

RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College affiliated to University of Calcutta)

SECOND YEAR [2017-20]

B.A. /B.Sc. FOURTH SEMESTER (January – June) 2019

Mid-Semester Examination, March 2019

Date : 28/03/2019

MICROBIOLOGY (General)

Time : 1 pm – 2 pm

Paper: IV

Full Marks: 25

Answer the following questions:

1. a) Define 'mutation rate' and mutation frequency. [1+1]
b) Briefly explain the mechanism of SOS repair system. Why is it called an error prone repair system? [3+2]
2. a) Write down the properties of an ideal vector. [2]
b) What are shuttle vector? Give example. [1+1]
c) How does antibiotic genes are useful for selection process in pBR322 vector? [3]
3. a) 'All immunogen are antigens, but the reverse is not true' — Explain. [2]
b) Write down the differences between innate and adaptive immunity? [2]
c) What is APC? Give example. [2]
4. a) Write down the mode of action of penicillin. [2]
b) How does acyclovir differ from amantadine? [3]

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