

**T.Y.B.SC. SEM – V (2014 COURSE) : WINTER - 2017**

**SUBJECT : MICROBIOLOGY : VIROLOGY**

Day : Monday  
Date : 30/10/2017

**W-2017-0656**

Time : **3:00 P.M. TO 5:00 P.M.**  
Max. Marks : 40

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**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 single burst experiment.
  - b) Describe general characteristics of viruses.
  - c) Enlist phage mutants. Explain any two.
- Q.2** Attempt **ANY TWO** of the following: [10]
- a) Explain genome organization of T<sub>4</sub> phage.
  - b) Explain reproduction of FMD virus.
  - c) Explain: phages are transducing agents.
- Q.3** Attempt **ANY TWO** of the following: [10]
- a) Differentiate between plaque and pock method as used in viral enumeration.
  - b) Describe the role of Cro protein in establishment of lytic cycle.
  - c) Explain Benzor's spot test as used in mapping the viral genome.
- Q.4** Write short notes on **ANY FIVE** of the following: [10]
- a) Immediate early genes
  - b) Late genes
  - c) Segmented genome
  - d) Multiplicity of infection
  - e) T even phages
  - f) Criteria for viral classification
  - g) Essential genes

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