

12. Explain vector transmission of plant viruses by insect vectors. Discuss the role of vector specificity, transmission mechanisms, and virus-vector interaction.
13. Discuss the major modes of transmission of plant viruses. Compare mechanical transmission, vector transmission and seed transmission.

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Roll No.8008.....

B.Sc. (Bio-Tech.)-III Year.

Vidushi

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B.Sc. (Bio-Technology)
Examination, April-2025

Molecular Virology

(B-303)

B.Sc. (Bio-Tech)

Time : Three Hours]

[Maximum Marks : 75

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

Section-A

Note : Attempt **all five** questions. Each question carries **03** marks. Very short answer is required not exceeding **75** words.

1. Define a virus.
2. Describe the structure of a typical virus.

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3. Explain the Baltimore classification system for viruses.
4. Discuss the viral life cycle with examples.
5. What are the major differences between RNA and DNA viruses?

Section-B

Note : Attempt any **two** questions out of the following **03** questions. Each question carries **7.5** marks. Short answer is required not exceeding **200** words.

6. Discuss the structural components of plant virus genomes and their functional significance.
7. Explain the process of viral replication, highlighting key steps involved.
8. What is the difference between viral transcription and translation?

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Section-C

Note : Attempt any **three** questions out of the following **05** questions. Each question carries **15** marks. Short answer is required in detail.

9. Explain the principles and applications of molecular diagnostic methods for detecting viral infections. Compare PCR and RT-PCR.
10. Discuss the strategies viruses use to evade the host immune response.
11. Discuss the viral replication cycle, highlighting key steps and differences between DNA and RNA viruses.

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P.T.O.