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BTECH
(SEM VIII) THEORY EXAMINATION 2023-24
VIROLOGY

TIME: 3 HRS**M.MARKS: 100**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A**1. Attempt all questions in brief.**

Q no.	Question	Marks	CO
a.	How are viruses named and classified?	2	1
b.	What are the characteristics of a virus?	2	1
c.	What is the effect of virus disease on animal?	2	2
d.	What is a virus' counter attack?	2	2
e.	What's the point of virus taxonomy?	2	3
f.	What is the life cycle of picorna virus?	2	3
g.	State Some of the Disease Caused by the Enterovirus.	2	4
h.	What is the composition of the Orthomyxoviruses virion?	2	4
i.	What are the three major modes of action of antiviral drugs?	2	5
j.	Do antivirals have side effects?	2	5

SECTION B**2. Attempt any three of the following:**

Q no.	Question	Marks	CO
a.	How are viruses purified through precipitation? Explain.	10	1
b.	How long can viruses survive in a dead body? Describe.	10	2
c.	How is SARS transmitted? What steps can be taken to help prevent contracting the disease?	10	3
d.	Explain the Life Cycle of Paramyxovirus. What are the Types of Pathogenic Paramyxoviruses?	10	4
e.	How do antivirals affect the immune system?	10	5

SECTION C**3. Attempt any one part of the following:**

Q no.	Question	Marks	CO
a.	Why do we consider viruses as a connective link between living and non-living	10	1
b.	What are the components of viruses? How does each of these components affect the ability of the virus to infect a specific host?	10	1

4. Attempt any one part of the following:

Q no.	Question	Marks	CO
a.	Why are plant and bacterial viruses generally non-enveloped? Explain.	10	2
b.	How is the COVID-19 virus detected using Real Time RT-PCR? Describe.	10	2



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(SEM VIII) THEORY EXAMINATION 2023-24
VIROLOGY

TIME: 3 HRS**M.MARKS: 100****5. Attempt any *one* part of the following:**

Q no.	Question	Marks	CO
a.	Give the classifications of Picornavirus. Explain any two of them.	10	3
b.	What type of RNA primer is being used in reverse transcription process?	10	3

6. Attempt any *one* part of the following:

Q no.	Question	Marks	CO
a.	How does avian influenza spread? How are humans infected by avian viruses?	10	4
b.	How long does it take for dogs and cats to develop rabies, and how long does a rabid animal survive?	10	4

7. Attempt any *one* part of the following:

Q no.	Question	Marks	CO
a.	Differentiate between DNA vaccine and Recombinant vaccine.	10	5
b.	Describe- (i) Antiviral screening and library construction (ii) Use of antisense RNA and ribozymes as viral vaccines	10	5