

**M.Sc. BOTANY
FIRST SEMESTER
BACTERIA AND VIRUS
MSB-104**



[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1hr. 30 mins.

Full Marks: 35

Time: 15 mins.

(Objective)

Marks: 10

Choose the correct answer from the following:

1×10=10

1. Who crystallized and isolated viruses for the first time?
a. F.C. Bawden
b. K.M. Smith
c. W. M. Stanely
d. D. Ivanowski
2. The viral envelope is made up of:
a. Proteins
b. Glycoproteins
c. Lipids
d. All of the above
3. Viruses which cause lysis of bacteria are known as:
a. Lysogenic
b. Lytic
c. Lipolytic
d. Lysozymes
4. Which of the following is the genome of the virus?
a. DNA
b. RNA
c. DNA or RNA
d. DNA and RNA
5. What is the shape of the tobacco mosaic virus capsid?
a. Planner
b. Round
c. Icosahedral
d. Helical
6. A cluster of polar flagella is called as:
a. Lophotrichous
b. Pentrichous
c. Amphitrichous
d. Monotrichous
7. The protein from which hook and filaments of flagella is composed of:
a. Keratin
b. Flagellin
c. Gelatin
d. Casein
8. Which of these is a single or double occurring cocci?
a. Diplococci
b. Tetracocci
c. Streptococci
d. None of these
9. Teichoic acids are basically found in:
a. Cell walls of gram positive bacteria
b. Outer membrane of gram positive bacteria
c. Outer membrane of gram negative bacteria
d. Cell walls of gram negative bacteria

10. The enzyme which may easily damage the cell walls of various gram positive bacteria is termed as:
- a. Lipase
 - b. Pectinase
 - c. Lysozyme
 - d. Peroxidase

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(Descriptive)

Time : 1 hr. 15 mins.

Marks : 25

[Answer question no.1 & any two (2) from the rest]

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| 1. Write the differences between lytic and lysogenic cycle. | 5 |
| 2. Write short notes on: | 5+5=10 |
| a) Bacteriophage | |
| b) TMV | |
| 3. Write short notes on: | 5+5=10 |
| a) Vaccination | |
| b) Ultrastructure of virus | |
| 4. Write in brief the morphology and structure of bacterial cell. | 10 |
| 5. What is bacterial transduction? Write different methods of bacterial transduction with suitable diagram. | 1+9=10 |

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