Engineering Chemistry Lab

Course Code	19BS1251	Year	I	Semester	II
Course Category	Basic Sciences	Branch	EEE	Course Type	Lab
Credits	1.5	L-T-P	0-0-3	Prerequisites	Nil
Continuous Internal Evaluation:	25	Semester End Evaluation:	50	Total Marks:	75

Course Outcomes	
Upon successful completion of the course, the student will be able to	
CO1	Explain the functioning of the instruments such as pH, Conductometric and Potentiometric methods.
CO2	Identify different ores (Cr & Cu) and their usage in different fields (industry, software devices, electronic goods).
CO3	Experiment with the physical parameter of organic compounds.
CO4	Compare the viscosities of oils.
CO5	List the preparation of polymers and nano materials.

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (H:High, M: Medium, L:Low)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	H		M											L
CO2	H		M											L
CO3	H		M											L
CO4	H		M											L
CO5	H		M											L

Syllabus		
Expt. No.	Contents	Mapped CO
I	Determination of strength of an acid by pH metric method	CO1
II	Determination of conductance by conductometric method	
III	Determination of viscosity of a liquid	CO4
IV	Determination of surface tension of a liquid	CO3
V	Determination of chromium (VI) in potassium dichromate	CO2
VI	Determination of Zinc by EDTA method	
VII	Estimation of active chlorine content in Bleaching powder	CO3
VII	Preparation of Phenol-Formaldehyde resin	CO5
IX	Preparation of Urea-Formaldehyde resin	
X	Thin layer chromatography	CO3

Learning Resources	
Text Books	
N.KBhasin and Sudha Rani Laboratory Manual on Engineering Chemistry 3/e, DhanpatRai Publishing Company (2007).	
Reference Books	

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
https://nptel.ac.in/courses/105105178/   http://202.53.81.118/course/view.php?id=82