

Course Title: Chemistry in daily life	Course Code: 24MJCH3S
Total Contact Hours: 28	No. of Credits: 02
L:T:P	(2,0,0)
Internal Assessment Marks: Theory:10	Duration of SEE: 2 Hours
Semester End Exam Marks: 40	Contact Hrs per week:02 Hours

Course Outcomes (CO's):

1. To study the contents of available food materials
2. To Analysis of dairy products and beverages compounds.
3. To impart skills related to preparation of stock and working solutions and handling of instrumental methods
4. To know the some adulterants and its contaminants in food
5. To know the some of the vitamins and determinants

At the end of the course, students will be able to:

1. Understand the importance of semi micro analysis of food materials for applications.
2. Learn the importance of analysis methods and also determination of food materials.

Unit-I

08 Hours

Dairy products

Composition of milk and milk products, Analysis of fat content, minerals in milk and butter. Estimation of added water in milk. Beverages: Analysis of caffeine in coffee and tea, detection of chicory in coffee, chloral hydrate in toddy, determination of methyl alcohol in alcoholic beverages

UNIT-2

10 Hours

Adulteration and contamination of food

Food additive, adulterants and contaminants: Food preservatives like benzoates, propionates, sorbates, disulphites. Artificial sweeteners: Aspartame, Saccharin, dulcin, sucralose and sodium cyclamate. Flavors: Vanilline, alkyl esters (fruit flavors) and monosodium glutamate
Artificial food colourants Coal, tar, dyes and non-permitted colors and metallic salts. Analysis of pesticides, residues in food

UNIT-III

10 Hours

Some important molecules

Vitamins: Classification and nomenclature, sources, deficiency diseases and structure of vitamin A1, Vitamin B1, Vitamin C, Vitamin D, Vitamin E and Vitamin K1.

Oils and Fats: Composition of edible oils, detection of purity, rancidity of fats and oils. Tests for adulterants like argemone oil and mineral oils. Halphen test.

Soaps and Detergents: Definition, classification, manufacturing of soaps and detergents, composition and uses