LESSON PLAN

DISCIPLINE: MATH AND SCIENCE	SEMESTER: SECOND	NAME OF THE TEACHING FACULTIES: ITUSHREE RANI RATH

SUBJECT: ENGG. CHEMISTRY	NO. OF. DAYS PER WEEK CLASS ALLOTED	SEMESTER: FROM 20/03/2023 TO 27/06/2023
WEEK	CLASS DAY	THEORY
1st	1ST	-Introduction, Matter and its states.
	2ND	-Atomic structure: fundamental particles (electron, proton and neutron), their properties.
	3RD	-Atomic number and mass no. , definition, examples and properties of isotopes, isotones and isobars. -Definitions of atomic weight, mol. Weight, equivalent weight.
	4TH	-Rutherford's atomic model. -Equivalent weight of acid, bases and salts. -concept of arrhenius theory with examples.
2nd	1ST	-Bohr's atomic model -Molarity and Normality with numericals. -Lowry Bronsted theory with examples.
	2ND	Bohr and Bury Scheme and AUFBAU'S Principle. -Molality with examples -LEWIS theory for Acid and Base with examples.
	3RD	-Hund's rule with examples. -Importance of ph in industry. -Neutralization.
	4TH	-Electronic configuration. -Ph of solutions with numerical. - Definition and types of salts.

3rd	1ST	-Numericals
	2ND	-Correction of class note -clearing of doubts.
	3RD	-Numericals.
	4TH	-Chemical bonding, definition, cause of bonding -Normal and Acidic salts with examples.
4th	1ST	-Ionic bond:definition,examples. -Basic and Double salts with examples.
	2ND	-Covalent bond: definition with examples. -Complex and Mixed salts with examples.
	3RD	-Coordinate bond:definition with examples. -Numericals.
	4TH	-Electrochemistry: definition of electrolytes, their types, non electrolytes with examples. -Numericals.
5th	1ST	-Electrolysis(principle) -Numericals.
	2ND	Electrolysis of molten NACL and Aqueous NACL. -Numericals.
	3RD	-Faraday's laws of electrolysis. -Numericals on faraday's laws.
	4TH	-Electroplating (zinc plating).
6th	1ST	-Class note correction.
	2ND	-Note checking and numericals.
	3RD	-Corrosion and its types. -Water treatment: sources of water,hard and soft water.
	4TH	-Rusting of iron and water line corrosion. -Hardness, types of hardness.

7th	1ST	-Protection from corrosion by alloying and galvanisation. -Removal of hardness by lime soda method.
	2ND	-Hydrocarbons: definitions,general formula, examples. -Advantages of hot lime over cold lime process.
	3RD	-Rules for iupac system of nomenclature for alkanes, alcohols, alkyl halides.
		-Organic ion exchange method.
	4TH	-Rules for IUPAC system of nomenclature for alkenes and alkynes. -Lubricants: definition and types, uses.
8th	1ST	-Rules for writing the structural formula from IUPAC names, bond line notation. -Purpose of lubrication.
	2ND	-Revision.
	3RD	-Aromatic hydrocarbons and Huckel's rule. -Numericals.
	4TH	-Difference between aliphatic and aromatic hydrocarbons,uses of common aromatic compounds. -Fuel: definition, classification.
9th	1ST	-Metallurgy: minerals, ores with examples. -Uses and composition of diesel, petrol and kerosene.
	2ND	-Metallurgical operations. -Producer gas and water gas.
	3RD	-Gravity separation and
		Magnetic separation of ore concentration. -LPG, CNG and Coal gas.
	4TH	-Froth floatation and Leaching methods of ore concentration. -Class note checking and discussion of questions .
10th	1ST	-Revision.
	2ND	-Numericals and class note correction.
	3RD	-Polymers.
	4TH	-Definition of monomer, homo- polymer, co-polymer

11th	1ST	-Degree of polymerization.
	2ND	-Thermosetting, thermoplastic.
	3RD	-Revision.
	4TH	-Composition and uses of polythene.
12th	1ST	-Calcination and roasting. -composition and uses of poly vinyl chloride.
	2ND	-Smelting,flux,slag with definitions and examples. -composition and uses of Bakelite.
	3RD	-Refining of metal.
	4TH	-Alloys and types with examples. -Elastomers.
13th	1ST	-Correction of assignments.
	2ND	-Drawbacks of natural rubber.
	3RD	-Vulcanisation of rubber.
	4TH	-Advantages of vulcanized rubber over raw rubber.
14th	1ST	-Uses and examples of insecticides.
	2ND	-Revision.
	3RD	-Examples and uses of herbicides and fungicides.
	4TH	-Revision.
15th	1ST	-Note correction.
	2ND	-Bio fertilizers.
	3RD	-Numericals and revision.
	4TH	-Discussion of possible questions for semester exam.

20/03/2023

Signature of faculty

28/03/23

Signature of HOD