

Micro-organism

1. Fill in the blanks:

- (a) Microorganisms can be seen with the help of a _____
- (b) Blue green algae fix _____ directly from air to enhance fertility of soil.
- (c) Alcohol is produced with the help of _____
- (d) Cholera is caused by _____.

Answer:

- (a) Microorganisms can be seen with the help of a microscope.
- (b) Blue green algae fix nitrogen directly from air to enhance fertility of soil.
- (c) Alcohol is produced with the help of yeast.
- (d) Cholera is caused by bacteria.

2. Tick the correct answer:

- (a) Yeast is used in the production of
 - (i) sugar (ii) alcohol (iii) hydrochloric acid (iv) oxygen

Answer: (ii) alcohol

- (b) The following is an antibiotic
 - (i) Sodium bicarbonate (ii) Streptomycin (iii) Alcohol (iv) Yeast

Answer: (ii) Streptomycin

- (c) Carrier of malaria-causing protozoan is
 - (i) female Anopheles mosquito (ii) cockroach (iii) housefly (iv) butterfly

Answer: (i) female Anopheles mosquito

- (d) The most common carrier of communicable diseases is
 - (i) ant (ii) housefly (iii) dragonfly (iv) spider

Answer: (ii) housefly

(e) The bread or idli dough rises because of

(i) heat (ii) grinding (iii) growth of yeast cells (iv) kneading

Answer: (iii) growth of yeast cells

(f) The process of conversion of sugar into alcohol is called

(i) nitrogen fixation (ii) moulding (iii) fermentation (iv) infection

Answer: (iii) fermentation

3. Match the organisms in Column I with their action in Column II.

Column A	Column B
(i) Bacteria	(a) Fixing Nitrogen
(ii) Rhizobium	(b) Setting of curd
(iii) Lactobacillus	(c) Baking of bread
(iv) Yeast	(d) Causing Malaria
(v) A protozoan	(e) Causing Cholera
(vi) A Virus	(f) Causing AIDS
	(g) Producing antibodies

Answer:

Column A	Column B
(i) Bacteria	(g) Producing antibodies
(ii) Rhizobium	(a) Fixing Nitrogen
(iii) Lactobacillus	(b) Setting of curd
(iv) Yeast	(c) Baking of bread
(v) A protozoan	(d) Causing Malaria and (e) Causing Cholera
(vi) A Virus	(f) Causing AIDS

4. Can microorganisms be seen with the naked eye? If not, how can they be seen?

Answer :

The microorganism can not be seen with naked eyes. They can be seen with the help of a magnifying glass or microscope.

For example, fungus that grows on bread is so small that it can be seen only with the help of a magnifying glass or microscope.

5. What are the major groups of microorganisms?

Answer:

Microorganisms are classified into four major groups.

(i) Bacteria: They are single celled disease-causing micro-organisms. They can be spiral or rod- shaped.

(ii) Fungi : They are mostly multicellular disease-causing microbes. Bread moulds are common examples of fungi.

(iii) Protozoa : They mainly include organisms such as Amoeba, Plasmodium, etc. They can be unicellular or multicellular.

(iv) Virus : Viruses are disease-causing microbes that reproduce only inside the host organism.

(v) Algae : They include multicellular, photosynthetic organisms such as Spirogyra, Chlamydomonas, etc.

6. Name the microorganisms which can fix atmospheric nitrogen in the soil.

Answer:

Bacteria like Rhizobium and blue green algae are microorganisms which can fix atmospheric nitrogen in the soil thus increase soil fertility. These microbes are commonly called biological nitrogen fixers.

7. Write 10 lines on the usefulness of microorganisms in our lives.

Answer:

Microorganisms are quite usefull in our lives in many way :

1.Yeast : a microorganism is used for the large scale production of alcohol, wine and acetic acid (vinegar).

2.Lactobacillus : a bacterial microorganism helps us in truning milk into curd.

3.Bacteria are also used for commercial production of antibiotics medicines like Streptomycin, tetracycline and erythromycin.

4.Yeast a microorganism is used in baking industry for making breads, pastries and cakes.

5.They help in Increasing Soil Fertility. Microorganisms like Rhizobium and blue green algae are of great importance in agriculture.

6.Certain bacteria convert compounds of nitrogen present in the soil into nitrogen gas which is released to the atmosphere.

7. They increase soil fertility by fixing atmospheric nitrogen and converting it into nitrogenous compounds.

8. Some microorganisms inside our bodies help in food digestion.

9. Some microorganisms decompose the organic waste and dead plants and animals into simple substances and clean up the environment.

8. Write a short paragraph on the harms caused by microorganisms.

Answer :

Microorganisms are harmful in many ways. Some of the microorganisms cause diseases in human beings, plants and animals. Such disease-causing microorganisms are called pathogens. Pathogens spread a number of Microbial diseases or communicable diseases like cholera, common cold, chicken pox and tuberculosis from an infected person to a healthy person through air, water, food or physical contact. Some microorganisms spoil food, clothing and leather.

9. What are antibiotics? What precautions must be taken while taking antibiotics?

Answer:

An antibiotic is a medicine which kills or stops the growth of the disease-causing microorganisms in human and animals. The antibiotics are manufactured by growing specific microorganisms and are used to cure a variety of diseases. Antibiotics medicines like Streptomycin, tetracycline and erythromycin are commercially produced from bacteria and fungi.

Precaution in taking Antibiotics

Precautions to be taken while using antibiotics:

(i)Antibiotics should be taken under the supervision of a well qualified doctor.

(ii) Course (intake) of antibiotics should be completed as per the prescription given by the doctor.

(iii) Antibiotics should be taken in the right amount and at the right time. A wrong dose of antibiotics makes the drug ineffective. Also, excessive consumption of drugs may kill the useful bacteria present in our body.