

A (Printed Pages 3)  
(20622) Roll No. ....  
B.Sc. Bio.Tech.-III Yr.

**NS-3475**  
**B.Sc. Biotechnology Examination,**  
**June-2022**

**MOLECULAR VIROLOGY**

**(B-303)**

**(B.Sc. Biotech.)**

*Time : Three Hours / [Maximum Marks : 75*

**Note :** Attempt **all** the sections as per instructions.

**Section-A**

**Note :** Attempt **all** questions. Each question carries **3** marks. Very short answer is required not exceeding **75** words.

$3 \times 5 = 15$

1. Virusoids.
2. Satellite Viruses
3. Antiviral assays

**P.T.O.**

4. Viral suppressors of gene silencing.
5. Name any two plant and two animal viruses.

**Section-B**

**Note :** Attempt any **two** questions. Each question carries **7½** marks. Short answer is required not exceeding **200** words.  $2 \times 7\frac{1}{2} = 15$

6. Describe the salient feature of any animal virus and its replication.
7. Application of electron microscopy in viral infections.
8. Write notes on:  
(a) ELISA  
(b) ssRNA virus

**Section-C**

**Note :** Attempt any **three** questions. Each question carries **15** marks. Detailed answer is required.  $3 \times 15 = 45$

9. Write an essay on economic losses due to viral diseases.

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10. Describe in detail genome organisation of DNA and RNA plant viruses and their **replication**.
11. Write notes on:
  - (a) Tissue culture and growth of virus.
  - (b) PCR
12. Write notes on:
  - (a) Immuno electrophoresis
  - (b) Insect vector transmission.
13. Describe in detail the classification of animal and plant viruses.