ENGINEERING CHEMISTRY LAB

Course Code: 22BC1102	L	T	P	C
	0	0	3	1.5

Course outcomes: At the end of the Course the student shall be able to

CO1: determine the metal ions by titrimetry (L3)

CO2: determine the strength of acid and chlorine by titrimetry (L3)

CO3: explain the functioning of the instruments such as pH meters, Conductometer and Potentiometer (L2)

CO4: determine the physical properties like surface tension and viscosity (L3)

CO5: determine the metal ions by spectrophotometry (L3)

List of Experiments:

(Any TWELVE of the experiments shall be conducted)

1. Determination of Zinc by potassium Ferrocyanide.
2. Determination of Total hardness of a groundwater sample
3. Determination of copper in brass
4. Determination of active chlorine content in Bleaching powder
5. Determination of sodium carbonate and sodium bicarbonate in a mixture
6. Determination of chromium (VI) by hypo
7. Determination of sulphuric acid in lead-acid storage cell.
8. Determination of strength of an acid by pH metric method.
9. Determination of Fe(II) in Mohr‟s salt by potentiometric method.
10. Determination of citric acid in a citrus fruit by conductometric method.
11. Determination of viscosity of a liquid.
12. Determination of surface tension of a liquid.
13. Preparation of gold nanoparticles.
14. Construction of a Galvanic cell.
15. Determination of Fe(III) by spectrophotometry.
16. Preparation of Nylon polymer.

Reference Books:

1. N.K Bhasin and Sudha Rani, *Laboratory Manual on Engineering Chemistry*, 3rd Edition, Dhanpat Rai & Sons, New Delhi, 2007.
2. P.C. Jain and M. Jain, *Engineering Chemistry*, 15th Edition, Dhanapat Rai & Sons, Delhi, 2014.
3. A.I.Vogel, *A Textbook of quantitative chemical analysis*, 6th Edition, Pearson Education Pvt. Ltd., 2002.

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