

St. Andrews Scots School

Adjacent Navniti Apartments,
I.P. Extension, Patparganj, Delhi – 110092
Session: 2025-2026 – Answer Key

Class: VIII

Subject: Science

Chapter: Microorganisms

CHECK POINT

1. Microbiology 2. Saprophytic fungi 3. Algae 4. Viruses

CHECK POINT 2

1. BCG 2. Pathogens 3. Female Anopheles 4. Mildew 5. Water

CHECK POINT 3

1. (T) 2. (T) 3. (F) 4. (T)

PRACTICE TIME:

A. Tick (✓) the correct answer:

1. (c) 2. (b) 3. (d) 4. (c) 5. (b)

B. Assertion-Reason Type Questions:

1. (b) 2. (a) 3. (c) 4. (b)

C. Correct and Rewrite the following statements:

1. Viruses reproduce inside the living organisms only.
2. Ringworm is a fungal disease.
3. Tuberculosis is transmitted by air.
4. Malaria spreads by the bite of female Anopheles mosquito.
5. Rhizobium is a nitrogen-fixing bacterium that lives in the root nodules of legumes.

D. Very Short Answer Type Questions:

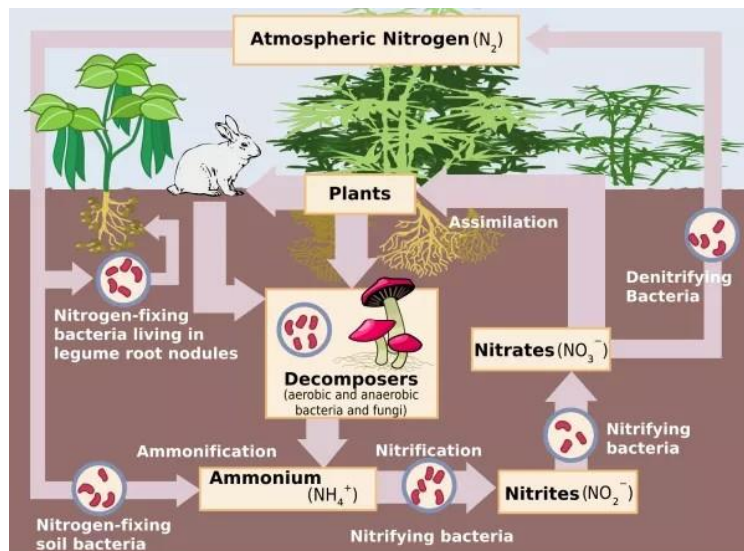
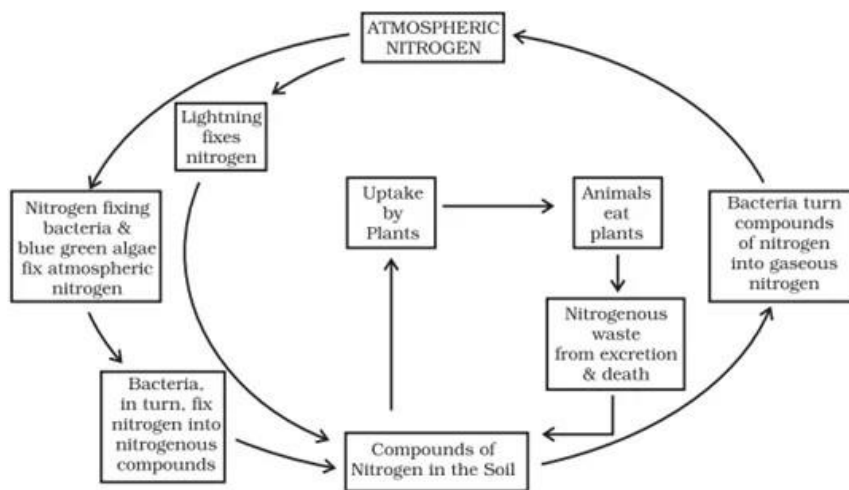
1. Bacterium Lactobacillus
2. Yeast
3. Clostridium botulinum
4. Virus
5. Mucor

E. Short Answer Type Questions:

1. Bacteria, Fungi, Algae, Protozoa and Viruses. Bacteria and Protozoa have only one-celled individuals.
2. Because they behave as living beings inside the living cells and as non-living things outside the living cells.
3. This condition is called food poisoning. It happens because certain microbes grow and produce toxic substances on the cooked food kept for long or stored making it poisonous.
4. Diseases caused by microorganisms through air, water, food or physical contact are called communicable diseases. Pneumonia, common cold, malaria and polio are some communicable diseases.

F. Long Answer Type Questions:

1. (a) Microorganisms decompose dead plants and animals, and convert their organic compounds into simple inorganic substances. These substances get mixed with soil and improve its fertility. Thus, microorganisms prevent accumulation of waste and dead organic matter and hence, they help to clean our environment.
(b) Microorganisms such as cyanobacteria and Rhizobium fix free nitrogen of air into nitrogenous compounds. This enriches the soil with nitrates which are used by plants.
2. Some communicable diseases such as common cold, flu, chickenpox, tuberculosis, etc., spread through air we breathe. The germs of these diseases come into air from a sick person by coughing and sneezing. Hence, covering mouth and nose while coughing and sneezing helps to prevent the spread of these diseases. Communicable diseases spread by various ways as follows:
 - ☐ By direct contact with a sick person – Influenza (flu), measles, chickenpox, etc.
 - ☐ By air – Pneumonia, tuberculosis, common cold, ringworm, etc.
 - ☐ By food/water – Cholera, typhoid, jaundice, food poisoning, etc.
 - ☐ By mosquito bite – Malaria.
3. Conversion of atmospheric nitrogen into nitrogenous compounds by some biological agent is called biological nitrogen fixation. Microbes associated with nitrogen fixation are Rhizobium, Azotobacter, Clostridium, Anabaena and Nostoc.



4. Louis Pasteur discovered the occurrence of microorganisms in air. He also discovered the process of pasteurisation. This process is used to make the milk bacteria-free. The pasteurised milk does not spoil for a longer time.

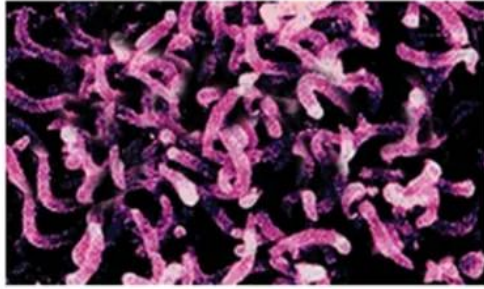
5. A – Viruses. They are regarded as connecting link between living and non-living things. (HIV causes AIDS in human beings.)

B – Fungi. It is used for commercial production of alcohol and wine, and in baking industry.

C – Bacteria. It fixes atmospheric nitrogen.

D – Bacteria. It converts milk into curd.

E – Protozoa. It causes amoebic dysentery.

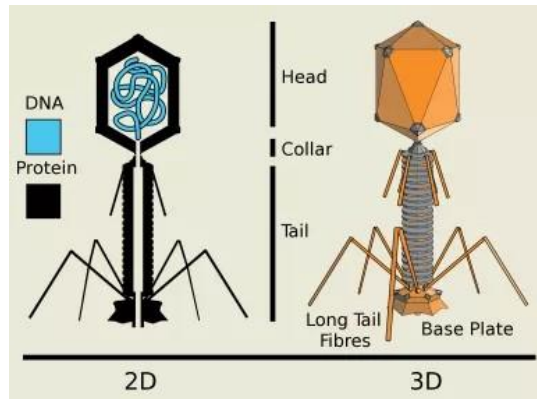


Spiral bacteria



Rod shaped bacteria

Bacteria



Virus



Fungi



Protozoa

G. HOTS Questions:

1. Yes, yeast is a living organism. Yeast produces carbon dioxide gas by fermenting the sugar present in dough. This carbon dioxide gas makes the batter fluffy and spongy. Yeast is also used to make bread, biscuits, dhokla, bhatura, etc.
2. Corona virus causes COVID-19 disease. This affects the lungs and chokes them leading to death.
3. In air-tight packets, microbes cannot grow because there is no air to breathe, and hence dry fruits remain safe from the attack of microbes

Passage/Case-based Questions

1. Food sold by street vendors is called street food.
2. Food poisoning is a disorder of digestive system which arises due to consuming food spoiled by microorganisms. It causes vomiting, headache and diarrhoea.
3. We should avoid street food because it is unhealthy as it is prepared in unhygienic conditions.

H. Life Skills:

1. BACTERIA
2. PRESERVATION
3. ALGAE
4. VIRUS

K. Value-based Questions:

- (a) Common cold/cough is a viral disease. It is caused by rhinovirus.
- (b) Transfer of disease from an infected person to a healthy person occurs through direct contact, air, contaminated food and water, mosquito bite, etc.
- (c) Sita is an obedient person.