

Food Chemistry

UNIT 1 : FOOD ADULTERATION :

Sources of food, types, advantages and disadvantages. Food adulteration – contamination of Wheat, Rice, Alial, Milk, Butter etc. with clay stones, water and toxic chemicals – Common adulterants. - ghee adulterants and their detection. Detection of adulterated food by simple analytic techniques.

UNIT 2 : FOOD POISON

Food poisons – natural poisons (alkaloids – nephrotoxing) – pesticides. (DDT, BHC, Malathion) – Chemical poisons – first aid for poison consumed victims. (15Hrs)

UNIT 3 : FOOD ADDITIVES

Food additives –artificial sweetners – saccharin – cyclamate and aspartate. Food flavours –esters, aldehydes and heterocyclic compound. Food colours – nestricted use spurious colours – Emulsifying agents – preservatives learning agents. Baking powder yeast – taste makers – MSG vinegar. (15Hrs)

UNIT 4 : BEVERAGES :

Beverages – Soft drinks – soda – fruit juices – alcoholic beverages examples. Carbonation – addiction to alcohol – cirrhosis of liver and social problems.

UNIT 5: EDIBLE OILS :

Fats, Oils, - Sources of oils – production of refined vegetable oils – preservation. Saturated and unsaturated fatty acids – iodine value – role of MUFA and PUFA in preventing heart diseases – determination of iodine value and RM value, saponification values and their significance. Estimation of iodine and RM values in edible oils.

Books for Reference :

1. Swaminathan M., Food Science and Experimental foods, Ganesh and Company.
2. Jayashree Ghosh, Fundamental concepts of applied chemistry, S. Chand & Co. Publishers.
3. Thanlamma Jacob, text books of applied chemistry for home science and allied science, Macmillan.