

Lesson Plan

Name of the Faculty: Smt. Archana Sharma

Discipline: MLT

Semester: 1st

Subject: Basic Chemistry

Lesson Plan Duration: Sept-2022 to Feb-2023

WorkLoad(Lecture/Practical)perweek(inhours):Lecture=02,Practical=2

WEEKS	DAYS	THEORYTOPICS	PRACTICALS
1	1	1.1 S.I. units of pressure, vol, temp, density, specific gravity	General instructions and code of conduct in laboratory.
	2	1.2 Matter, element, compound and mixtures, atom, molecule, ion, symbols and formulae	
2	3	1.3 Atomic mass, molar mass, mole and its appl.	Volumetric analysis and apparatus Used therein.
	4	1.4 Solution, strength of sol, molarity, molality, normality, mass fraction, mole fraction and ppm	
3	5	Revision and class test	1. Preparation of standard solutions.
	6	2.1 Sources of water 2.2 Hard and soft water, types of hardness, action of soap on hard water 2.3 Disadvantages of hard water In domestic and industrial uses	
4	7	2.4 Qualities of drinking water and purification of available water for drinking purposes	Viva voce
	8	3.1 Equilibrium state, equilibrium constant 3.2 Ionization of electrolyte in aqueous solution, ionic equilibrium, degree of ionization, self-ionization of water and ionic product	
5	9	3.3 Concept of pH and pH scale 3.4 Various concept of acids/bases; strong acids/bases, weak acids/bases, Dissociation constants of acids/bases. Neutralization, acid base titration, indicators for acid base titration	2. To prepare N/10 Sodium carbonate
	10	3.5 Hydrolysis of salts, common ion effect, buffer solutions, action of a buffer solution, app of buffers	
6	11	4.1 Electronic concept of oxidation, reduction and redox reactions	Viva voce
	12	4.2 Electrolytes and non electrolytes 4.3 Conductors and their types	
7	13	4.4 Electrolysis	3. To prepare M/10 oxacid
	14	4.5 Applications of electrolysis	
8	15	Revision and class test	Viva voce
	16	5.1 Adsorption and its types	

9	17	5.2.Applications of adsorption	4 . To prepare 5N HCl from given 12N HCl, N/10HCL
	18	5.3.Colloidal state and types of colloids	
10	19	5.4.Preparation and purification of colloids in brief	Viva voce
	20	5.5.Gels and solution, emulsions	
11	21	5.6.Cleaning action of soaps	5.Iodometric titrations
	22	Revision and class test	
12	23	6.1.Introduction and importance of organic comp	Viva voce
	24	6.2.Comparison of organic and inorganic compounds	
13	25	6.3.Properties of carbon and Hydrogen	6.Oxidation-red titration
	26	Revision and class test	
14	27	7.1.Preparation, properties and uses of saturated hydrocarbons	Viva voce
	28	7.2.Preparation, properties and uses of unsaturated hydrocarbons	
15	29	7.3.Sources of hydrocarbons	7.Acid-base titrations
	30	7.4 Preparation, properties and uses of Halogen derivatives of hydrocarbons	
16	31	Revision and class test	Viva voce
	32	General introduction, preparation and properties and uses of: 8.1 Methyl alcohol, Ethyl alcohol	
17	33	General introduction, preparation and properties And uses of glycerol	8.Estimation of Carbohydrates by benedicts
	34	8.2 Diethyl ether	
18	35	Revision and class test	Viva voce
	36	General introduction, classification, properties and uses of: 9.1 Methanal and ethanal	
19	37	9.2a) Structure of amines groups (pri, sec and ter)	9.Estimation of proteins by Acetic acid
	38	b) Important methods, preparation and properties	
20	39	Revision and class test	Estimation of proteins by Salphosalicylic acid test
	40	Carbohydrates 10.1. Definition	
21	41	10.2. Composition, sources and importance	Viva voce
	42	10.3. Classification	
22	43	10.4. Estimation	10. Estimation of lipids by direct method
	44	10.5. Important mono, di, polysaccharides	
23	45	Revision and class test	
	46	Lipids 11.1. Definition 11.2. Classification	
24	47	11.4. Clinical importance of lipids 11.3. Introduction of fatty acids, phospholipids,	
	48	triglycerides, Cholesterol	

25	49	Revision and assignment test	
	50	Proteins12.1.Definition12.2.Classification	
26	51	12.3. Compositon, molecular weight and hydrolysis 12.4. Name of various amino acids	
	52	12.5.Structureandpropertiesofproteins	
27	53	12.6.Clinicalimportanceofproteins	
	54	13.Enzymes13.1Definition	
28	55	13.2Classification	
	56	13.3 Chemical nature of enzymes 13.4 Properties of Enzymes	
29	57	13.5 Factor saffecting enzyme activity 13.6 Clinical Importance of Enzyme	
	58	Revision and class test	
30	59	Revision and class test	
	60	Revision and class test	