

Roll No.							
----------	--	--	--	--	--	--	--

24-MB-22

**M.Sc. II SEMESTER [MAIN/ATKT] EXAMINATION
JUNE - JULY 2024**

MICROBIOLOGY

Paper - II

[Microbial Physiology]

[Max. Marks : 75]

[Time : 3:00 Hrs.]

[Min. Marks : 26]

Note : Candidate should write his/her Roll Number at the prescribed space on the question paper.
Student should not write anything on question paper.
Attempt five questions. Each question carries an internal choice.
Each question carries **15 marks**.

Q. 1 Explain bacterial photosynthesis in detail. (15 Marks)

OR

Explain bacterial photo phosphorylation in various groups of phototropic bacteria.

Q. 2 Explain following in detail - (15 Marks)

- i) Pasteur effect.
- ii) Gluconeogenesis.

OR

Write a note on following -

(15 Marks)

- i) Oxidative and substrate level phosphorylation.
- ii) Biochemistry of methanogen.

Q. 3 Write a detailed note on oxidation of mono and di-unsaturated fatty acids. (15 Marks)

OR

Explain alpha and β -oxidation of fatty acid.

Q. 4 Write a detailed note on biosynthesis of Peptidoglycan (15 Marks)

OR

Explain catabolism of amino acids in detail.

Q. 5 Describe molecular methods for study of unculturable bacteria. (15 Marks)

OR

Write the mechanism and adaption of thermophiles and acidophiles.