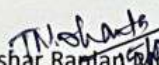


LESSON PLAN: ENGINEERING CHEMISTRY

Discipline: MECHANICAL ENGG.	Semester: 2nd	Name of the Teaching Faculty: TUSHAR RANJAN MOHANTA
Subject: ENGG. CHEMISTRY	No. of days/per week class allotted: 02	Semester From date : 14/03/2022 To date:18/06/2022 No. of Weeks: 15
Week	Class Day	Theory
1 st	1 st	Chemical Bonding: Definition, Types, Electrovalent Bond: NaCl, MgCl ₂
	2 nd	Covalent Bond with examples H ₂ , Cl ₂ , O ₂ , N ₂ , H ₂ O, CH ₄ , NH ₃
2 nd	1 st	Coordinate Bond: NH ₄ ⁺ , SO ₂
	2 nd	Definition and types (strong & weak) of Electrolytes with example. Electrolysis (Principal & process) with example of NaCl (fused and aqueous solution).
3 rd	1 st	Faraday's 1 st law of Electrolysis (Statement, Mathematical expression, numerical)
	2 nd	Faraday's 2nd law of Electrolysis (Statement, Mathematical expression, numerical), Industrial application of Electrolysis- Electroplating(Zinc only)
4 th	1 st	Corrosion : Definition & Types, Atmospheric Corrosion
	2 nd	Waterline corrosion. Mechanism of rusting of Iron only. Protection from Corrosion by (i) Alloying and (ii) Galvanization
5 th	1 st	Saturated and Unsaturated Hydrocarbons (Definition with example)
	2 nd	Aliphatic and Aromatic Hydrocarbons (Huckle's rule only). Difference between Aliphatic and aromatic hydrocarbons
6 th	1 st	IUPAC system of nomenclature of Alkane
	2 nd	IUPAC system of nomenclature of Alkane-examples
7 th	1 st	IUPAC system of nomenclature of Alkene
	2 nd	IUPAC system of nomenclature of Alkene-examples
8 th	1 st	IUPAC system of nomenclature of Alkyne
	2 nd	IUPAC system of nomenclature of Alkyne-examples
9 th	1 st	IUPAC system of nomenclature of alkyl halide and alcohol
	2 nd	Uses of some common aromatic compounds (Benzene, Toluene, BHC, Phenol, Naphthalene, Anthracene and Benzoic acid) in daily life.

10 th	1 st	Definition of Calorific value of fuel, Choice of good fuel.
	2 nd	Liquid: Diesel, Petrol and Kerosene- Composition and uses.
11 th	1 st	Gaseous: Producer gas and Water gas (Composition and uses)
	2 nd	Elementary idea about LPG, CNG and Coal gas (Composition and uses)
12 th	1 st	Definition of Monomer, Polymer, Homo-polymer, Co-polymer and Degree of polymerization.
	2 nd	Difference between Thermosetting and Thermoplastic
13 th	1 st	Composition and uses of Polythene, & Poly-Vinyl Chloride
	2 nd	Composition and uses of Bakelite
14 th	1 st	Definition of Elastomer (Rubber). Natural Rubber (it's draw backs)
	2 nd	Vulcanisation of Rubber. Advantages of Vulcanised rubber over raw rubber.
15 th	1 st	Pesticides: Insecticides, herbicides, fungicides- Examples and uses.
	2 nd	Bio Fertilizers: Definition, examples and uses.


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