

M.Sc.-Biotech-IIS-(2.2)

2019

Full Marks : 40

Time : 2 hours

*All questions carry equal marks.
Answer **all** questions.*

*Candidates are required to answer in their
own words as far as practicable
Give labeled diagram wherever necessary.*

(MICROBIOLOGY)

1. Describe the outer membrane of Gram-negative bacteria.

OR

Write short notes on the following :

- (a) Cell wall
- (b) Classification of Micro Organisms

2. Write a detail note on Mathematical expression of Microbial growth and growth curve

OR

Write short notes on the following :

- (a) Extremophiles
- (b) Synchronous culture

3. Write a detail note on sexually transmitted diseases.

OR

(Turn over)

(2)

Write short notes on the following :

- (a) Broad spectrum antibiotics
- (b) Rabies.

4. What is symbiosis ? Explain nitrogen fixation and ruminant symbiosis in detail.

OR

Write short notes on the following :

- (a) Theory of Sterilization
- (b) Microbial culture media

5. Describe plasmid DNA and its replication

OR

Write short notes on the following :

- (a) Conjugation
 - (b) Tn₃ elements
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