

SRI VENKATESWARA COLLEGE OF ENGINEERING

COURSE DELIVERY PLAN - LAB

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| | | LP: CH22312 | |
|----------------------------------------------------------------|-----------------|-------------|--|
| Department of Applied Chemistry | Rev. No: 00 | | |
| B.Tech.: Chemical Engineering | Regulation:2022 | Date: | |
| PG Specialisation : NA | | 30.07.2023 | |
| Sub. Code / Sub. Name: CH22312 / Technical Analysis Laboratory | | | |

| Session No* | List of Experiments | | | | | | |
|----------------------------------------------|-------------------------------------------------------------|------------|--|--|--|--|--|
| | CYCLE-I | | | | | | |
| 1 | Soap Analysis – Estimation of percentage of alkali content. | £ w, | | | | | |
| 2 | Soap Analysis – Determination of total fatty acid content. | * *:#a > 3 | | | | | |
| 3 | 3 Oil Analysis – Estimation of acid value. | | | | | | |
| 4 Oil Analysis – Estimation of iodine value. | | | | | | | |
| 5 | Estimation of available chlorine in bleaching powder. | | | | | | |
| | CYCLE-II | | | | | | |
| 6 | 6 Estimation of barium as barium sulphate | | | | | | |
| 7 | Estimation of nickel as DMG | | | | | | |
| 8. Determination of purity of glycerol | | | | | | | |
| 9. | Proximate analysis of coal | | | | | | |
| | CYCLE-III | | | | | | |
| 10 | 10 Cement Analysis – Estimation of silica content | | | | | | |
| 11 | Cement Analysis – Estimation of mixed oxides content | i | | | | | |
| 12 | Cement Analysis – Estimation of calcium oxide content | | | | | | |
| Content beyond syl | abus (if any): | | | | | | |
| Estimation of Na / (| Cr by Flame Photometry / Atomic Absorption Spectroscopy | | | | | | |

Department of Applied Chemistry

Academic Year

: 2023-2024

Semester: III

 $B.E/\textbf{B.Tech}/\underline{\textbf{M.E/M.Tech}}: \ \ Chemical \ Engineering$

Regulation: 2022

PG Specialisation

Sub. Code / Sub. Name : CH 22312 - Technical Analysis Laboratory

| CO | Statements | RBT* | | | | | |
|-----|------------------------------------------------------------------------|------|--|--|--|--|--|
| | On the successful completion of the course, students will be able to | | | | | | |
| CO1 | Estimate the alkali and total fatty acid content of soap. | | | | | | |
| CO2 | Determine the acid value, iodine value and cloud & pour point of oil. | AP | | | | | |
| CO3 | Apply the principle of gravimetry to estimate the quantity of analyte. | AP | | | | | |
| CO4 | Determine the purity of glycerol. | U | | | | | |
| CO5 | Analyze the available chlorine and residual chlorine in water sample. | AP | | | | | |
| CO6 | Analyze sulphate and turbidity in water sample. | U | | | | | |

Mapping CO - PO - PSO *

| , | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO-1 | PSO-2 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|-------|-------|
| CO1 | 1 | 1 | 1 | 1 | | 3 | 3 | 2 | 2 | | | 1 | | |
| CO2 | 1 | 1 | 1 | | | 3 | 3 | 2 | 2 | | | | | |
| CO3 | 1 | 1 | 1 | 1 | | 3 | 3 | 2 | 2 | | | | , | |
| CO4 | 1 | 1 | 1 | 1 | | | | | | | | 1 | | |
| CO5 | 1 | 1 | 1 | 1 | | 3 | 3 | 2 | 2 | | | 1 | | |
| CO6 | 1 | 1 | 1 | 1 | | 3 | 3 | 2 | 2 | | | | | |



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| | Prepared by | Approved by | | | |
|-------------|----------------------|-------------|--|--|--|
| Signature | male | Stand | | | |
| Name | Dr.M.Thirumalaikumar | Dr.S.Stanly | | | |
| Designation | Assistant Professor | Professor | | | |
| Date | 30.07.2023 | 30.07.2023 | | | |
| Remarks*: | - | | | | |

^{*} If the same lab plan is followed in the subsequent semester/year it should be mentioned and signed by the Faculty and the HOD