

Part-III, SEC- III: Value Added Courses

Offering Department: Department of Chemistry

(From AY 2016-17 onwards)

16UCHVA02	Formulation of Detergents & Toiletries	40 Hrs.	1 Credits
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Unit.1 Surface active agents: (03 Hrs.)

Introduction, classification, and role of surface active agents - emulsifiers, foaming agents, antifoaming agents, concept of HLB - Hydrophile Lipophile Balance.

Unit.2 Additive agents: (03 Hrs.)

Introduction, types of additives, role of additives, selection of additives. Additives: colour, fragrance, preservatives, stabilizers, glycerine.

Unit.3 Soaps: (03 Hrs.)

Introduction, composition, characteristics, role and applications of soaps, formulation process of soaps - both liquid and solid.

Unit.4 Detergents: (03 Hrs.)

Introduction, composition, characteristics, role and applications of soaps, formulation process of detergents - both liquid and solid.

Unit.5 Toiletries: (03 Hrs.)

Introduction, composition, characteristics, role and applications of toiletries like liquid dish-wash and domestic toilet cleaners. Formulation process of liquid dish-wash and domestic toilet cleaners.

List of Proposed Practical: (25 Hrs.)

1. Preparation of liquid hand-wash: Gel type - transparent.
2. Preparation of liquid hand-wash: Cream type - opaque.
3. Preparation of liquid dish-wash.
4. Preparation of domestic glass cleaner.
5. Preparation of domestic toilet cleaner.
6. Preparation of liquid detergent.
7. Preparation of tiles cleaner

8. Preparation of rust remover
9. Preparation of drainage cleaner
10. Preparation of shower gel & shampoo.

Books Recommended:

1. Surfactants and interfacial phenomena - Milton J. Rosen
2. Chemical formulation an overview of surfactant – based preparation used in everyday life
– Tony Hargreave, Royal Society of Chemistry, 2003, ISBN: 0854046356
3. Cosmetic and Toiletry Formulations - Vol. 2, Ernest W. Flick, Noyes Publication