

Seat No. : _____

MI-208

May-2025

B.Sc., Sem.-II (As Per NEP 2020)

DSC-M-MIC-123T : Microbiology (Minor)

(Cultivation and Isolation of Bacteria)

Time : 1:00 Hour]

[Max. Marks : 25

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

1. Discuss nutritional and chemical requirements of bacteria. 10

OR

1. (A) Explain important ingredients of culture media in brief. 5

(B) Write a note on autotrophs and heterotrophs. 5

2. What is pure culture ? Discuss any two isolation methods to obtain pure culture. 10

OR

2. (A) Write a note on lyophilization. 5

(B) Enlist and explain the colony characteristics of micro-organisms on semisolid media. 5

3. Give short and specific answers in **1-2** lines only. (Any **five** out of **six**) 5

(1) What are chemotrophs ?

(2) Differentiate lithotrophs and organotrophs, based on their nutritional requirements.

(3) Name any one anaerobic bacterium.

(4) What do you mean by aseptic condition ?

(5) Give an example of chemical agent used in selective media.

(6) Give full form of ATCC.