



RAN - 2503000504028001

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S.Y.B.Sc. (Sem. 4) Examination April - 2025

Bioscience (Microbiology) Microbial Physiology

(Paper - BM - MH - 402)

Time: 1 Hour]

[Total Marks: 25

સૂચના : / Instructions

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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. 4)

Name of the Subject :

Bioscience (Microbiology) Microbial Physiology (Paper - BM - MH - 402)

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)

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- Name the type of bacteria which uses CO₂ as a sole source of carbon for growth.
 - Organotrophs
 - Heterotrophs
 - Autotrophs
 - Lithotrophs
- Which of the following is energy independent?
 - Active transport
 - Primary active transport
 - Secondary active transport
 - Passive transport
- Media that contain some ingredients of unknown chemical composition are _____ .
 - defined medium
 - complex medium
 - solid medium
 - liquid medium
- Which of the following is the relationship between optical density and cell mass?
 - exponentially proportional
 - linearly proportional
 - inversely proportional
 - not related

RAN-2503000504028001]

[1]

[P.T.O.]

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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. Bacteria can reproduce through which method?
- a. Binary fission
 - b. Conjugation
 - c. Transduction
 - d. All of the above

Q.2. Discuss in detail about spread plate, pour plate and streak plate method. **10**

OR

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

1. Describe in brief about growth factors.
2. Explain in detail lyophilization.

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

OR

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

1. How to reproduce the bacteria?
2. Write a detail note on factors affecting growth.
