

FACULTY OF SCIENCE

M. Sc. I – Semester (CBCS) Examination, December 2016

Subject : Microbiology

Paper – II : Virology

Time : 3 Hours

Max. Marks: 80

Note : Answer all questions from Part–A and Part–B. Each question carries 4 marks in Part–A and 12 marks in Part – B.

**PART – A (8 x 4 = 32 Marks)
(Short Answer Type)**

- 1 Germ theory of filterable agents
- 2 Mycophage
- 3 Segmented genome
- 4 Clathrin coated pits
- 5 Wound Tumor Virus
- 6 Phenotype Mixing
- 7 CaMV35S Promoter
- 8 PUC Series Vectors

**PART – B (4 x 12 = 48 Marks)
(Essay Answer Type)**

- 9 (a) Give an account on ICTV system of viral classification.
OR
(b) Explain how viroids are getting multiplied in certain host plants for disease manifestation with suitable examples.
- 10 (a) Discuss importance of subgenomic mRNAs in replication cycle of TMV.
OR
(b) Illustrate structure and genome organization of pararetrovirus with one suitable example.
- 11 (a) How do recombination and genetics help us in understanding h and r genes in bacteriophage – T2?
OR
(b) How does Interferon α bring about its response – antiviral defense in its target cell in animals?
- 12 (a) Discuss the role of antiviral vaccines in control of viral diseases in Animals.
OR
(b) Give an account on lambda phage-based vectors for cloning.
