

**M.Sc. MICROBIOLOGY
THIRD SEMESTER
VIROLOGY
MMB-302**
(USE OMR FOR OBJECTIVE PART)

**SET
A**

Duration: 1.30 hrs.

Full Marks: 35

Time: 15 min.

(Objective)

Marks: 10

1X10=10

Choose the correct answer from the following:

1. The structural component that is found in all viruses is
 - a. The envelope
 - b. DNA
 - c. Capsid
 - d. Spikes
2. What types of viruses contain the enzyme lysozyme to aid in their infection?
 - a. Animal Viruses
 - b. Bacteriophages
 - c. Plant Viruses
 - d. Human Viruses
3. The common polyhedral capsid shape of viruses is a
 - a. Pentagon
 - b. Cube
 - c. Pyramid
 - d. Icosahedron
4. Which of the following statements are true about a virion?
 - a. Lysogenic Phage
 - b. An infection and fully formed viral particle
 - c. Lytic phage
 - d. The viral capsid
5. The viral envelope can be made up of?
 - a. Proteins
 - b. Glycopeptides
 - c. Lipids and Proteins
 - d. All of the above
6. What type of virus are mainly control by neuraminidase inhibitors?
 - a. HIV
 - b. Influenza
 - c. Hepatitis
 - d. Herpes
7. Which one is Not an Reverse transcriptase inhibitor?
 - a. Delavirdine
 - b. Tenofovir
 - c. Nelfinavir
 - d. Stavudine
8. Viruses multiply in
 - a. Cytoplasm
 - b. Nucleus
 - c. Cell organelle
 - d. Both a and b
9. Viruses which cause lysis of bacteria are known as

- a. Lysogenic
- c. Lipolytic

- b. Lytic
- d. Lysozymes

10. Stages of viral replication

- a. Cell entry
- c. Assembly of vision components

- b. Translation
- d. All of the above

(Descriptive)

Time : 1 hrs. 15 min.

Marks : 25

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

1. What is a bacteriophage? Describe the life cycle of bacteriophage. 1+4=5

2. a. Describe the mechanism of antiviral drugs 5 + 3+2 = 10
b. What do you understand by oncogenes and proto -oncogenes?
Explain the types of oncogenic DNA and RNA viruses

3. Describe the salient features, mode of transmission and virus structure of viral nucleic acid : 5+5=10
 - a. HIV
 - b. Retrovirus

4. Write a detail account on taxonomy of viruses. 10

5. What do you understand by viral oncogenesis? Write in detail about the mechanism of viral oncogenesis 2+8=10

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