



# KALPAVRUKSHA MODEL SCHOOL

## Answers Assignments-3

**Class: VIII**

**Sub: Biology**

**Date: 01.07.2021**

**Topic: Microorganisms**

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### **I. Answer the following questions:**

1. Describe some commercial uses of microorganisms in detail.

Ans: Making curd and cheese- a spoonful of curd is added to warm milk, which turns into curd overnight. With the help of lactobacillus bacteria.

Making bread- Kneading a mixture of flour, salt, sugar, yeast cells, and water into dough, yeast converts sugar to alcohol and carbon dioxide.

Making vinegar, coffee, and tobacco – Bacteria are used in the production of vinegar, coffee, and tobacco.

Making toothpaste- Shells of diatoms are used in toothpaste to give it a gritty texture that helps in cleaning teeth.

Making alcoholic beverages- Alcoholic beverages such as beer and wine involve fermentation of sugar present in barley and grapes etc by microscopic fungus called yeast. Produce alcohol and carbon dioxide.

2. How can we prepare curd at home?

Ans: A spoonful of curd is added to warm milk which turns into curd overnight. This is because of a protein called casein present in milk, which coagulates to form curd. For casein to coagulate, the milk has to be made acidic. Bacteria called lactobacillus present in curd converts lactose sugar present in milk to lactic acid. This creates the acidic environment needed for coagulation.

3. Describe the role of yeast in bread production.

Ans: The yeast undergoes fermentation as a result of it produces carbon dioxide which increases the volume of dough. This also makes the dough spongy and porous.

4. What do you mean by fermentation? Who discovered the process of fermentation?

Ans: The process of conversion of sugar into alcohol or acid is called fermentation. Louis Pasteur discovered this process.

5. Which bacterium is used to produce alcohol?

Ans: Yeast is the microorganism used to produce alcohol.

6. Curd turns sour more easily in summer than in winter. Why?

Ans: Curd turns sour more easily in summer than in winter Because in winters the temperature is low that doesn't allow the lactobacillus bacteria to propagate easily. whereas in summers the bacteria finds a very good and suitable environment and thus propagates faster. because the bacterial growth increases in summer than winter.

7. Why do we need to warm the milk to make curd?

Ans: It is because luke warm milk provides favourable conditions for the growth of bacteria. Boiled or chilled milk does not allow the growth of bacteria for the formation of curd.