

RAMAKRISHNA MISSION VIDYAMANDIRA
(Residential Autonomous College affiliated to University of Calcutta)

FIRST YEAR [2019-22]

B.A./B.Sc. FIRST SEMESTER (July – December) 2019

Mid-Semester Examination, September 2019

Date : 16/09/19

Time : 1 pm – 2 pm

MICROBIOLOGY (Honours)

Paper : II (CC 2)

Full Marks : 25

Answer All questions of the following:

1. a) A microbiologist sampled water from a pond to find more than 300 colonies per plate on Nutrient agar plates which cannot be accurately counted. What procedure should he follow so that he can have a more precise approximation of the microbial load in the sample? [3]
b) A microbiologist has no access to a refrigerator and a limited supply of growth media. What procedure must he use to preserve a microbial culture for the longest time possible? [3]
c) What are capnophiles? [2]
2. a) define 'prototrophs' and 'auxotrophs'. [1]
b) Discuss the role of FtsZ protein in bacterial cell division. Explain with diagram. [1]
c) Classify bacteria on the basis of their temperature requirement. Explain each type with proper example. [3]
3. a) Write down the features of integral membrane protein. [3]
b) Why is the cell membrane fluid in nature ? [3]
4. a) What is frequency density ? [3]
b) Mention the different types of diagrammatic representation of data. [2]
c) What is pictogram ? [1]

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