

# Academic Calendar & Plan

## Academic Year 2018-19

(Distribution of syllabus into Modules and Units of B.Sc. Honours Course CBCS)

Department of Chemistry

Sarat Centenary College, Dhaniakhali, Hooghly

### Semester-1

**Orientation Programme** – 1<sup>st</sup> week of July: General outline of Chemistry syllabus and its Scope & Importance

**CC-I: Organic Chemistry-I/ CC-II: Physical Chemistry-I**

**Credits:** Theory-4, Practical-2,

**Marks:** Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05=75

### 1<sup>st</sup> Module (July-September)

Name of the teacher and Course	Theory	Practical
Dr. Suparna Sadhu CC-1: Organic Chemistry-I	<b>Fundamentals in Organic chemistry</b> <ul style="list-style-type: none"><li>Bonding and Physical Properties: Valence Bond Theory Electronic displacements, MO theory, Physical properties</li><li>General Treatment of Reaction Mechanism I: Mechanistic classification, Reactive intermediates</li></ul>	▪ Separation of Organic compound
Dr. Suparna Sadhu CC-2: Physical Chemistry-I	<b>Kinetic Theory and Gaseous state</b> <ol style="list-style-type: none"><li>Kinetic Theory of gases</li><li>Maxwell's distribution of speed and energy</li><li>Real gas and virial equation</li></ol> <b>Chemical Thermodynamics</b> <ol style="list-style-type: none"><li>Zeroth and 1st law of Thermodynamics</li><li>Thermochemistry</li></ol>	<ol style="list-style-type: none"><li>Determination of pH of unknown solution (buffer), by color matching method;</li><li>Determination of the reaction rate constant of hydrolysis of ethylacetate in the presence of an equal quantity of sodium hydroxide;</li><li>Study of kinetics of acid-catalyzed hydrolysis of methyl acetate</li></ol>

### 2<sup>nd</sup> Module (October to December)

Name of the teacher and Course	Theory	Practical
Dr. Suparna Sadhu CC-1: Organic Chemistry-I	• Stereochemistry-I	▪ Determination of boiling point
Mrs. Pallabi Acharyya CC-2: Physical Chemistry-I	<b>Chemical Thermodynamics</b> <ol style="list-style-type: none"><li>Second Law of Thermodynamics</li></ol>	<ol style="list-style-type: none"><li>Study of kinetics of decomposition of H<sub>2</sub>O<sub>2</sub> by KI;</li></ol>

	<p>2. Thermodynamic relations</p> <p><b>Chemical kinetics</b></p> <ol style="list-style-type: none"> <li>1. Rate law, order and molecularity</li> <li>2. Role of Temperature and theories of reaction rate</li> <li>3. Homogeneous catalysis</li> <li>4. Autocatalysis; periodic reaction sReal gas and virial equation</li> </ol>	<p>2. Determination of solubility product of PbI<sub>2</sub> by titremetric method</p>
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**Internal Assessment:** 1<sup>st</sup> Week of December

Theory and Practical Examination: as per notification of B.U. (Tentatively on December)

### Semester-II

**CC 3: Inorganic Chemistry-I/ CC- 4: Organic Chemistry-II**

**Credits:** Theory-4, Practical-2,

**Marks:** Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05=75

#### 1<sup>st</sup> Module (January-March)

Name of the teacher and Course	Theory	Practical
Dr.Suparna Sadhu CC-3: Inorganic Chemistry-II	<ul style="list-style-type: none"> <li>• Extra nuclear Structure of atom</li> <li>• Chemical periodicity</li> </ul>	<ul style="list-style-type: none"> <li>▪ . Oxidation-Reduction Titrimetric</li> <li>1. Estimation of Fe(II) using standardized KMnO<sub>4</sub> solution</li> <li>2. Estimation of oxalic acid and sodium oxalate in a given mixture</li> <li>3. Estimation of Fe(II) and Fe(III) in a given mixture using K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> solution.</li> <li>4. Estimation of Fe(III) and Mn(II) in a mixture using standardized KMnO<sub>4</sub> solution</li> </ul>
Dr.Suparna Sadhu CC-4: Organic Chemistry-II	<ul style="list-style-type: none"> <li>• Stereochemistry II</li> </ul>	<ul style="list-style-type: none"> <li>▪ Organic Preparations</li> </ul>

#### 2<sup>nd</sup> Module (April to June)

Name of the teacher and Course	Theory	Practical
Dr.Suparna Sadhu CC-3: Inorganic Chemistry-II	<ul style="list-style-type: none"> <li>• Acid-Base</li> <li>• Redox Reactions and precipitation reactions</li> </ul>	<ul style="list-style-type: none"> <li>• Estimation of Fe(III) and Cu(II) in a mixture using K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub>.</li> <li>▪ Estimation of Fe(III) and Cr(III) in a</li> </ul>

		mixture using K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>
Dr. Suparna Sadhu CC-4: Organic Chemistry-II	<b>Substitution and Elimination Reactions</b> <ul style="list-style-type: none"> <li>Free-radical substitution reaction</li> <li>Nucleophilic substitution reactions</li> <li>Elimination reactions</li> </ul>	<ul style="list-style-type: none"> <li>Purification of the crude product by Crystallization</li> </ul>

**Internal Assessment:** 4<sup>th</sup> Week of May

**Theory and Practical Examination:** as per notification of B.U. (Tentatively on June)

### Semester-III

CC-5: Physical Chemistry/CC 6: Inorganic Chemistry-II/CC 7: Organic Chemistry-III/SEC-1

**Credits:** Theory-4, Practical-2,

**Marks:** Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05=75

**1<sup>st</sup> Module (July to September)**

Name of the teacher and Course	Theory	Practical
Dr. Suparna Sadhu Core Course 5 :Physical Chemistry-II (Theo)	<ul style="list-style-type: none"> <li>Transport Processes</li> <li>Application of Thermodynamics – I</li> </ul>	<ol style="list-style-type: none"> <li>Study of viscosity of unknown liquid (glycerol, sugar) with respect to water.</li> <li>Determination of partition coefficient for the distribution of I<sub>2</sub> between water and CCl<sub>4</sub>.</li> <li>Determination of K<sub>eq</sub> for KI + I<sub>2</sub> ⇌ KI<sub>3</sub>, using partition coefficient between water and CCl<sub>4</sub>.</li> </ol>
Dr. Suparna Sadhu Core Course 6: Inorganic Chemistry-II	<ul style="list-style-type: none"> <li>Chemical Bonding-I               <ol style="list-style-type: none"> <li>Ionic bond</li> <li>Covalent bond</li> </ol> </li> <li>Chemical Bonding-II               <ol style="list-style-type: none"> <li>Molecular orbital concept of bonding</li> <li>Metallic Bond</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Iodo/Iodimetric Titrations               <ol style="list-style-type: none"> <li>Estimation of Cu(II).</li> <li>Estimation of Vitamin C.</li> <li>Estimation of arsenite by iodimetric method</li> </ol> </li> </ul>
Dr. Suparna Sadhu CC-7: Organic Chemistry-III	<ul style="list-style-type: none"> <li>Chemistry of alkenes and alkynes</li> <li>Addition to C≡C (in comparison to C=C)</li> <li>Aromatic Substitution</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative Analysis of Single Solid Organic Compounds</li> </ul>
Dr. Suparna Sadhu Skill Enhancement Course	<ul style="list-style-type: none"> <li>Introduction</li> <li>Analysis of soil</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>

(SEC-1) [Credits: Theory-2, Marks – 50, Theory – 40, Internal Assessment – 10]	<ul style="list-style-type: none"> <li>• Analysis of water</li> <li>• Analysis of food products</li> </ul>	
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## 2<sup>nd</sup> Module (October to December)

Name of the teacher and Course	Theory	Practical
Mrs. Pallabi Acharyya Core Course 5 :Physical Chemistry-II (Theo)	<ul style="list-style-type: none"> <li>• Foundation of Quantum Mechanics</li> </ul>	4. Conductometric titration of an acid (strong, weak/ monobasic, dibasic) against strong base. 5. Study of saponification reaction conductometrically. 6. Verification of Ostwald's dilution law and determination of $K_a$ of weak acid.
Dr. Suparna Sadhu Core Course 6: Inorganic Chemistry-II	<ul style="list-style-type: none"> <li>• <b>Chemical Bonding-II</b></li> <li>1. Weak Chemical Forces</li> <li>• Radioactivity</li> </ul>	4. Estimation of Cu in brass. 5. Estimation of Cr and Mn in Steel
Dr. Suparna Sadhu CC-7: Organic Chemistry-III	<ul style="list-style-type: none"> <li>• Carbonyl and Related Compounds</li> <li>• Exploitation of acidity of <math>\alpha</math>-H of C=O</li> <li>• Aldol, Friedel-Crafts, Michael, Knoevenagel, Cannizzaro, Benzoin condensation and Dieckmann condensation</li> <li>• Nucleophilic addition to <math>\alpha, \beta</math>-unsaturated carbonyl system</li> <li>• Substitution at <math>sp^2</math> carbon (C=O system)</li> <li>• Organometallics:</li> </ul>	<ul style="list-style-type: none"> <li>▪ Melting point</li> <li>▪ Preparation of one derivative</li> </ul>
Dr. Suparna Sadhu Skill Enhancement Course (SEC-1) [Credits: Theory-2, Marks – 50, Theory – 40, Internal Assessment – 10]	<ul style="list-style-type: none"> <li>• Chromatography</li> <li>• Ion-exchange</li> <li>• Analysis of cosmetics</li> </ul>	<ul style="list-style-type: none"> <li>▪ N/A</li> </ul>

**Internal Assessment:** 1<sup>st</sup> Week of December

**Theory and Practical Examination:** as per notification of B.U. (Tentatively in December)

## Semester IV

**CC 8: Physical Chemistry-III (Theo)/ CC 9: Inorganic Chemistry-III/ CC 10: Organic Chemistry-IV**

**Credits:** Theory-4, Practical-2,

**Marks:** Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05=75

**1<sup>st</sup> Module (January-March)**

Name of the teacher and Course	Theory	Practical
Mrs. Pallabi Acharyya Core Course 8: Physical Chemistry-III (Theo)	<ul style="list-style-type: none"><li>• Application of Thermodynamics – II</li><li>• Electrical Properties of molecules</li></ul>	<ol style="list-style-type: none"><li>1. Determination of solubility of sparingly soluble salt in water, in electrolyte with common ions and in neutral electrolyte (using common indicator).</li><li>2. Potentiometric titration of Mohr's salt solution against standard <math>K_2Cr_2O_7</math> solution.</li><li>3. Determination of <math>K_{sp}</math> for <math>AgCl</math> by potentiometric titration of <math>AgNO_3</math> solution against standard <math>KCl</math></li></ol>
Dr. Suparna Sadhu Core Course 9: Inorganic Chemistry-III	<ul style="list-style-type: none"><li>• General Principles of Metallurgy</li><li>• Chemistry of s and p Block Elements</li></ul>	<ul style="list-style-type: none"><li>▪ Complexometric titration<ol style="list-style-type: none"><li>1. <math>Zn(II)</math></li><li>2. <math>Zn(II)</math> in a <math>Zn(II)</math> and <math>Cu(II)</math> mixture</li><li>3. <math>Ca(II)</math> and <math>Mg(II)</math> in a mixture</li><li>4. Hardness of water</li></ol></li></ul>
Dr. Suparna Sadhu CC 10: Organic Chemistry-IV	<ul style="list-style-type: none"><li>• Nitrogen compounds Reaction</li><li>• Rearrangements Reaction</li><li>• The Logic of Organic Synthesis</li></ul>	<ul style="list-style-type: none"><li>▪ Estimation of glucose by titration using Fehling's solution</li><li>▪ Estimation of Vitamin-C (reduced)</li><li>▪ Estimation of aromatic amine (aniline) by bromination (Bromate-Bromide) method</li><li>▪ Estimation of phenol by bromination (Bromate-Bromide) method</li></ul>
Dr. Suparna Sadhu Skill Enhancement Course (SEC) <b>SEC-2: Pharmaceuticals Chemistry</b>  [Credits: Theory-2, Marks – 50, Theory – 40, Internal Assessment – 10]	<ul style="list-style-type: none"><li>• Drugs &amp; Pharmaceuticals</li></ul>	<ul style="list-style-type: none"><li>▪ N/A</li></ul>

**2<sup>nd</sup> Module (April to June)**

Name of the teacher and Course	Theory	Practical
Mrs. Pallabi Acharyya Core Course 8: Physical Chemistry-III (Theo)	<ul style="list-style-type: none"><li>• Quantum Chemistry</li></ul>	<ol style="list-style-type: none"><li>4. Effect of ionic strength on the rate of Persulphate – Iodide reaction.</li><li>5. Study of phenol-water phase diagram</li></ol>
Dr. Suparna Sadhu	<ul style="list-style-type: none"><li>• Noble Gases</li></ul>	<ul style="list-style-type: none"><li>▪ Inorganic preparations</li></ul>

Core Course 9: Inorganic Chemistry-III	<ul style="list-style-type: none"> <li>Inorganic Polymers</li> <li>Coordination Chemistry-I</li> </ul>	<ol style="list-style-type: none"> <li>[Cu(CH<sub>3</sub>CN)<sub>4</sub>]PF<sub>6</sub>/ClO<sub>4</sub></li> <li>Potassium dioxalatodiaquachromate(III)</li> <li>Tetraamminecarbonatocobalt (III) ion</li> <li>Potassium tris(oxalate)ferrate(III)</li> <li>Tris-(ethylenediamine) nickel(II) chloride.</li> <li>[Mn(acac)<sub>3</sub>] and Fe(acac)<sub>3</sub> (acac= acetylacetonate)</li> </ol>
Dr.Suparna Sadhu CC 10: Organic Chemistry-IV	<ul style="list-style-type: none"> <li>Organic Spectroscopy</li> </ul>	<ul style="list-style-type: none"> <li>Estimation of formaldehyde (Formalin)</li> <li>Estimation of acetic acid in commercial vinegar</li> <li>Estimation of urea (hypobromite method)</li> <li>Estimation of saponification value of oil/fat/ester</li> </ul>
Dr.Suparna Sadhu Skill Enhancement Course (SEC) <b>SEC-2: Pharmaceuticals Chemistry</b>  [Credits: Theory-2, Marks – 50, Theory – 40, Internal Assessment – 10]	<ul style="list-style-type: none"> <li>Drugs &amp; Pharmaceuticals</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>

**Internal Assessment: 4<sup>th</sup> Week of May**

**Theory and Practical Examination:** as per notification of B.U. (Tentatively on June)

### Semester V

**CC11: Inorganic Chemistry-IV/ CC 12: Organic Chemistry-V/ DSE 1: Advanced Physical Chemistry (Theo)**

**Credits:** Theory-4, Practical-2,

**Marks:** Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05=75

**1<sup>st</sup> Module(July to September)**

Name of the teacher and Course	Theory	Practical
Dr.Suparna Sadhu CC11: Inorganic Chemistry-IV	<ul style="list-style-type: none"> <li>Coordination Chemistry-II</li> </ul>	<ul style="list-style-type: none"> <li><b>Chromatography of metal ions</b> Principles involved in chromatographic separations. Paper chromatographic separation of following metal ions:  <ol style="list-style-type: none"> <li>Ni (II) and Co (II)</li> <li>Fe (III) and Al (III).</li> </ol> </li> <li><b>Spectrophotometry</b>  <ol style="list-style-type: none"> <li>Measurement of 10D<sub>q</sub> of 3d metal complexes by spectrophotometric</li> </ol> </li> </ul>

		method. 2. Determination of $\lambda_{\text{max}}$ of $\text{KMnO}_4$ and $\text{K}_2\text{Cr}_2\text{O}_7$
Dr.Suparna Sadhu CC 12: Organic Chemistry-V	<ul style="list-style-type: none"> <li>• Carbocycles and Heterocycles</li> <li>• Cyclic Stereochemistry</li> <li>• Pericyclic reactions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Chromatographic Separations.</li> </ul>
Dr.Suparna Sadhu DSE 1: Advanced Physical Chemistry (Theo)	<ul style="list-style-type: none"> <li>• Crystal Structure</li> <li>• Statistical Thermodynamics</li> </ul>	<p><b>Computer Programming based on numerical methods for:</b></p> <ol style="list-style-type: none"> <li>1. Roots of equations: (e.g. volume of van der Waals gas and comparison with ideal gas, pH of a weak acid)</li> <li>2. Numerical differentiation (e.g., change in pressure for small change in volume of a van der Waals gas, potentiometric titrations)</li> </ol>
Dr.Suparna Sadhu DSE- 2 : Analytical methods in chemistry	<p>Qualitative and quantitative aspects of analysis Optical methods of analysis Thermal methods of analysis</p>	<ul style="list-style-type: none"> <li>▪ <b>Separation Techniques – Chromatography</b></li> <li>1. Separation of mixtures Separation and identification of the monosaccharides in a mixture (glucose &amp; fructose) by paper chromatography. Reporting the <math>R_f</math> values.</li> <li>2. Separate a mixture of Sudan yellow and Sudan Red by TLC technique and identify them on the basis of their <math>R_f</math> values.</li> <li>3. Separation of the active ingredients of plants, flowers and juices by TLC</li> <li>▪ <b>Spectrophotometry</b></li> <li>1. Determination of <math>pK_a</math> values of indicator using spectrophotometry</li> <li>2. Determination of chemical oxygen demand (COD)</li> <li>3. Determination of Biological oxygen demand (BOD)</li> </ul>

## 2<sup>nd</sup> Module (October to December)

Name of the teacher and Course	Theory	Practical
Dr.Suparna Sadhu CC11: Inorganic Chemistry-IV	<ul style="list-style-type: none"> <li>• Chemistry of d- and f- block elements Transition Elements Lanthanoids and Actinoids</li> </ul>	<ul style="list-style-type: none"> <li>▪ Gravimetry</li> <li>1. Estimation of nickel (II) using Dimethylglyoxime (DMG).</li> <li>2. Estimation of copper as <math>\text{CuSCN}</math></li> <li>3. Estimation of Al (III) by precipitating with oxine and weighing as <math>\text{Al}(\text{oxine})_3</math> (aluminium oxinate)</li> </ul>

		4. Estimation of chloride.
Dr. Suparna Sadhu CC 12: Organic Chemistry-V	<ul style="list-style-type: none"> <li>Carbohydrates</li> <li>Biomolecules</li> <li>Alkaloids and Terpenoids</li> </ul>	<ul style="list-style-type: none"> <li>Spectroscopic Analysis of Organic Compounds</li> </ul>
Mrs. Pallabi Acharyya DSE 1: Advanced Physical Chemistry (Theo)	<b>Special selected topics</b> Specific heat of solid 3rd law Polymers Dipole moment and polarizability	3. Numerical integration (e.g. entropy/enthalpy change from heat capacity data), probability distributions (gas kinetic theory) and mean values 4. Matrix operations (Application of Gauss-Siedel method in colourimetry)
Dr. Suparna Sadhu DSE- 2 : Analytical methods in chemistry	<ul style="list-style-type: none"> <li>Electroanalytical methods</li> <li>Separation techniques</li> </ul>	<ul style="list-style-type: none"> <li><b>Solvent Extractions</b></li> <li>1. To separate a mixture of Ni<sup>2+</sup> &amp; Fe<sup>2+</sup> by complexation with DMG and extracting the Ni<sup>2+</sup>- DMG complex in chloroform, and determine its concentration by spectrophotometry.</li> <li><b>Analysis of soil:</b></li> <li>a. Determination of pH of soil.</li> <li>b. Total soluble salt</li> <li>c. Estimation of calcium, magnesium, phosphate, nitrate</li> <li>3. Ion exchange: a. Determination of exchange capacity of cation exchange resins and anion exchange resins.</li> </ul>

**Internal Assessment:** 1<sup>st</sup> Week of December

**Theory and Practical Examination:** as per notification of B.U. (Tentatively on December)

### Semester VI

**CC 13: Inorganic Chemistry-V/ CC 14: Physical Chemistry-IV / DSE-3: Polymer Chemistry/ DSE-4**  
 :Inorganic materials of industrial importance "or" Dissertation followed by power point presentation

**Credits:** Theory-4, Practical-2,

**Marks:** Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05=75

#### 1st Module(January - March)

Name of the teacher and Course	Theory	Practical
Dr. Suparna Sadhu CC 13: Inorganic	<ul style="list-style-type: none"> <li>Bioinorganic Chemistry</li> <li>Reaction Kinetics and</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative semimicro analysis</li> <li>Qualitative semimicro analysis of</li> </ul>



Chemistry-V	Mechanism	mixtures containing four radicals
Mrs. Pallabi Acharyya CC 14: Physical Chemistry-IV	<ul style="list-style-type: none"> <li>Molecular Spectroscopy</li> <li>Photochemistry</li> </ul>	<ol style="list-style-type: none"> <li>Determination of surface tension of a liquid using Stalagmometer</li> <li>Determination of CMC from surface tension measurements.</li> </ol>
Dr. Suparna Sadhu DSE-3: Polymer Chemistry	<ul style="list-style-type: none"> <li>Introduction and history of polymeric materials</li> <li>Functionality and its importance</li> <li>Kinetics of Polymerization</li> </ul>	<ul style="list-style-type: none"> <li>Polymer Synthesis</li> </ul>
Dr. Suparna Sadhu DSE-4: Inorganic materials of industrial importance Or Dissertation followed by power point presentation	<ul style="list-style-type: none"> <li>Silicate Industries</li> <li>Fertilizers</li> <li>Surface Coatings</li> </ul>	<ol style="list-style-type: none"> <li>Determination of free acidity in ammonium sulphate fertilizer.</li> <li>Estimation of Calcium in Calcium ammonium nitrate fertilizer.</li> <li>Estimation of phosphoric acid in superphosphate fertilizer.</li> <li>Determination of composition of dolomite (by complexometric titration).</li> </ol>

## 2<sup>nd</sup> Module (April to June)

Name of the teacher and Course	Theory	Practical
Dr. Suparna Sadhu CC 13: Inorganic Chemistry-V	<ul style="list-style-type: none"> <li>Organometallic Chemistry</li> <li>Catalysis by Organometallic Compounds</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative semimicro analysis of mixtures containing <b>unknown</b> four radicals (Analysis of minimum 10 unknown samples)</li> </ul>
Mrs. Pallabi Acharyya CC 14: Physical Chemistry-IV	<ul style="list-style-type: none"> <li>Surface phenomenon</li> </ul>	<ol style="list-style-type: none"> <li>Verification of Beer and Lambert's Law for KMnO<sub>4</sub> and K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> solution.</li> <li>Determination of pH of unknown buffer, spectrophotometrically</li> </ol>
Dr. Suparna Sadhu DSE-3: Polymer Chemistry	<ul style="list-style-type: none"> <li>Determination of molecular weight of polymers</li> <li>Glass transition temperature (T<sub>g</sub>) and determination of T<sub>g</sub></li> <li>Polymer Solution</li> <li>Properties of Polymer</li> </ul>	<ul style="list-style-type: none"> <li>Polymer Characterization</li> <li>Polymer Analysis</li> </ul>
Dr. Suparna Sadhu DSE-4: Inorganic materials of industrial importance Or Dissertation followed by power point presentation	<ul style="list-style-type: none"> <li>Batteries</li> <li>Alloys</li> <li>Catalysis</li> <li>Chemical explosives</li> </ul>	<ol style="list-style-type: none"> <li>Analysis of (Cu, Ni); (Cu, Zn) in alloy or synthetic samples.</li> <li>Analysis of Cement.</li> <li>Preparation of pigment (zinc oxide).</li> </ol>

**Internal Assessment:** 4<sup>th</sup> Week of May

**Theory and Practical Examination:** as per notification of B.U. (Tentatively on June)

**Counselling Programme – Final week of June-** General outline on the admission and scope of higher education and related jobs

S.C.C. College