



RAN-2503000504028001

S. Y. B. Sc. (Sem. IV) Examination September - 2025

BM-MJ-402 Bioscience (Microbiology)

Microbial Physiology

Time: 1 Hour]

[Total Marks: 25

સૂચના : / Instructions

(૧)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

S. Y. B. Sc. (Sem. IV)

Name of the Subject :

BM-MJ-402 Bioscience (Microbiology) Microbial Physiology

Subject Code No.: **2503000504028001**

Seat No.:

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Student's Signature

- (2) Draw neat and labelled diagrams wherever necessary.
(3) Figures to the right indicate full marks of the question.

Q.1. Multiple choice questions. (Any Five)

(05)

- Nichrome loop wire is used in which of the following techniques?
 - Pour-plate
 - Streak-plate
 - Spread-plate
 - Roll-tube technique
- Which of the following is energy independent?
 - Active transport
 - Primary active transport
 - Secondary active transport
 - Passive transport
- The preservation by liquid Nitrogen is called as _____.
 - Cryopreservation
 - Lyophilization
 - Freeze-drying
 - Desiccation

4. During exponential phase, growth rate is _____.
a. same as generation time
b. reciprocal of generation time
c. time required for population to double
d. rate of doubling population
5. Which phase shows the reproduction rate equal to the equivalent death rate?
a. Log phase
b. Stationary phase
c. Death phase
d. Lag phase
6. Measurement of cell numbers is carried out by _____ method/s.
a. Viable count
b. Microscopic count
c. Electronic count
d. All

Q.2. Write in detail about various biological media used for cultivation of microbes. **(10)**

OR

Q.2. Answer the following questions. **(10)**

1. Describe in brief about passive transport mechanism.
2. Explain in nutritional types of bacteria.

Q.3. Explain in detail bacterial normal growth curve. **(10)**

OR

Q.3. Answer the following questions. **(10)**

1. Write a note on binary fission.
2. Describe in brief about the mathematics of growth.
