FACULTY OF SCIENCE
M.Sc. I-Semester Examination, January 2018
Subject: MICROBIOLOGY
Paper: III
Research Methodology and Techniques

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. Optical rotation
2. Colourimetry
3. TLC
4. Autoradiography
5. ‘t’ test and its significance
6. Poisson distribution
7. Discuss about mail merge in MS word.
8. Explain the uses of any four DOS commands.

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

9. a) Explain the principle and significance of ESR spectroscopy.
    OR
   b) Explain the principle and applications of PAGE.

10. a) What are the methods to study the intermediary metabolism in microbes? Explain
    in detail
    OR
   b) How can you use mutants in the study of metabolism?

11. a) Normal distribution and binomial distribution.
    OR
   b) Explain measures of central tendency with examples.

12. a) Explain the architecture of a computer system.
    OR
   b) Distinguish between operating system and application software. How are
computers used in Education?

*****