

**PSG COLLEGE OF ARTS & SCIENCE**  
**(AUTONOMOUS)**  
**BSc DEGREE EXAMINATION MAY 2019**  
**(Sixth Semester)**

Branch – **MICROBIOLOGY**

**VIROLOGY**

Time : Three Hours

Maximum : 75 Marks

**SECTION-A (20 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10 x 2 = 20)

**Write a note on the following:**

- 1 Pock and Plaques.
- 2 Icosahedral Capsid.
- 3 ID<sub>50</sub>.
- 4 Differential Centrifugation.
- 5 Scaffolding Proteins.
- 6 Lysogeny.
- 7 Cytocidal infection.
- 8 Oncogenes.
- 9 Viroid.
- 10 Gemine Virus.

**SECTION - B (25 Marks)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks (5 x 5 = 25)

- 11 a Write an account on Icosahedral Capsid & Helical Capsid.  
OR  
b Describe about viral nucleic acids. What is a Plus strand, minus strand and segmented genome?
- 12 a What are the adherent and non adherent continuous cell lines? Explain with examples.  
OR  
b Write short notes on experimental animals and virus cultivation.
- 13 a How are Prophage induced to become active again? Describe the role of Lamda repressor, cro protein, rec A Protein, integrase & excisionase in lysogeny.  
OR  
b Write short notes on reproduction of single stranded DNA phages.
- 14 a Describe the replication and transcription processes that take place during animal virus reproduction.  
OR  
b Write an account on Oncogenic Viruses.
- 15 a Describe about Viruses infecting insects.  
OR  
b What are the viruses affecting algae? Write a short notes.

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

**ALL** Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Describe the general properties of viruses.
- 17 Describe in detail about various methods of virus cultivation.
- 18 Explain the lytic cycle of Bacteriophages.
- 19 Write an essay on oncogenic viruses.
- 20 Explain the method of plant virus reproduction.