

M.Sc.(Microbiology) Fourth Semester Old  
**MB4-T014 - Virology (VIR) Paper-II**

P. Pages : 1

Time : Three Hours



**GUG/W/18/2414**

Max. Marks : 80

Notes : 1. All questions are compulsory and carry equal marks.

1. Discuss the different criteria used for naming and classification of viruses and add note on ICTV classification of viruses as per 9<sup>th</sup> edition, 2008. **16**

**OR**

- a) Explain the morphology and structure of viruses on the basis of enveloped and non-enveloped viruses. **8**
- b) Explain origin and evolution of viruses and add note on how viruses are different from other group of microorganisms. **8**

2. Explain the Tissue culture technique in virus cultivation. **16**

**OR**

Discuss the various methods of purification of viruses. **16**

3. Explain life cycle of plant viruses with suitable example. **16**

**OR**

- a) Discuss the structure of Mosaic virus and explain the symptoms of plant mosaic disease. **8**
- b) Write a brief account on Lambda P1 bacteriophage. **8**

4. Discuss the Epidemiology, Pathogenicity, Lab diagnosis, prevention and treatment of Rota virus. **16**

**OR**

- a) Write note on genetic recombinant vaccines used in national immunization programme. **8**
- b) Explain pathogenicity and prevention of Hepatitis virus. **8**

5. Write note on –
- a) Icosahedral symmetry. **4**
- b) Radioactivity tracer technique in assay of viruses. **4**
- c) Viruses of cyanobacteria. **4**
- d) Write on-antiviral drugs. **4**

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