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MBOT-501

Biology and Diversity of Viruses and Bacteria

M.Sc. Botany (MSCBOT-20)

1st Semester Examination June 2022

Time: 2 Hours

Max. Marks: 40

Note : This paper is of Forty (40) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

Section – A

(Long Answer – type questions)

Note: Section 'A' contains Five (05) long-answer-type questions of Ten (10) marks each. Learners are required to answer any two (02) questions only.

[2 x 10 = 20]

Q.1. Describe the characteristics of viruses. Give an illustrated account of morphology and chemical structure and methods of transmission of viruses.

Q.2. Explain and illustrate replication cycle of T4 phage.

P.T.O.

- Q.3. Give a detail note on the reproduction in Bacteria.
- Q.4. Give a detail account of viral diseases of plant.
- Q.5. Draw a neat diagram and describe about a typical bacteria.

Section – B

(Short-answer-type questions)

Note: Section 'B' contains Eight (08) short-answer-type questions of Five (05) marks each. Learners are required to answer any Four (04) questions only.

[4 x 5 = 20]

- Q.1. Explain how adsorption chromatography useful in the purification of viruses.
- Q.2. Differentiate between transformation and transduction.
- Q.3. Write a brief note on Mycoplasma and Mycoplasmal plant disease.
- Q.4. Role of Bacteria in medicine.
- Q.5. Write about the nomenclature of viruses.
- Q.6. Describe the process of genetic recombination in bacteria.

P.T.O.

Q.7. Discuss the role of bacteria in nitrogen cycle.

Q.8. Discuss about the non-vector transmission of plant viruses.
