

Engineering Chemistry Lab

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|--|----------------|---------------------------------|-------|----------------------|-----|
| Course Code | 19BS1252 | Year | I | Semester | II |
| Course Category | Basic Sciences | Branch | IT | 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 | |
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| 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 | | | | | | | | | | | |
| CO2 | H | | M | | | | | | | | | | | |
| CO3 | H | | M | | | | | | | | | | | |
| CO4 | H | | M | | | | | | | | | | | |
| CO5 | H | | M | | | | | | | | | | | |

| Syllabus | | |
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| 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 |
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| 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>