

I – Academic Planner

A. Teaching Plan (Year : Jan-July 2021-2022 Semester: Odd / Even) Even

Teacher's Name: Dr. Shashwat Malhotra Department: Chemistry

S. No.	UPC	Paper Name	Core/AECC /GE/SEC	Topic/Unit	Start Date	End Date
1.	32171201	BSc (H) Chemistry I yr (Theory) Paper Code: Organic chemistry-I	Core	Recapitulation of basics of Organic Chemistry	06/04/2022	20/07/2022
2.	32173910	BSc (H) Chemistry II yr (Theory) Paper Name: Chemistry of Cosmetics and perfumes (SEC)	Core	A general study including preparation and uses of the following: 1. Hair dye, hair spray, shampoo, suntan lotions, face powder, lipsticks, talcum powder, nail enamel. 2. Creams (cold, vanishing and shaving creams), antiperspirants and artificial flavours.	05/01/2022 02/03/2022	23/02/2022 20/04/2022
3.	42171205	BSc (Prog.) Physical Sciences I yr (Theory) Paper Code: Core Chemistry II (Chemical energetic, chemical equilibrium and functional group organic chemistry)	Core	1. Aromatic Hydrocarbons 2. Alcohols, Phenols, Ethers, Aldehydes and Ketones (Aliphatic and Aromatic) 3. Ethers (Aliphatic & Aromatic) 4. Aldehydes and ketones (Aliphatic and Aromatic)	04/04/2022 25/04/2022 30/05/2022 04/07/2022	18/04/2022 23/05/2022 27/06/2022 25/07/2022
4.	42173922	BSc (Prog.) Physical Sciences, III yr (Theory) Analytical clinical biochemistry	Core	1. Metabolism 2. Enzymes 3. Lipids & Nucleic Acids 4. Blood and Urine	01/01/2022 05/02/2022 05/03/2022 02/04/2022	29/01/2022 26/02/2022 26/03/2022

						21/05/ 2022
5.	321712 01	BSc (H) Chemistry I yr (Practical) Paper Code: Organic chemistry-I	Core	<p>1. Checking the calibration of the thermometer</p> <p>2. Purification of organic compounds by crystallization using the following solvents:</p> <p>3. Determination of the melting points of unknown organic compounds (Kjeldahl method and electrically heated melting point apparatus)</p> <p>4. Effect of impurities on the melting point – mixed melting point of two unknown organic compounds</p> <p>5. Determination of boiling point of liquid compounds. (boiling point lower than and more than 100 °C by distillation and capillary method)</p> <p>6. Chromatography</p> <p>7. Detection of extra elements</p> <p>8. Organic Preparations (i) Bromination of acetanilide / aniline / phenol (ii) Nitration of nitrobenzene / toluene.</p>	07/04/ 2022	14/04/ 2022
					21/04/ 2022	28/04/ 2022
					05/05/ 2022	12/05/ 2022
					19/05/ 2022	26/05/ 2022
					02/06/ 2022	09/06/ 2022
					16/06/ 2022	23/06/ 2022
					30/06/ 2022	06/07/ 2022
					14/07/ 2022	21/07/ 2022
6.	321716 02	BSc (H) Chemistry III yr (Practical) Paper Code: Organic Chemistry V	Core	<p>1. Qualitative analysis of unknown organic compounds containing monofunctional groups</p> <p>2. Identification of simple organic compounds by IR spectroscopy and NMR spectroscopy (Spectra to be provided)</p> <p>3. Preparation of methyl orange</p> <p>4. Preparation of urea formaldehyde resin</p> <p>5. Extraction of caffeine from tea leaves</p>	06/01/ 2022	27/01/ 2022
					03/02/ 2022	24/02/ 2022
					03/03/ 2022	24/03/ 2022
					07/04/ 2022	14/04/ 2022
					14/04/ 2022	21/04/ 2022
7.	421712 05	BSc (Prog.) Life Sciences I yr (Practical) Paper Code: Core Chemistry II (Chemical energetic, chemical equilibrium and	Core	<p>Section A: Physical Chemistry Energetics:</p> <p>1. Determination of heat capacity of calorimeter.</p> <p>2. Determination of enthalpy of neutralization of hydrochloric acid with sodium hydroxide.</p>	08/04/ 2022	15/04/ 2022
					22/04/ 2022	29/04/ 2022
					06/05/ 2022	13/05/ 2022

	functional group organic chemistry)		<p>3. Determination of integral enthalpy of solution of salts (KNO₃, NH₄Cl).</p> <p>4. Determination of enthalpy of hydration of copper sulphate.</p> <p>5. Preparation of buffer solutions: (i) Sodium acetate-acetic acid or (ii) Ammonium chloride-ammonium acetate. Measurement of the pH of buffer solutions and comparison of the values with theoretical values.</p> <p>Section B: Organic Chemistry Preparations: (Mechanism of various reactions involved to be discussed) (Recrystallization, determination of melting point and calculation of quantitative yields to be done in all cases)</p> <p>6. Bromination of phenol/aniline</p> <p>7. Benzoylation of amines/phenols</p> <p>8. Oxime of aldehydes and ketones</p> <p>9. 2,4-dinitrophenylhydrazone of aldehydes and ketones</p> <p>10. Semicarbazone of aldehydes and ketones</p> <p>11. Viva voce</p>	20/05/2022	27/05/2022
				03/06/2022	10/06/2022
				17/06/2022	24/06/2022
				01/07/2022	07/07/2022
				15/07/2022	22/07/2022

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

NA

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

Nature of Participation (e.g. Invited Speaker, Participant etc.)	NA			
Date/s	10 & 11 January, 2020	NA		

C. 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
CBCS	BSc (H) Chemistry I yr (Theory) Paper Code: Organic chemistry-I	32171201	Recapitulation of basics of Organic Chemistry	20/07/2022	27/07/2022
CBCS	BSc (H) Chemistry II yr (Theory) Paper Name: Chemistry of Cosmetics and perfumes (SEC)	32173910	A general study including preparation and uses of the following: 1. Hair dye, hair spray, shampoo, suntan lotions, face powder, lipsticks, talcum powder, nail enamel. 2. Creams (cold, vanishing and shaving creams), antiperspirants and artificial flavours.	19/04/2022	26/04/2022
CBCS	BSc (Prog.) Physical Sciences I yr (Theory) Paper Code: Core Chemistry II (Chemical energetic, chemical	42171205	1. Aromatic Hydrocarbons 2. Alcohols, Phenols, Ethers, Aldehydes and Ketones (Aliphatic and Aromatic) 3. Ethers (Aliphatic & Aromatic) 4. Aldehydes and ketones (Aliphatic and Aromatic)	17/07/2022	24/07/2022

	equilibrium and functional group organic chemistry)				
CBCS	BSc (Prog.) Life Sciences I yr (Theory) Paper Code: Core Chemistry II (Chemical energetic, chemical equilibrium and functional group organic chemistry)	42171205	1. Aromatic Hydrocarbons 2. Alcohols, Phenols, Ethers, Aldehydes and Ketones (Aliphatic and Aromatic) 3. Ethers (Aliphatic & Aromatic) 4. Aldehydes and ketones (Aliphatic and Aromatic)	12/05/2022	19/05/2022
CBCS	BSc (Prog.) Physical Sciences, III yr (Theory) Analytical clinical biochemistry	42173922	1. Metabolism 2. Enzymes 3. Lipids & Nucleic Acids 4. Blood and Urine	16/04/2022	23/04/2022

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

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

Department/Society	Meeting Date	Purpose

E. College Functions

College Function	Function Date	Role to be played