

B.Sc. (Food Science and Technology) (Semester – 1st)
GENERAL MICROBIOLOGY
Subject Code: BFOTS1-101
Paper ID: [21311701]

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

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 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 **(2 marks each)**

- Q1. Attempt the following:
- a. Vegetative reproduction
 - b. Plateau phase
 - c. Pure culture
 - d. Facultative anaerobes
 - e. Streak plating
 - f. Fungal mycelium
 - g. Auxotroph
 - h. Koch postulates
 - i. Aflatoxins
 - j. Binary fission

Section – B **(5 marks each)**

- Q2. Write a note on Koch's postulates and the germ theory of disease.
Q3. What is the growth curve? Elaborate on the different methods used for growth measurements.
Q4. Define water activity. Discuss the role of water activity in microbial growth.
Q5. What are prokaryotic and eukaryotic micro-organisms? Enlist their properties.
Q6. Classified bacteria on the basis of their nutritional requirements.

Section – C **(10 marks each)**

- Q7. Define asexual reproduction. Discuss the different ways of fungi reproduction with well-labeled diagrams.
Q8. Explain the effect of extrinsic and intrinsic factors on microorganism growth.
Q9. Discuss the control of microorganisms by various physical methods in detail.