

**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 : 18/09/19

Time : 11 am – 12 noon

**MICROBIOLOGY (GENERAL)**

**Paper : I**

Full Marks : 25

Answer **All** questions of the following:

1. a) Define the term i) chromophore group ii) auxochrome group with respect to be used for biological purpose. (1.5 + 1.5)  
b) Write down the principle of Gram staining. (2)  
c) What is mordant ? State its function. (1+1)
2. a) Define 'prototrophs' and 'auxotrophs'. (1)  
b) Classify bacteria on the basis of their temperature requirement. Explain each type with proper example. (3)
3. a) Name one Gram positive rod shaped bacterium. (1)  
b) What do you mean by streptococci ? Give an example. (2)  
c) What do you mean by integral membrane protein ? (2)  
d) What is cross linking of cell wall ? (2)
4. a) Define strain and species in Microbiology ? (1.5 + 1.5)  
b) What were demerits of Whittaker's five kingdom classification ? (4)

————— × —————