PRASAD V. POTLURI SIDDHARTHA INSTITUTE OF TECHNOLOGY

(Autonomous)
KANURU, VIJAYAWADA-520007

I B.Tech – I Sem CSE (DATA SCIENCE)
ENGINEERING CHEMISTRY LAB

Course Code	20BS1151	Year	I	Semester	I
Course Category	Basic Science	Branch	CSE(Data Science)	Course Type	Lab
Credits	1.5	L-T-P	0-0-3	Prerequisites	Nil
Continuous Internal Evaluation	15	Semester End Examination	35	Total Marks	50

Course Outcomes		
Upon successful completion of the course, the student will be able to		
CO1	Demonstrate the working of instruments such as pH meter and Conduct meter	L3
CO2	Apply the acquired knowledge to determine the quantity of metal ions in a given solution	L3
CO3	Estimate the amount of active chlorine in bleaching powder	L4
CO4	Compare the viscosities and surface tension of different liquids	L4
CO5	Analyze different compounds and examine the preparation of different polymers	L4
CO6	Make an effective report based on experiments	

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3:High, 2: Medium, 1:Low)													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3		1				3						1	
CO2	3		1				3						1	
CO3	3		1				3						1	
CO4	3		1				3						1	
CO5	3		1				3						1	
CO6	3		1				3			3			1	

Syllabus		
Expt. No.	**Contents**	**Mapped CO's**
1	Determination of strength of an acid by pH metric method	CO1,CO6
2	Determination of conductance by conducto metric method	
3	Determination of viscosity of a liquid	CO4,CO6
4	Determination of surface tension of a liquid	
5	Determination of chromium (VI) in potassium dichromate	CO2,CO6
6	Determination of Zinc by EDTA method	
7	Estimation of active chlorine content in Bleaching powder	CO3,CO6
8	Preparation of Phenol-Formaldehyde resin	CO5,CO6
9	Preparation of Urea-Formaldehyde resin	
10	Thin layer chromatography(paper chromatography)	

Learning Resources
Text Books:
1. N.KBhasin and Sudha Rani Laboratory Manual on Engineering Chemistry 3/e, DhanpatRai Publishing Company (2007).
Reference Books:
1. Mendham J, Denney RC, Barnes JD, Thosmas M and Sivasankar B Vogel's Quantitative Chemical Analysis 6/e, Pearson publishers (2000).
e- Resources & other digital material:
1. https://nptel.ac.in/courses/105105178/
2. http://202.53.81.118/course/view.php?id=82