

PHYSICAL CHEMISTRY PRACTICAL - I

Semester	Subject Code	Category	Instruction Hours						Credits
			Lecture		Theory		Practical		
			Per Week	Per Semester	Per Week	Per Semester	Per Week	Per Semester	
II	21CPCH23	Core	0	0	0	0	5	75	5

COURSE OBJECTIVES:

The students should be able to validate the conceptual understanding acquired from the theory classes

COURSE OUTCOMES:

At the end of the course, the students should be able to explain the principle behind the experiments performed in the laboratory plan and perform experiments and interpret experimental results

Experiments for Physical Chemistry Practical – I

1. Study of the kinetics of acid catalysed hydrolysis of ester and determine the relative strength of acids
2. Determination of the temperature coefficient and Arrhenius activation energy and frequency factor for the acid catalysed hydrolysis of ester
3. Study the iodination of acetone catalysed by acids.
4. Study of the kinetics of reaction between potassium iodide and persulphate and determination of the rate constant of primary salt effect
5. Study of the kinetics of reaction between KI and $K_2S_2O_8$ and determination of the order
6. Study of the phase diagram for a simple binary system
7. Study of the adsorption of oxalic acid by charcoal [Fruendlich isotherm]
8. Determination of the distribution coefficient of iodine between CCl_4 and water (Demo)
9. Determination of the equilibrium constant for the reaction between potassium iodide and iodine by partition method (Demo).
10. Determination of the concentration of the given unknown potassium iodide solution using partition method (Demo).
11. Study the inversion of cane sugar in the presence of acid using Polarimeter

TEACHING METHODOLOGY:

- Board and chalk
- Demonstration
- Conducting Experiments
- Conducting Viva

SYLLABUS DESIGNERS:

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