

Exam. Code : 107402

Subject Code : 2118

B.Sc. (Bio-Technology) Semester—II

GENERAL MICROBIOLOGY—B

Paper—BT-8

Time Allowed—3 Hours]

[Maximum Marks—40

SECTION—A

Note :— Answer ALL questions.  $1 \times 8 = 8$

1. Write short notes about 50 words each :

(i) Monoauxic growth

(ii) Diauxic growth

(iii) Bacteriophage

(iv) Animal viruses

(v) Symbiosis

(vi) Antibiosis

(vii) Microbial Metabolite

(viii) Heterologous proteins.

SECTION—B

Note :— Attempt any FIVE questions.

$5 \times 4 = 20$

2. Define syntrophism and discuss an example of the phenomenon.

3. Explain the typical growth curve.
4. Describe the structure of bacteriophage.
5. Describe the bacterial endospore.
6. What are the Nitrogen fixing microbes ?
7. Write the role of microbes in agriculture.
8. Discuss the metabolite production through bioprocess engineering.
9. Discuss the vectors used for production of heterologous protein.

#### SECTION—C

Note :— Attempt any TWO questions.  $2 \times 16 = 12$

10. Describe the lysogenic cycle of bacteriophage.
11. Discuss the biphasic growth curve.
12. Describe the regeneration of bacteria from its spores.
13. Describe the defence mechanism against pathogenic micro organism.