

**Rayat Shikshan Sanstha's**  
**Rajarshi Chhatrapati Shahu College Kolhapur**  
**Department of Chemistry**



**Minutes of BOS meeting held on 30th October 2017.**

The Board of Studies Meeting of the **Certificate Course in "Preparation of household chemicals"** Department of Chemistry Rajarshi Chhatrapati Shahu college, Kolhapur held on 30.10.2017 in the Department of Chemistry at 11:30 a.m. Following were present:

- |                               |  |
|-------------------------------|--|
| 8) Dr. Kishor Vinayak Gaikwad | (Chairman and Course Coordinator)                    |
| 9) Dr. S. V. Patil            | Member   |
| 10) Dr. S. P. Pawar           | Member   |
| 11) Dr. V. A. Kalantre        | External Expert (Balasaheb Desai College, Patan.)    |
| 12) Dr. O. B. Pawar           | External Expert (Rajaram College, Kolhapur.)         |
| 13) Mr. U. S. Shelke          | External Expert (ASC College Ramanand nagar (Burli). |
| 14) Dr. S. M. Sathe           | IQAC Co-ordinator R. C. Shahu college Kolhapur.      |

In the beginning of the meeting the Chairman of the BOS welcomed all the members and briefed them about the progress of the Department of Chemistry. The BOS members expressed their highly appreciation and satisfaction about the courses and activities of the Department. After that the BOS discussed and resolved the following items:

To prepare and approve the syllabus for **Certificate Course in "Preparation of household chemicals"** The members considered the revised syllabus and discussed different issues. Members suggested to discuss the MSDS (Material safety Data Sheet) of various Chemicals during course. Also do one Industrial visit; the members approved the curriculum for **"Certificate Course in Preparation of household chemicals 2017-18"**





# "CERTIFICATE COURSE IN PREPARATION OF HOUSEHOLD CHEMICALS"

## Syllabus-

### Objective:

1. To make availability of self employment.
2. To develop confidence for doing job.
3. To develop skills required for job.
4. To develop skills of market survey.
5. To develop knowledge of domestic chemicals.
6. To develop skill of subject knowledge on applied basis.

**Course Duration-**03 Months

**Fees –** Rs-300

## Syllabus

### **Paper- I: - Basic concept of household chemicals [30 Marks]**

#### **Unit I:- Basic Concepts in Domestic chemicals [ 10 Marks ]**

- 1.20 Mole concepts.
- 1.21 Concentration
- 1.22 Units of concentration
- 1.23 Normality
- 1.24 Molarity
- 1.25 Molality
- 1.26 Mole Fraction
- 1.27 Percentage composition by volume
- 1.28 Percentage composition by weight.

#### **Unit II:- Domestic chemicals [ 10 Marks ]**

- 1.29 Introduction of House chemicals or domestic chemicals and their uses.
- 1.30 Sanitary acids
- 1.31 Phenyl





- 1.32 Liquid soaps; Lysol, Dettol, Savalon.
- 1.33 Acids –bases
- 1.34 General introduction
- 1.35 Theory
- 1.36 Types and Strength of acids
- 1.37 Cleaning action of acids and Handling and precautions
- 1.38 Antiseptic and Disinfectant

### **Unit III: - Titration**

**[ 10 Marks ]**

- 3.5 General introduction
- 3.6 Types of titration
- 3.7 Indicators(Artificial and Natural)
- 3.8 Theory and types.

## **Paper- II :- Mechanism, precaution and cleaning action of household chemicals [ 30 Marks]**

### **Unit I: - Soaps and detergents**

**[ 20 Marks ]**

- 1.12 Introduction of Soaps
- 1.13 Theory and types
- 1.14 Raw materials
- 1.15 Types of soaps
- 1.16 Manufacture of soaps, Hot Process
- 1.17 Cleaning action of soaps
- 1.18 Introduction of Detergents
- 1.19 Raw materials
- 1.20 Types of detergents, Cationic, anionic, amphoteric and neutral
- 1.21 Preparation of teepol and deriphat.
- 1.22 Comparison between soaps and detergents.

### **Unit II: - Phenols**

**[ 05 Marks ]**

- 2.1 Introduction of Phenol
- 2.6 Methods of synthesis of Phenols
- 2.7 Physical properties





2.8 Chemical properties

2.9 Uses

### Unit III: - Phenyl

[ 05 Marks ]

3.1 Preparation

3.2 Ingredients and uses

3.3 Advantage and drawback of phenyl.

### Paper- III :- Practical's

[ 40 Marks ]

- i. Volumetric titration
- ii. Conduct metric titration
- iii. Preparation of standard solutions
- iv. Preparation of phenyls
- v. Preparation of dyes
- vi. Preparation of Soap
- vii. Preparation of Detergent Powder
- viii. Preparation of Liquid Soap
- ix. Preparation of Neel
- x. Preparation and uses of Natural Indicators.

The meeting ended with thanks to the Chair.

- 1) Dr. Kishor Vinayak Gaikwad (Chairman and Course Coordinator)
- 2) Dr. S. V. Patil Member
- 3) Dr. S. P. Pawar Member
- 4) Dr. V. A. Kalantre External Expert (Balasaheb Desai College, Patan.)
- 5) Dr. O. B. Pawar External Expert (Rajaram College, Kolhapur.)
- 6) Mr. U. S. Shelke External Expert (ASC College Ramanand nagar (Burli).
- 7) Dr. S. M. Sathe IQAC Co-ordinator R. C. Shahu college Kolhapur.

*Handwritten signatures and dates:*  
30.10.18  
30.10.18



*Handwritten signature:*  
Principal,  
Rajarshi Chh. Shahu College  
Kolhapur.