

Exam. Code : 107402

Subject Code : 1845

B.Sc. (Biotechnology) 2<sup>nd</sup> Semester

GENERAL MICROBIOLOGY—B

Paper : BT-8

Time Allowed—Three Hours] [Maximum Marks—40

**Note** :— Attempt FIVE questions in all, selecting at least ONE question from each Section. The fifth question may be attempted from any section.

**SECTION—A**

- I. (a) Write short notes on :—
- (i) Chemostat
  - (ii) Turbidostat
  - (iii) Generation time
  - (iv) Diauxic growth. 4×1
- (b) Give a concise account of the structure, resistance and germination of an endospore. 4
- II. (a) Draw a typical bacterial growth curve and label the various phases. Discuss those factors which determine the beginning and end of each phase. 5
- (b) Mention the differences between endospore and vegetative cell. 3

**SECTION—B**

III. (a) Give a concise account on cultivation of viruses.

4

(b) Write short notes on ;—

(i) Symmetry of viruses

(ii) Classification of viruses. 2×2

IV. What are bacteriophages ? Discuss in brief the structure and life cycle of T4 bacteriophage (Lytic Cycle). 8

**SECTION—C**

V. (a) What is microbial pathogenicity ? Mention the names of factors that contribute for microbial Pathogenicity. Describe the process of adhesion of microbial pathogens. 4

(b) What are non-specific defence mechanisms of body ? Explain in detail how microorganisms are ingested and digested during phagocytosis ?

4

VI. Give in detail the mechanism of action, diagnosis and treatment for viral disease Influenza. 8

**SECTION—D**

VII. Give in detail the mechanism of action, diagnosis and treatment for bacterial disease Typhoid. 8

VIII. What is Candidiasis ? Give its mechanism of action, diagnosis and treatment measures. 8