

Department of Chemistry
Maulana Azad College
Lesson Plan 2019-2020

Year/ Sem.	Period	Tentative Dates of University Exam (as per CU notification)	Name of the Faculty	Topics to be Covered
3 rd Year (Hons.)	July, 2019- February 2020	Practical: 1 st week of March, 2020 Theory: 1 st week of April, 2020	Dr. Asish Kumar Mukherjee	Paper-V (100 Marks; 4 hours); Modules: CHT 31a: Chemistry of coordination compounds; Chemistry of d and f block elements CHT 31b: Organometallic compounds; Bioinorganic chemistry CHT 31c: Electrochemical and Spectral analysis and Analytical separation; Statistical methods in chemical analysis and Environmental analysis CHT 31d: Gravimetric and titrimetric methods of analysis; Thermodynamics of dissolution
			Dr. Ambarish Ray	
			Sri Sanju Das	
			Dr. Sucheta Singha (Chandra)	Paper-VI A (75 marks; 4 hours); Modules: CHT 32a: Carbanion chemistry and cyclic stereochemistry; Spectroscopy: UV, IR, NMR (elementary) CHT 32b: Synthetic strategies and Asymmetric synthesis; Carbohydrate chemistry CHT 32c: Carbocycles and Heterocycles; Amino acids, Peptides and Nucleic acids
			Dr. Ajanta Mukherji	
			Dr. Arijit Kundu	
Dr. Subhendu Maiti	Paper-VII A (75 marks; 4 hours); Modules: CHT 33a: Properties of solids, interfaces and dielectrics; Quantum chemistry-II CHT 33b: Phase equilibrium and colligative properties; Statistical Thermodynamics and the third law CHT 33c: Kinetics and photochemistry; Spectroscopy			
Dr. Rajendra Saha				
Dr. Subhodip Samanta				
Dr. Sucheta Singha (Chandra)	Paper-VI B (25 marks); Module: CHP 34a: Spectroscopic analysis of Organic Compounds Paper-VIII A (50 marks); Module: CHP 34b: Qualitative analysis of single organic compounds; Organic preparations			
Dr. Ajanta Mukherji				
Dr. Arijit Kundu				
Dr. Subhendu Maiti	Paper-VII B (25 marks); Module: CHP 35a: Physical chemistry experiments Paper-VIII B (50 marks); Module: CHP 35b: Physical chemistry experiments			
Dr. Rajendra Saha				
Dr. Subhodip Samanta				

ODD SEMESTERS (July-Dec, 2019)

Year/ Sem.	Period	Tentative Dates of University Exam (as per CU notification)	Name of the Faculty	Topics to be Covered
Sem-1 (Hons.)	July, 2019- December, 2019	Internal Assessment: 3 rd week of November, 2019 Practical: 4 th week of November, 2019 Theory: 2 nd week of December, 2019	Dr. Asish Kumar Mukherjee Dr. Ambarish Ray Sri Sanju Das	Paper: CC-1-TH Inorganic Chemistry-1: Extra nuclear structure of Atom; Acid-base reactions; Redox reactions Paper: CC-1-P Inorganic Chemistry-1: Acid-base titrations; Oxidation- reduction titrations
			Dr. Sucheta Singha (Chandra) Dr. Ajanta Mukherji Dr. Arijit Kundu	Paper: CC-1-TH Organic Chemistry-1A: Basics of Organic Chemistry – Bonding and Physical Properties; General Treatment of Reaction Mechanism I Paper: CC-1-P Organic Chemistry-1A: Separations based upon solubility
			Dr. Subhendu Maiti Dr. Rajendra Saha Dr. Subhodip Samanta	Paper: CC-2-TH Physical Chemistry-1: Kinetic Theory and Gaseous State; Transport Processes; Chemical Kinetics Paper: CC-2-P Physical Chemistry-1: Five Experiments
			Dr. Sucheta Singha (Chandra) Dr. Ajanta Mukherji Dr. Arijit Kundu	Paper: CC-2-TH Organic Chemistry-1B: Stereochemistry I; General Treatment of Reaction Mechanism II Paper: CC-2-P Organic Chemistry-1B: Determination of boiling point
Sem-3 (Hons.)	July, 2019- December, 2019	Internal Assessment: 3 rd week of November, 2019 Practical: 4 th week of November, 2019 Theory: 2 nd week of December, 2019	Dr. Subhendu Maiti Dr. Rajendra Saha Dr. Subhodip Samanta	Paper: CC-5-TH Physical Chemistry-2: Chemical Thermodynamics I; Chemical Thermodynamics II; Systems of Variable Composition; Applications of Thermodynamics-I; Electrochemistry Paper: CC-5-P

Sem-3 (Hons.)	July, 2019- December, 2019			Physical Chemistry-2: Six experiments
			Dr. Asish Kumar Mukherjee Dr. Ambarish Ray Sri Sanju Das	Paper: CC-6-TH Inorganic Chemistry-3: Chemical periodicity; Chemistry of s and p Block Elements; Noble gases; Inorganic Polymers; Coordination Chemistry-I Paper: CC-6-P Inorganic Chemistry-3: Complexometric Titrations; Chromatography of Metal Ions; Gravimetry
			Dr. Sucheta Singha (Chandra) Dr. Ajanta Mukherji Dr. Arijit Kundu	Paper: CC-7-TH Organic Chemistry-3: Chemistry of alkenes and alkynes; Addition to C≡C (in comparison to C=C); Aromatic substitution; Carbonyl and related compounds; Organometallics Paper: CC-7-P Organic Chemistry-3: Identification of a Pure Organic Compound; Quantitative Estimations
				Paper: Skill Enhancement Course (SEC-A) SEC-1: Mathematics and Statistics for Chemists

EVEN SEMESTERS (Jan-June, 2020)

Year/ Sem.	Period	Tentative Dates of University Exam (as per CU notification)	Name of the Faculty	Topics to be Covered
Sem-2 (Hons.)	January, 2020- June, 2020	Internal Assessment: 3 rd week of May, 2020 Practical: 4 th week of May, 2020 Theory: 2 nd week of June, 2020	Dr. Sucheta Singha (Chandra) Dr. Ajanta Mukherji Dr. Arijit Kundu	Paper: CC-3-TH Organic Chemistry-2: Stereochemistry II; General Treatment of Reaction Mechanism III; Substitution and Elimination Reactions Paper: CC-3-P Organic Chemistry-3: Organic Preparations

			Dr. Asish Kumar Mukherjee Dr. Ambarish Ray Sri Sanju Das	Paper: CC-4-TH Inorganic Chemistry-2: Chemical Bonding I; Chemical Bonding II; Radioactivity Paper: CC-4-P Inorganic Chemistry-2: Iodo-/iodimetric titrations; Estimation of metal content in some selective samples
Year/ Sem.	Period	Tentative Dates of University Exam (as per CU notification)	Name of the Faculty	Topics to be Covered
Sem-4 (Hons.)	January, 2020- June, 2020	Internal Assessment: 3 rd week of May, 2020 Practical: 4 th week of May, 2020 Theory: 2 nd week of June, 2020	Dr. Sucheta Singha (Chandra) Dr. Ajanta Mukherji Dr. Arijit Kundu	Paper: CC-8-TH Organic Chemistry-4: Nitrogen compounds; Rearrangements; The Logic of Organic Synthesis; Organic Spectroscopy Paper: CC-8-P Organic Chemistry-4: Qualitative Analysis of Single Solid Organic Compounds
			Dr. Subhendu Maiti Dr. Rajendra Saha Dr. Subhodip Samanta	Paper: CC-9-TH Physical Chemistry-3: Application of Thermodynamics II; Foundation of Quantum Mechanics; Crystal Structure Paper: CC-9-P Physical Chemistry-3: Six experiments
			Dr. Asish Kumar Mukherjee Dr. Ambarish Ray Sri Sanju Das	Paper: CC-10-TH Inorganic Chemistry-4: Coordination Chemistry II; Chemistry of d and f block elements; Reaction Kinetics and Mechanism Paper: CC-10-P Inorganic Chemistry-4: Inorganic Preparations; Instrumental techniques
				Paper: Skill Enhancement Course (SEC-B) SEC-3: Pharmaceuticals Chemistry