

[Time: 1:00 Hour]

[Total Marks: 30]

#### Q 1.

#### (A) Short answer Question 1 mark each , 5 questions

- 1. Define: Microbiology. 2. Define: Biogenesis. 3. Define Phycology & Mycology
- 4. Describe the contribution of Antony Van Leeuwenhoek in field of microbiology.
- 5. Who proved that, only DNA is transforming material from generation to generation?

### (B) Answer in brief 2 marks each, any one , 2 questions

- 1. Describe the Bergey's manual of systematic bacteriology.
- 2. Give difference between prokaryotes and eukaryotes.

### (C) Write Short Note on. 3 marks each, any one , 2 questions

- 1. Write a note on occurrence and distribution of microbes in nature.
- 2. Write a note on five kingdom classification.

### (D) Write in detail. 5 marks each, any one , 2 questions

- 1. Write a detail note on spontaneous generation.
- 2. Write a note on applied areas of microbiology.

Q 2.

# (A) Short answer Question 1 mark each , 5 questions

- 1. Define Microscopy and Microscope. 2. Define Resolution and Limit of resolution
- 3. Give any 2 example of fluorescent dye. 4. Define: Mordents, give any 2 example of it.
- 5. Write any 3 advantage of fixation..

### (B) Answer in brief 2 marks each, any one , 2 questions

- 1. Give difference between SEM and TEM
- 2. Write an application of bright field, dark field, phase contrast and fluorescent microscopy.

# (C) Write Short Note on. 3 marks each, any one, 2 questions

- 1. Write a note on Fluorescent Microscopy.
- 2. Write a note on Confocal microscopy.

# (D) Write in detail. 5 marks each, any one , 2 questions

- 1. Describe any 3 light microscopy technique with diagram.
- 2. Write a note on stain, mordents, fixative and decolorizer.