FACULTY OF SCIENCE
Subject: Microbiology
Paper – I: General Microbiology and Microbial Physiology
Time: 3 Hours
Max. Marks: 80

Note: Answer all questions from Part–A and Part–B. Each question carries 4 marks in Part–A and 12 marks in Part – B.

PART – A (8 x 4 = 32 Marks)
(Short Answer Type)

1. Contributions of Louis Pasteur
2. Scanning Electron Microscope
3. Define synthetic media
4. Lyophilization
5. Bergey’s manual of systematic Bacteriology
6. Heterotrophic metabolism
7. Cell cycle in microbes
8. Synchronous culturing

PART – B (4 x 12 = 48 Marks)
(Essay Answer Type)

9. (a) Describe the organization and function of cell organelles in microorganisms.
   OR
   (b) Write the principle and application of phase contrast microscopy.

10. (a) Give an account of physical and chemical methods of sterilization.
     OR
     (b) Describe the methods used for preservation and maintenance of microbial cultures.

11. (a) Write in detail about the methods used for identification of Bacteria.
     OR
     (b) Describe briefly about Microbial nutrition.

12. (a) Explain the factors affecting microbial growth.
     OR
     (b) Describe the different methods employed for microbial growth measurement.

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