FAQs

1. What is Food Spoilage?

A: Food spoilage means the original nutritional value, texture, flavor of the food are damaged, the food become harmful to people and unsuitable to eat.

2. What are the Causes of Food Spoilage?

A: The major causes of food spoilage include:

- 1. Microorganisms, their growth and activity.
- 2. Action of native enzymes.
- 3. Insects, rodent and parasites.
- 4. Chemical reactions of the constituents of food.
- 5. Environmental factors such as temperature, moisture, air and light.

3. Broadly Classify the Foods on the basis of their Spoilage?

A: Foods may be classified broadly into three groups based on their ease of spoilage:

1. Stable/nonperishable foods which do not spoil normally, such as sugar, salt, flour and dry beans; improper handling/ storing will, however, spoil them.

2. Semi-perishable foods which remain unspoiled for relatively long period under proper handling/storing conditions. These include potatoes and certain varieties of apples.

3. Perishable foods which spoil readily unless special preservative methods are adopted. Most of

our daily foods belong to this group which includes meat, fish, milk, vegetable and fruits.

4. Which microbes are most likely to spoil food and make us sick?

A: Bacteria, when they have plenty of moisture and nutrients with appropriate pH & temperature.

5. What are spoilage bacteria?

A: Spoilage bacteria are microorganisms that cause food to deteriorate and develop unpleasant odors, tastes, and textures. These one celled microorganisms can cause fruits and vegetables to get mushy or slimy, or meat to develop a bad odor.

6. Do spoilage bacteria make people sick?

A: Most people would not choose to eat spoiled food. However, if they did, they probably would not get sick. Pathogenic bacteria cause illness. They grow rapidly in the "Danger Zone" – the temperatures between 40 and 140 °F, and do not generally affect the taste, smell, or appearance of food. Food that is left too long at unsafe temperatures could be dangerous to eat. *Campylobacter*, and *Salmonella* are examples of pathogenic bacteria.

7. What is a pathogen?

A: A pathogen is a microbe that can cause disease.

8. List at least two examples of ways in which bacteria help us?

- A: 1. Bacteria turn milk into yogurt and cheese.
 - 2. Bacteria help digest food in our intestines.
 - 3. Some bacteria are **decomposers**. That is, they feed on decaying matter and break it down.

9. What are the "4 C's" to prevent foodborne illness?

- A: 1. Cook
 - 2. Chill
 - 3. Clean
 - 4. Combat Cross Contamination

10. What is the pH "danger zone" that is best for bacterial reproduction?

A: pH 4.6 to 10, but pH closest to 7 is best for bacteria