

GANDHI ACADEMY OF TECHNOLOGY AND ENGINEERING				
DEPARTMENT OF BS&H				
LESSON PLAN				
DISCIPLINE:-BS&H				
SEMESTER:-2nd		FROM DATE:-09.01.2024		TODATE:-07.05.2024
Name of Teaching Faculty: KABITA MAHAPATRA				
SUBJECT:-APPLIED CHEMISTRY				
NO.OF PERIOD/PER WEEK CLASS ALLOTTED:-4				
TOTAL NO.OF CLASS AVAILABLE IN SEM:-60				
SL NO.	WEEK	CLASS DATE	NO. OF CLASS/DAY	TOPICS
1	Week-01	09.01.2024	1	Introduction on fundamental particles
		10.01.2024	1	Rutherford's atomic model, atomic mass and mass number
		11.01.2024	1	Isotopes, isobars and isotones.
		12.01.2024	1	Bohr's atomic model, Bohr-bury scheme
2	Week-02	16.01.2024	1	Aufbau's principle, Hund's rule ,electronic configuration
		17.01.2024	1	Definition ,types of electrovalent ,covalent bond e.g
		18.01.2024		Definition and example of co-ordinate bond
		19.01.2024	1	Formation of NaCl,H2O,NH4+
3	Week-03	22.01.2024	1	Concept of Arrhenius theory
		24.01.2024	1	Lowry- Bronsted theory
		25.01.2024	1	Lewis theory for acid and base with examples
		29.01.2024		Neutralisation of acid and base, definition of salt
4	Week-04	30.01.2024	1	Neutralisation of acid and base, definition of salt
		31.01.2024	1	Types of salts(normal ,acidic, basic, double, complex and mixed salts) definition and examples
		31.01.2024	1	Definition of atomic weight, molecular weight, electrovalent weight
		05.02.2024	1	Determination of equivalent weight of acid, base, salt
5	Week-05	06.02.2024	1	Molarity, Normality, Molality with simple problems
		07.02.2024	1	PH of solutions, Definition with simple numericals
		08.02.2024		PH in industry(sugar, textile, paper industry only)
		12.02.2024	1	Definition and types of strong and weak electrolytes with example
6	Week-06	13.02.2024		Electrolysis (principle and process with example of NaCl) fused and aq. solution
		15.02.2024		Froth flotation and leaching)
		19.02.2024	1	Faraday 's 1 st and 2 nd law of electrolysis
		20.02.2024	1	Industrial application of electrolysis, electroplating(zinc only)
7	Week-07	21.02.2024	1	Definition of Corrosion, types of corrosion (atmospheric corrosion, Waterline corrosion)
		22.02.2024	1	Mechanism of rusting of iron only
		23.02.2024	1	Protection from corrosion by alloying and Galvanisation
		27.02.2024	1	Definition of mineral, ores, gangue with example
8	Week-08	04.03.2024	1	Distinction between ores and minerals ,general methods of extraction of metals

		06.03.2024	1	Ore dressing, concentration,(gravity separation, magnetic separation,
		07.03.2024	1	Oxidation(Calcination, roasting) Reduction(smelting)
		08.03.2024	1	Definition and example of Flux and slag,
9	Week-09	11.03.2024		Refining of metal(electro refining and distillation only)
		12.03.2024	1	Definition of Alloy, types of Alloys(ferro , non ferro, amalgam) with example
		13.03.2024	1	Composition and uses of Brass, Bronze, Alnico, Duralumin
		14.03.2024		Froth flotation and leaching)
10	Week-10	18.03.2024	1	Saturated and unsaturated hydrocarbons with e.g , aliphatic and aromatic hydrocarbon(Huckel's rule)
		19.03.2024	1	Difference between aliphatic and aromatic hydrocarbon, IUPAC nomenclature of alkane
		20.03.2024	1	Nomenclature of alkene, alkyl halide and alcohol with bond line notation, uses of aromatic compounds
		21.03.2024	1	Sources of water, soft water, hard water, hardness
11	Week-11	26.03.2024	1	Removal of hardness by lime soda method ,advantages of hot lime over cold lime process
		27.03.2024	1	Organic ion exchange method
		28.03.2024	1	Definition of lubricant, types , specific uses of lubricants, purpose of lubrication
		29.03.2024	1	HOLIDAY
12	Week-12	02.04.2024		Definition and classification of fuels, calorific value of fuel , choice of good fuel
		03.04.2024	1	Diesel, petrol, kerosene composition and uses
		04.04.2024	1	Producer gas and water gas, LPG, CNG, Coal gas
		08.04.2024		vulcanization of rubber
13	Week-13	09.04.2024	1	Definition of monomer, polymer , homo -polymer
		10.04.2024	1	Co- polymer and degree of polymerization, thermosetting and thermoplastic
		11.04.2024	1	HOLIDAY
		15.04.2024	1	Poly vinyl chloride and bakelite
14	Week-14	16.04.2024	1	Elastomer, Natural rubber
		18.04.2024	1	Pesticides, insecticides
		22.04.2024		Composition and uses of polythene
		24.04.2024	1	Herbicides, Fungicides example and uses
15	Week-15	01.05.2024	1	Biofertilisers and its definition
		02.05.2024		Application of Bio- Fertilizer.
		06.05.2024	1	Bio fertilizers with example
		07.05.2024	1	Uses of Biofertilisers

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