

Seat No. : _____

AI-124

April-2022

B.Sc., Sem.-VI

308 : Microbiology (Virology and Mycology)

Time : 2 Hours]

[Max. Marks : 50

- Instructions :**
- (1) All questions in Section – I carry **equal** marks.
 - (2) Attempt any **Three** questions in Section – I.
 - (3) Section – II is **COMPULSORY**.
 - (4) Draw figures wherever necessary.

Section – I

1. (A) Discuss structure of viruses giving suitable examples. 7
(B) Explain cryptogram system for classification of viruses. 7
2. (A) Explain *invitro* culture techniques for the cultivation of viruses. 7
(B) What are sub-viral entities? Explain prions in detail. 7
3. (A) Explain one step growth curve and its significance. 7
(B) Explain Lytic cycle of T4 Phage. 7
4. (A) Write a note on ϕ X174. 7
(B) Give general account of replication of animal viruses. 7
5. (A) Explain sexual spores of fungi with the help of suitable figure. 7
(B) Explain slide culture technique for cultivation of fungi. 7

6. (A) Discuss primary metabolites of fungi and its importance. 7
(B) Write a note on animal disease caused by fungi. 7
7. (A) Discuss criteria used for classification of fungi. 7
(B) Write a note on slime molds. 7
8. (A) Explain life cycle of chytridiomycetes. 7
(B) Write salient features and economic importance of basidiomycetes. 7

Section – II

9. Give short and specific answers in **1-2** lines only (any **eight**) : 8
- (1) Write full form of ICNV.
 - (2) Name two enveloped viruses.
 - (3) Name two sites of an embryonated egg often used to grow animal viruses.
 - (4) What are He La cells ?
 - (5) Write an example of persistent viral infection.
 - (6) Which gene of lambda phage encodes lambda repressor protein ?
 - (7) Which type of genome is present in phage MS2 ?
 - (8) Name the receptor required for binding of HIV to the host cell.
 - (9) What is haustorium ?
 - (10) Define dimorphism.
 - (11) Name the fungi producing ergot alkaloids.
 - (12) What is the difference between powdery mildew and downy mildew ?
 - (13) Which type of sexual spore is produced by phycomycetes ?
 - (14) Write two economic importance of ascomycetes.
 - (15) What is cleistothecium ?
 - (16) Write two names of fungi belonging to class deuteromycetes.