

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATIONS-2022

M.Sc.-I Semester (Microbiology)

COURSE CODE (CREDITS): **20B1WBI831**

MAX. MARKS: 15

COURSE NAME: **Virology**

COURSE INSTRUCTORS: **Dr. Ashok Kumar Nadda**

MAX. TIME: 1 Hour

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

Section I

Q 1 Answer the following questions. Each question is carrying one mark only.

- a) Name the first human virus identified by a well known physician Carlos Finlay. **(1 mark)**
- b) Which part of the virus provides the structural symmetry and participates in attachment to susceptible host? **(1 mark)**
- c) Differentiate between pseudovirions and a defective virus. **(1 mark)**
- d) What is the causal agent of Creutzfeldt-Jacob Disease (CJD) that has no detectable nucleic acid? **(1 mark)**
- e) How the viroids differ from the viruses? **(1 mark)**

Section II

Q 2 Discuss the structure of a typical enveloped virus with the help of diagram. Give two examples of enveloped viruses. (2 marks)

Q 3 What are the different roles of structural and non structural proteins to maintain the viability of viruses? (1.5 marks)

Q 4 Discuss the various characteristics of Group II viruses with the help of suitable example. (1.5 marks)

Section III

Q 5 Viruses enter inside the host cell and use the protein synthetic machinery to make the multiple copies of the infectious particles. Discuss the various phases in the growth cycle of the viruses diagrammatically. (2.5 marks)

Q 6 Some viruses are able to infect the cell but not able to cause the infection. Explain the following types of host cell in correlation with the viral infection a) Susceptible cell b) Resistant cell & c) Permissive cell. (2.5 marks)