

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2022
(Sixth Semester)

Branch – MICROBIOLOGY

VIROLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 1 = 10)

1. Which of the following is the largest virus?
(i) Megavirus chilensis (ii) Arbo virus
(iii) Herpes virus (iv) Mumps virus
2. Which of the following statements are true about the capsomeres?
(i) It is an individual unit of the capsid (ii) It is a viral protein for replication
(iii) It is a unit of nucleic acid in viruses (iv) All of the above
3. Which of following method is used for the production of vaccines against yellow fever
(i) Tissue culture method (ii) Chick embryo method
(iii) Through susceptible animals (iv) Through appropriate media
4. What type of cell culture that can reproduce for an extended number of generations and is used to support viral replication is a :
(i) Primary cell culture (ii) Continuous cell line
(iii) Cell strain (iv) Diploid fibroblast cell
5. What types of viruses contain the enzyme lysozyme to aid in their infection?
(i) Bacteriophage (ii) Animal Viruses
(iii) Plant Viruses (iv) Fungal Viruses
6. Which of the following is Bacteriophage
(i) Pox virus (ii) TMV virus
(iii) Retero virus (iv) M13
7. Which fringes on animal viruses like influenza virus is made up of _____
(i) lipoproteins (ii) glycoproteins
(iii) cellulose (iv) polysaccharides
8. Animal and plant viruses contain both DNA and RNA in the same virion.
(i) True (ii) False.
9. Which is Bombyx mori nuclear polyhedrosis virus infects the _____
(i) Drosophila (ii) Plants (iii) Humans (iv) Silkworm
10. What is Virion
(i) Virus in stage of multiplication (ii) Virus attached to host cell nucleus
(iii) Virus inside cytoplasm of host cell (iv) Virus in cell free environment

SECTION - B (35 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 7 = 35)

11. a) What are characters of viruses?

OR

b) Explain about the viral capsids?

Cont...

12. a) Write a short note on viral cultivation method?

OR

b) Describe the viral haemagglutination assay.

13. a) Sketch the phi X 174.

OR

b) Describe the T4 phage in detail.

14. a) Write short on cell damage.

OR

b) How does transcription process carry out in RNA viruses.

15. a) Explain in details about the plant viruses?

OR

b) Write short notes on virion morphology?

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

16. Enumerate the Viral envelop and viral enzymes?

17. Discuss in details about the viral purification methods.

18. Elaborate the adsorption, penetration synthesis and assembly of phages?

19. Outline the reproduction of animal viruses.

20. Highlight the transmission of plant viruses.

Z-Z-Z

END