

# RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College affiliated to University of Calcutta)

FIRST YEAR [2017-20]

B.A./B.Sc. FIRST SEMESTER (July – December) 2017

Mid-Semester Examination, September 2017

Date : 14/09/2017

**MICROBIOLOGY (General)**

Time : 12 noon – 1 pm

Paper : I

Full Marks : 25

1. a) What are 'chromophore' and 'auxochrome' groups? Explain with proper examples. [1+1]  
b) Mention the important purposes of staining. [2]  
c) What is a mordant? Mention the important functions of a mordant with suitable examples. [1+2]  
d) Define photolithotrophic and chemolithotrophic autotrophs. Give examples. [2]
2. a) 'Amino acids are the building block of proteins'—Explain. [2]  
b) 'Maltose is a reducing sugar but sucrose is not' - Why? [2]  
c) State the major contributions of Robert Koch in the field of Microbiology. [2]  
d) Define numerical aperture of a microscope. [2]  
e) What are *tiny animalcules*? [2]
3. a) What is a cyst? [1]  
b) Write down the life cycle of *Plasmodium* with a suitable diagram. [3+2]

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Date : 12/09/2017

**MICROBIOLOGY (General)**

Time : 11 am – 12 noon

Paper : I

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1. a) What are 'chromophore' and 'auxochrome' groups? Explain with proper examples. [1+1]  
b) Mention the important purposes of staining. [2]  
c) What is a mordant? Mention the important functions of a mordant with suitable examples. [1+2]  
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