

| Semester 3 CL 301               |   |  |
|---------------------------------|---|--|
|                                 |   | Tentative Number of days in semester: 24 |
| S No.                           | Experiment  | No. of days                              |
| <b>THEME</b>                    | <b>Biochemistry (Protein, DNA, and carbohydrate estimation; enzyme kinetics)</b>  |  |
| 1                               | Enzyme kinetics: Determination of $K_m$ and $V_{max}$   | 1  |
| 2                               | Determination of protein concentration by Bradford method   | 1  |
| 3                               | DNA and proteins (Urea denaturation method)   | 1  |
| 4                               | sample by using Anthrone method   | 1  |
| 5                               | An SDS-PAGE examination of protein quaternary structure   | 1  |
| 6                               | Change in carbohydrate content during chickpea cooking  | 1  |
| <b>THEME</b>                    | <b>Organic synthesis (aliphatic compounds)</b>  |  |
| 7                               | ketone  | 1  |
| 8                               | Benzil-Benzilic rearrangement   | 1  |
| 9                               | benzophenone  | 1  |
| 10                              | Pinacole Pinacolone rearrangement   | 1  |
| 11 and 12                       | Seperation of organic mixtures  | 2  |
| <b>MID SEMESTER EXAMINATION</b> |   |  |
| <b>THEME</b>                    | <b>Inorganic (s &amp; p block elements)</b>   |  |
| 13                              | chloride  | 1  |
| 14                              | To estimate the chloride ions from given sample of saline   | 1  |
| 15                              | acid.   | 1  |
| 16 and 17                       | Aluminium and sulphate in the prepared Alum   | 2  |
| Extra                           | Synthesis of aluminium Acetylacetonate, $Al(acac)_3$ and its further use in complex formation with 8-hydroxy quinoline      | 1  |
| <b>THEME</b>                    | <b>Physical (colligative properties: elevation in Boiling point; depression in Freezing point)</b>                          |  |
| 19                              | To determine the freezing point of two solutions and compare the effect of solute type and concentration for each solution. | 1  |
| 20                              | Molecular Weight Determination by Boiling-Point Elevation of a Urea Solution  | 1  |
| 21                              | Solar irradiation of bilirubin: An experiment in photochemical oxidation  | 1  |
| 22                              | REPETATION  | 1  |
| 23                              | REPETATION  | 1  |
| 24                              | REPETATION  | 1  |
| <b>END SEMESTER EXAMINATION</b> |   | <b>24</b>                                |