

**B.Sc. Semester-II Examination, 2022-23****MICROBIOLOGY [Honours]**

Course ID : 22212      Course Code : SH/MCB/202/C-4

Course Title : Virology

**[NEW & OLD SYLLABUS]**

Time : 1 Hour 15 Minutes

Full Marks : 25

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.***UNIT-I**1. Answer any **five** of the following questions:

1×5=5

- What is virion?
- Give one example of single stranded DNA phage virus.
- What is SARS-CoV-2?
- What is prophage?
- Define LD-50.
- What are virusoids?
- Define proto-oncogenes.
- What is Gene therapy?

**UNIT- II**2. Answer any **two** questions from the following:

5×2=10

- Classify viruses according to David Baltimore (1971). 5
- What are vaccines? Mention different types of viral vaccine with suitable example. 2+3=5
- Write short notes on the following:  $2\frac{1}{2}+2\frac{1}{2}$ 
  - Viral symmetry
  - Antiviral agents
- Draw a labelled diagram of T-even bacteriophage. 2+3

**UNIT-III**3. Answer any **one** question from the following: 10×1=10

- What is bacteriophage? Describe the lytic cycle of bacteriophage. Write the differences between lytic and lysogenic cycle. 1+7+2=10
- Give a brief outline on the structure, mode of transmission and replication of influenza virus. Write full name of HIV and their genome type. 8+2=10

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