19MBP09/14MBP09

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2019
(Second Semester)

Branch - **APPLIED MICROBIOLOGY**

APPLIED VIROLOGY

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marksl

Answer **ALL** questions
ALL questions carry **EQUAL** marks (1 0 x 1 = 10)

1 State about the protein coat of virus enclosing nucleic acid is called_____
(i) Vector (ii) Capsid
(iii) Plasmid (iv) Geonome

2 Indicate the non living characteristics of viruses is_____ .
(i) Ability to undergo mutation (ii) Ability to cause disease
(iii) Ability to multiply inside the host (iv) Ability to be crystallized

3 Which of the following disease not caused by Togavirus ?
(i) Chikungunya (ii) Rubella
(iii) Encephalitis (iv) Yellow fever

4 Where in the body do oncogenic HPV's especially replicate
(i) Brain (ii) Liver
(iii) Cervix (iv) Larynx

5 Which of the following is the largest virus
(i) Herpes virus (ii) Arbovirus
(iii) Mumps virus (iv) Poxvirus

6 Which disease the vascular lesions in epithelial layers of ectodermal tissues are formed in mouth or skin
(i) Herpes simplex virus (ii) Influenza virus
(iii) Poliovirus (iv) Mumps virus

7 Name the viral transfer during infection from cell to cell occurs mainly by direct transfer of virions via
(i) Plasmodesmata (ii) Cytodesmata
(iii) Protodesmata (iv) None of these

8 Indicate the viroids have_____ .
(i) DS DNA enclosed by protein coat
(ii) SSDNA not enclosed by protein coat
(iii) SSRNA not enclosed by protein coat
(iv) DS RNA enclosed by protein coat

9 When bacteriophages induce bacterial cell lysis are called
(i) Temperate phages (ii) Virulent phages
(iii) Lysogenic phages (iv) Viroids

10 State a T-series bacteriophages can be recognized by its
(i) Irregular shape (ii) Round shape
(iii) Tadpole shape (iv) Rhomboidal shape

SECTION - B (25 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 5 = 25)

11 a Discuss in brief about replication of animal viruses.

OR

b Recommend suitable techniques involved in diagnostic virology.

12 a Explain in brief about structure and control of Toga virus.

OR

b State an outline views on oncogenic viruses.

13 a Illustrate in brief about pathogenesis of herpes virus. Mention viral control measures in detail.

OR

b Briefly explain about structure and replication of Adeno virus.

14 a Show an organized views on structure and control of brome mosaic virus.

OR

b Discuss in detailed about structure and replication of Gemini virus.

15 a Evaluate the importance of <j>xl74 and add a note on its replicative cycle.

OR

b Recommend any one double stranded DNA containing T-phages with neat diagram.

SECTION -C (40 Marks!

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 8 = 40)

16 a Create a critical knowledge about general characters of viruses.

OR

b Analyze the role of interferons during anti viral activity.

17 a Interpret your views on structure, pathogenesis and prevention of pi coma virus.

OR

b Assess the impacts of rota viral diseases among the school going children compared with adults.

18 a Construct your knowledge about structure and pathogenesis of hepatitis viral infections.

OR

b Differentiate viral vaccines with respect to their mode of action.

19 a Recommend suitable control measures adopted for eradicating cow pea mosaic viruses.

OR

b Create a brief ideas about sub viral pathogens with suitable examples.

20 a Predict your views on structure and replication of Ml 3 phages and mention their importance.

OR

b Criticallv comment on structure and replication of Ivsogenic phages with