

Exam. Code : 107402

Subject Code : 2219

B.Sc. (Bio-Technology) Semester—II

GENERAL MICROBIOLOGY-B

Paper-BT-8

Time Allowed—3 Hours]

[Maximum Marks—40

SECTION-A

(Answer ALL questions)

1. Write short notes in about 50 words each :

(i) Doubling time

(ii) Specific growth rate

(iii) Bacteriophage

(iv) Plant viruses

(v) Pathogenic microorganisms

(vi) Industrial Microorganisms

(vii) Fermentation products

(viii) Heterologous proteins.

1×8=8

SECTION-B

(Attempt any FIVE questions)

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. What is Symbiosis ?
8. Discuss the metabolite production through bioprocess engineering.
9. Discuss the vectors used for production of heterologous protein. 5×4=20

SECTION-C

(Attempt any TWO questions)

10. Describe the lysogenic cycle of bacteriophage.
11. Discuss the biphasic growth curve.
12. Describe the sporulation of bacteria.
13. Describe the defence mechanism against pathogenic micro-organism. 2×6=12