.
3. Dialysis.
4. Chromatography.
5. Capillary Electrophoresis.
6. 2D Electrophoresis.
7. Radioactive decay.
8. X-ray crystallography.

PART - B

Answer ONE question from each Unit.

(Marks : 4 × 12.5 marks = 50 marks)

UNIT - I

9. Give an account on basic principles of sedimentation in centrifugation.

Or

10. Write an essay on biochemical buffers and their selection.

UNIT - II

11. Explain general principles of separation methods.

Or

12. Write in detail about Gas liquid chromatography.

[P.T.O]

UNIT - III

13. Write an account on preparation, separation and determination of size of DNA in Agarose electrophoresis.

Or

14. Give a brief account on blotting techniques.

UNIT - IV

15. Explain the basic principle of X-ray diffraction and its applications in determination of molecular structures.

Or

16. Give an account on Radioisotope techniques.
-