

Seat No. : \_\_\_\_\_

# FE-121

February-2025

B.Sc., Sem.-I (As per NEP)

DSC-C-MIC-111T : Microbiology

(Introduction to Microbiology)

Time : 2:00 Hours]

[Max. Marks : 50

- Instructions :** (1) All questions are compulsory.  
(2) Figures on the right indicate marks.  
(3) Mention correct question number against the answer.  
(4) Draw figures wherever necessary.

1. Compare the features of prokaryotic and eukaryotic micro-organisms. 10  
**OR**
1. (A) Describe the characteristics of Fungi. 5  
(B) Discuss the natural and hostile habitats of microbes. 5
2. Write germ theory of fermentation in detail. 10  
**OR**
2. (A) Explain the development of pure culture techniques. 5  
(B) Write a short note on contributions of Louis Pasteur. 5
3. Explain in detail the applied areas of microbiology. 10  
**OR**
3. (A) Explain the major development in the field of soil microbiology. 5  
(B) Describe DNA as hereditary molecule. 5
4. Compare the features of compound microscope and electron microscope. 10  
**OR**
4. (A) Write a short note on electron microscopy. 5  
(B) Discuss microbiological uses of dyes and stains. 5
5. Give short and specific answers in **1-2** lines only : (any **ten** out of **twelve**) 10
  - (1) Define viruses.
  - (2) Who gave three domain classification system ?
  - (3) What is nomenclature ?
  - (4) Write the contribution of Paul Ehrlich.
  - (5) Who suggested cotton plug technique in microbiology ?
  - (6) Who used agar powder as solidifying agent ?
  - (7) Define immunity.
  - (8) Write the contribution of George Beadle and Edward Tatum.
  - (9) Write name of any two insects transmitting viral disease to plants.
  - (10) Define resolving power.
  - (11) Give two examples of basic dye.
  - (12) Write the role of mordents in staining.