



- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw diagrams wherever necessary.

1. Describe in detail icosahedral, polyhedral and helical capsid symmetry in viruses. **16**

OR

Write short notes on.

- a) Recent ICTV classification of viruses (as per 9th edition, 2008). **8**
b) Enveloped and nonenveloped viruses. **8**

2. Discuss Haemagglutination and ELISA method for virus detection. **16**

OR

- a) Describe adsorption and precipitation. **8**
b) Describe the use of embryonated eggs for cultivation of viruses. **8**

3. Describe in detail about classification nomenclature and structure of plant viruses. **16**

OR

- a) Describe the modes of transmission of plant viruses. **8**
b) Add a note on viruses of algae and fungi. **8**

4. Describe in detail pathogenicity, diagnosis prevention and treatment of HIV. **16**

OR

Write note on.

- a) New generation vaccines. **8**
b) Genetic recombinant viral vaccines. **8**

5. Write short notes on.

- a) Differentiation of virus with other groups of micro-organisms. **4**
b) End point method. **4**
c) Lysogenic cycle. **4**
d) Antiviral drugs. **4**
