



TRADE MARK

LIONTM

Teacher's Lesson Note

ENGG CHEMISTRY

ELECTRICAL ENGINEER

S.S.I.T POLYTECHNIC

2nd SEMESTER

TEACHERS

Date	Period	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
6-02-24	11		Physical chemistry	Introduction of chemistry	Introduction about chemistry	Learning about the syllabus physical chemistry, inorganic chemistry, structural chemistry.	
7-02-24	12		Atomic structure	Atomic structure	Fundamental particles	Definition of electron, proton, neutron and its mass and charge.	
18-02-24	03		"	Rutherford's Postulates and failure	Rutherford's Postulates and failure	Details explanations of Rutherford's failure.	
19-02-24	04		Atomic structure	Atomic mass, mass number	Atomic mass, mass number	Definition of atomic mass, atomic number and Properties.	

LESSON NOTE

Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Assessment
9	10	11	12	13	14
What is the chemistry?	Types of science physical science chemical science physics, chemistry Biology. → physical chemistry → inorganic chemistry → organic chemistry → industrial chemistry.		Seen 06/02/24	Do. 06-02-24	
What are the fundamental particles	Detailed explanation of fundamental particles such as electron, proton, neutron. Rutherford's α scattering experiment → Rutherford's model → Rutherford's model based on Rutherford's model		Seen 07/02/24	Do. 07-02-24	
Write down the any two draw backs of Rutherford's atomic model.			Seen 11/02/24	Do. 11-02-24	

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12-02-24	15			Atomic structure	Bohr's atomic model Bohr-bury Scheme	Postulates only Bohr-bury Scheme	
13-02-24	15			Atomic structure	Aufbau's principle	Aufbau's principle	
20-02-24	07			Atomic structure	Hund's Rule	Electronic configuration up to atomic no - 30	
22-02-24	08				Isotopes of isotones	The substance particles present inside the nuclei also called as nucleons.	
					Atomic numbers	The total number of protons and neutrons present in an element is called as atomic number.	

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Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
9	10	11	12	13	14
Postulates only	Details explanation of Bohr's Atomic model concept of orbits or orbitals		Seen 12/02/24	Deethase 12/02/24	
Bohr-bury Scheme.	Bohr-bury Scheme				
Aufbau's principle	Aufbau's principle		Seen 13/02/24	Deethase 13/02/24	
Hund's Rule	Hund's Rule				
Write down the electronic configuration (upto 30 atomic no).	Electronic configuration (upto 30 atomic no).				
What is isotopes?	Isotopes are the atoms of the elements having the same no of protons.		Seen 20/02/24	Deethase 20/02/24	
			Seen 22/02/24	Deethase 22-02-24	

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1	2	3	4	5	6	7	8
27-02-24	9		Chemistry	Chemical Bonding	Types of Bond	Concept of chemical Bond Types of chemical bond, and definition	
28-02-24	10			characteristic of covalent Bond	characteristics of covalent Bond	characteristics of covalent Bond, Ionic Bond, coordinate or Dative Bond.	
29-02-24	11				angular momentum	value is a whole number multiply or $\frac{h}{2\pi}$. that is	
12-03-24	01		Inorganic chemistry	Metalurgy	Definition of Metallurgy	Definition of mineral area flux slag General method of extraction of metal.	
13-03-24	02				Dressing	Dressing, concentration, calcination, Roasting, Smelting, Refining of ore.	

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9	10	11	12	13	14
What do mean by chemical bond?	Electrovalent bond, covalent Bond, coordinate Bond with examples.		Seen 27/02/24	Seen 27/02/24	
Write down the characteristics of coordinate Bond and covalent Bond.	Formation of NaCl, MgCl ₂ , H ₂ , Cl ₂ .		Seen 28/02/24	Seen 28/02/24	
What is angular momentum?	Angular momentum are $\frac{h}{2\pi}$ that is $mvr = n \frac{h}{2\pi}$ where $n = 1, 2, 3, \dots$		Seen 29/02/24	Seen 29/02/24	
What is the dressing.	ore dressing, concentration, Magnetic separation from the flotation & leaching.		Seen 12/03/24	Seen 12/03/24	
			Seen 13/03/24	Seen 13/03/24	

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Date	Period	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
14-03-24	02			Alloys	Definition of alloy	Definition of alloy, composition and uses of Brass, Bronze, Alnico, Duralumin.	
15-03-24	04			Non-ferrous alloy		The alloy which does not contain iron as the main constituent	
17-03-24	05				Amalgam	Alloys containing mercury as one of the constituents is called amalgam	
20-03-24	06			Composition		it is used in making utensils, jewelry, medical instrument, tubes, etc. plates	

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9	10	11	12	13	14
Write down the alloy composition and uses of Brass, Bronze.	Definition of alloy, Types of alloys. (Ferrous, Non ferrous and Amalgam) with example, composition and uses of Brass, Bronze, Alnico, Duralumin.		Seen 14/03/24	14-03-24	
			Seen 15/03/24	15-03-24	
			Seen 19/03/24	19-03-24	
→ what is amalgam?	Amalgam contains mercury as one of the constituents & called amalgam		Seen 20/03/24	20-03-24	

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Date	Period	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
21-03-24	01		organic chemistry	Hydro carbon	Introduction of hydro carbon	Learning about the hydro carbon details analysis and explanation.	
28-03-24	02			Hydro carbon	Classification of hydro carbon	classification of hydro carbon Saturated and unsaturated hydro carbon.	
28-03-24	03			Hydro carbon	1 Alcohol	Alcohol are obtained by replacing one H atom of an alkane.	
25-03-24	04			Class of compounds	Types of compounds	There are the saturated hydro carbons in which the carbon are linked by single bonds. (i) they are also called paraffins.	

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What do you mean hydro carbon?	classification of hydro carbon.		<i>Seen</i> 21/03/24	<i>Resettled</i> 21-03-24	
What is Acetone?	Determining the equivalent weights of the following acids bases and salts		<i>Seen</i> 22/03/24	<i>Resettled</i> 22-03-24	
			<i>Seen</i> 23/03/24	<i>Resettled</i> 23-03-24	
- How many classes of compounds?	→ There are 5 types of Alkanes. Ex: (i) Alkane (ii) Alkene (iii) Alkyne (iv) Alkyl		<i>Seen</i> 25/03/24	<i>Resettled</i> 25-03-24	

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Date	Period	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
28-03-24	08			Water	Definition of water	Surface water is just it is water found in a river.	
4-04-24	08		Water treatment	Underground water	Types of water	Ground water is the water that occurs below the surface of Earth.	
5-04-24	08			Hardness water	Types of Hardness water	Hardness water of two types - Temporary hardness - permanent and non-carbonate hardness	

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9	10	11	12	13	14
→ what is water?	water is one of the most plentiful and readily available of all chemicals are called water		Seen 28/03/24	Seen 28/03/24	
- How many types of water	→ Two types of water (i) Soft water (ii) Hard water.		Seen 04/04/24	Seen 04/04/24	
- How many types of Hardness water?	→ Hardness water are two types there are → Temporary hardness → permanent hardness		Seen 05/04/24	Seen 05/04/24	

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12-04-24	08			Removal of permanent hardness	lime, soda process	In this process hard water is treated with a calculated quantity of lime and soda.	
13-04-24	09				Hot lime soda process	This process involves treatment of hard water with lime and soda at a temp. of 80-150°C	
15-04-24	10			Ion-exchange (ion-exchange resins)		In this method the ions responsible for hardness are exchanged with other ions which don't make water hard.	

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9	10	11	12	13	14
What types of lime soda?	lime soda are two types. ① Cold lime soda process. ② Hot lime soda process.		Seen (12/07/24)	W. S. H. 12-04-24	
			Seen (13/07/24)	W. S. H. 13-04-24	
			Seen (15/07/24)	W. S. H. 15-04-24	
→ How many types of ion-exchange resins?	Ion-exchange resins are of two types. ① Cation-exchange resin (R-H) ② Anion-exchange resin.				

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16-04-24	01			Fuel	Introduction Fuel	Fuel is any material that can be made to react with other substance so that it releases energy.	
18-04-24	02			Calorific value of Fuel.	Characteristics of good Fuel.	Petrol or Gasoline it contains a mixture of hydrocarbons between pentane to octane.	
22-04-24	02			Composition and use of gas pipes		For heating pipes, hearth stoves in steel and glass manufacture.	

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Definition of Fuel?	Fuel is defined as a combustible substance which on combustion produces a large amount of heat energy with out producing		Seen 16/04/24	Seen 16-04-24	
Uses of petrol Gasoline?	It is used as a fuel for internal combustion engines or automobiles		Seen 18/04/24	Seen 18-04-24	
			Seen 22/04/24	Seen 22-04-24	

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25-01-24	05			Polymers	Introduction	Polymers are materials that are used in almost every material.	
26-01-24	06			Polythene		It is tough, flexible, transparent, chemically inert as well as poor conductor of electricity.	
				Rubber	Draw backs of natural rubber	Vulcanization of rubber. Natural rubber is a thermoplastic.	

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How many types of polymer?	Two types of polymers. (i) Homopolymers (ii) Copolymers.		Seen 25/01/24	Seen 25/01/24	Noted 24-04-24
What is an Polythene?	Polythene is a poor conductor of electricity. It has moderate tensile strength but good tearing strength.		Seen 25/01/24	Seen 25/01/24	Noted 25-04-24
Definition of Vulcanization?	The chemical process in which natural rubber is heated with 4 to 6% Sulphur containing compounds and drawn back or natural rubber are called vulcanisation.		Seen 25/01/24	Seen 25/01/24	Noted 26-04-24

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29-04-24	07			Chemicals in agriculture	Pesticides or Insecticides	pesticides or chemical compounds that are used to kill pests including insects, rodents, fungi and unwanted plants.	
30-04-24	08			Fungicides		Fungicides are pesticides that prevent, kill, mitigate, or inhibit the growth of fungi on plants.	

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How many types of pesticides?	→ There are three types → insecticides → Herbicides → Fungicides		<i>[Signature]</i> 29/04/24		<i>[Signature]</i> 29-04-24
- What is Fungicide?	- Fungicides are pesticides that prevent, kill, mitigate or inhibit the growth of fungi on plants.		<i>[Signature]</i> 30/04/24		<i>[Signature]</i> 30-04-24