

Roll No. : .....

Total No. of Questions : 16 ]

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# **SEMM-217**

**M.Sc. (IInd Semester) Examination, 2022**

**MICROBIOLOGY**

Paper - FS-MIC-CC-201

**(Virology)**

*Time : 1½ Hours ]*

*[ Maximum Marks : 40*

*Note :-* The question paper contains three Sections.

**Section-A** (Marks : 1 × 10 = 10)

*Note :-* Answer all the *ten* questions (Answer limit **50** words). Each question carries **1** mark.

**Section-B** (Marks : 3 × 5 = 15)

*Note :-* Answer any *five* questions by selecting at least *one* question from each Unit (Answer limit **200** words). Each question carries **3** marks.

**Section-C** (Marks : 5 × 3 = 15)

*Note :-* Answer any *three* questions by selecting *one* question from each Unit (Answer limit **500** words). Each question carries **5** marks.

**Section-A**

1. (i) What is ICTV ?
- (ii) Name any *two* DNA viruses.

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- (iii) Name any *two* RNA viruses.
- (iv) What are PFUs ?
- (v) What are lytic or virulent phages ?
- (vi) What is Capsid ?
- (vii) Write names of any *two* temperate phages.
- (viii) What is TMV ?
- (ix) Smallpox disease is caused by .....
- (x) Write names of any *two* viral vaccines.

### **Section-B**

#### **Unit-I**

- 2. Write a short note on structure of viruses.
- 3. Write a short note on replication of different DNA viruses.
- 4. Write a short note on replication of different RNA viruses.

#### **Unit-II**

- 5. Write briefly about infectivity assay.
- 6. Explain briefly about phage typing.
- 7. Write a short note on  $\lambda$  (Lambda) phage.

#### **Unit-III**

- 8. Write a short note on transmission of plant viruses.
- 9. Write a short note on corona viruses.
- 10. Write a short note on Rhabdo viruses.

## **Section–C**

### **Unit–I**

11. Explain in detail about different cultivation methods of viruses.
12. Write an essay on replication of different groups of viruses.

### **Unit–II**

13. Write an essay on assay of viruses.
14. Give a detailed molecular mechanism of lytic and lysogeny switch in bacteriophages.

### **Unit–III**

15. Explain the following :
  - (a) Oncogenic viruses
  - (b) Viral vaccines
16. Write in detail about the following :
  - (a) Classification of animal viruses
  - (b) Classification of plant viruses