

T.Y.B.SC. SEM – V (2014 COURSE) : SUMMER - 2018
SUBJECT : MICROBIOLOGY : VIROLOGY (MB – 54)

Day : **Wednesday**
Date : **18/04/2018**

S-2018-0748

Time : **03.00 PM TO 05.00 PM**
Max. Marks : 40

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat and labeled diagrams **WHEREVER** necessary.
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Q.1 Attempt **ANY TWO** of the following: **[10]**

- a) Describe in detail the structure of a bacteriophage.
- b) What is the difference between viruses, viroids and prions with respect to their structure and replication?
- c) Enlist the properties of T even and T odd phages.

Q.2 Attempt **ANY TWO** of the following: **[10]**

- a) How is the synthesis of C_I protein autoregulated?
- b) Describe the process of genetic recombination in phages.
- c) Enlist different methods used for enumeration of viruses. Explain any one.

Q.3 Attempt **ANY TWO** of the following: **[10]**

- a) Describe the life cycle of an animal virus with suitable example.
- b) Give the important features of the Baltimore system used for viral classification.
- c) How is the T_{4r} II locus mapped by deletion mapping?

Q.4 Write in short on **ANY FIVE** of the following: **[10]**

- a) C_{II} and C_{III} proteins
- b) T₄ genome
- c) Adenovirus
- d) Ghost phages
- e) RNA viruses
- f) Antiterminators Q and N
- g) Bovine spongiform encephalitis

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