

V (Printed Pages 3)  
(21225) Roll No.  
M.Sc. (Biotech.)-III Sem.

**NP-3340**

**M.Sc. (Biotechnology)**

**Examination, Dec.-2025**

**Animal Biotechnology and Immunology**  
**(M.Sc. Bio-Tech.)**

**(H-303)**

*Time : Three Hours / [Maximum Marks : 50*

**Note :** Attempt questions from **all** Sections  
as per instructions.

**Section-A**

**(Very Short Answer Questions)**

**Note :** Attempt **all** questions. Each question  
carries **2** marks. Very short answer is  
required.  $2 \times 5 = 10$

**P.T.O.**

- |                          |   |
|--------------------------|---|
| 1. MHC                   | 2 |
| 2. Culture Media         | 2 |
| 3. Artificial skin       | 2 |
| 4. History of Immunology | 2 |
| 5. RIA                   | 2 |

**Section-B**

**(Short Answer Questions)**

**Note :** Attempt any **two** questions. Each  
question carries **5** marks. Short  
answer is required.  $5 \times 2 = 10$

- |   |   |
|---|---|
| 6. Describe in brief about Innate & Acquired<br>immunity. | 5 |
| 7. What are interferons. Discuss in detail.               | 5 |
| 8. Discuss in detail about T cell cloning.                | 5 |

**Section-C**

**(Long Answer Questions)**

**Note :** Attempt any **three** questions. Each  
question carries **10** marks. Long  
answer is required.  $10 \times 3 = 30$

**NP-3340/2**

9. What do you understand by animal cloning? Discuss about ethical & social issues relating to Human cloning. 10
10. Write a detailed note on genetic manipulation of immunoglobulins. 10
11. Discuss in detail about the types of vaccines. 10
12. Write an essay on cell culture products and their applications. 10
13. Give a detailed account of infectious diseases. 10

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