

THREE YEAR B.Sc. (CBCS) DEGREE EXAMINATION, NOVEMBER 2016

FIRST SEMESTER

Part II — Biotechnology – I

MICROBIOLOGY AND CELL BIOLOGY

Time : 3 Hours

Max. Marks : 75

**PART – A**

Answer any FIVE questions. Each question carries 5 marks.

(Marks :  $5 \times 5$  marks = 25 marks)

1. Contribution of Robert Koch.
2. Endospore staining.
3. Differences between gram positive and negative bacteria.
4. HIV.
5. Enriched media.
6. Continuous culture.
7. Autoclaving.
8. Ribosome.

**PART – B**

Answer ONE question from each Unit. Each question carries 10 marks.

(Marks :  $5 \times 10$  marks = 50 marks)

**UNIT – I**

9. Describe fluorescent microscope, its functions and applications.

Or

10. Discuss the differences between SEM and TEM? Add a note on the applications of electron microscopy.

**UNIT – II**

11. Describe the morphology of archeal cells? Write about the remarkable differences between archeal and eubacterial cells.

Or

12. Write an essay on lytic cycle of viruses.

### UNIT - III

13. Explain the nutritional classifications of bacteria.

Or

14. Describe the different types media.

### UNIT - IV

15. Write an essay on measurement of growth.

Or

16. Describe the different methods of maintain and preserve bacteria.

### UNIT - V

17. Describe the structure and function of chloroplast.

Or

18. Describe the ultrastructure of eukaryotic cell?
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