

TEACHERS FORUM<sup>®</sup>



# QUESTION BANK

(solved)

**Class VIII**

**SCIENCE**

**SUBJECT EXPERTS**

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# 1

# CROP PRODUCTION AND MANAGEMENT

## IMPORTANT POINTS

- In order to provide food to our growing population, we need to adopt certain agricultural practices.
- In India, crops can be broadly categorised into two types based on seasons - rabi and Kharif crops.
- It is necessary to prepare soil by tilling and levelling. Ploughs and levellers are used for this purpose.
- Soil needs replenishment and enrichment through the use of organic manure and fertilisers. Use of chemical fertilisers has increased tremendously with the introduction of new crop varieties.
- Supply of water to crops at appropriate intervals is called irrigation.
- Weeding involves removal of unwanted and uncultivated plants called weeds.
- Harvesting is the cutting of the mature crop manually or by machines.
- Proper storage of grains is necessary to protect them from pests and microorganisms.
- Food is also obtained from animals for which animals are reared. This is called animal husbandry.
- Fertiliser: The inorganic compounds containing nutrients such as nitrogen, potassium and phosphorus. They are made in the factories. Example: Urea, ammonium sulphate, potash, etc
- Irrigation: Supplying of water to the crop plants from the wells, canals or water reservoirs.
- Harvesting: The cutting and collecting of the matured crops from the fields. Harvesting in our country is either done manually by sickle or by a machine called harvester.
- Manure: A natural substance prepared from decomposition of plant and animal wastes (cow dung, animal bones, dead leaves, dead insects and vegetable wastes) by the action of microbes.

## NCERT SOLUTIONS

1. Select the correct word from the following list and fill in the blanks:

float, water, crop, nutrients, preparation

- (a) The same kind of plants grown and cultivated on a large scale at a place is called \_\_\_\_\_.
- (b) The first step before growing crops is \_\_\_\_\_ of the soil.
- (c) Damaged seeds would \_\_\_\_\_ on top of water.
- (d) For growing a crop, sufficient sunlight and \_\_\_\_\_ and \_\_\_\_\_ from the soil are essential.

**Ans.** (a) crop            (b) preparation            (c) float            (d) water and nutrients

2. Match items in column A with those in column (b)

A	B
(i) Kharif crops	(a) Food for cattle
(ii) Rabi crops	(b) Urea and super phosphate
(iii) Chemical fertilisers	(c) Animal excreta, cow dung, urine and plant waste
(iv) Organic manure	(d) Wheat, gram, pea
	(e) Paddy and maize

**Ans.**

A	B
(i) Kharif crops	(e) Paddy and maize
(ii) Rabi crops	(d) Wheat, gram, pea
(iii) Chemical fertilisers	(b) Urea and super phosphate
(iv) Organic manure	(c) Animal excreta, cow dung, urine and plant waste

3. Give two examples of each:    (a) Kharif crop            (b) Rabi crop

**Ans.** (a) Kharif crop : Paddy, maize, groundnut, etc

(b) Rabi crop : Wheat, gram, mustard, etc

4. Write a paragraph in your own words on each of the following.

(a) Preparation of soil    (b) Sowing    (c) Weeding            (d) Threshing

**Ans.** (a) **Preparation of soil** : The preparation of soil is the first step before growing a crop. One of the most important tasks in agriculture is to turn the soil and loosen it. This allows the roots to penetrate deep into the soil. The loosened soil helps in the growth of earthworms and microbes which add humus to it. Also, turning and loosening of soil brings the nutrient-rich soil to the top so that plants can use these nutrients.

(b) **Sowing** : Sowing is the most important part of crop production. Before sowing,

# 2

## MICROORGANISMS : FRIEND AND FOE

### IMPORTANT POINTS

- **Microorganisms:** Microorganisms are too small and are not visible to the unaided eye. They can live in all kinds of environment, ranging from ice cold climate to hot springs and deserts to marshy lands.
- Microorganisms include bacteria, fungi, protozoa and some algae. Viruses, though different from the above mentioned living organisms, are considered microbes.
- Viruses are quite different from other microorganisms. They reproduce only inside the host organism.
- Some microorganisms are useful for commercial production of medicines and alcohol. Some microorganisms decompose the organic waste and dead plants and animals into simple substances and clean up the environment. Some of the microorganisms grow on our food and cause food poisoning.
- Some microorganisms reside in the root nodules of leguminous plants. They can fix nitrogen from air into soil and increase the soil fertility.
- Some bacteria and blue green algae present in the soil fix nitrogen from the atmosphere and convert into nitrogenous compounds. Certain bacteria convert compounds of nitrogen present in the soil into nitrogen gas which is released to the atmosphere.
- **Pathogens:** Some of the microorganisms cause diseases in human beings, plants and animals. Such disease causing microorganisms are called pathogens.
- **Cleaning of Environment:** The microorganisms decompose dead organic waste of plants and animals converting them into simple substances. Microorganisms can be used to degrade the harmful and smelly substances and thereby clean up the environment.

### NCERT SOLUTIONS

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 \_\_\_\_\_.

**Ans.** (a) microscope                      (b) nitrogen                      (c) microorganisms                      (d) bacteria

2. Tick the correct answer:

(a) Yeast is used in the production of

(i) sugar            (ii) alcohol            (iii) hydrochloric acid            (iv) oxygen

(b) The following is an antibiotic

(i) Sodium bicarbonate   (ii) Streptomycin            (iii) Alcohol            (iv) Yeast

(c) Carrier of malaria-causing protozoan is

(i) female Anopheles mosquito   (ii) cockroach            (iii) housefly            (iv) butterfly

(d) The most common carrier of communicable diseases is

(i) ant                            (ii) housefly            (iii) dragonfly            (iv) spider

(e) The bread or idli dough rises because of

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

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

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

**Ans.** (a) Alcohol                            (b) Streptomycin                            (c) Female Anopheles mosquito  
(d) Housefly                            (e) Growth of yeast cells                            (f) Fermentation

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

Column I	Column II
(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

**Ans.**

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

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

**Ans.** No, microorganisms cannot be seen by naked eye as they are very small. They can be seen with the help of microscope.

5. What are the major groups of microorganisms?

**Ans.** Four major groups of microorganisms are bacteria, fungi, protozoa and some algae.

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

**Ans.** Bacteria such as rhizobium and certain blue-green algae present in the soil can fix atmospheric nitrogen and convert into usable nitrogenous compounds.

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

**Ans.**

1. They are used in winemaking, baking, pickling etc,
2. Alcoholic fermentation by yeast is widely used in the preparation of wine and bread.
3. A bacterium lactobacillus promotes the formation of curd.
4. They are used to increase the soil fertility by fixing the atmospheric nitrogen.
5. Microbes are also useful in preparing many medicines and antibiotics.
6. Certain microbes are also used in the biological treatment of sewage and industrial effluents.

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

**Ans.** 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. Some of the common diseases affecting humans are cholera, common cold, chicken pox and tuberculosis. Several microorganisms not only cause diseases in humans but also in animals. For example, anthrax is a dangerous human and cattle disease caused by a bacterium. Disease causing microorganisms in plants like wheat, rice, potato, sugarcane, orange, apple and others reduce the yield of crops. Some microorganisms spoil food, clothing and leather.

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

**Ans.** The medicines that kill or stop the growth of the disease causing microorganisms are called antibiotics.

Example: Streptomycin, tetracycline, etc

Following precautions must be taken while taking antibiotics:

1. Antibiotics should be taken only on the advice of a qualified doctor with correct doses.
2. One must finish the course prescribed by the doctor.
3. Antibiotics must be avoided when not needed.



**Additional Questions and Answers****I. Choose the correct answer :-**

1. A bacterial disease of plants is:-  
(a) rust                      (b) wilt                      (c) blight                      (d) smut
2. Which of the following is used as a biofuel:-  
(a) Ethanol                      (b) Gammoxene                      (c) Manure                      (d) Amaranthus
3. Rearing of honeybees for products like honey and wax is called:-  
(a) Sericulture                      (b) Aquaculture                      (c) Pisciculture                      (d) Apiculture
4. Which of the following is a milch animal:-  
(a) Camel                      (b) Sheep                      (c) Honeybee                      (d) Silkworm
5. Cod liver oil from fish is found to be rich in :-  
(a) Vitamin A                      (b) Vitamin D                      (c) Vitamin C                      (d) Vitamin B
6. Conversion of ammonia into nitrates is called:-  
(a). nitrification                      (b) denitrification                      (c) ammonification                      (d) deammonification
7. Which of the following are harmful for crop plants:-  
(a) too little water                      (b) too much of water                      (c) both a & b                      (d) too much light
8. The irrigation method in which water enters the field through channels made between two rows of crop plants is:-  
(a) Sprinkler irrigation method                      (b) Basin irrigation method  
(c) Furrow irrigation method                      (d) Drip irrigation method
9. Low temperature prevents spoilage of food because it :-  
(a) retards microbial growth                      (b) inactivates enzymes  
(c) both a & b                      (d) removes water from food materials
10. Which of the following is found to be present in curd ?  
(a) Lactobacillus                      (b) Rhizobium                      (c) Lactovirus                      (d) Lactococcus
11. The microorganism used in preparation of bread is :-  
(a) yeast                      (b) adenovirus                      (c) Penicillium                      (d) blue green algae
12. Some microbes have a hard outer cover called :-  
(a) protein coat                      (b) mucilaginous sheath                      (c) disc                      (d) cyst
13. A group of similar microorganisms living together is called :-

## Microorganisms : Friend and Foe

- (a) factory                      (b) colony                      (c) herd                      (d) capsule
14. Nitrogen is not a part of :-  
(a) proteins                      (b) carbohydrates                      (c) vitamins                      (d) chlorophyll
15. Which group of microorganisms contains only pathogenic members ?  
(a) viruses                      (b) protozoans                      (c) fungi                      (d) algae
16. The group of microorganisms where all members contain chlorophyll is:-  
(a) fungi                      (b) bacteria                      (c) protozoa                      (d) algae
17. Louis Pasteur discovered :-  
(a) Pasteurisation                      (b) Fermentation                      (c) both a & b                      (d) Putrefaction
18. Fixation of nitrogen can occur :-  
(a) naturally                      (b) artificially                      (c) both a & b                      (d) only during rains
19. Organisms responsible for recycling of matter in nature is/are :-  
(a) bacteria                      (b) viruses                      (c) fungi                      (d) both a & c
20. When a disease causing microbe enters into our body, defense system produces :-  
(a) antigens                      (b) antibodies                      (c) antibiotics                      (d) both a & b
21. Which of the following is a biological nitrogen fixer ?  
(a) bacteriophage                      (b) lactobacillus                      (c) blue green algae                      (d) Euglena
22. Which of the following reproduces only inside a host cell?  
(a) Bacteria                      (b) Virus                      (c) Amoeba                      (d) Fungus.
23. The two micro-organisms which live in symbiotic association in lichens are  
(a) fungus and protozoa                      (b) alga and bacteria  
(c) bacteria and protozoa                      (d) alga and fungus
24. The gas released during the preparation of bread is  
(a) oxygen                      (b) carbon dioxide                      (c) nitrogen                      (d) sulphur dioxide
- Ans.** 1. (b)                      2. (a)                      3. (d)                      4. (a)                      5. (b)                      6. (a)  
7. (c)                      8. (c)                      9. (c)                      10. (a)                      11. (a)                      12. (a)  
13. (b)                      14. (b)                      15. (a)                      16. (d)                      17. (c)                      18. (c)  
19. (d)                      20. (b)                      21.(c)                      22. (b)                      23. (d)                      24. (b)

II. Match the following :-

1

(a) legume crop	(i) jute
(b) root crop	(ii) coffee
(c) cereal crop	(iii) sweet potato
(d) plantation crop	(iv) groundnut
(e) fibre crop	(v) wheat

2.

(a) Compost	(i) fertilizer
(b) Rodents	(ii) insecticide
(c) BHC	(iii) pest
(d) NPK	(iv) weedicide
(e) Metachlor	(v) manure

3.

Disease	Transmission by
(a) Dengue	(i) infected dog's bite
(b) Hepatitis B	(ii) contact
(c) Food poisoning	(iii) contaminated water
(d) Rabies	(iv) carrier Aedes mosquito bite
(e) Pox	(v) contaminated food

4.

Disease	Prevention by
(a) Pneumonia	(i) spraying insecticides
(b) Pox	(ii) drinking boiled water
(c) Malaria	(iii) BCG vaccine
(d) Tuberculosis	(iv) isolation of patient
(e) Jaundice	(v) using antibiotics

5.

A	B
(a) Foot and mouth disease	(i) wheat
(b) Anthrax	(ii) bhindi
(c) Smut	(iii) humans
(d) Blast	(iv) cattle
(e) Yellow vein mosaic	(v) rice

6.	Column A	Column B
	(a) Lactobacillus	(i) Algae
	(b) Aspergillus	(ii) Protozoa
	(c) Spirogyra	(iii) Fungi
	(d) Paramecium	(iv) Bacteria

- Ans.** 1. a - (iv), b - (iii), c - (v), d - (ii), e - (i)  
 2. a - (v), b - (iii), c - (ii), d - (i), e - (iv)  
 3. a - (iv), b - (iii), c - (v), d - (i), e - (ii)  
 4. a - (v), b - (iv), c - (i), d - (iii), e - (ii)  
 5. a - (iv), b - (iii), c - (i), d - (v), e - (ii)  
 6. a - (iv), b - (iii), c - (i), d - (ii)

**III. Fill in the blanks :-**

- \_\_\_\_\_ means producing offsprings under controlled conditions.
- \_\_\_\_\_ is a technique used for developing new crop varieties by cross breeding.
- In the breeding experiments anthers of plants are removed by process called \_\_\_\_\_ .
- \_\_\_\_\_ farming technique of crop cultivation employs biological methods.
- \_\_\_\_\_ are preserved by the use of oil and vinegar.
- \_\_\_\_\_ is the process of heat and cold treatment for preserving milk.
- \_\_\_\_\_ is a dangerous form of food poisoning.
- \_\_\_\_\_ is the oldest method of food preservation.
- Jellies, squashes and jams are preserved by \_\_\_\_\_ syrup.
- \_\_\_\_\_ reproduce only inside the living cells.
- \_\_\_\_\_ is a bacteria eating virus.
- Viruses can be seen under the \_\_\_\_\_ microscope.
- A virus do not have \_\_\_\_\_ structure.
- The process of conversion of sugar into alcohol is called \_\_\_\_\_ .
- The process of conversion of free atmospheric nitrogen into useful nitrogenous compounds is called nitrogen \_\_\_\_\_ .
- The process of conversion of compounds of nitrogen into free molecular nitrogen is \_\_\_\_\_ .
- Incomplete breakdown of organic matter in less air leading to foul smell is called \_\_\_\_\_ .

18. Complete breakdown of organic matter in sufficient air without foul smell is called \_\_\_\_\_ .

- Ans.** 1. breeding      2. hybridization      3. emasculation      4. organic  
5. pickles      6. pasteurisation      7. botulism      8. dehydration  
9. sugar.      10. virus      11. bacteriophage      12. electron  
13. cellular      14. fermentation      15. fixation      16. denitrification  
17. putrefaction      18. decomposition

**IV. Write True or False :-**

1. Rice is transplanted in standing water.
2. Vegetables and fruits are rich sources of proteins.
3. Rhizobium bacteria is found in the root nodules of non leguminous plants.
4. Technology has been developed to use crop stubs for making ethanol.
5. Horticulture is a branch of agriculture.
6. Chemical compound produced by certain microbes that inhibit the growth of other microbes are called vaccines.
7. Food preservative chemicals increase the shelf life of perishable food items.
8. Polio drops given to children are actually vaccines.
9. Yeast can also make fruit juices unfit for consumption due to formation of alcohol.

- Ans.** 1. True      2. False      3. False      4. True      5. True  
6. False      7. True      8. True      9. True

**V. Answer the following :-**

1. Name the process in yeast that converts sugars into alcohol.

**Ans.** Fermentation

2. In the soil, which nutrient is enriched by blue-green algae (cyanobacteria)?

**Ans.** Nitrogen

3. Why should we avoid standing close to a tuberculosis patient while he/she is coughing?

**Ans.** Tuberculosis is an air-borne disease which easily spreads when the infected person coughs.

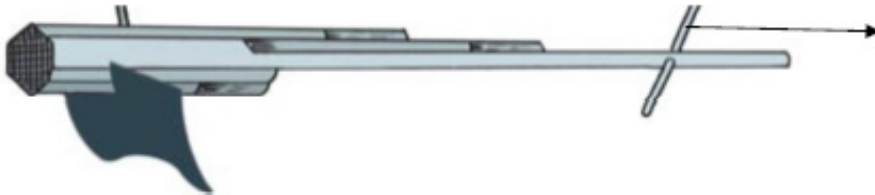
4. How does transplantation of onion seedlings increases its production?

**Ans.** If onion is planted in nurseries and then their small plantlets called seedlings are transplanted in the field, it will help farmers to select only healthy seedlings that increases crop production.

5. Define nitrogen fixation and its importance?

**Ans.** Nitrogen fixation is the process of converting free nitrogen gas of the atmosphere into nitrogen compounds. Biological nitrogen fixation is very important for crop production. Generally bacteria like Rhizobium fix atmospheric nitrogen into nitrates.

6. In the given diagram label the unknown represented by arrow :



**Ans.** beam.

7. Suggest a suitable word for each of the following statements.

- (a) Chemicals added to food to prevent growth of microorganisms.
- (b) Nitrogen-fixing microorganism present in the root nodules of legumes.
- (c) Agent which spreads pathogens from one place to another.
- (d) Chemicals which kill or stop the growth of pathogens.

**Ans.** (a) Preservatives                      (b) Rhizobium  
(c) Carrier/vector                      (d) Antibiotics

8. Define water logging and its impact ?

**Ans.** When a lot of water is given to the crop, it stands in the field and accumulates around roots of crop plants. This is known as water-logging. It causes damage to the crop because roots can't breathe properly and salinity of soil is also increased.

9. Which method of irrigation would be recommended for a region with uneven land surface and why ?

**Ans.** Sprinkler system of irrigation is best suited for uneven land where proper distribution of water is not possible. In this system, perpendicular pipes are put in the field at regular intervals and have rotating nozzles at the top end such that water gets sprinkled over crop plants.

10. How the percentage of nitrogen in the atmosphere remains more or less constant?

**Ans.** Nitrogen present in air is fixed by some microbes known as nitrifying bacteria. This fixed nitrogen is utilised by plants and then by animals. After their death, fixed nitrogen is released back into the atmosphere in its molecular form by the action of another group of microbes called denitrifying bacteria. Due to this cyclic movement the percentage of nitrogen in the atmosphere remains more or less constant.

11. Identify the microorganism in the picture and write any one important feature of it ?



**Ans.** The picture shows a virus of bacteriophage group.

They reproduce inside the host cell by utilising the cell machinery of it and increase their number till the bacterial cell bursts open to release the virus particles.

12. Pick the odd word out of the following:

HIV, Cholera, Sleeping sickness, Cancer, Citrus canker.

**Ans.** All others are communicable diseases except Cancer.

13. Tick the odd one out :

Hepatitis, Polio, Leukaemia, Smallpox, chickenpox, Rabies.

**Ans.** Except leukemia for all other diseases vaccines are available.

14. Differentiate between atmospheric, biological and industrial nitrogen fixation ?

**Ans.** Atmospheric nitrogen fixation takes place by electric discharge, during rains. Compounds of nitrogen thus formed are dissolved in rain water and reach the soil. Biological nitrogen fixation is performed by some microbes (bacteria) which convert atmospheric nitrogen into nitrogenous compounds. Industrial nitrogen fixation refers to manufacturing of ammonium salts and compounds in chemical factories.

15. What are chemical preservatives of food ? Name any two of them.

**Ans.** Food can also be preserved by the use of some chemicals which can kill the food spoiling microorganisms. This method of conservation of food materials is also called as chemical preservation of food. Such chemicals that prevent food spoilage are called food preservatives for eg. Sodium benzoate and Potassium metabisulphite.

16. Give one word answer to the following:

(i) A communicable disease caused by female anopheles mosquito.

(ii) A disease of animals and humans which is caused by bacteria.

**Ans.** (i) malaria (ii) anthrax

17. Define pasteurization?

**Ans.** It is a method utilised for preservation of milk. This method consists of heating milk to a high temperature of  $70^{\circ}\text{C}$  for about half a minute and then cooling it quickly which kills most of the bacteria.

18. How is dehydration helpful in food preservation ?

**Ans.** Dehydration decreases the moisture/water content of food and retards the growth of food spoiling microorganisms hence helps in food preservation.

19. What makes the dough rise while preparing idli, dosa, bhaturas and dhoklas ?

**Ans.** Yeast is a beneficial fungus. Through the process of fermentation it breaks down sugar and produces alcohol and carbon dioxide. Bubbles of carbon dioxide gas fills the spaces in dough and make it to rise.

20. How can communicable diseases be prevented ?

**Ans.** (i) we should cover our nose and mouth while we sneeze or cough.

(ii) we should take care of personal and community hygiene.

(iii) we must keep food and water covered to prevent contamination.

(iv) we must wash our hands before eating food .

21. What is botulism? Name the organism causing it.

**Ans.** When cooked food is kept for long time, some microbes grow on it and produces toxins over there that makes food poisonous. If such spoiled food is consumed it leads to food poisoning.

Food poisoning caused by a bacterium named *Clostridium botulinum* is called botulism.

22. Write the correct sequence for vaccination

(i) Body produces antibodies.

(ii) Introduction of weak or dead microbes.

(iii) Antibodies protect from future microbial infection.

(iv) Vaccine reaches internal parts of body.

**Ans.** (ii) Introduction of weak or dead microbes.

(iv) Vaccine reaches internal parts of body.

(i) Body produces antibodies.

(iii) Antibodies protect from future microbial infection.

23. What are symbiotic or commensal bacteria and what is their significance for humans?

**Ans.** Some bacteria occur in the human intestine and intestine of other animals as well. They benefit their host and referred to as symbiotic or commensals like *E.coli* synthesizing vitamin B in our body.

24. What is an antibiotic? Give any four examples of antibiotics.

**Ans.** Many microorganisms produce certain chemicals that inhibit the growth of some other microbes. Such chemicals are called antibiotics. Examples are penicillin, streptomycin, tetracycline, gramicidine.

25. How do vaccines work?

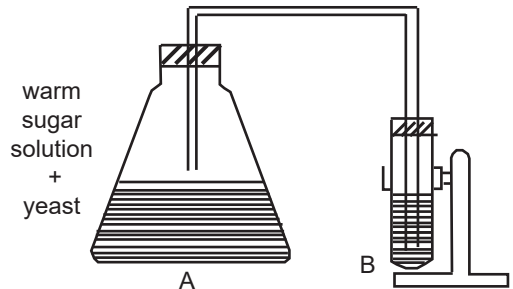
**Ans.** Vaccines contain dead or weakened microbes of a particular disease. When a vaccine



is introduced into a healthy body, the body fights and kills them by producing suitable antibodies. These antibodies remain in the body and protect it when the microbe enters the body again.

26. Observe the set up given in figure and answer the following questions.

- What happens to the sugar solution in A?
- Which gas is released in A?
- What changes will you observe in B when the released gas passes through it?

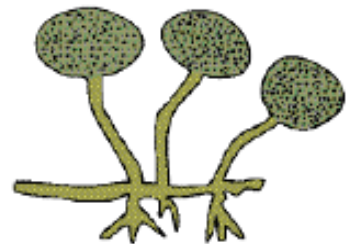


**Ans.** (a) Yeast causes fermentation converting sugar into alcohol and carbon dioxide.

- Carbon dioxide
- Lime water turns milky

27. Observe the Figure and answer the following questions.

- Name the microorganism and the group to which it belongs.
- Name the food item on which the organism grows.
- Does it grow well in dry or in moist conditions?
- Is it safe to eat infected bread?



**Ans.** (a) Bread mould. It is a fungus.

- Moist and stale bread.
- It grows well in moist conditions.
- No, the fungus spoils the bread by producing poisonous substances.

28. Give reasons for the following.

- Fresh milk is boiled before consumption while processed milk stored in packets can be consumed without boiling.
- Raw vegetables and fruits are kept in refrigerators whereas jams and pickles can be kept outside.
- Farmers prefer to grow beans and peas in nitrogen deficient soils.
- Mosquitoes can be controlled by preventing stagnation of water though they do not live in water. Why?

**Ans.** (a) Fresh milk is boiled before consumption to kill the microorganisms in it. But packed milk is pasteurised and does not contain any microorganisms. It can thus be consumed without boiling.