

## Virus questions

### Long questions (Q.V – 4 marks)

1. Discuss the various systems of classification and nomenclature of viruses.
2. List general symptoms of virus diseases of plants.
3. Describe briefly the nature of plant viruses and the method of their transmission.
4. How will you define virus? Discuss its nature and origin.
5. Give an illustrated account of structure of viruses.
6. How are the plant viruses transmitted? Give the control measures of any two-plant virus diseases.
7. Describe the structure of TMV. How are viruses transmitted by insect vectors?
8. Give an illustrated account of multiplication of plant viruses.
9. Give an illustrated account of structure and life cycle of Bacteriophage.
10. Virus is a link between living and non-living.” Justify this statement. Describe the viral transmission and diseases.”
11. Mention some of the phanerogamic plant parasites with detailed description.
12. Discuss in brief the structure and life cycle of T4 bacteriophage.

### Write short answer type notes on the following. (Q.V-2 marks)

1. Bacteriophage
2. TMV
3. Structure of tobacco mosaic virus
4. Plant viruses
5. Transmission of plant viruses
6. Cyanobacteria
7. Biological importance of bacteriophages.
8. Lytic and Lysogenic Cycle
9. Write explanatory notes on the following –
  - I. Insect transmission of viruses
  - II. Cryptogram of TMV and an explanation of the terms used
10. Discuss the structure of T2 viruses.

11. Differentiate between virus and bacteria and explain the phenomenon of multiplication of virus.
12. Transmission of plant virus by nematodes
13. Viral detection through PCR
14. Viral detection through ELISA
15. Symmetric organizational morphology of viruses.

**Short questions (Q.V-1 marks)**

Q.1 How viruses can be detected by a rapid detection test?

Q.2. What is viroids?

Q.3 What is prion?

Q.3. What is CRISPAR-CAS 9 technique?

Q.4 How CRISPAR-CAS 9 works?

Q.5. Give some examples of –

- I. SS RNA virus
- II. SS DNA virus.
- III. DS DNA Virus
- IV. DS RNA virus

Q. 6. Who is called father of virology ?

Q.7. Why antibiotics have no effect on viruses ?

Q. 8. Genetic material of TMV

Q.9. What does the latent infection mean?

Q.10. There are two major types of human immunodeficiency virus, HIV 1 and HIV 2. Which one of the two is mainly responsible for the disease.

## **Disease management questions**

### **Long questions (Q.V – 4 marks)**

1. Briefly mention principles and methods of plant disease management.
2. Give a detailed description of Integrated Plant Disease management (IPDM)
3. Nature, chemical combination, classification, mode of action, and formulation of fungicide.
4. What are antibiotics? Give a detailed description of classification of antibiotics based on chemical composition.

### **Write short answer type notes on the following. (Q.V-2 marks)**

1. General principles of plant disease management.
2. Plant disease introduced in India
  - I. Late blight of potato
  - II. Rice blast
  - III. Flag smut of wheat
  - IV. Bunchy top of banana
3. Biological methods of plant disease management
4. Classification of fungicides based on chemical nature.
5. Systemic fungicide.
6. Host Plant Resistance (Immunization)
7. Write short notes on the following –
  - I. Penicillins
  - II. Cephalosporin
8. Write short notes on the following –
  - I. Seed Certification
  - II. Plant quarantine
9. Describe with suitable diagram of inhibition of cell wall synthesis by antibiotics.

### **Short questions (Q.V-1 marks)**

1. What is eradication ?
2. What is Bordeaux mixture?
3. What is Burgundy mixture?
4. Write dosage and disease management of the following chemicals –
  - I. Ziram
  - II. Ferbam
  - III. Thiram
  - IV. Zineb
  - V. Maneb
  - VI. Captan
  - VII. Chlorothalonil
  - VIII. Metalaxyl
  - IX. Carbendazim
  - X. Carboxyin
  - XI. Azoxystrobin
  - XII. Propiconazole
5. What is horizontal resistance and vertical resistance.
6. What is antibiotic? Give two examples and mention their roles.
7. How antibiotic resistance of a pathogen analyzed through bioassay.
8. What is sulphonamides?
9. What is glycopeptides?
10. What is Tetracyclines?