

Department of Chemistry, Barasat Govt. College, Barasat
Teaching/Lesson Plan, 2015-16

Academic Quarter	Name of the Teacher	Class	Topics to be covered	No. of Classes		Tests
				THEORY	PRACTICAL	
July to September, 2015	Dr. A. Bandyopadhyay	First Year (H)	Thermodynamics I :	20	x	
		Second Year (H)	Thermodynamics II :	6	x	
		Third Year(H)	Colligative Properties : + Physicochemical Experiments	16	60	
		Second Year (G)	2 nd Law of Thermodynamics, Chemical equilibrium Phase equilibrium + Qualitative analysis (Organic)	4	12	
		Third Year(G)	Gravimetric analysis	8	x	
	Dr. S. K. Saha	First Year (H)	Chemical Kinetics :	20	x	
		Second Year (H)	Electrochemistry :	6	12	
		Third Year(H)	Solid, Interface	16	32	
		Second Year (G)	Qualitative analysis (Organic)	x	18	
	Dr. S. Basu (Chaki)	First Year (H)	Chemical Periodicity	20	x	
		Second Year (H)	s-block elements	6	x	
		Third Year(H)	Gravimetric & Titrimetric methods+ Titrimetric Analysis	16	60	
		Second Year (G)	Electrochemistry+ Qualitative analysis (Organic)	4	24	
		Third Year(G)	Error analysis and computer application	8	x	
	Dr. P. K. Sen	First Year (H)	Hybridisation, DBE, Reaction kinetics, KCP & TCP, Reaction Mechanism- Intra & Inter-molecular reaction, Cross product isolation, Kinetic Isotope Effects, Classification of reagents-Nucleophiles, Electrophiles. Crown Ether + Qualitative analysis (Organic)	20	28	
		Second Year (H)	Nitrogen Chemistry	10	x	
		Third Year(H)	Retro-synthetic Analysis, Polynuclear Hydrocarbons + Organic Preparations	10	32	
	Dr. S. Nath (Deoghoria)	First Year (H)	Radioactivity + Quantitative analysis (Inorganic)	20	28	
		Second Year (H)	MO & Coordinate Bonding + Qualitative analysis (Inorganic)	6	12	
		Third Year(H)	Isomerism & VB , CF Theory + Quantitative analysis (Inorganic)	16	28	
		First Year (G)	Atomic structure, Radioactivity	10	x	
		Second Year (G)	Qualitative analysis (Organic)	x	12	
		Third Year(G)	Volumetric Analysis	8	x	
	Dr. S. Muhuri	First Year (H)	IUPAC nomenclature, Basic ideas of Organic Chemistry-I, R, Hyperconjugation, Steric effects, Acid-Base, Huckel's	20	28	

			rule for Aromaticity, Anti-Homo, Non-Aromaticity, Frost Diagram.+ Qualitative analysis (Organic)			
		Second Year (H)	Stereo-chemistry	10	x	
		Third Year(H)	Pericyclic Reaction	12	32	
		First Year (G)	Stereochemistry, Aromatic hydrocarbons	10	x	
	Dr. N. Bera	First Year (H)	Kinetic Theory :	20	x	
		Second Year (H)	Quantum Chemistry I :	6	12	
		Third Year(H)	Statistical Thermodynamics :	16	32	
		First Year (G)	Gaseous Sate, Liquid state and Crystalline state	10	x	
		Second Year (G)	Quantitative analysis (Inorganic)	x	18	
	Dr. D. Majumdar	First Year (H)	Acid Base + Quantitative analysis (Inorganic)	20	28	
		Second Year (H)	Precipitation & Redox + Qualitative analysis (Inorganic)	6	12	
		Third Year(H)	Organometallic + Quantitative analysis (Inorganic)	16	28	
		Third Year(G)	Quantitative analysis (Inorganic)	x	21	
	Ms. S. Bhowmick (PTT)	First Year (G)	Basic Concepts of Org chemistry, Aliphatic hydrocarbons	10	x	
		Second Year (G)	Carbonyl, Carboxylic acids and carbohydrates	4	20	
Third Year(G)		Fuels and fertilizers	8	x		
October to December 2015 (3 rd Oct to 16 th Nov Puja Holidays)	Dr. A. Bandyopadhyay	First Year (H)	Thermodynamics I Contd.	8	x	
		Second Year (H)	Thermodynamics II Contd.	8	x	
		Third Year(H)	Phase Equilibria :	8	30	
		Second Year (G)	Chemical Kinetics and Photochemistry	4	12	
		Third Year(G)	Paints, Varnishes and Synthetic Dyes	4	x	
	Dr. S. K. Saha	First Year (H)	Chemical Kinetics Contd.	8	x	
		Second Year (H)	Electrochemistry Contd.	8	12	
		Third Year(H)	Dielectrics	8	24	
		Second Year (G)	Quantitative analysis (Inorganic)	x	12	
	Dr. S. Basu (Chaki)	First Year (H)	Covalent bonding	8	x	
		Second Year (H)	Noble gases	8	x	
		Third Year(H)	Bioinorganic Chemistry+ Quantitative analysis (Inorganic)	8	32	
		Second Year (G)	Amino Acids and proteins + Qualitative analysis (Inorganic)	4	24	
		Third Year(G)	Fats and oils, Detergents	4	x	
	Dr. P. K. Sen	First Year (H)	Aromatic Electrophilic substitution reaction + Qualitative analysis (Organic)	10	16	
		Second Year (H)	Carbonyl Chemistry	12	x	
		Third Year(H)	Pharmaceuticals, Terpenoids, + Chromatography	8	32	
	Dr. S. Nath (Deoghoria)	First Year (H)	Atomic Structure + Quantitative analysis (Inorganic)	8	16	
		Second Year (H)	H- & Metallic Bonding + Qualitative analysis (Inorganic)	8	16	
		Third Year(H)	Magnetism & Colour + Quantitative analysis (Inorganic)	8	16	

Class tests :
First week of
December, 2015

		First Year (G)	Principles of Qualitative analysis (Inorganic)	4	x	
		Second Year (G)	Qualitative analysis (Inorganic)	x	12	
		Third Year(G)	Environmental Chemistry : Atmosphere	4	x	
	Dr. S. Muhuri	First Year (H)	Stereochemistry of acyclic compounds + Qualitative analysis (Organic)	10	16	
		Second Year (H)	Spectra-UV, IR	12	x	
		Third Year(H)	Stereochemistry of Alicyclic Compounds+ Chromatography	12	16	
		First Year (G)	Alkyl & aryl halides	4	x	
	Dr. N. Bera	First Year (H)	Kinetic Theory Contd.	8	x	
		Second Year (H)	Quantum Chemistry II	8	12	
		Third Year(H)	Molecular Spectroscopy	8	32	
		First Year (G)	Thermodynamics: 1 st law	4	x	
		Second Year (G)	Qualitative analysis (Organic)	x	18	
	Dr. D. Majumdar	First Year (H)	Acid Base + Quantitative analysis (Inorganic)	8	16	
		Second Year (H)	Precipitation And Redox + Qualitative analysis (Inorganic)	8	16	
		Third Year(H)	f-Block elements+ Quantitative analysis (Inorganic)	8	16	
		Third Year(G)	Quantitative analysis (Inorganic)	x	12	
Ms. S. Bhowmick (PTT) Morning Sec.	First Year (G)	Principles of Qualitative analysis (Organic)	4	x		
	Second Year (G)	General methods of preparation and reactions of Phenols and Nitrogen containing organic compounds	4	24		
	Third Year(G)	Glass and Ceramics	4	x		
January to March 2016	Dr. A. Bandyopadhyay	First Year (H)	Thermodynamics I Concluding Part & Surface tension	18	x	Test Exam : Part I : Paper I & II (H) 1 st Week of April,2016; Gen Papers 2 nd week of April,2016; Part II : Paper III & IV (H) 3 rd Week of March,2016, Gen. Papers 4 th Week of March,2016; Part III : Paper V-VIII (H)
		Second Year (H)	Chemical equilibrium	14	x	
		Third Year(H)	Phase equilibria concluding part	6	24	
		Second Year (G)	Colligative properties, Colloids	6	12	
		Third Year(G)	Polymers	3	x	
	Dr. S. K. Saha	First Year (H)	Chemical kinetics concluding part & Viscosity of fluids	18	x	
		Second Year (H)	Electrochemistry concluding part	14	28	
		Third Year(H)	Biophysical Chemistry	6	12	
		Second Year (G)	Quantitative analysis (Inorganic)	x	24	
	Dr. S. Basu (Chaki)	First Year (H)	Shapes of Molecules	18	x	
		Second Year (H)	p- Block, Group 13	14	x	
		Third Year(H)	Bioinorganic Chemistry + Quantitative analysis (Inorganic)	6	24	
		Second Year (G)	Acids, bases & Solvents	6	x	
		Third Year(G)	Pesticides , Food additives	3	x	
	Dr. P. K. Sen	First Year (H)	Aromatic Nucleophilic substitution reaction, Addition Reaction, Carbene, Nitrene, Radical Reaction, Alcohol & Ether, Pinacol-Pinacolone Rearrangements, Ylide, Zwitter ion. + Qualitative analysis (Organic)	25	36	

		Second Year (H)	Carbonyl Chemistry, Acid and Ester, Aromatic Diazo-compounds.	25	x	1 st Week of February,2016; Gen. Papers 2 nd Week of February,2016
		Third Year(H)	Carbohydrates, Alkaloids, Bio-Molecules + Qualitative analysis (Organic-solid separation)+ TLC	12	24	
	Dr. S. Nath (Deoghoria)	First Year (H)	Bonding & Reactivity + Quantitative analysis (Inorganic)	18	36	
		Second Year (H)	Group 14 & 17 + Qualitative analysis (Inorganic)	14	36	
		Third Year(H)	d- and f- Block elements + Quantitative analysis (Inorganic)	6	12	
		First Year (G)	Chemical bonding	10	x	
		Second Year (G)	Qualitative analysis (Inorganic)	x	30	
		Third Year(G)	Environmental Chemistry : Hydrosphere & Lithosphere	3	x	
	Dr. S. Muhuri	First Year (H)	Concluding portion of stereochemistry, Aliphatic Nucleophilic Substitution Reaction, Corey-House Synthesis, Elimination Reaction. + Qualitative analysis (Organic)	22	36	
		Second Year (H)	Spectra-NMR, Mass, Organometallic compounds, Rearrangement Reactions	22	x	
		Third Year(H)	Heterocyclic Chemistry, + Qualitative analysis (Organic-solid separation)+ TLC	14	24	
		First Year (G)	Alcohols & ethers, Organometallic compounds	10	x	
	Dr. N. Bera	First Year (H)	Real Gases	18	x	
		Second Year (H)	Photochemistry	14	28	
		Third Year(H)	Molecular Spectroscopy concluding part	6	12	
		First Year (G)	Thermodynamics : Application of 1 st law	10	x	
		Second Year (G)	Qualitative analysis (Organic)	x	24	
	Dr. D. Majumdar	First Year (H)	Ionic Bonding. + Quantitative analysis (Inorganic)	18	36	
		Second Year (H)	Group 15 & 16 + Qualitative analysis (Inorganic)	14	36	
		Third Year(H)	Material Chemistry. + Quantitative analysis (Inorganic)	6	12	
Third Year(G)		Quantitative analysis (Inorganic)	x	12		
Ms. S. Bhowmick (PTT)	First Year (G)	Chemical periodicity	10	x		
	Second Year (G)	Coordinate bonds and coordination compounds, Inorg. Chemistry : s-block elements	6	18		
	Third Year(G)	Drugs and pharmaceuticals	3	x		
April to June 2016 (5 th May to 28 th June Summer Vacation)	Dr. A. Bandyopadhyay	First Year (H)	Special Classes if required			
		Second Year (H)	Special Classes if required			
		Third Year(H)	X			
		Second Year (G)	X			
		Third Year(G)	x			
	Dr. S. K. Saha	First Year (H)	Special Classes if required			

		Second Year (H)	Special Classes if required		
		Third Year(H)	X		
		Second Year (G)	x		
	Dr. S. Basu (Chaki)	First Year (H)	Special Classes if required		
		Second Year (H)	Special Classes if required		
		Third Year(H)	X		
		Second Year (G)	X		
		Third Year(G)	x		
	Dr. P. K. Sen	First Year (H)	Special Classes for Solving University & other Questions And Mock Tests for University Examinations		
		Second Year (H)	Special Classes for Solving University & other Questions And Mock Tests for University Examinations		
		Third Year(H)	x		
	Dr. S. Nath (Deoghoria)	First Year (H)	Special Classes if required		
		Second Year (H)	Special Classes if required		
		Third Year(H)	X		
		First Year (G)	X		
		Second Year (G)	X		
		Third Year(G)	x		
	Dr. S. Muhuri	First Year (H)	Special Classes for Solving University & other Questions And Mock Tests for University Examinations		
		Second Year (H)	Special Classes for Solving University & other Questions And Mock Tests for University Examinations		
		Third Year(H)	X		
		First Year (G)	x		
Dr. N. Bera	First Year (H)	Special Classes if required			
	Second Year (H)	Special Classes if required			
	Third Year(H)	X			
	First Year (G)	X			
	Second Year (G)	x			
Dr. D. Majumdar	First Year (H)	Special Classes if required			
	Second Year (H)	Special Classes if required			
	Third Year(H)	X			
	Third Year(G)	X			
Ms. S. Bhowmick (PTT)	First Year (G)	X			
	Second Year (G)	X			
	Third Year(G)	x			