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Date: \_\_\_\_\_

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Assignment GSA #2.

① Define Food additives and food preservatives. Also name them.  
Write about the methods of food preservation.

### ⇒ Food Additives:

Food additives are the substances that are added during the processing or making of food. These include antioxidants, coloring agents, baking agents, preservatives and stabilizers.

Food additives include.

→ Most common food additives are.

- 1- Monosodium Glutamate G.M.
- 2- Artificial food colouring.
- 3- Sodium Nitrite.
- 4- Guar Gum
- 5- High Fructose corn Syrup
- 6- Artificial Sweetness.
7. Trans fat.
- 8 #

### ⇒ Food Preservatives:

Food preservative is a substance or a chemical that is added to the products such as food, beverages, pharmaceutical drugs, paints etc to prevent decomposition of microbial growth or undesirable chemical changes.

Attempt the differences in tabular form with multiple arguments side by side

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## Natural food preservatives

- 1- Salt
- 2- Sugar
- 3- Vinegar
- 4- Citrus juice

## Chemical preservatives

- 1- Benzoic Acid
- 2- Benzoates
- 3- Calcium Sorbate
- 4- Sodium benzoate
- 5- Erythorbic acid
- 6- Nitrites and Nitrates
- 7- Sorbic acid.
- 8- Sulphites
- 9- Sodium sorbate
- 10- Propionic acid.

## Artificial preservatives

- 1- Butylated hydroxyl toluene.
- 2- Disodium ethylene diamine tetra acetic acid (EDTA).

## Food Preservation and its Methods

Food Preservation is a technique to prevent food spoilage, food poisoning, and microbial growth in food.

### Food Preservation Methods:

#### 1- Chemical Method

Salt and edible oils are two main preservatives which are used since ages to prevent microbial growth.

This is why we add extra oil to pickles. Preservation by salt is known

as salting. Salting helps to preserve food for a long term. Meats and fishes can be preserved by salting.

## 2) Sugar:

Sugar is another common preservative used in jams and jellies. Sugar is a good moisture absorbent. By reducing moisture content, it restrains the microbial growth.

## 3) Heat and cold Methods:

Boiling and refrigeration prevent around 70% of microbial growth. Boiling kills the microorganisms that cannot tolerate extreme temperatures. Thus it helps in food preservation.

Refrigerators have very low temperatures. Since microbes do not get optimum temperature they need for growth, their growth is inhibited.

## 4) Canning:

The food contents are sealed in an airtight container at high temperatures. Meat, fish, fruits are preserved by canning.

## 5) Sterilization:

Sterilization is a procedure that consists of subjecting food to high

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temperatures for a certain period of time in order to completely inactivate all microorganisms, pathogenic or not, and their spores.

### 6) Dehydration:

It is a process of removal of water from food. Microorganism's growth will be inhibited due to the absence of water.

It is the simplest and most method and prevents food spoilage.

### 7) Smoking

Smoking is used to prolong the shelf life of perishable food. This effect is achieved through the exposure of the food from burning plant materials such as wood to smoke. The meat and fish that have undergone curing are most commonly subjected to this method of food preservation.

Improve the structure of the answer and the relevance