

M.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

FIRST SEMESTER

Microbiology

Paper I — GENERAL MICROBIOLOGY

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

PART A — (5 × 3 = 15 marks)

Answer any FIVE questions.

Each question carries 3 marks.

Each answer should not exceed 1 page.

1. Dark field microscope.
2. Negative contrast staining.
3. Complex media.
4. Autoclave.
5. AFB staining.
6. Infiltration.
7. Trichoderma.
8. Ustilago.

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. Describe the principle, instrumentation and applications of confocal microscopy.
- Or
10. Discuss about major characteristics used in identification and classification of Microorganisms.
 11. Discuss about different types of media used to isolate and culturing of microorganisms.
- Or
12. Discuss about physical and chemical approaches for sterilization.

13. Describe different approaches involved in obtaining pure cultures.

Or

14. Describe any five staining methods.

15. Narrate the general characteristics, structure and reproduction, life cycle and economic importance of *Puccinia*.

Or

16. Explain the structure, reproduction and economic importance of *Gracellaria*.

