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**Printed Pages : 3**

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Roll No. ....

**M.Sc.-II Sem.**

**PG-399**

**M.Sc. Examination, May-2025**

**MEDICAL MICROBIOLOGY**

**Human and Animal Virology**

**(MM-203)**

*Time : Three Hours]*

*[Maximum Marks : 50*

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

**Section-A**

**(Very Short Answer Questions)**

**Note :** Attempt all the five questions.

**5×2=10**

1. Neutralization
2. HTLV-2
3. Antigen
4. MHC
5. RNA virus

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**[P.T.O.]**

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**Section-B**

**(Short Answer Questions)**

**Note :** Attempt any two questions.

**2×5=10**

6. Which significant historical events shaped the beginnings and advancement of the field of virology research?
7. Discuss the concept of viral zoonoses, emphasizing their significance in the transmission of infectious diseases.
8. Explain the pathogenesis of virus infection, highlighting the stages involved in the progression of the disease.

**Section-C**

**(Detailed Answer Questions)**

**Note :** Attempt any three questions.

**3×10=30**

9. Define the role of clinical assessment in the diagnosis of viral infections, emphasizing the importance of recognizing characteristic signs and symptoms associated with specific viral pathogens.

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10. Discuss the role of viral attachment proteins, receptor recognition and viral tropism in determining target cell specificity.
11. Discuss the complex interplay between viruses, reservoir hosts, intermediate hosts and susceptible human populations in the transmission dynamics of zoonotic viruses.
12. Discuss the activation of pattern recognition receptors (PRRs), cytokine signaling and the production of antiviral effectors, such as interferons and Natural Killer (NK) cells.