

**“&ana\_iva&ana AaiNa sausaMskar yaasaazl iSaxaNap`saar”**  
**iSaxaNamahiYa- D^a.baapUjal saaLuMKo**  
SHRI SWAMI VIVEKANAND SHIKSHAN SANSTHA’S, KOLHAPUR  
**Dattajirao Kadam Arts, Science & Commerce College, Ichalkaranji.**  
**DEPARTMENT OF CHEMISTRY**  
**Academic year 2023-24**

**Syllabus: PREPARATION OF HOUSEHOLD CHEMICALS**

**Objectives:**

1. To make availability of self employment.
2. To make confidence for doing job.
3. To develop skills required for job.
4. To develop skills of market survey.
5. To develop knowledge of household chemicals.

**Course Duration: 30 Hrs**

**Total: 100 Marks**

**Paper: I-Basic concept of Analytical chemistry**

**[30 marks]**

**Unit: I cleaning materials**

**[15 Marks]**

- 1.1 Introduction of soaps
- 1.2 Theory of types
- 1.3 Raw materials
- 1.4 Types of soaps
- 1.5 Manufacture of soaps
- 1.6 Cleaning action of soaps
- 1.7 Introduction of soaps
- 1.8 Raw materials
- 1.9 Types of detergents, cationic, Anionic, Amphoteric and neutral
- 1.10 Preparation of Teepol and Deriphat
- 1.11 Comparison between Soaps

**Unit: II Basic term in household chemicals**

**[10 marks]**

- 2.1 Mole concept
- 2.2 Concentrations
- 2.3 Units of concentration
- 2.4 Normality
- 2.5 Molarity
- 2.6 Molality
- 2.7 Mole fraction
- 2.8 Percentage composition by volume
- 2.9 Percentage composition by weight

**Unit: III Quantitative Analysis**

**[05 marks]**

- 3.1 General introduction
- 3.2 Types of Titration
- 3.3 Indicators
- 3.4 Theory and types

**Paper: II Household chemicals-introduction, synthesis and manufacturing [30 Marks]**

**Unit: I Household chemicals [10 Marks]**

- 1.1 Introduction of household chemicals or domestic chemicals
- 1.2 Sanitary acids
- 1.3 Phenyl
- 1.4 Liquid sops :Lysol, Dettol, Savlon
- 1.5 Acids-bases
- 1.6 General introduction
- 1.7 Theory
- 1.8 Types and strength of acids
- 1.9 Cleaning action of acid, handling and precaution
- 1.10Antiseptic and Disinfectant

**Unit II: Phenols [10 Marks]**

- 2.1 Introduction of phenol
- 2.2 Methods of synthesis of phenols
- 2.3 Physical properties
- 2.4 Chemical properties
- 2.5 Uses

**Unit: III Basic of analytical techniques [10 Marks]**

- 3.1 Purification of solids
  - A) Crystallization:- preparation of saturation solution, hot Filtration, cooling of filtrate, filtration
  - B) Distillation: simple distillation

**Paper-III:-Practical's [40 Marks]**

1. Acid strength of Sanitary Acid
2. Preparation of Phenyl
3. Preparation of Soap
4. Preparation of Perfume
5. Preparation of Liquid Soap.
6. Preparation of Washing Powder
7. Preparation of Natural Indicator.
8. Saponification of oil.
9. Conductometric Titration – I
10. Conductometric Titration –II
11. Preparation of Sanitizer

**Dr. A. A. Ghare**