

Food Processing : Notes/W.S.-110

Food processing is the preparation of food so that it can be eaten or stored.

An example is cooking. We cook food because cooking makes the food easier to digest. Cooking also kills parasites.

Peeling potatoes is also processing. Most people like to cook potatoes without the skin. But the skin does contain most of the vitamins and may be eaten.

In order to store food for later use, we must prevent its deterioration. The cause of food deterioration is due mainly to the action of micro-organisms and enzymes.

Micro-organisms

Micro-organisms are small organisms such as bacteria and fungi. These can multiply and produce toxins which can make food unfit to eat.

There are several ways to prevent the reproduction of micro-organisms.

- 1) The food may be kept **dry** when stored. Micro-organisms need water to reproduce. Wheat, rice, and beans may be stored for years if kept dry.
- 2) The food may be kept **cool or frozen**. This slows down or stops the reproduction of micro-organisms. It is important to note that freezing food does not kill bacteria.
- 3) Food may be **canned**. Fruit and fish are cooked in a can or a jar which is then sealed. The micro-organisms are killed, so the canned food may last for years.

Enzymes

Enzymes are compounds which speed up chemical reactions. They are found in fruit and meat.

Enzymes help to ripen fruit and make meat tender. But if they act for too long, the food becomes spoiled.

Enzyme action is slowed down by cool temperatures. Enzymes can be destroyed by cooking.

Fortified Food

Another type of processing is fortification. This means that vitamins are added to the food. Milk is fortified (enriched) with vitamin D, which helps the body absorb the calcium in the milk. The B vitamins are added to white bread because processing the wheat may remove the B vitamins.

Questions:

- 1) What is food processing?
- 2) Why do we cook food?
- 3) What are the two main things which cause food to deteriorate?
- 4) Name two types of micro-organisms.
- 5) What are three ways in which reproduction of micro-organisms in food can be reduced or stopped?
- 6) What is an enzyme?
- 7) Give two ways to slow down or stop enzyme action in food.
- 8) What is a fortified food?
- 9) Why are the B vitamins added to white bread?
- 10) Before the invention of refrigerators, fish were packed in salt for preservation. Explain.

Answers: 1) It is the preparation of food so that it can be eaten or stored., 2) Cooked food is easier to digest., 3) micro-organisms and enzymes, 4) bacteria and fungi, 5) keep the food dry, keep the food cool or frozen, can the food, 6) Enzymes are compounds which speed up chemical reactions., 7) keep the food cool or cook the food, 8)

Fortified food has vitamins added to it., 9) When wheat is processed, the B vitamins may be lost., 10) The salt prevents the reproduction of micro-organisms.