

SEMESTER—ONE**BIOLOGY**

Class XI

Student Name:

Date:

Period—I : Topic 1**VIRUSES AND BACTERIA****Multiple Choice Questions**

Select and write one most appropriate option out of the four options given for each of the questions 1 – 5.

1. Bacteria that do not need oxygen for their respiration are known as?
(a) Anaerobic bacteria (b) Unicellular bacteria
(c) Capsule bacteria (d) None of the above
2. An additional layer of bacteria cell around the slime layer to make it thick and strong.
(a) Capsule (b) Capsid
(c) Cellular (d) None of the above
3. Unicellular organisms that belong to prokaryotic group are called?
(a) Bacteria (b) Virus
(c) Hydra (d) None of the above
4. A virus which invades and infects the bacterial cell is known as?
(a) Bacteriophage (b) Mutation phase
(c) Lymphocycoma (d) None of the above
5. It is long, slender and rod-shaped measuring about 18 nm in diameter and 300 nm in length.
(a) Tea mosaic virus (b) Lactobacillus virus
(c) Tobacco mosaic virus (d) None of the above

Fill in the Blanks

Fill in the blanks with a suitable word for each of the questions 1 – 5.

1. _____ is a gelatinous substance secreted by the protoplast and deposited over the cell wall in the form of a loose gelatinous sheath.
2. Chemically, the cell wall consists of acetyl glycosamine, acetyl muramic acid a peptide chain of four or five amino acids. All these chemicals together form a polymer called _____.
3. Each bacteria cell has a thin, elastic and selective permeable _____ which allows passage of dissolved substances in and out of the cell.
4. Many _____ bacteria decompose the dead organic matter by purification and decay.
5. _____ fixation is the process that biologically converts atmospheric nitrogen into its usable form.

True or False

State whether the following statements are true or false for each of the questions 1–5.

1. Based on the type of nucleic acid present, viruses are classified as RNA and DNA viruses.
2. The plasma membrane is composed of phospholipid, proteins and polysaccharides.
3. The simple compounds produced as a result of decomposition and decay are released back into the environment for recycling or exposed by the plant as waste material.
4. Certain leguminous plants, such as pea and bean plants have symbiotic bacteria (*Rhizobium*) in their root nodules.
5. The virus take up free nitrogen from the atmosphere and convert the same into soluble nitrates such as potassium nitrate.

Theoretical Questions

Answer each of the questions 1 – 5.

1. A protein coat that surrounds the central portion of the nucleoid and enzymes in a virus is known as?

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2. The virus that possesses DNA as its genetic material is known as?

3. A cycle by which a virus can replicate its DNA using a host cell is known as?

4. A cycle in which the phage replicates and lyses the host cell is known as?

5. Organisms that are not capable to synthesise food get their food from other organisms are known as?

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