Progressive Education Society's
Modern College of Arts, Science & Commerce Ganeshkhind, Pune – 16
End Semester Examination: Jan.2022
Faculty: Science and Technology

Program: B. Sc. Biotechnology (04) **Semester: I** **SET: C**
Program (Specific): **Course Type: Theory**
Class: F.Y.B.Sc. **Max. Marks: 35**
Name of the Course: Microbiology I
Course Code:22BBT 107 **Time: 2Hr**
Paper: -

Instructions to the candidate:

1) ***There are 4 sections in the question paper. Write each section on separate page.***
2) ***All Sections are compulsory.***
3) ***Figures to the right indicate full marks.***
4) ***Draw a well labelled diagram wherever necessary.***

SECTION: A

Q1) Answer the following. (Attempt any 5/6) **5**

1. Define the term numerical aperture.
2. What is nucleoid?
3. What is the major component of algal cell wall?
4. Give two functions of bacterial cell membrane.
5. What is a fixative?
6. What are hopanoids?

SECTION: B

Q2) Answer the following. (Attempt any 5/6) **10**

1. What is the role of accentuator in staining?
2. Give two distinguishing characters of slime molds?
3. State the hypothesis of spontaneous generation.
4. Justify: Viruses that are obligatory intracellular parasites.
5. Explain the term peritrichous and lophotrichous flagella.
6. What are inclusion bodies? Name any two.

SECTION: C

Q3) Answer the following. (Attempt any 2/4) **8**

1. Distinguish between eubacteria and archaebacteria.
2. State the principal underlying capsule staining.
3. Bergey's manual of systematic bacteriology is used in bacterial identification: Opine.
4. Justify: Microorganisms are the causative agents of diseases.

SECTION: D

Q4) Answer the following. (Attempt any 2/4) **12**

1. Discuss Louis Pasteur's contributions in microbiology.
2. What is endospore? With a neat and labelled diagram, explain the process of sporulation in bacteria.
3. Give distinguishing characters of bacteria, fungi and protozoa.
4. Name two diseases caused by acid fast bacteria. Identify and describe the underlying principle and procedure used to demonstrate presence of acidfast bacteria in medical samples