

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2023

M.Sc.-I Semester (Microbiology)

COURSE CODE (CREDITS): 20B1WBI831 (02)

MAX. MARKS: 35

COURSE NAME: Virology

COURSE INSTRUCTORS: Ashok Kumar Nadda

MAX. TIME: 2 Hours

Note: (a) All questions are compulsory.

(b) Marks are indicated against each question in square brackets.

(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

Section I

Q 1 Very short answer type questions

- Give the examples of antiviral drugs as *Purine or Pyrimidine analogs*? [Mark 1]
- What are the antiviral agents used against Herpes genitalis and Herpetic keratoconjunctivitis. [Mark 1]
- Name the viruses spread by Aphids and grasshoppers. [Mark 1]
- Give two examples of drugs used against influenza or respiratory viral infections. [Mark 1]
- What is the mechanism of action of Acyclovir and Congeners? [Mark 1]

Section II

Q 2 Explain the significance and utility of Baltimore classification system in understanding the diversity of viruses and provide the examples of viruses from different Baltimore's classes. [Marks 3]

Q 3 Compare and contrast the clinical manifestations of alpha, beta and gamma type of Herpes viruses. Also highlight the specific disease associated with each subgroup. [Marks 3]

Q 4 What are Oncogenic viruses. With the help of suitable examples explain the pathogenesis of two oncogenic viruses. [Marks 3]

Q 5 Discuss the symptoms and disease cycles of Wheat Streak Mosaic Virus & Soil Borne Wheat Mosaic Virus. **[Marks 3]**

Q 6 Discuss the unique features of reverse transcription and integration into host genome in the life cycle of retroviruses. Explain the different stages and its clinical manifestations. **[Marks 3]**

Section III

Q 7 Give a detailed account of various internal and external symptoms of viruses on the plants. Explain the masked symptoms and symptomless carrier with suitable examples **[Marks 5]**

Q 8 Explain the pathogenesis, symptoms, disease cycle of Rice Tungro Disease and Rice Grassy stunt disease. Write the causal agent and vectors that increase the prevalence of disease in crop fields. **[Marks 5]**

Q 9 Discuss the detailed pathogenesis of rabies, with specific focus on spreading of viruses outside and within the body. Explain with the help of a suitable diagram. Write briefly the pre and post exposure prophylaxis. **[Marks 5]**