

Exam. Code : 107402

Subject Code : 2278

B.Sc. (Biotechnology) 2nd Semester

GENERAL MICROBIOLOGY-B

Paper-BT-8

Time Allowed—3 Hours]

[Maximum Marks—40

Note : – Attempt as per directed.

SECTION-A

(All questions are compulsory)

1×8=8

1. Define and explain the following :

- (i) Diauxic growth
- (ii) Sporulation
- (iii) Name two plant viruses
- (iv) Name two animal viruses
- (v) Pathogenicity
- (vi) Toxigenicity
- (vii) Fermentation
- (viii) Bioprocess.

SECTION-B

(Attempt any **five** questions)

5×4=20

2. Design an experiment to achieve diauxic growth.

3. Diagrammatically explain the sporulation of bacteria.
4. Classify the viruses based on transcription.
5. Discuss and explain the replication processes of herpes simplex.
6. Discuss and explain the natural resistance mechanism against microorganisms.
7. Discuss and explain non specific defence mechanisms.
8. Discuss the TCA cycle.
9. Discuss the ETC.

SECTION-C

(Attempt any **two** questions) $6 \times 2 = 12$

10. Discuss and explain the regeneration process of bacteria.
11. Discuss and explain the Herpes simplex virus replication processes.
12. Discuss the microbial pathogenicity in adhesion and invasiveness
13. Discuss and explain how a heterologous protein can be produced by a bacteria.