

T.Y.B.SC. SEM – V (CBCS - 2016 Course) : SUMMER - 2019

SUBJECT: MICROBIOLOGY: VIROLOGY

Day: Monday
Date: 15/04/2019

S-2019-0866

Time: 11.00 A.M. To 02.00 P.M.
Max Marks. 60

N.B.

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw well labelled diagrams **WHEREVER** necessary.
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Q.1 Attempt any **TWO** of the following: (12)

- a) What are viral nucleic acids? How are they classified? Give examples with respect to classification.
- b) Describe in detail the structure of Isomeric viruses. Add a note on any two Isomeric viruses.
- c) Explain the use of plaque method for isolation and cultivation of Bacteriophages.

Q.2 Answer any **TWO** of the following: (12)

- a) Elaborate on the Lytic cycle of T₄ bacteriophage.
- b) What are essential and non essential genes? Describe in detail its functions.
- c) What are prions? Enlist the functions of various proteins associated with prions.

Q.3 Attempt any **TWO** of the following: (12)

- a) Explain in brief the reproduction of Adenovirus.
- b) Justify "The genetic map of T₄ phage is circular".
- c) Enlist various methods used for enumeration of viruses. Describe any one method in detail.

Q.4 Write short notes on any **THREE** of the following: (12)

- a) End point dilution assays
- b) Satellites
- c) Cross section of chick embryo
- d) LD₅₀ and ID₅₀ assay

Q.5 Attempt any **FOUR** of the following: (12)

- a) Describe the Cytopathic effect.
- b) With an example describe the term Generalized transduction.
- c) Explain the terms Rise period and Burst size.
- d) What is Haemagglutination? Discuss with a proper example.
- e) Differentiate between T even and T odd phages.
- f) Describe the role of inducers.

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