Frequently Asked Questions

1. **What causes food spoilage?**
   The vast majority of instances of food spoilage can be attributed to one of two major causes:
   - the attack by pathogens (disease-causing microorganisms) such as bacteria and moulds
   - oxidation that causes the destruction of essential biochemical compounds and/or the destruction of plant and animal cells.

2. **What is food preservation?**

   The term food preservation refers to any one of a number of techniques used to prevent food from spoiling.

3. **What methods are used food preservation?**
   Food preservation includes methods such as canning, pickling, drying and freeze-drying, irradiation, pasteurization, smoking, and the addition of chemical additives.

4. **What are the main goals of food preservation?**
   The main goal of food preservation to prevent the food spoilage and the growth of pathogens in food.

5. **What factors are involved in food preservation?**
   Food preservation process acts through factors that affect the microbial growth and survival. These include intrinsic factors (present within the food that is to be preserved), extrinsic factors (provided from the outside to act during the storage), processing factors (used to achieve improved preservation) and implicit factors (associated with the micro-organisms against which foods need to be preserved).

6. **What are net effects?**

   Cumulative effect of the numerous factors associated with food preservation produced as an outcome of interaction between the factors resulting in increased effects than any of the factors taken in isolation.

7. **Why do we need to preserve foods?**
   Food preservation is essential because it extends the length of time during which the food is nutritionally viable and safe to eat. Preserving food extends the life of products, promotes environmental sustainability, reduces costs when people purchase canning products in bulk

and raises awareness of different types of fruits and vegetables.

8. **What are the various categories under which different food preservation methods are classified?**
   Food Preservation Processes can be classified under three main categories:

   - Methods which dawdle down or inhibit the food spoilage and microbial growth
   - Methods which simply inactivate the organisms involved in food spoilage, e.g., bacteria, yeasts, moulds, or enzymes
   - Methods which focus on evading recontamination before and after processing of the food items.

9. **What are the different kinds of organisms that are affected by chemicals used for food preservation?**
   Preservation by chemicals usually involves preventing the growth of bacteria, fungi (such as yeasts and moulds), and other microorganisms. Many chemicals also act against insects and worms.

10. **What do you mean by GRAS?**
    GRAS stands for "generally recognized as safe". It is a status label assigned by FDA to a listing of substances, known as GRAS List, not known to be hazardous to the health and, thus, approved for use in foods.

11. **What are anti-fungal agents?**
    An antifungal agent is a drug or chemical that selectively eliminates fungal pathogens from a host with minimal toxicity to the host.