Nowal Ashraf

Batch #

Mention the full qs statement for evaluation

Food Preservatives:

Preservatives are food additives that play an important role in making food last longer or taste better.

Specifically, preservatives help to control & prevent the deterioration of food, providing protection against spoilage from micro-organisms (bacteria, yeast, moulds), life threatning botulism and other organism that can cause food poisoning. High risk foods such as meat, seafood, dairy and cheese serve as a breeding ground for potentially (breeding) dangerous micro-organisms.

Spoilage can also be caused by chemical or physical fact

such as oxidation, temperature and light.

Different Types Of Preservatives:

preservatives used in food preservations are of two types.

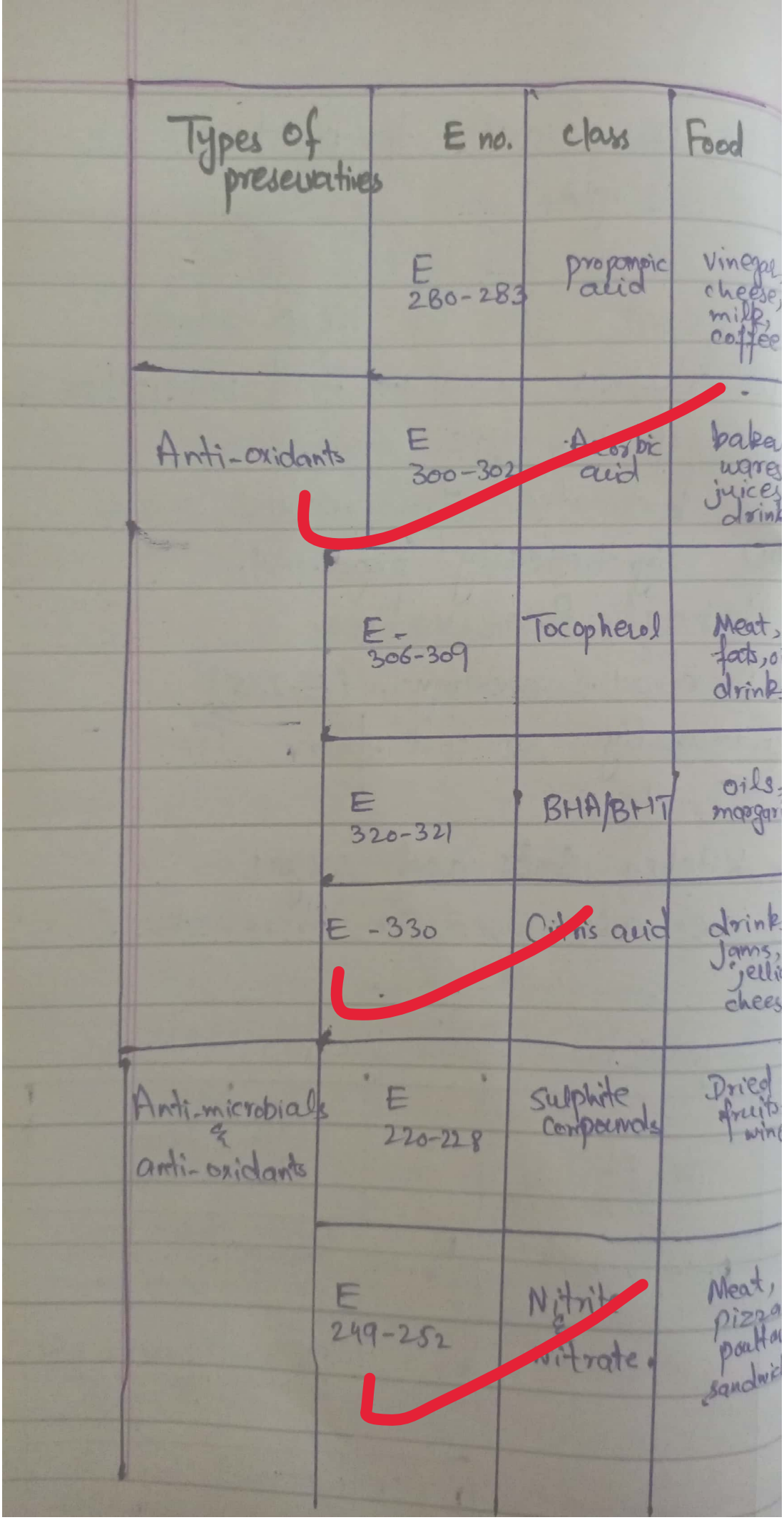
(i) Extracted from natural sources
(ii) Synthetically produced.

Natural Preservatives:

* Preservative natamycin (E-235) naturally sourced from soil bacteria.
* Kitchen salt and sugar are also used as preservatives.

Synthetic Preservatives:-

Types of preservative	E-no.	class	Food stuff
Antimicrobials	E 200-203	Sorbate Compounds	cheese, bread, oils, sauces, potato products,
	E 210-213	Benzoic & Benzoate	Fermented milk, processed fruits, vegetables, fisheries.
	E235	Natamycin	chees & sausages.



Types of preservatives	E no.	class	Food
	E 280-283	propanoic acid	Vinegar, cheese, milk, coffee
Anti-oxidants	E 300-302	Ascorbic acid	bake ware juices drink
	E- 306-309	Tocopherol	Meat, fats, o drink
	E 320-321	BHA/BHT	oils, margar
	E -330	Citric acid	drink Jams, jelli chees
Anti-microbials & anti-oxidants	E 220-228	Sulphite Compounds	Dried fruits wine
	E 249-252	Nitrite & Nitrate	Meat, pizza poultr sandwi

Food Preservation Methods

There are many types of food preservation methods used around the world. Here is the list of top 6 preservation methods.

Drying: It is a time-honored method of food preservation. By reducing water content, this technique prevents bacterial development. Food items can be stored by drying in sun and wind.

Smoking:

Food is prepared by smoking, subjecting it to the smoke from burning wood to prepare, flavour, and preserve it. Most of the time, meats and fish are smoke-cured because the smoke has anti-bacterial and inhibitor properties.

Freezing:

One of the easiest, most practical and speediest

methods for preserving fresh vegetables, fruits and meat is freezing. Food deterioration is decreased by freezing because very low temperature hinder the development of germs.

Salting and Pickling:

Meats lose moisture when they are seasoned. Pickling involves preserving food by submerging it in a salt solution, soaking it in vinegar or using oil. At 20% concentration salts kill microorganisms. EDTA may also be added to pickles to increase the shelf life.

Fermentation:

The Lactos-fermentation process transforms a food's carbohydrates into

lactic acid, a naturally occuring preservatives that prevents development of dangerous bacteria.

Canning:

Food has been preserved by canning for approximately 200 years. When food is canned all the germs are eliminated by boiling it in a can or jar before the container is shut.

Sugaring:

Similar to pickling, sugaring is a technique of food preservation. Sugaring is filling food with pure sugar after drying it first to desiccate it. Sugar might be crystalline or in syrup form.

Ir-radiations:

Food ir-radiation

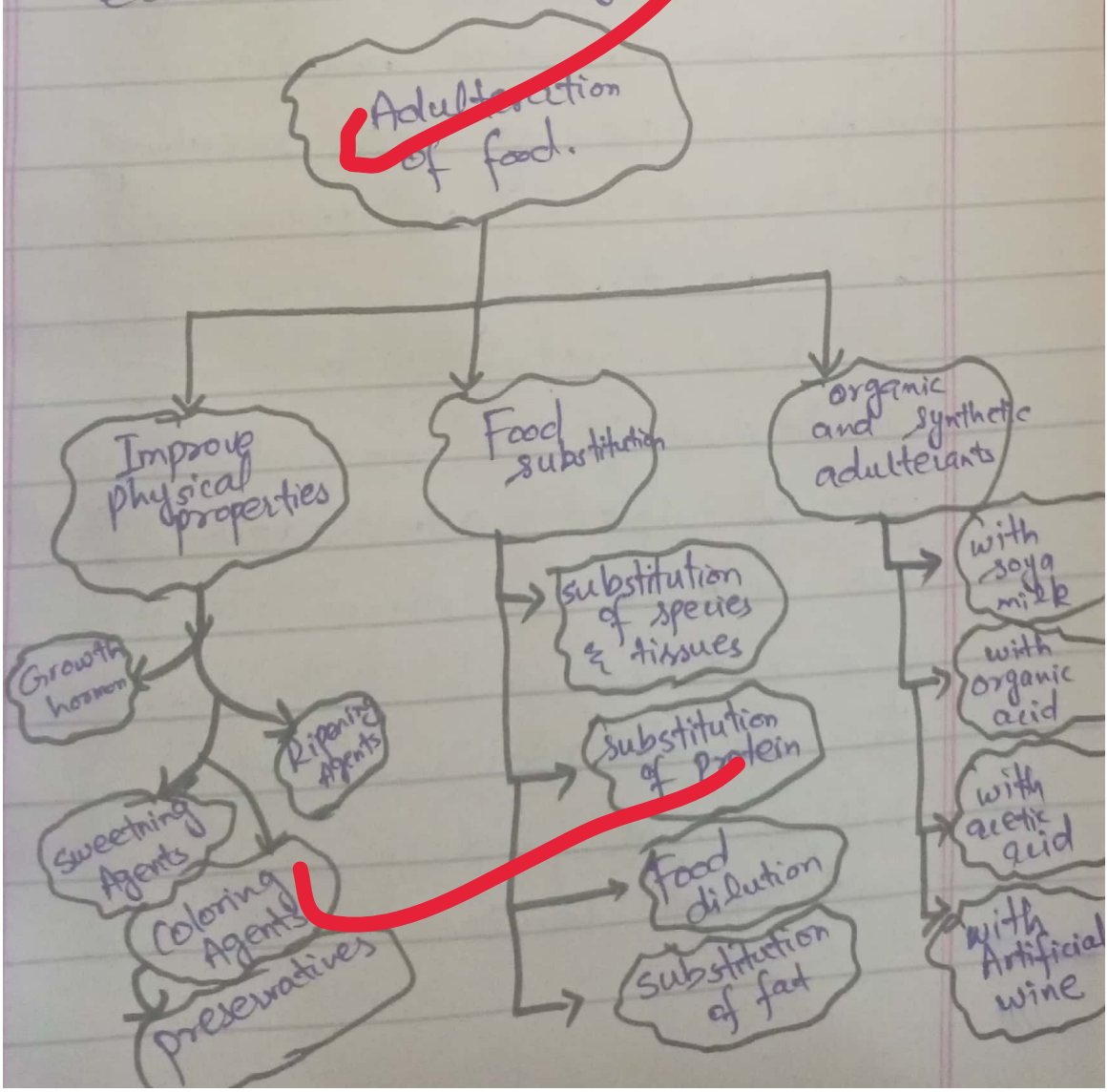
on food improves food safety and increases the lifespan of food items.

Pasteurization:

Pasteurization is one of the common food preservation technique in which food such as milk and fruit juices, are subjected to gentle heat, often at temperature below 100°c to destroy micro-organisms.

Food Adulteration

It refers to the act of intentionally debasing the quality of food by either adding or replacing the food substances with undeclared alternative components.
It includes the addition of ingredients to modify different properties of food products for economic advantages.



Key Forms of Food Adulteration

The above figure represents some key forms of food adulteration.

(i) Adulteration to Improve Physical Properties:

Taste and appearance have high impact on commercial value of food products. Increasing shelf life gives financial benefits. Artificial ripening and sweetning agents are used to increase food palatability.

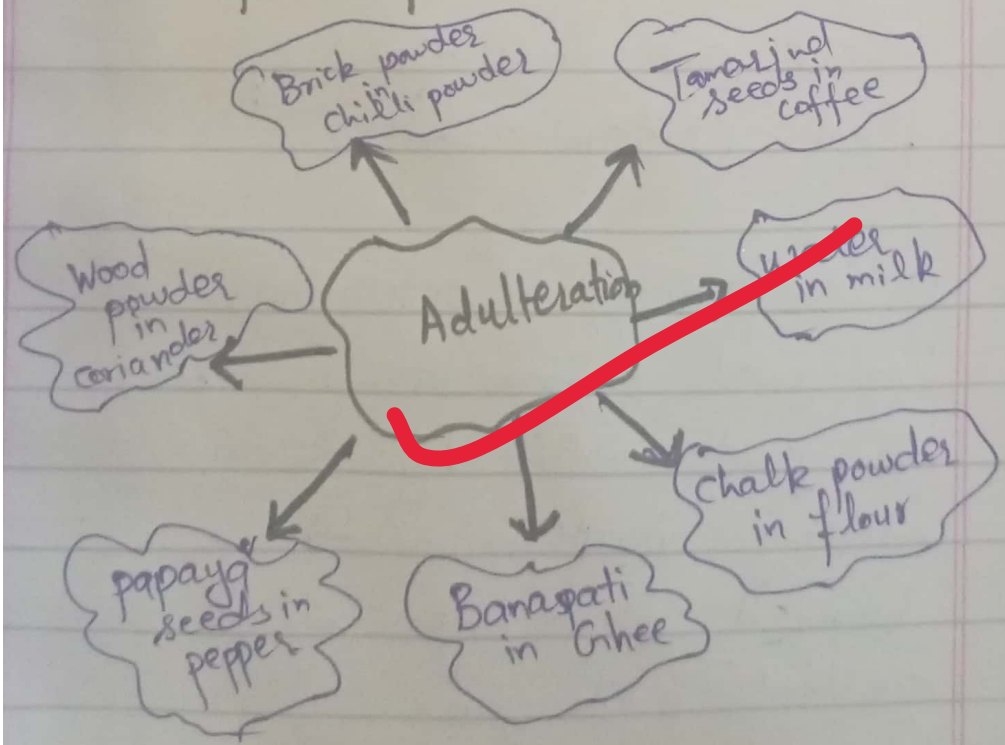
(ii) Food Substitution:-

Substitution is the most diverse form of food adulteration, which includes the direct alteration of a part or whole food items or external addition of other inferior food products or fake nutritional compounds.

(iii) Organic and synthetic Adulterates:

Illegal addition of organic acids, alcohols and esters in certain food products are frequently reported. Synthetic pharmaceutical compounds and drugs are also added into food items to induce therapeutic effects. Dietary supplement is the most famous food category in this regard.

Examples of Adulteration:-



Food Contamination

It refers to the presence of unwanted and potentially harmfull substances and material on food products and raw materia

The world Health Organization (WHO) has recognized food contamination as a global challenge in several documents and reports.

Types of food Contamination:

There are three types of food contamination.

(i) Biological Contamination:

Biological contaminations refers to contamination by disease causing bacteria or other harmfull micro organisms called pathogens.

(ii) Chemical Contamination:

It occurs when chemicals get into food. Common sources of chemical contamination in a commercial kitchen include:

* Kitchen cleaning agents.
* Un-washed fruits and vegetables.
* Pest control products.
* Kitchen equipment.
* Plastic food containers.

(iii) Physical Contamination:

Physical contamination happens when physical objects enter food. Common sources of physical contamination include:

* Hair
* Glass & metal
* Pests.
* Jewellary
* Dirt
* Finger nails.

Preventing Food Contamination

The best way to prevent food food contamination from happening in a food business is through food safety training and education. Food handler's must be trained in;

* safe cooking temperature.
* Proper storage.
* Effective cleaning.
* Sanitising technique.
* Personal hygiene.

Good structure and arguments