

SCIENCE

8

STANDARD EIGHT BIOLOGY 2024-2025

IMPORTANT BOOK BACK QUESTION BANK 2,5,Marks Question

8TH STD SCIENCE

UNIT-16 MICROORGANISMS

I. Answer very Briefly

1. Write the name of any nitrogen fixing bacteria.

*Rhizobium *Nostoc *BGA

2. Name the bacteria used in the production of vinegar.

Acetobacter aceti.

3. Write the names of any three protozoans.

Amoeba. Plasmodium. Paramecium.

4. Who discovered penicillin?

Alexander Flemming.

5. Which diseases can be prevented by vaccination?

Small pox, polio, tuberculosis.

III. Answer in briefly

1. Write the four types of bacteria, based on their shape.

* Bacilli – Rod shaped bacteria *Spirilla – Spiral shaped bacteria.

*Cocci – ball shaped bacteria. *Vibrio – Comma shaped bacteria.

2. What are antibiotics?

living organisms which is toxic for other organisms. **Example:**
Penicillin.

3. What are pathogens?

Disease causing organisms are called pathogens.

Example: Bacteria, Virus, Fungii

4. How diseases causing micro organisms enter into human beings?

*Cuts and wounds in the skin, mouth or nose. *Some pathogens enter into, Air, Water, blood, Eyes

5. Why micro organisms are essential for agriculture?

Nitrogen fixation:

Microbes can fix atmospheric gaseous nitrogen as nitrate salts in the soil. Rhizobium root nodule bacteria in leguminous plants.

Free living bacteria, cyanobacteria (Nostoc).

VIII. Long answer type
1. Write a short note on bacteria and its structure.
cell wall. : A bacteria outer covering wall.
Nuclear material : Nuclear material is represented by a nucleoid.
Cytoplasm : Present
Protein Synthesis. : Ribosomes 70 S TYPE
Locomotion : Flagella
2. How micro organisms are useful in the field of medicine?
Antibiotics:
It is a substance produced by living organisms which is toxic to other organisms.
The antibiotic penicillin got from the fungus Penicillium.
Vaccines:
They are prepared from dead or weakened microbes. When a vaccine is injected into the body of a patient, it produces antibodies to fight the germs.
These antibodies protect the body from infections in future. Example: Covid Shield vaccine for Corona virus
4. How can we improve the beneficial bacterial count in human beings?
Intake of fibre rich foods.
Intake of seasonal fruits and vegetables.
Intake of plenty of fermented foods with live microbes.
Eat more of prebiotic foods.
Intake of whole grains.
Prefer plant based diet.
Avoid artificial sweeteners

3. Diseases Caused by microorganisms in humans

Sl. No	Human Diseases	Causative microorganisms	Mode of transmission	Symptoms	Preventive measures / Treatment
1.	Tuber culosis	<i>Mycobacterium tuberculosis</i> (Bacteria)	Through air and sputum of infected person	Persistent cough, blood mucus, loss of weight, breathlessness	BCG Vaccine
2.	Cholera	<i>Vibrio cholera</i> (Bacteria)	By flies and by contaminated food and water	Watery diarrhoea, vomiting, rapid dehydration.	Anticholera vaccine, maintaining personal hygiene.
3.	Common cold	<i>Influenza</i> (virus)	Through air	Running nose, sneezing	Isolation of patient
4.	Rabies	<i>Rhabdo viridae</i> (virus)	Animal bite	Fever, hallucination, paralysis inability to swallow	Anti-rabies vaccine.
5.	Amoebic dysentery	<i>Entamoeba histolytica</i> (Protozoa)	Food water and flies	Severe diarrhea and blood in stool	Proper sanitation to be followed and metronidazole antibiotic to be administered

5. Write a short note on Probiotics.

Probiotics are live food fermented milk products.

Prevent diseases

Decrease the risk of colon cancer

Decrease cholesterol absorption

Lactobacillus bacteria improve microbial Benefits

Increasing the immunity power.