

**M.Sc–Biotech-IIS- (2.2)**

**2017**

*Time : 2 hours*

*Full Marks : 40*

*The questions are of equal value.*

**Answer all questions.**

**Give labelled diagrams wherever necessary.**

**( Microbiology )**

1. What role did Microbiology play in Biotechnology?

*Or*

Write short notes on the following :

- (a) Cell wall and cell membrane synthesis
- (b) Gas vesicles.

2. Describe the theory and practice of sterilization.

*Or*

Write short notes on the following :

- (a) Microbial media
- (b) Microbial interactions.

3. Describe the measurement of growth and growth yields.

*Or*

Write short notes on the following :

- (a) Maintenance of cultures
- (b) Effect of alkalinity on growth.

4. Describe the mode of action of antibiotics.

*Or*

Write short notes on the following :

- (a) Disease reservoirs
- (b) Tuberculosis.

5. Describe the structure of transposable elements and its transcription.

*Or*

Write short notes on the following :

- (a) Biochemical basis of mutations
- (b) Viroids and prions.