I B. Tech – II Semester (17CH211) APPLIED CHEMISTRY LABORATORY (ECE& CSE)

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2

Int. Marks Ext. Marks Total Marks

60 40 100

Pre-Requisites: None

Course Objectives:

- The course is designed to let students get hand on experience by operating different laboratory equipment's and visualize the concepts learnt in class.
- This course will help students in working collaboratively and also engage in minor projects.

List of Experiments:

- Introduction to chemistry laboratory Molarity, Normality, Primary, Secondary, standard solutions, volumetric titrations, quantitative analysis, qualitative analysis etc.
- Trial Experiment Determination of HCl using standard Na2CO3 solution.
- Determination of KMnO4 using standard oxalic acid solution.
- Determination of Ferrous iron using standard K2Cr2O7 solution.
- Determination copper using standard K2Cr2O7 solution.
- Determination of alkalinity of a sample containing Na2CO3 and NaOH.
- Determination of Total hardness of water sample using standard EDTA solution.
- Determination of copper using standard EDTA solution.
- Determination of pH of the given sample solution using pH meter.
- Conductometric titration between strong acid and strong base.
- Conductometric titration between strong acid and weak base. Determination of zinc using standard EDTA solution.

Course Outcomes:

After successful completion of the course, the students will be able to:

S. No	Course Outcome J								
1.	Understand the basic working principle of operation, performance of	2							
	Engineering/applied Chemistry Practical.								
2.	Understand basics of instrumental methods of chemical analysis and their								
	applications								
3.	Use the proper procedures and regulations for safe handling of chemicals and								
	apparatus.								
4.	Acquire some experimental skills to work efficiently and safely in a chemical								
	laboratory								

CO – PO MAPPING:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	1	-	-	-	-	-	-	-	1	-	-	1
CO2	1	-	-	-	-	-	-	-	1	-	-	1
CO3	1	-	-	-	-	-	-	-	1	-	-	1
CO4	1	-	-	-	-	-	-	-	1	-	-	1
CO5	1	-	-	-	-	-	-	-	1	-	-	1
CO6	1	-	-	-	-	-	-	-	1	-	-	1

CO – PSO MAPPING:

	F	CE	CSE			
CO	PSO1	PSO2	PSO3	PSO1	PSO2	PSO3
CO1	-	-	-	-	-	-
CO2	-	-	-	-	-	-
CO3	-	-	-	-	-	-
CO4	-	-	-	-	-	-
CO5	-	-	-	-	-	-
CO6	-	-	-	-	-	-

Text Books:

- 1. Dr. jyothsna cherukuri (2012) laboratory manual of engineering chemistry-II VGS techno series.
- 2. Chemistry –II practical manual, lorven publications.

Reference Books:

- 1. K.Mukkanti(2009) practical engineering chemistry, B.S.publications.
- 2. R. Gopalan ,D.Venkatappayya, sulochana nagarajan (2011), text book of engineering chemistry, vikas publications.