

**M.Sc. MICROBIOLOGY  
THIRD SEMESTER  
VIROLOGY  
MMB-302**

**SET  
B**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1hr. 30 mins.

Full Marks: 35

Time: 15 mins.

( Objective )

Marks: 10

*Choose the correct answer from the following:*

**1×10=10**

- Which of the following is newest class of anti-retroviral drugs?
  - Protease inhibitors
  - RNA polymerase inhibitor
  - Fusion inhibitors
  - All of the above
- Bacteriophages that induce bacterial cell lysis are called.....
  - Viroids
  - Temperate phages
  - Virulent phages
  - Lysogenic phages
- The integration of viral DNA into host DNA results in a structure named as:
  - Prophage
  - Metaphage
  - DNA-Conjugate
  - Hybrid-DNA
- A scientist is investigating a specimen in a laboratory. He is attempting to determine whether it is a virus or not. Which of the following would allow her to conclude that it is not a virus?
  - The specimen contains DNA and RNA
  - The specimen has a protein coat
  - The specimen has no organelles
  - The specimen is very small
- What distinguishes prions from viruses?
  - Type of protein arrangement
  - Ability to cause infections
  - Absence of genetic material
  - Presence of an envelop
- What types of viruses contain the enzyme lysozyme to aid in their infection?
  - Animal Viruses
  - Plant Viruses
  - Bacteriophages
  - Human Viruses
- The viral envelope can be made up of.....
  - Proteins
  - Lipids and Proteins
  - Glycopeptides
  - All of the above
- The structural component that is found in all live viruses is:
  - The envelope
  - Capsid
  - DNA & RNA
  - Spikes
- "Remdesivir" which was rigorously used during covid-19 is a:
  - Viral uncoating blocker
  - Protease inhibitor
  - RNA polymerase inhibitor
  - Neuraminidase inhibitor

10. An anti-larval drug was proved to be very effective as an antiviral drug including Corona virus-II.
- a. Tinidazoles
  - b. Dextran sulphate
  - c. Ganciclovir
  - d. Ivermectin

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**( Descriptive )**

Time : 1 hr. 15 mins.

Marks : 25

[ Answer question no.1 & any two (2) from the rest ]

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|---|--------|
| 1. Write a short note on taxonomy of viruses.   | 5      |
| 2. Write a detailed account on antiviral drugs.   | 10     |
| 3. Write a detailed account on viral life cycle highlighting lytic and lysogenic pathway. | 10     |
| 4. Write about the specific characters and diversity of viral genome.                     | 10     |
| 5. Write notes on:  | 5+5=10 |
| a) Structural diversity of virus  |        |
| b) Cultivation of viruses   |        |

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