

FACULTY OF SCIENCE
B.Sc. CBCS I-Year (I-Semester) Regular Examinations, February/March-2023
Microbiology-I
(General Microbiology)

Time: 3 Hours

Max Marks: 80

SECTION-A

(4x5=20 Marks)

Answer any Four questions from the following

1. Hanging drop method.
2. Lyophilization.
3. Anaplerotic reactions
4. Aldehydes.
5. Negative stain.
6. TMV.
7. Autotrophs.
8. UV rays.

SECTION-B

(4x15=60 Marks)

Answer all the following questions

9. (a) Describe the contributions of Louis Pasteur and Robert Koch to the development of microbiology.
(OR)
(b) Explain the working principle of Electron microscope and its applications in biology.
10. (a) Draw and explain the ultrastructure of bacteria.
(OR)
(b) Give an account on the techniques used for the isolation of pure cultures from mixed population of microorganisms.
11. (a) Describe the classification of microorganisms based on their nutritional requirements with examples.
(OR)
(b) Draw and explain the TCA cycle.
12. (a) Define sterilisation. Brief about the various physical methods used for sterilisation.
(OR)
(b) Explain bacterial growth in batch culture. Add a note on factors influencing bacterial growth.