

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2018  
(Second Semester)

Branch – APPLIED MICROBIOLOGY

**APPLIED VIROLOGY**

Time: Three Hours

Maximum: 75 Marks

**SECTION -A (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

- 1 a Describe the general characteristics of viruses.  
OR  
b Write a note on various mosquito borne viral diseases.
- 2 a Discuss briefly on Oncogenic viruses.  
OR  
b Explain the origin, pathogenesis and epidemiology of avian influenza virus in the recent years.
- 3 a Discuss the serological markers of Hepatitis B virus and their role in diagnosis.  
OR  
b Write an account on various viral vaccines and add a note on antiviral agents.
- 4 a What are Bacteriophages? Describe the morphology and life cycle of T<sub>4</sub> phage.  
OR  
b Write about the biology and life cycle of ΦX174.
- 5 a Give an account on satellite viruses and satellite RNA.  
OR  
b Give an account on the structure, mode of transmission of cauliflower mosaic virus.

**SECTION -B (45 Marks)**

Answer any THREE questions

ALL questions carry EQUAL Marks (3 x 15 = 45)

- 6 Classify Retro viruses. Discuss the morphology, pathogenesis and laboratory diagnosis of HIV virus. Add a note on its transmission.
- 7 Classify Herpes viruses. Mention their general characteristics. Add a note on Herpes Simplex Viruses.
- 8 Discuss the structural organisation, life cycle, DNA replication and phage production of M13.
- 9 Describe the cultivation of viruses and add a note on host resistance to viral infection.
- 10 Explain the structure, mode of transmission and control of TMV.