Roll No……..….. **Total No. of Printed Pages: [1]**
Total No. of Questions: [11]

M. Sc. Microbiology (Semester – 1st)
GENERAL MICROBIOLOGY
Subject Code : MMBLS1-101
Paper ID: [21221401]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It carries 16 marks. It consists of 4 questions of 4 marks each.
2. Section B consist of 4 questions of 8 marks each. The student has to attempt any 3 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(4 marks each)**

Q1. Write a note of on Louis Pasteur

Q2. Write about bacterial growth curve

Q3. Difference between prokaryotes and eukaryotes

Q4. Define anaerobes and write its applications in Microbiology

Section – B **(8 marks each)**

Q5. Write a note on Robert Koch and elaborate the Koch's postulates

Q6. Write a note of Flagella and enumerate its uses along with diagram

Q7. Note on bacteriophage and write its applications

Q8. Elaborate about phase contrast microscopy and its applications

Section – C **(10 marks each)**

Q9. Write a note on cell wall. Elaborate the difference between gram positive and gram negative cell wall along with labeled diagrams

Q10. Draw a well labeled diagram of Electron Microscope and discuss briefly about its working and principle along with its applications in Microbiology

Q11. Elaborate various antimicrobials and discuss various mechanism of action and properties of each class of antimicrobials.