LESSON PLAN

Discipline / All Branches	Semester-2ND	Name of the teaching faculty:- Sri Kishan Kumar Agrawal
Subject:- Engg. Chem	No. of days/per week- 04	Semester from date : 29.01.24 to 14.05.2024 No. of weeks :- 14
Week	**Class day**	**Theory**
1st	1st	Fundamental particles (electron, proton & neutron)
	2nd	Isotopes, isobars and isotones
	3rd	Rutherford's & Bohr's Atomic model, Bohr-Bury scheme
	4th	Aufbau's principle, Hund's rule, Electronic configuration
2nd	1st	Chemical Bonding : Definition
	2nd	Electrovalent, Covalent and Coordinate bond
	3rd	Formation of different Compounds
	4th	Questions discussion with doubt clearing
3rd	1st	Theory for acid and base with examples
	2nd	Neutralization of acid & base
	3rd	Definition and Types of salts
	4th	Problem discussion
4th	1st	Discussion on Atomic wt., Molecular wt., Equivalent wt.
	2nd	Molarity , Normality & Molality (with numericals)
	3rd	pH of solution and simple numericals
	4th	Importance of pH in industry
5th	1st	Definition and types of Electrolytes
	2nd	Electrolysis (Principle & process) with example
	3rd	Faraday's 1st and 2nd law of Electrolysis
	4th	Industrial application of Electrolysis

6th	1st	Definition and Types of Corrosion
	2nd	Mechanism of rusting of Iron
	3rd	Protection from Corrosion
	4th	Questions discussion with doubt clearing
7th	1st	Discussion on Ores And Minerals
	2nd	General methods of extraction of metal
	3rd	Calcinations and Roasting (Definition & examples)
	4th	Refining of the metal (Electro refining)
8th	1st	Definition and Types of alloys
	2nd	Composition and uses of Alloys
	3rd	Questions discussion
	4th	Doubt clearing
9th	1st	Saturated and Unsaturated Hydrocarbons
	2nd	Aromatic Hydrocarbons (Huckle's rule)
	3rd	IUPAC system of nomenclature
	4th	Uses of some common aromatic compounds
10th	1st	Sources of water, Soft water and Hard water
	2nd	Hardness, types of Hardness
	3rd	Different process for Removal of hardness
	4th	Continue.....
11th	1st	Definition and Types of lubricant
	2nd	Specific uses of lubricants
	3rd	Purpose of lubrication
	4th	Problem discussion
	1st	Definition and classification of fuel

12th	2nd	Calorific value of fuel
	3rd	Composition and uses of different Fuels
	4th	Elementary idea about LPG, CNG and coal gas
13th	1st	Definition of Polymer, Degree of polymerization
	2nd	Difference between Thermosetting and Thermoplastic
	3rd	Composition and uses of Polythene
	4th	Definition and Vulcanisation of Rubber, it's drawbacks
14th	1st	Chemicals in Agriculture (Examples and uses)
	2nd	Discussion Bio-Fertilizers
	3rd	Exercise problem discussion
	4th	Problem practice

2023-24 (Winter)

LESSON PLAN

Discipline / All Branches	Semester 1st	Name of the teaching faculty : Sri Kishan Kumar Agrawal
Subject - Engg. Chem	No. of days/per week 04	Semester from date : 16.08.23 to 11.12.2023 No. of weeks : 14 (excluding puja vacation)
Week	Class day	Theory
1st	1st	Fundamental particles (electron, proton & neutron)
	2nd	Isotopes, isobars and isotones
	3rd	Rutherford's & Bohr's Atomic model, Bohr-Bury scheme
	4th	Aufbau's principle, Hund's rule, Electronic configuration
2nd	1st	Chemical Bonding : Definition
	2nd	Electrovalent, Covalent and Coordinate bond
	3rd	Formation of different Compounds
	4th	Questions discussion with doubt clearing
3rd	1st	Theory for acid and base with examples
	2nd	Neutralization of acid & base
	3rd	Definition and Types of salts
	4th	Problem discussion
4th	1st	Discussion on Atomic wt., Molecular wt., Equivalent wt
	2nd	Molarity , Normality & Molality (with numericals)
	3rd	pH of solution and simple numericals
	4th	Importance of pH in industry
5th	1st	Definition and types of Electrolytes
	2nd	Electrolysis (Principle & process) with example
	3rd	Faraday's 1st and 2nd law of Electrolysis
	4th	Industrial application of Electrolysis
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	2nd	Mechanism of rusting of Iron
	3rd	Protection from Corrosion
	4th	Questions discussion with doubt clearing
7th	1st	Discussion on Ores And Minerals
	2nd	General methods of extraction of metal
	3rd	Calcinations and Roasting (Definition & examples)
	4th	Refining of the metal (Electro refining)
8th	1st	Definition and Types of alloys
	2nd	Composition and uses of Alloys
	3rd	Questions discussion
	4th	Doubt clearing

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10th	1st	Sources of water, Soft water and Hard water
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	2nd	Specific uses of lubricants
	3rd	Purpose of lubrication
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12th	1st	Definition and classification of fuel
	2nd	Calorific value of fuel
	3rd	Composition and uses of different Fuels
	4th	Elementary idea about LPG, CNG and coal gas
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	4th	Definition and Vulcanisation of Rubber, it's drawbacks
14th	1st	Chemicals in Agriculture (Examples and uses)
	2nd	Discussion Bio-Fertilizers
	3rd	Exercise problem discussion
	4th	Problem practice

09/08/23