FIRST SEMESTER 2016-2017
COURSE HANDOUT (PART-II)

Date: 02/08/2016

In addition to part I (General handout for all courses appended to the timetable) this portion gives further details regarding the course.

Course No. : **CHEM F110**
Course Title : **CHEMISTRY LABORATORY**
Instructor-in-charge : **Ajay K. Sah**

Instructors : Subit Kumar Saha, Ramkinkar Roy, Saumi Ray, Madhushree Sarkar, Paritosh Shukla, Rajeev Sakhuja, Surojit Pande, Shamik Chakraborty, Bibhas Ranjan Sarkar, Aabid Hamid, Anoop Singh, B Pallavi, Bijoya Das, Devesh S Agarwal, Dinesh Kumar, Fayaz Baig, Hitesh Kumar Saini, Khandagale S Bhausaheb, Khima Pande, Meenakshi Pilania, Moyna Das, Pinku, Rajinder Shivran, Roshan Nazir, S M Abdul Shakoor, Sachin Chaundhary, Santosh Kumari, Saroj, Sheik Saleem Pasha, Sonam Sharma, Sunita Kumari, Sushila Kumari, V Arun, Vaishali, Venkataramana P O

1. AIMS AND LEARNING OBJECTIVE:

The main objective of this course is to educate the students with different aspects of chemistry experiments. The students will carry out set of experiments that will expose the students to experimental methods and to integrate theoretical knowledge and concept to practical experience. Students will also learn the operation of some scientific equipments for performing experiments.

2. TEXT BOOK:

Lab Manual for Chemistry Laboratory: EDD Notes

3. REFERENCE BOOK:

Vogel's textbook of quantitative chemical analysis, Prentice Hall, 2000.

4. COURSE PLAN:

The students will perform the following ten experiments with an emphasis on individual planning and execution of the experiments.

S. No.	Experiment
1	Determination of the pH curve of an acid-base titration
2	Estimation of copper by Iodometry
3	Preparation of $K_2[Cu(C_2O_4)_2].2H_2O$
4	Kinetics of the iodination of acetone

5	Synthesis and recrystallization of dibenzalacetone
6	Determination of total hardness of water with EDTA
7	Identification of an unknown compound using thin layer chromatography; Analysis of given IR and NMR spectra
8	Identification of some organic compounds
9	Dissociation constant of a weak electrolyte by Conductometry
10	Determination of the concentration equilibrium constant (K_c) of the reaction: $CH_3COOH(aq) + C_2H_5OH(aq) \rightleftarrows CH_3COOC_2H_5(aq) + H_2O(l)$

Marks distribution: Punctuality + Safety measures + Cleaning : 1 + 1 + 1
Laboratory Conduct: 6
Record maintenance: 6
Reading the experiment: 1.5

5. EVALUATION:

Component	Weightage %	Date and Time
Laboratory Work and Reports (150)	75%	Continuous
Comprehensive Examination (50)	25%	

Students must submit lab report for each experiment done in the lab on the following turn. Students are expected to read the allotted experiments from the manual before coming to the lab.

6. MAKE-UP:
Make-up is strictly discouraged in this lab course because we shall be conducting 10 experiments and best 9 will be considered for final grading. Hence, students are expected to attend all the lab classes regularly.

7. NOTICE: Notices concerning this course will be displayed on **Chemistry Department** notice board only.

Ajay K. Sah
Instructor-In-Charge
CHEM F110