

B.Sc. (C.B.C.S. Pattern) Sem-V  
**USMBT-11 : Microbiology DSE-III - Virology**

P. Pages : 2

Time : Three Hours



**GUG/W/19/13108**

Max. Marks : 50

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**1.** Discuss the methods used for cultivation of viruses. **10**

**OR**

- a) Give general properties of viruses. **2½**
- b) Write a note on prion. **2½**
- c) Write about helical symmetry of viruses. **2½**
- d) Write about discovery of viruses. **2½**

**2.** Explain lytic cycle in details? **10**

**OR**

- a) Write about lysogenic cycle in lambda phage. **2½**
- b) Explain terminal redundancy in T4 phage. **2½**
- c) Discuss persistent modes of viral transmission. **2½**
- d) Give classification of virus? **2½**

**3.** What is Interferon? Give details on modes of action of Interferon. **10**

**OR**

- a) Write a note on proto-oncogenes. **2½**
- b) Explain how bacteriophage is used for cloning vector. **2½**
- c) Give types of oncogenic DNA viruses. **2½**
- d) Explain types of oncogenic RNA viruses. **2½**

**4.** Discuss in details mode of action of Antiviral compound. **10**

**OR**

- a) Give application of virology? **2½**
- b) Write a note on Gene therapy? **2½**
- c) Discuss general principles of viral vaccination. **2½**
- d) Write about phage display. **2½**

- 5. Attempt any ten.**
- a) Define virus. **1**
  - b) Who is father of virology. **1**
  - c) Define Viroids. **1**
  - d) Give any two example of virus containing DNA as a genetic material. **1**
  - e) Write full form of HIV. **1**
  - f) In which virus alternating splicing is present. **1**
  - g) Define oncogenes. **1**
  - h) Give any two example of antiviral drug. **1**
  - i) Give any two viral vector used in cloning. **1**
  - j) Define Interferon. **1**
  - k) Define virology. **1**
  - l) Give any one use of viral vectors. **1**

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