

Teacher's Name -**Dr. Ram Sunil Kumat L.** Department - Chemistry

A. Teaching Plan (Year : 2020- 2021, Semester: Odd)

S. No.	UPC	Paper Name	Core/AE CC/GE/S EC	Topic/Unit	Start Date	End Date
1.		CHEMISTRY- DSE Green Chemistry	DSE	1. Introduction 2. Green synthesis and 12 Green Principles 3. Green Synthesis of the following compounds: adipic acid, catechol, 4. DSIDA 5. plastic (poly lactic acid) made from corn 6. Ultrasound assisted reactions 7. Environmentally safe marine antifoulant 8. Cradle to Cradle Carpeting 9. Proposed Test 10. Surfactants for Carbon Dioxide 11. Right-fit pigment 12. Healthier Fats and oil by Green Chemistry 13. Microwave assisted reactions in water: Hofmann Elimination, methyl benzoate tobenzoic acid, oxidation of toluene and alcohols	10/8/2020 17/8/2020 24/8/2020 31/8/2020 7/9/2020 21/9/2020 28/9/2020 05/10/2020 12/10/2020 19/10/2020 26/10/2020 02/11/2020 09/11/2020	

				<p>14. microwave assisted reactions in organic solvents Diels-Alder reaction and Decarboxylation reaction</p> <p>15. Revision</p> <p>16. Proposed Test</p>	<p>16/11/2010</p> <p>23/11/2020</p> <p>30/11/2020</p>	
2.		CHEMISTRY-DSE Green Chemistry	DSE	<p>CHEMISTRY PRACTICAL - DSE LAB: GREEN CHEMISTRY 60 Lectures</p> <ol style="list-style-type: none"> 1. Introduction to Green Chemistry 2. Limiting reagents 3. Extraction of D-limonene from orange peel using liquid CO₂ prepared from dry ice. 4. Biodiesel 5. Mechanochemical solvent free synthesis of azomethines 6. Use of enzymes as catalysts Benzoin condensation using Thiamine Hydrochloride as a catalyst 7. Photoreduction of benzophenone to benzopinacol in the presence of sunlight. 8. Aluminium complex 9. Solvent free, microwave assisted one pot synthesis of phthalocyanine complex of copper (II). 10. Practical file and other assignments 	<p>17/08/2020</p> <p>24/08/2020</p> <p>31/08/2020</p> <p>07.09.2020</p> <p>14.09.2020</p> <p>21.09.2020</p> <p>28.09.2020</p> <p>05.10.2020</p> <p>12.10.2020</p> <p>19.10.2020</p>	

				<p>11. Meeting with Parents</p> <p>26.10.2020</p> <p>12. Safer starting materials Preparation and characterization of nano particles of gold using tea leaves.</p> <p>2/11/2020</p> <p>13. Avoiding waste Principle of atom economy. Use of molecular model kit to stimulate the reaction to investigate how the atom economy can illustrate Green Chemistry.</p> <p>9.11.2020</p>		
3a.		BSc Prog Life Sciences Sem III		<p>1. Classification, and general properties</p> <p>2. Glucose and fructose (open chain and cyclic structure)</p> <p>3. Determination of configuration of monosaccharide</p> <p>4. Absolute configuration of glucose and fructose</p> <p>5. Mutarotation</p> <p>6. Ascending and descending in monosaccharides</p> <p>7. Structure of disaccharides (sucrose, cellobiose, maltose, lactose)</p> <p>8. Polysaccharides (starch and cellulose) excluding their structure elucidation.</p>	13/08/2020	01/10/2020
3b.		BSc Prog Life Sciences Sem III		<p>1. Zwitterion, isoelectric point and electrophoresis</p> <p>2. Preparation of amino acids:</p> <p>a. Strecker synthesis</p> <p>b. Gabriel's phthalimide synthesis</p> <p>3. Reactions of amino acids:</p> <p>a. ester of -COOH group</p> <p>b. acetylation of -NH₂ group</p> <p>c. complexation with Cu²⁺ ions</p> <p>d. ninhydrin test.</p> <p>4. Overview of Primary, Secondary, Tertiary and Quaternary Structure of proteins</p>	8/10/2020	19/10/2010

				5. Determination of primary structure of peptides by degradation Edmann degradation (N- terminal) and C- terminal (thiohydantoin 6. With carboxypeptidase enzyme). 7. Synthesis of simple peptides (upto dipeptides) by N-protection (t-butyloxycarbonyl and phthaloyl) 8. C- activating groups 9. Merrifield solidphase synthesis.		
3c.		BSc Prog Life Sciences Sem III		Carboxylic Acids derivatives, Amines and derivatives	05/11/2010	26/11/2010
4.	32171302	Organic Chemistry II: Oxygen Containing Functional Groups	Core	1. Organic Preparations: (a) Benzoylation of aniline (b) Acetylation of Aniline (c) Acetylation of Aniline (d) Hydrolysis of Ester (e) Hydrolysis of Amide (f) Partial reduction of <i>m</i> -dinitrobenzene (g) Semi carbazone Preparation (h) Preparation of <i>S</i> -Benzylthiuronium salt of water-soluble carboxylic acid (i) Preparation of <i>S</i> -Benzylthiuronium salt of water insoluble carboxylic acid 2. Functional group tests for alcohols, phenols, carbonyl and carboxylic acid group	26.08.2020 02.09.2020 09.09.2020 23.09.2020 30.09.2020 07.10.2020 21.10.2020 28.10.2020 04.11.2020 11.11.2020	
5.		GE sem III		Practicals	11 th Sep 2020	28 th Nov 2020
6.	-	BSc Prog Physical Sciences Sem I	Core	Organic Chemistry	18 th Nov 2020	March 2020

B. FDP/Seminar/Workshops/Lectures to be attended and/or to be conducted by Teachers

Event Topic	FDP on ICT Tools				
Type / Nature (FDP/Webinar/Workshop etc.)	FDP				
Organizing In-charge	Dr Anshu				
Details regarding invited Resource Person	24.07.2020 to 30.07.2020				
Nature of Participation (e.g. Invited Speaker, Participant etc.)	Participant				
Date/s	24.07.2020 to 30.07.2020	Timing/s	9am -5 pm	Mode	Online

B. FDP/Seminar/Workshops/Lectures to be attended and/or to be conducted by Teachers

Event Topic	Non -Invasive Cancer Diagnosis and Prognosis”				
Type / Nature (FDP/Webinar/Workshop etc.)	Webinar				
Organizing In-charge	Dr PreetiKarwal				
Details regarding invited Resource Person	-				
Nature of Participation (e.g. Invited Speaker, Participant etc.)	Participant				
Date/s	17.10.2020	Timing/s	5-7 pm	Mode	Online

B. Internal Assessment: House Exam (Test/Presentation etc.)&Assignment*

Course Code	Course Name	Unique Paper Code	Topic Name	Day and Date	Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining
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1.	BSc (H) Chem V Sem		Green Chemistry	Last week of Nov 2020	Next Week after the test
2.	BSc (P) LS		Carbohydrates, Proteins, Carboxylic acids, Amines	Last week of Nov 2020	Next Week after the test
3.	GE Sem III		Practicals	Last week of Nov 2020	Next Week after the test
4.	BSc (H) Chem III Sem		Practical	Last week of Nov 2020	Next Week after the test
5.	BSc (H) Chem V Sem Practical		Green Chemistry Practicals	Last week of Nov 2020	Next Week after the test
6.	BSc Prog Physical Sciences Sem I		Organic Chemistry	First week of March 2021	Next Week after the test

*Marks of the Internal Assessment to be submitted to the College 15 days before the last working day of every semester

C. Organization of Department/College Society Meetings by Staff Advisor/Convener

Department/Society	Meeting Date	Purpose

D. College Functions

College Function	Function Date	Role to be played

[For Departments](#)

A. Department activities for students – Election/Freshers/Welcome/Farewell/Department Seminars/Society functions

Event	Date	Timing	Venue	Event In-charge / Supervisor
Department Election				
Fresher's Welcome				
Farewell				
Department Society functions				
Department Seminars				
Any Other ()				

B. Outstation Field Visit for Students

Project Name / Paper Name			
Destination		Travel Mode	
Departure Month		Return	
Faculty-in-Charge		Number of Students going	

C. FDP/Seminar/Workshops/Lectures to be attended and/or to be conducted by Department

Event Topic	
Type / Nature (FDP/Webinar/Workshop etc.)	
Organizing In-charge	
Details regarding invited Resource Person	

Nature of Participation (e.g. Invited Speaker, Participant etc.)					
Date/s		Timing/s		Mode	