

M.Sc.(Microbiology) (CBCS Pattern) Semester - IV  
**PSMBT-14 - Paper-II : Virology**

P. Pages : 1

Time : Three Hours



**GUG/S/23/11409**

Max. Marks : 80

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

1. Describe in detail recent ICTV classification of viruses as per 9<sup>th</sup> edition 2008. **16**

**OR**

a) Add a note on horizontal and vertical transmission of viruses. **8**

b) Explain the morphology and structure of enveloped viruses with suitable example. **8**

2. Explain in detail infectivity assay of viruses with respect to plaque and End point method. **16**

**OR**

a) Discuss in detail cultivation of viruses using experiment animal and cell culture. **8**

b) Discuss the use of radioactive tracers in chemical assay of viruses. **8**

3. Describe in detail identification characteristics and genomics of Tobacco Mosaic virus. **16**

**OR**

a) Add a note on Viral diseases and their control. **8**

b) Add a note on bacteriophage structural organization. **8**

4. What are viral vaccines? Describe genetic recombinant vaccines used in national immunization programme. **16**

**OR**

a) Explain antiviral drugs with suitable example. **8**

b) Add a note on replicative strategies employed by DNA viruses. **8**

5. Write short notes on.

a) Evolution of viruses. **4**

b) ELISA. **4**

c) Viruses of Cyanobacteria. **4**

d) Picornavirus. **4**

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