5. Food Safety

Food Preservation

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- Microorganisms act on food items and spoil them.
- Process of preventing the spoilage of food items by the action of microbes is called food preservation.

Food Spoilage

- Mishandling of foods led to the deterioration of food quality.
- Growth of microorganisms due to the undesirable changes in the environment.

Methods of food preservation

Chemical methods

- The chemicals that controls the growth of microorganisms on food are called preservatives. For example, sodium benzoate, sodium metabisulphite, salts and edible oil.
- Common salt is used as preservative in pickles, to preserve meat and fish.

• Heat and cold treatments

- Boiling the milk helps in killing microorganisms present in it.
- Pasteurization is a technique of preserving milk in which it is boiled to about 70°C for 15 to 30 seconds and then suddenly chilled and stored.
- Storage and packing: Dry fruits and vegetables are stored in sealed air tight packets to prevent microbial attack.

Methods of food preservation

- Common salt is used as preservative in pickles. It is also used to preserve meat and fish.
- Sugar is used as preservative in jams and jellies.
- Oil and vinegar are used as preservatives in pickles and vegetables.

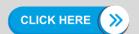
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Storage and packing

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- 1. **Food adulteration:** The process of intentionally mixing, altering and substituting the food products with cheap, poor quality, inedible and toxic substances is known as food adulteration.
- 2. **Adulterants:** Substances used to reduce the quality of food products are known as adulterants.





- 3. Food item is considered adulterated if:
 - (i) Inferior or cheaper substance is substituted.
 - (ii) Substance is obtained from diseased animal or poisonous ingredients.
 - (iii) Substance contains unprescribed colour or preservative.
- 4. Some adulterants used for different food material are: Linseed oil, detergent, urea, starch, chalk powder, Kesari dal, lead chromate, black gram husk, cashew husk, etc.
- 5. Prevention of Food Adulteration Act, 1954 was formed so as to prevent food adulteration.
- 6. Two standards under Prevention of Food Adulteration Act are: AGMARK and ISI.

