

M.Sc. 1st Semester Examination, 2024

MICROBIOLOGY

(Microbial Physiology)

PAPER – MCB-107

Full Marks : 25

Time : 1 hour

Answer all questions

The figures in the right hand margin indicate marks

*Candidates are required to give their answers in
their own words as far as practicable*

GROUP—A

Answer any two questions from the following :

- 2×2
1. Define oligodynamic power of heavy metal.
 2. What is autoinducer ?

(Turn Over)

3. Why do halophiles require sodium ?
4. Mention the name of four culture collection centers of other countries.

GROUP—B

Answer any **two** questions from the following :
4 × 2

5. Briefly describe the types of filter used for sterilization of liquids.
6. What is phenol co-efficient ? State some important criteria of Transport media. 2 + 2
7. Write mode of action of chlorine and iodine as an antimicrobial agents.
8. Describe the process of freeze drying for microbial preservation.

(3)

GROUP – C

Answer any **one** question from the following :

- 8 × 1
9. Define the role of 10% sucrose in microbial preservation. What are Quats ? Write their Mode of action and Limitations as antimicrobial agent. 2 + 2 + 4
10. What is two-component system ? Explain the mechanism of quorum sensing in Gram negative bacteria. 'Mac-Conkey media is both selective and differential in nature' – explain. 2 + 4 + 2

[Internal Assessment – 5 Marks]

