

B.Sc. (CBCS Pattern) Semester - V
USMBT-11 - DSE-III - Microbiology-IV (Virology)

P. Pages : 2

Time : Three Hours



GUG/S/23/13108

Max. Marks : 50

1. Discuss Chick embryo method of virus cultivation and explain the methods of Purification of virus **10**

OR

- a) Write about Icosahedral symmetry of virus. **2½**
- b) Give general properties of Virus. **2½**
- c) Write a note on Viroids. **2½**
- d) Write about helical symmetry of virus. **2½**

2. Discuss Lytic cycle in Bacteriophage. **10**

OR

- a) Discuss modes of virus transmission **2½**
- b) Explain alternate splicing in HIV **2½**
- c) Write a note on terminal cohesive ends in lambda phage **2½**
- d) Explain terminal redundancy in T4 phage. **2½**

3. Define Interferon? Explain mode of action in details. **10**

OR

- a) Write a note on Antiviral compound **2½**
- b) Write a note on proto-oncogenes **2½**
- c) Discuss vectors used for Virus cloning **2½**
- d) Explain types of oncogenic RNA viruses **2½**

4. Discuss prevention and control of SARS-CoV in details. **10**

OR

- a) Discuss prevention Influenza **2½**
- b) Discuss Control of Hepatitis **2½**

- c) Discuss prevention nCoV-19. 2½
- d) Give general principles of viral vaccine. 2½

5. Attempt any ten.

- a) Define Virus. 1
- b) Define Prion 1
- c) Who discover virus 1
- d) Write full form of HIV 1
- e) Give any two example of virus containing DNA as a genetic material. 1
- f) Give any two example of virus containing RNA as a genetic material. 1
- g) Define Oncogenes. 1
- h) Give any two example of viral vectors used for virus expression. 1
- i) Give any two example of oncogenic viruses. 1
- j) Give any two example of DNA containing viral vaccine. 1
- k) Give any two example of RNA containing viral vaccine. 1
- l) Who is causative agent of MERS-CoV. 1
