

Seat No. : \_\_\_\_\_

**SJ-125**

September-2020

B.Sc., Sem.-VI

**CC-308 : Microbiology  
(Virology and Mycology)  
(New Course)**

**Time : 2 Hours]**

**[Max. Marks : 50**

- Instructions :**
- (1) Answer the question paper applicable, either "NEW COURSE" or "OLD COURSE" and it must be mentioned at the beginning of the answer paper.
  - (2) Answer any **three** out of **eight** questions. Question No. 9 is compulsory.
  - (3) Mention correct question number **against** the answer.

1. Describe structural organization of viruses. 14
2. (1) Explain cultivation of viruses in embryonated eggs. 7  
(2) What are sub-viral entities? Explain viroids in detail. 7
3. Write a note on replication of HIV. 14
4. (1) Explain single stranded RNA phage. 7  
(2) Write a note on replication of TMV. 7
5. Discuss in brief primary and secondary metabolites of fungi. 14
6. (1) Describe hyphal modification in fungi. 7  
(2) Explain asexual spores of fungi with the help of suitable figure. 7
7. Write a note on ascomycetes. 14
8. (1) Explain recent classification system for fungi. 7  
(2) Explain reproduction in phycomycetes. 7

9. Answer in **one** or **two** lines : (Any **eight**)

8

- (1) What is cryptogram ?
  - (2) Define primary cell line.
  - (3) Define syncytium.
  - (4) Name a disease caused by prion.
  - (5) What is virulent phage ?
  - (6) Why phage T4 DNA is not degraded by endonucleases in host cell ?
  - (7) Define temperate phage.
  - (8) Name regulatory proteins that promote lysogeny or lytic cycle in lambda phage.
  - (9) What is dolipore septum ?
  - (10) Names two types of fungal flagella.
  - (11) Write two reasons that make Rose Bengal Medium selective for fungi.
  - (12) What is rust ?
  - (13) Which class of fungi produce plasmodium ?
  - (14) Which class of fungi produce flagellated zoospores ?
  - (15) What is a basidium ?
  - (16) Name the class to which mushroom belongs to.
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1. Discuss classification of viruses. 14
2. (1) Explain cultivation of bacteriophages. 7  
(2) Write a note on oncogenic viruses. 7
3. Explain briefly lysogenic cycle of  $\lambda$ , phage and phage conversion. 14
4. (1) Write a note on viral interference. 7  
(2) Discuss consequences of viral infection. 7
5. Discuss principles of fungal nutrition. Explain slide culture technique. 14
6. (1) Explain different methods used for preservation of fungi. 7  
(2) Write a note on animal disease caused by fungi. 7
7. Discuss asexual methods of reproduction in fungi. 14
8. (1) Write a note on fruiting bodies of fungi. 7  
(2) Explain life cycle of deuteromycetes. 7

9. Answer in **one or two** lines : (Any **eight**)

- (1) What is plus strand RNA ?
  - (2) Define plaque.
  - (3) Define secondary cell line.
  - (4) Write full form of PCNV.
  - (5) What is morphogenesis ?
  - (6) Define prophage.
  - (7) What is phage induction ?
  - (8) Write full form of TMV.
  - (9) Define homothallism.
  - (10) Write two names of fungi having septate hyphae.
  - (11) What is clamp connection ?
  - (12) Name two industrially produced secondary metabolites of fungi.
  - (13) What is zygospore ?
  - (14) Define parasexual cycle.
  - (15) Write two economic importance of phycomycetes.
  - (16) What is karyogamy ?
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