



BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF MATHEMATICS AND SCIENCE
ACADEMIC SESSION-2020-21

Lesson Plan

Faculty Name — Samanta Swain

SUBJECT:-ENGINEERING CHEMISTRY PRACTICAL

SEMESTER:- 2nd

BRANCH:- Civil

SEC:- "A"

FACULTY NAME:- Saymita Swain

Semester From: - Date 28.04.2021 to 19 / 08/2021

No of week:- 14

No of classes available per week: 2

Total period available: 28 periods

Class duration: 55 minutes

Teaching Method: Online Meeting App, procedure, PDF, demonstration

Lesson plan

W E k No.	Dates	No. of Periods available	Name of the experiments	Experiments Actually taken	Date of teaching	Short Fall if any	Reasons	Date of make up of short fall	Initial of Faculty
1	04.05.21	2	Experiment-1. Preparation and study of physical and chemical properties of Carbon dioxide gas, (CO ₂) gas	Preparation and study of physical and chemical properties of carbon dioxide gas.	04.05.21	N/21	-	-	S.Swain
2	11.05.21	2			11.05.21	N/21	-	-	S.Swain
3	18.05.21	2			18.05.21	N/21	-	-	S.Swain

10.06.21	2	Experiment -2. Preparation and study of Ammonia (NH_3) gas.	Physical and chemical properties of Ammonia (NH_3) gas.	Preparation and study of physical and chemical properties of Ammonia (NH_3) gas.	-	-	-	S. Suman
22.06.21	2	Experiment -3. Crystallization of Copper sulphate from copper carbonate.	Copper carbonate.	Crystallization of copper sulphate ($\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$) from copper carbonate.	89.06.21	N ₂ H ₄	-	S. Suman
29.06.21	2	Experiment -4. Simple acid-base titrations	Titrations	Simple acid-base titrations	10.08.21	N ₂ H ₄	-	S. Suman
06.07.21	2				97.08.21	N ₂ H ₄	-	S. Suman
13.07.21	2				17.08.21	N ₂ H ₄	-	S. Suman
20.07.21	2				17.08.21	N ₂ H ₄	-	S. Suman
06.07.21	2				17.08.21	N ₂ H ₄	-	S. Suman
13.07.21	2				17.08.21	N ₂ H ₄	-	S. Suman
20.07.21	2				17.08.21	N ₂ H ₄	-	S. Suman
27.07.21	2				17.08.21	N ₂ H ₄	-	S. Suman
03.08.21	2				17.08.21	N ₂ H ₄	-	S. Suman
10.08.21	2				17.08.21	N ₂ H ₄	-	S. Suman
17.08.21	2				17.08.21	N ₂ H ₄	-	S. Suman

Ge.Lab (Chemistry)
19.08.2021
DR

13.04.21	Q	Experiments - 5 Tests for acid radicals (Known):	13.04.21	N ₂ H	—	S.Suman	Tests for acid radicals	(Known)	(i) carbonate (ii) carbobenzoate (iii) sulphide (iv) chloride (v) nitrate and sulphate Tests for acid radicals	13.04.21	N ₂ H	—	S.Suman	Experiments - 6 Tests for basic radicals (Known):	14.04.21	Q	1. Ammonium 2. Zinc 3. Magnesium 4. Aluminium 5. Calcium 6. Sodium and Potassium 7. Alumina
14.04.21	Q	Experiments - 6 Tests for basic radicals (Known):	14.04.21	N ₂ H	—	S.Suman	Tests for basic radicals	(Known):	(i) Ammonium (ii) Zinc (iii) Magnesium (iv) Aluminium	14.04.21	N ₂ H	—	S.Suman	Tests for basic radicals	15.04.21	Q	1. Ammonium 2. Zinc 3. Magnesium 4. Aluminium 5. Calcium 6. Sodium and Potassium 7. Alumina
15.04.21	Q	Experiments - 7 Alumina	15.04.21	N ₂ H	—	S.Suman	Alumina	(Known):	Alumina	15.04.21	N ₂ H	—	S.Suman	Alumina	16.04.21	Q	1. Ammonium 2. Zinc 3. Magnesium 4. Aluminium 5. Calcium 6. Sodium and Potassium 7. Alumina



BHUBANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK

DEPARTMENT OF MATHEMATICS AND SCIENCE

ACADEMIC SESSION-2020-21

Lesson Plan

Faculty Name - Sumita Swain

SUBJECT:-ENGINEERING CHEMISTRY PRACTICAL

SEMESTER:- 2nd

BRANCH:- Mechanical

SEC:- "F"

3
S. Suman
N
S. Suman
N
S. Suman
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2
S. Suman
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S. Suman
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S. Suman
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1
S. Suman
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S. Suman
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S. Suman
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Experiment - I. Preparation and study of physical and chemical properties of carbon dioxide gas. (CO ₂) gas	30.04.21	N ₂ II	—	S. Suman
Preparation and study of physical and chemical properties of carbon dioxide gas.	04.05.21	N ₂ II	—	S. Suman
Properties of carbon dioxide gas.	21.05.21	N ₂ II	—	S. Suman

W.E.K.	Dates No.	Name of the experiments No. of Periods available	Experiments Actually taken	Date of teaching Reasons Short fall If any Fall up of make short fall	Initial Faculty
4	30.04.21	Experiment - I. Preparation and study of physical and chemical properties of carbon dioxide gas. (CO ₂) gas	Preparation and study of physical and chemical properties of carbon dioxide gas.	04.05.21 Properties of carbon dioxide gas.	S. Suman
5	04.05.21	Preparation and study of physical and chemical properties of carbon dioxide gas.	Properties of carbon dioxide gas.	21.05.21 Properties of carbon dioxide gas.	S. Suman
6	21.05.21	Properties of carbon dioxide gas.	Properties of carbon dioxide gas.	—	S. Suman

Lesson plan

Teaching Method: Online Meeting App, PPT, Demosstration Class duration: 55 minutes

Total period available: 36 periods

No of classes available per week: 2

No of week: 15

Semester From: - Date 28.04.2021 to 19/08/2021

FACULTY NAME:- Sunmita Suman

28.05.21	Q	Experiment -2. Preparation and study of physical and chemical properties of Ammonia (NH_3) gas.	Preparation and study of physical and chemical properties of Ammonia (NH_3) gas.	S.Swara
28.05.21	Q	Experiment -2. Preparation and study of physical and chemical properties of Ammonia (NH_3) gas.	Preparation and study of physical and chemical properties of Ammonia (NH_3) gas.	S.Swara
11.06.21	Q	Experiment -3. Crystallization of Copper sulphate from copper carbonate.	Crystallization of copper sulphate from copper carbonate.	S.Swara
18.06.21	Q	Experiment -3. Crystallization of Copper sulphate from copper carbonate.	Crystallization of copper sulphate from copper carbonate.	S.Swara
18.06.21	Q	Experiment -3. Crystallization of Copper sulphate from copper carbonate.	Crystallization of copper sulphate from copper carbonate.	S.Swara
25.06.21	Q	Experiment -4. Simple acid-base titrations	Copper carbonate (CuCO_3) from sulphate (CuSO_4) precipitate.	S.Swara
25.06.21	Q	Experiment -4. Simple acid-base titrations	Copper carbonate (CuCO_3) from sulphate (CuSO_4) precipitate.	S.Swara
03.07.21	Q	Experiment -4. Simple acid-base titrations	Copper carbonate (CuCO_3) from sulphate (CuSO_4) precipitate.	S.Swara
03.07.21	Q	Experiment -4. Simple acid-base titrations	Copper carbonate (CuCO_3) from sulphate (CuSO_4) precipitate.	S.Swara
06.07.21	Q	Experiment -4. Simple acid-base titrations	Copper carbonate (CuCO_3) from sulphate (CuSO_4) precipitate.	S.Swara
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10	09.07.21	Q	Experiment - 5 Tests for acid radicals (Known):	1. Carbonate 2. Sulphide 3. Chloride 4. Nitrate and 5. Sulphate	16.07.21	2
9	09.07.21	Q	Experiment - 5 Tests for acid radicals (Known):	1. Carbonate 2. Sulphide 3. Chloride 4. Nitrate and 5. Sulphate	09.07.21	2
10	09.07.21	Q	Experiment - 5 Tests for acid radicals (Known):	1. Carbonate 2. Sulphide 3. Chloride 4. Nitrate and 5. Sulphate	16.07.21	2
11	16.07.21	Q	Test for acid radicals (Known):	(1) carbonate (2) sulphide (3) chlorite Test for acidic radicals (Known):	16.07.21	2
12	23.07.21	Q	Experiment - 6 Test for basic radicals (Known):	1. Ammonium 2. Zinc 3. Magnesium 4. Aluminium 5. Calcium 6. Sodium and 7. Potassium	23.07.21	2
13	30.07.21	Q	Test for basic radicals (Known):	(1) Ammonium (2) Zinc (3) Magnesium (4) Aluminium (5) Calcium (6) Sodium and Potassium	30.07.21	2

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19.07.21
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BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK

DEPARTMENT OF MATHEMATICS AND SCIENCE

ACADEMIC SESSION-2020-21

Lesson Plan

Faculty Name - Soumitra Swain

SUBJECT:-ENGINEERING CHEMISTRY PRACTICAL

SEMESTER:- 2nd

BRANCH:- Mechanical

SEC:- 'G'

FACULTY NAME:- Sasmanta Swain

Semester From:- Date 28.04.2021 to 19/08/2021

No of week:- 4

No of classes available per week: 2

Total period available: 58 periods

Class duration: 55 minutes

Teaching Method: Online Meeting App, procedure, PDF, demonstration.

Lesson plan

Week No.	Dates	No. of Periods available	Name of the experiments	Experiments Actually taken	Date of teaching	Short Fall if any	Reasons	Date of make up of short fall	Initial of Faculty
1	29.04.21 04.05.21	2	Experiment -1. Preparation and study of physical and chemical properties of Carbon dioxide gas. (CO_2) gas	preparation and Study of physical and chemical properties of carbon dioxide gas. (CO_2) gas	29.04.21 04.05.21	Nil	—	—	<u>S. Swain, M</u>
2	05.05.21 11.05.21	2			06.05.21 11.05.21	Nil	—	—	<u>S. Swain, M</u>
3	13.05.21	2			13.05.21	Nil	—	—	<u>S. Swain, M</u>

18.05.21	2	Experiment -2. Preparation and study of physical and chemical properties of Ammonia (NH_3) gas.	Preparation and study of physical and chemical properties of Ammonia (NH_3) gas .	
4 20.05.21	2		20.05.21 Nill	-
5 25.05.21	2		25.05.21 Nill	-
6 01.06.21	2		01.06.21 Nill	-
7 08.06.21	2	Experiment -3. Crystallization of Copper sulphate from copper carbonate.	Crystallization of CUPPER sulphate (CuSO_4) from copper carbonate . (CuCO_3)	18.05.21 Nill
8 17.06.21	2		08.06.21 Nill	-
9 22.06.21	2		17.06.21 Nill	-
9 24.06.21	2		22.06.21 Nill	-
10 29.06.21	2		24.06.21 Nill	-
15 05.08.21	2	Experiment -4. Simple acid – base titrations	Simple acid - base titrations .	29.06.21 Nill
16 12.08.21	2		03.08.21 Nill	-
17 17.08.21	2		05.08.21 Nill	-
17 19.08.21	2		10.08.21 Nill	-
				S.Swain
				S.Swain, P.P.
				S.Swain
				S.Swain, P.P.
				S.Swain

01.07.21	2	Experiment - 5 Tests for acid radicals (known):	tests for acid radicals 01.07.21	NiII	-	-	-	S. Swain, D.
06.07.21	2	1. Carbonate 2. Sulphide 3. Chloride 4. Nitrate and 5. Sulphate	(1) carbonate (2) sulphide (3) chloride	06.07.21	NiII	-	-	S. Swain
11	2			08.07.21	NiII	-	-	S. Swain, D.
08.07.21	2			08.07.21	NiII	-	-	S. Swain, D.
12	2			13.07.21	NiII	-	-	S. Swain
15.07.21	2			15.07.21	NiII	-	-	S. Swain
20.07.21	2	Experiment - 6 Test for basic radicals (Known):	Test for basic radicals (Known):	20.07.21	NiII	-	-	S. Swain
13	22.07.21	1. Ammonium 2. Zinc 3. Magnesium 4. Aluminium 5. Calcium 6. Sodium and 7. Potassium	(1) ammonium (2) zinc (3) magnesium (4) aluminium (5) calcium (6) sodium and (7) potassium	22.07.21	NiII	-	-	S. Swain, D.
27.07.21	2			27.07.21	NiII	-	-	S. Swain
14	29.07.21			29.07.21	NiII	-	-	S. Swain, D.

Og
17.08.2021
S. Leet (classmate)



BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK

DEPARTMENT OF MATHEMATICS AND SCIENCE

ACADEMIC SESSION-2020-21

Lesson Plan

Faculty Name - Samita Sahoo

SUBJECT:-ENGINEERING CHEMISTRY

SEMESTER:- 2nd

BRANCH:- Mechanical

SEC:- "G"

FACULTY NAME:- SASMITA SWAIN

Semester From: - Date 28.04.2021 to 19/08/2021

No of week:- 15

No of classes available per week: 4

Total period available: 15 periods

Class duration: 55 minutes

Teaching Method: Online Meeting App, Power point Presentation, Lecture note .PDF

Learning Method: Daily Assignment, Unit test, Moc test

Lesson plan

W E E k No.	Dates	No. of Periods available	Topics to be Covered	Topic actually taken	Date of teaching	Short Fall if any	Reasons	Date of make up of short fall	Initial of Facult y
			Chapter 1: Atomic structure : Fundamental particles (electron, proton & neutron Definition, mass and charge) Rutherford's Atomic model (postulates and failure), Atomic mass and mass number, Definition, examples and properties of Isotopes, isobars and isotones.	Taken by Deepika priyadarshini					-

Chapter 1: Atomic structure :

Bohr's Atomic model (Postulates only),
Bohr-Bury scheme, Aufbau's principle,
Hund's rule, Electronic configuration (up
to atomic no 30)

Chapter 2 : Chemical Bonding :

Definition , types (Electrovalent, Covalent
and Coordinate bond with examples (formation of NaCl, MgCl₂ ,H₂,Cl₂, O₂, N₂, H₂O,CH₄, NH₃, NH₄⁺, SO₂)

Taken by
Deepika priyadarshini

Chapter 3 : Acid base theory : Concept
of Arrhenius, Lowry Bronsted and Lewis
theory for acid and base with examples (Postulates and limitations only).

Neutralization of acid & base. Definition of Salt, Types of salts (Normal, acidic, basic, double, complex and mixed salts, definitions with 2 examples from each).

TAKEN BY
Deepika priyadarshini

4	30.09.21	A	Chapter 4: Solutions : Definitions of atomic weight, molecular weight, equivalent weight. Determination of equivalent weight of Acid, Base and Salt.	Modes of expression of the concentrations (Molarity, Normality & Molality) with Simple Problems. pH of solution (definition with simple numericals) Importance of pH in industry (sugar, textile, paper industries only)	Chapter 5: Electrochemistry : Definition and types (Strong & weak) of Electrolytes with example. Electrolysis (Strong & weak) with principle & process with example of NaCl (Used and aqueous solution). Faraday's 1st and 2nd law of Electrolysis (Statement, mathematical expression and Simple calculations) .	28.09.21	4
5	04.10.21	A	Law of Electrolysis - (Statement, mathematical expression and Simple calculations) .	Electrolysis- Electroplating (Zinc only).	04.10.21	4	
6	11.10.21	T	Chapter 6 : Corrosion: Definition of Corrosion, Types of Corrosion- Atmospheric Corrosion, Waterline Corrosion, Corrosion - Waterline Corrosion, Corrosion of Iron & its alloys, Protection by (i) Alloying and (ii) Galvanization.	Only. Mechanism of rusting of Iron corrosion. Mechanism of protection by (i)	18.10.21	7	
7	18.10.21	T	G.Swami	G.Swami	G.Swami	G.Swami	G.Swami

		Chapter 7 : Metallurgy: Definition of Mineral, ores , gangue with example. Distinction between Ores And Minerals. General methods of extraction of metals.	→ Defn of mineral, Ores, gangue with example . Distinction between ores , and minerals.	25.06.21	Nill	-	-	S.Swain
9	1	i) Ore Dressing	→ General methods of extraction of metals , (i) ore dressing	02.07.21	Nill	-	-	S.Swain
10	1	ii) Concentration (Gravity separation, magnetic separation, Froth floatation & leaching)	(i) concentration (Gravity separation, magnetic separation, froth floatation & Leaching)	02.07.21	Nill	-	-	S.Swain
		iii) Oxidation (Calcinations, Roasting)	→ (iii) Oxidation calcinations (Roasting)	09.07.21	Nill	-	-	S.Swain
11	1	iv) Reduction (Smelting, Definition & examples of flux, slag)	(iv) Reduction smelting , Defn and example of flux, slag)	16.07.21	Nill	-	-	S.Swain
		v) Refining of the metal (Electro refining, & Distillation only)	→ (v) Refining of the metal (Electro refining & Distillation only .	16.07.21	Nill	-	-	S.Swain
12	1	Chapter 8 : Alloys: Definition of alloy. Types of alloys (Ferro, Non Ferro & Amalgam) with example. Composition and uses of Brass, Bronze, Alnico, Duralumin	Defn of alloy . Types of alloys (Ferro, nonferro and Amalgam) with example . Composition and uses of Brass , Bronze , Alnico , Duralumin .	23.07.21	Nill	-	-	S.Swain
		Chapter 9 : Hydrocarbons : Saturated and Unsaturated Hydrocarbons (Definition with example) Aliphatic and Aromatic Hydrocarbons (Huckle's rule only). Difference between Aliphatic and aromatic hydrocarbons IUPAC system of nomenclature of Alkane, Alkene, Alkyne, alkyl halide and alcohol (up to 6 carbons) with bond line notation.	Taken by Deepika priyadarshini					
		Uses of some common aromatic compounds (Benzene, Toluene, BHC,						

13-08-21	4	Chapter 11 : Lubricants: Definition of lubricant, Types (solid, liquid and semi-solid with examples only) and specific uses of lubricants (Graphite, Oils, Grease). Purpose of lubrication
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13-08-21	4	Chapter 10 : Water Treatment : Sources of water, Soft water, Hard water, hardness, types of Hardness (temporary or carbonate), Removal of hardness by lime soda method (hot lime & cold lime—Principle, process & advantages), Advantages of Hot lime over cold lime process, Organic ion exchange method (principle, process, and regeneration of exhausted resins)
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13-08-21	4	Phenol, Napthalene, Antimacrogene and Benzene acid) in daily life.
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15 06.03.21

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g. Swami	—	—	—	30.03.21	N21	96-08-21	Monomer, Polymer, Homo-polymer, Co-polymer and Degree of polymerization.	Chapter 13 : Polymer: Definition of Monomer, Polymer, Homo-polymer, Co-polymer and Degree of polymerization. Difference between Thermosetting and Thermoplastic. Composition of Polymers. and uses of Polythene, & Poly-Vinyl Chloride and Bakelite.
S. Swami	—	—	—	96-08-21	N21	96-08-21	Gasous: Producer gas and Water gas about LPG, CNG and coal gas (Composition and uses). Elemental idea about LPG, CNG and coal gas (Composition and uses only).	Chapter 13 : Polymer: Definition of Monomer, Polymer, Homo-polymer, Co-polymer and Degree of polymerization.

g. Swami	—	—	—	30.03.21	N21	96-08-21	Fuel, Diesel, Petrol, and Kerosene --- Liquid: Diesel, Petrol, and Kerosene --- Gaseous: Producer gas and Water gas about LPG, CNG and coal gas (Composition and uses only).	Chapter 12 : Fuel: Definition and Classification of fuel. Definition of calorific value of fuel. Choice of good fuel.
S. Swami	—	—	—	96-08-21	N21	96-08-21	and uses of Gasoline, LPG, CNG and coal gas (Composition and uses only).	Chapter 13 : Polymer: Definition of Monomer, Polymer, Homo-polymer, Co-polymer and Degree of polymerization.
	—	—	—	96-08-21	N21	96-08-21	Gasous: Producer gas and Water gas about LPG, CNG and coal gas (Composition and uses only).	Chapter 13 : Polymer: Definition of Monomer, Polymer, Homo-polymer, Co-polymer and Degree of polymerization.

14 06.03.21

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BHUBANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK

DEPARTMENT OF MATHEMATICS AND SCIENCE

ACADEMIC SESSION-2020-21

Lesson Plan

Faculty Name - Samanta Kumar
SUBJECT: ENGINEERING CHEMISTRY

SEMESTER:- And

SEC:- F

BRANCH:- Mechanic

SEMESTER:-

Faculty Name - Samanta Kumar



No.	Dates	Topics to be Covered	Teaching Methods	Date of Short Fall if any	Date of make up of short fall	Initial Faulch y
1	10-05-21	Chapter I: Atomic structure : Fundamental particles (electron, proton & neutron & neutrino) basic laws and charge.		29-04-21 N.C.I.I	—	S.Swami
2	06-05-21	Postulates of Atoms model (postulates of Rutherford's Atom model) Atomic mass and charge number, Definition, mass and mass number, Definition, examples and properties of Isotopes, Isobars and isotones.		01-05-21 N.C.I.I	—	S.Swami
3	08-05-21	Properties and Isotopes of Isotopes, Isobars and isotones.		08-05-21 N.C.I.I	—	S.Swami

Lesson Plan

Learning Method: Daily Assignment, Unit test, Mock test

Teaching Method: Online Meeting App, Power Point Presentation, Lecture note, PDF

Class duration: 55 minutes

Total period available: 31 periods

No of classes available per week: 4

No of week: 17

Semester From: - Date 28.04.2021 To 08/2021

FACULTY NAME:- Samita Swami



1	13-05-21	A	Bohr's Atomic model (Postulates only).	Bothr-Bury scheme, Aufbau's principle.	Hund's rule, Electronic configuration (up to atomic no 30).	22-05-21	4
2	15-05-21	A	Bohr's atomic model (Postulates only), -atom & nucleus.	Bothr - Bury scheme, Aufbau's principle.	Configuration (upto cutomine)	20-05-21	4
3	16-05-21	A	Bohr's atomic structure :	Valence bond theory - - types of hybridization - - types of covalent bond - - types of coordination bond - - types of acid base reaction - - types of Lewis acids and bases.	Formation of N ₂ , HCl, MgCl ₂ , H ₂ O, CH ₄ , NH ₃ , SO ₂)	21-05-21	5
4	17-05-21	A	Chapter 2 : Chemical Bonding :	Definition, types (Electrovalent, Covalent and Coordinate bond with examples (Formation of N ₂ , HCl, MgCl ₂ , H ₂ O, O ₂ , N ₂ , H ₂ O, CH ₄ , NH ₃ , SO ₂))	22-05-21	6	
5	18-05-21	A	Chapter 3 : Acid base theory : Concept of Arrhenius, Lowry Bronsted and Lewis theory for acid and base with examples (Neutralization of acid & base, Definition of salt, Types of salts (Normal, acidic, basic, double, complex and mixed salts), Possibilities and limitations only).	Defn of acid and base with examples (with ex: -H ₂ , Cl ₂ , O ₂ , N ₂ , Defn, types of covalent bond 30-05-21) Neutralization of acid & base. Definition of salt, Types of salts (Normal, acidic, basic, double, complex and mixed salts, Possibilities and limitations only).	05-06-21	7	
6	19-05-21	A	Taken by Dr. Arunand hdt Burtik	Defn of acid and base with examples (with ex: -H ₂ , Cl ₂ , O ₂ , N ₂ , Defn, types of covalent bond 30-05-21) Neutralization of acid & base. Definition of salt, Types of salts (Normal, acidic, basic, double, complex and mixed salts, Possibilities and limitations only).	05-06-21	8	

7	12.06.21	A	Chapter 4 : Solutions : Definitions of dissolved weight, molecular weight, equivalents, weight of Acid Base and Salt.	equivalence of the concentrations (Molarity, Normality & Molality) with Simple Problems, pH of solution () definition with simple numericals () Importance of pH in industry (sugar, textile, paper industries only)	12.06.21	
8	13.06.21	A	Chapter 5 : Electrochemistry : Defination and types (Strong & weak) of Electrolytes with example. with example of Electrolysis principle A state) processes such as examples of non electrolytic principles A 19.06.21	Faraday's law and 2nd NaCl (used and aqueous solution). Principle & process with example of Electrolytes with example. Electrolysis () Defination and types (Strong & weak) of Electrolytes with example () with example of electrolysis through out and types of strong and weak example .	19.06.21	
9	24.06.21	A	law of Electrolysis (Statement , mathematical expression and Simple numerical) Industrial application of Electrolysis- Electroplating (Zinc only).	24.06.21		
10	26.06.21	A	Allotropic forms of Zinc Allotropy and (ii) Galvanization .	26.06.21		
			Chapter 6 : Corrosion : Definition of Corrosion, Types of Corrosion - Atmospheric Corrosion, Waterline corrosion. Mechanism of rusting of iron only. Protection from corrosion by (i)			
			Baric law Dr. Arunadhadhi BSc Taken by			

11	03-07-21	A	Chapters 7 & 8 : Metallurgy & Alloys	Minerals, ores, gangue with example. Distinction between Ores and Minerals. General methods of extraction of metals.
10	07-07-21	A	Chapters 7 & 8 : Metallurgy	i) Ore Dressing ii) Concentration (Gravity separation, froth floatation & magnetic separation). iii) Oxidation (Calcinations, Roasting) iv) Reduction (Smelting, Definition & examples of Flux, slag) v) Refining of the metal (Electro refining, & Distillation only).
11	15-07-21	A	Chapters 7 & 8 : Metallurgy	Leaching i) Oxidation (Calcinations, Roasting) ii) Concentration (Gravity separation, froth floatation & magnetic separation). iii) Oxidation (Calcinations, Roasting) iv) Reduction (Smelting, Definition & examples of Flux, slag) v) Refining of the metal (Electro refining, & Distillation only).
12	15-07-21	A	Chapters 8 & 9 : Alloys	Chapter 8 : Alloys: Definition of alloy. Types of alloy. Types of alloys. Chapter 9 : Alloys: Definition of alloy. Unsaturated Hydrocarbons (Definition with example) Aliphatic and Aromatic Hydrocarbons (Hückle's rule only). Saturated Aliphatic and Aromatic Hydrocarbons (Hückle's rule only).
13	15-07-21	A	Chapters 9 & 10 : Hydrocarbons	Chapter 9 : Hydrocarbons: Saturated Aliphatic and Unsatuated Hydrocarbons (Definition with example) Aliphatic and Aromatic Hydrocarbons (Hückle's rule only). Chapter 10 : Hydrocarbons: Branched alkanes and branched alkenes. Branched alkynes. Branched alkynes and branched alkynes. Branched alkynes and branched alkynes.

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13 07.08.21 J

14 12.08.21 T

Chapter 11 : Lubricants: Definition of lubricant, Types (solid, liquid and semi-solid with examples only) and specific uses of lubricants (graphite, oil, grease), Purpose of lubrication

Dr. Arunabha Ray
Taken by

S.Sourav

→ water treatment, soft water, hard water, sources of water, hardness temporary or permanent, hardness removal by coagulation, carbonates and permanence of hardness by lime, soda method (hot lime & cold lime— principle, process & advantages).

Advantages of Hot lime over cold lime

Organic Ion exchange method (principle, process, and regeneration of exhausted resin)

Solid lubricants: Lubricant, Lubrication, Friction & wear, friction coefficient, mechanical energy loss, frictional heat, frictional force, frictional stress, frictional work, frictional power, frictional coefficient, frictional torque, frictional resistance, frictional force, frictional load.

S.Sourav

S.Sourav

S.Sourav

Dr. Arunabha Ray
Taken by

Chapter 10 : Water Treatment: Sources of water, Soft water, Hard water, hardness, types of Hardness (temporary or carbonate and permanent or non-carbonate), Removal of hardness by lime (lime-softening process), Removal of hardness by lime (lime-soda method), Principles of lime treatment.

Principle, process & advantages).

Advantages of Hot lime over cold lime

Organic Ion exchange method (principle, process, and regeneration of exhausted resin)

Organic Ion exchange method (principle, process, and regeneration of exhausted resin)

Dr. Arunabha Ray
Taken by

S.Sourav

Chaper 12 : Fuel Definition and Classification of fuel. Definition of calorific value of fuel. Choice of good fuel.	Liquids: Diesel, Petrol and Kerosene --- Composition and uses.	Gaseous: Producer gas and Water gas (Composition and uses). Elementary idea about LPG, CNG and coal gas	(Composition and uses only)	Gas	Gaseous	Monomer, Homo-polymer, Co-polymer and Degree of polymerization.	Difference between Thermosetting and Thermoplastic, Composite
15	24.04.21	A	Chaper 13 : Polymer: Definition of Monomer, Homo-polymer, Co-polymer and Degree of polymerization, Homopolymer, Co-polymer and Difference between heat of thermal decomposition and setting and thermoplastics.	G.Swami	G.Swami	S.Science	16
16	29.04.21	A	Chaper 14 : Elastomer and Rubber: Definition of Elastomer (Rubber), Natural rubber and uses of Polythene, & Poly-Vinyl chloride and Bakelite.	G.Swami	G.Swami	G.Swami	31.04.21
31.04.21	A	Chaper 15 : Fertilizers and Pesticides: Definition, examples and uses.	G.Swami	G.Swami	G.Swami	G.Swami	17

14.08.21	1	Revision , previous year questions and answers discussion, MCQ discussion	Revision, previous year questions and answers discussion, MCQ discussion.	14.08.21	nill	-	-	-	S.Swain
167	19.08.21	1	Quiz test , MCQ discussion	quiz test, MCQ discussion	19.08.21	nill	-	-	S.Swain
17									

BOOK REFERENCE: 1. Engineering Chemistry by Y.R.Sharma and P. Mitra, Kalyani Publishers
 2. Text Book of Intermediate Chemistry Part -1 and Part -2 by Nanda Das, Sharma, Kalyani Publishers

Study Website:
 Online Class link:
 (If any)

By
19.08.2021
So-Lect (webcast)



BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK

DEPARTMENT OF MATHEMATICS AND SCIENCE

ACADEMIC SESSION-2020-21

Lesson Plan

Faculty Name - Sasmita Sahu

SUBJECT:-ENGINEERING CHEMISTRY

SEMESTER:- 2nd

BRANCH:- Civil

SEC:- "A "



FACULTY NAME:- SASMITA SWARTH

Semester From:- Date 28.04.2021 to 19/08/2021

No of week:- 17

No of classes available per week: 4

Total period available: 20 periods

Class duration: 55 minutes

Teaching Method: Online Meeting App, Power point Presentation, Lecture note .PDF

Learning Method: Daily Assignment, Unit test, Mocktest

Lesson plan

Week No.	Dates available	Topics to be Covered	Topic actually taken	Date of teaching	Short Fall if any	Reasons	Date of make up of short fall	Initial of Faculty
1	28.04.21 03.05.21	Chapter 1: Atomic structure: Fundamental particles (electron, proton & neutron) Definition, mass and charge of Electron, proton, neutron Rutherford's Atomic model (postulates and failure), Atomic mass and mass number, Definition, examples and properties of Isotopes, isobars and isotones.	Fundamental particles (electron, proton & neutron). Definition of mass and charge of Electron, proton, neutron. → Rutherford's Atomic model (postulates & failure)	28.04.21 03.05.21	N/I/I	-	-	S.Swami
2	05.05.21 10.05.21	→ Atomic mass and mass number → Definition, examples and properties of Isotopes, isobars and isotones.	→ Atomic mass and mass number → Definition, examples and properties of Isotopes, isobars and isotones .	05.05.21 10.05.21	N/I/I	-	-	S.Swami
3	12.05.21	1 CA)	1 CA)	12.05.21	N/I/I	-	-	S.Swami

14-05-21	4(CA)	Chapter I: Atomic structure :	Bohr's Atomic model (Postulates only).	Hund's rule, Aufbau's principle, Bohr-Berry scheme, Aufbau's principle.	to atomic no 30) -quadruplet up to atomic no. 30)	5
14-05-21	4(CA)	Chapter I: Atomic structure :	Bohr's atomic model (Postulates only).	Hund's rule, Aufbau's principle, Aufbau's principle.	Hund's rule, Aufbau's principle, Aufbau's principle.	6
14-05-21	4(CA)	Chapter 2 : Chemical Bonding :	Defination, types (Electrovalent and Covalent bond with examples)	-Defination, types (Covalent bond - Valence bond, ex: NaCl, MgCl ₂)	HO, CH ₄ , NH ₃ , NH ₄ ⁺ , SO ₂) formation of NaCl, MgCl ₂ , H ₂ O, O ₂ , N ₂ ,	7
02-06-21	4(CA)	Chapter 3 : Acid base theory :	Concepts of Arrhenius, Lowry Bronsted and Lewis theory for acid and base with examples (Postulates and limitations only).	bond ex: - SO ₂ , NH ₄ ⁺ →	Salt, Types of salts (Normal, acidic, basic, double, complex and mixed salts).	8-Sound
02-06-21	4(CA)	Chapter 3 : Acid base theory :	Theory for acid and base with examples (Postulates and limitations only).	→ Debye, → types of coordinate bond	Neutralization of acid & base. Definition of Salt, Types of salts (Normal, acidic, basic, double, complex and mixed salts).	8-Sound
02-06-21	4(CA)	Dr. Arunachadhi Basur K	Take an by	Ex: - H ₂ O, CH ₃ , N ₂	Neutralization of acid & base. Definition of Salt, Types of salts (Normal, acidic, basic, double, complex and mixed salts).	8-Sound
					Definitions with 2 examples from each).	

7	09.06.21	A	Chapter 5 : Electrochemistry :	Definiton and types (Strong & weak) of Electrolytes with example . Electrolytic process & processes of metal purification . Faraday's 1st and 2nd law of electrolysis . Law of electrolysis (Statement). Numerical expression and Simple mathematical expression of Faraday's law of electrolysis . S.Suman
8	16.06.21	A	Chapter 6 : Corrosion :	Definition of Corrosion . Types of Corrosion - Atmospheric Corrosion, Waterline corrosion, Mechanism of rusting of iron only. Protection from Corrosion by (i) Alloying and (ii) Galvanization . S.Suman
9	23.06.21	A	Chapter 7 : Solutions :	Definitions of atomic weight, molecular weight, Equivalents weight, Determination of equivalence weight of Acid, Base and Salt. Modes of expression of the concentrations (Molarity, Normality & Molality) with simple problems. PH of solution (definition with simple numericals) Importance of PH in industry (sugar, textile, paper industries only) . S.Suman
10	30.06.21	A	Chapter 8 : Electroplating (Zinc only) :	Electrolysis- Industrial application of Zinc only. Electrolysis of aqueous solution . S.Suman

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04.04.21	A	Chapter 7: Metallurgy: Definition of Mineral, ores, gangue with example.
05.04.21	A	General methods of extraction of metals.

12

04.04.21	A	ii) Concentration (Gravitation, Froth Flotation & magnetic separation, Froth Flotation, Separation of minerals).
05.04.21	A	iii) Oxidation (Calcinations, Roasting)

13

04.04.21	A	iv) Reduction (Smelting, Defining & examples of flux, slag)
05.04.21	A	v) Refining of the metal (Electro refining, & Distillation only)
06.04.21	A	Types of alloys (Ferro, Non Ferro & Alloys with example)

14

06.04.21	A	Chapter 8 : Alloys: Definition of alloy.
07.04.21	A	Uses of Brass, Bronze, Almico, Duralumin and Amalgam) with example. Composition and uses of Brass, Bronze, Almico, Duralumin

07.04.21	A	Chapter 9 : Hydrocarbons : Saturated and Unsaturated Hydrocarbons (Definition with example) Aliphatic and Aromatic hydrocarbons (Hückle's rule only).
08.04.21	A	Difference between Aliphatic and aromatic hydrocarbons (Hückle's rule only).

Taken by Arundhati Basak

09-08-21	4	Chapter 10 : Water Treatment :	Sources of water, Soft water, Hard water, hardness, types of Hardness (temporary or permanent) and permanent or non-carbonate hardness, types of Hardness (temporary or permanent), temporary hardness due to calcium and magnesium ions and non-carbonate hardness due to bicarbonates and permanent hardness due to chlorides, sulfates, carbonates, fluoride, iodide, bromide, phosphate, sulphide, arsenic, cyanide, phenols, naphthalene, anthracene and benzotrichloride acid) in daily life.	Dr. Arunandhati Barve K Taken by S.Swami
11-08-21	4	Chapter 10 : Water Treatment :	Sources of water, Soft water, Hard water, hardness, types of Hardness (temporary or permanent) and permanent or non-carbonate hardness, types of Hardness (temporary or permanent), temporary hardness due to calcium and magnesium ions and non-carbonate hardness due to bicarbonates and permanent hardness due to chlorides, sulfates, carbonates, fluoride, iodide, bromide, phosphate, sulphide, arsenic, cyanide, phenols, naphthalene, anthracene and benzotrichloride acid) in daily life.	Dr. Arunandhati Barve K Taken by S.Swami
15	4	Principle, Process & advantages of Hot lime & cold lime method (removal of hardness by lime-soda method (hot lime & cold lime—advantages of Hot lime over cold lime process).	Principle, Process & advantages of Hot lime & cold lime—advantages of Hot lime over cold lime process.	Dr. Arunandhati Barve K Taken by S.Swami
16-08-21	4	Organic Ion exchange method (principle, process, and regeneration of exhausted resins)	Organic Ion exchange method (principle, process, and regeneration of exhausted resins)	Dr. Arunandhati Barve K Taken by S.Swami
17	4	Chapter 11 : Lubricants: Definition of lubricant, Types (solid, liquid and semisolid with examples only) and specific uses of lubricants (Graphite, Oils, Grease), Purpose of lubrication	Chapter 11 : Lubricants: Definition of lubricant, Types (solid, liquid and semisolid with examples only) and specific uses of lubricants (Graphite, Oils, Grease), Purpose of lubrication	Dr. Arunandhati Barve K Taken by S.Swami

15

Dr. Arundhati Borkar
Tutor by

Chapter 12 : Fuel: Definition and classification of fuel, Definition of calorific value of fuel, Choice of good fuel.

Liquid: Diesel, Petrol, and Kerosene ---

Gaseous: Producer gas and Water gas
(Composition and uses). Elementary idea about LPG, CNG and coal gas
(Composition and uses only)

Chapter 13 : Polymer: Definition of
step of Monomer, co-polymer,
Homopolymer, co-polymerization
and Degree of polymerization, Co-
Degree of polymerization before and
thermoplastic, Composition and
uses of Polythene, & Poly-Vinyl
chloride and Bakelite.

Difference between Thermosetting and
Thermoplastic, Composition
of rubber (it's draw backs), Natural
Rubber (advantages of Vulcanised rubber
over raw rubber).

Chapter 14: Chemicals in Agriculture:
Pesticides, Insecticides, herbicides,
fungicides-Examples and uses, Bio
fertilizers: Definition, examples and uses.
Dr. Arundhati Borkar
Tutor by

Chapter 14: Chemicals in Agriculture:
Pesticides, Insecticides, herbicides,
fungicides-Examples and uses, Bio
fertilizers: Definition, examples and uses.

28.07.21 A

02.08.21 A

04.08.21 A

Chapter 15 : **Rubber:** Definition of
Elastomer (Rubber), Natural
Rubber (it's draw backs), Vulcanisation of
rubber. Advantages of Vulcanised rubber
over raw rubber.

Chapter 16 : **Chemicals in Agriculture:**
Pesticides, Insecticides, herbicides,
fungicides-Examples and uses, Bio
fertilizers: Definition, examples and uses.

16

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18

Study Website:
 Online Class link:
 (If any)

Review, previous
 18-08-21 N211 —
 S. Suman
 Review, previous
 year question and
 answers discussion,
 year question and
 answers discussion.

18-08-21 4
 15

BOOK REFERENCE: 1. Engineering Chemistry by Y.R.Sharma and P. Mitra, Kalyani Publishers
 2. Text Book of Intermediate Chemistry Part -1 and Part -2 by Nanda Das, Sharma, Kalyani Publishers
 Study Website:
 Online Class link:
 (If any)



BHUBANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK

DEPARTMENT OF MATHEMATICS AND SCIENCE

ACADEMIC SESSION-2020-21

Lesson Plan

Faculty Name - Sasmita Swain

SUBJECT:-ENGINEERING CHEMISTRY

SEMESTER:- 2nd

BRANCH:- Civil

SEC:- "B"

FACULTY NAME: Samita Swain

Semester From: - Date 28.04.2021 to 19/08/2021

No of week: 17

No of classes available per week: 4

Class duration: 55 minutes

Total period available(3) periods

Teaching Method: Online Meeting App, Power point Presentation, Lecture note, PDF

Learning Method: Daily Assignment, Unit test, Mock test

Lesson plan

No.	Dates No. of Periods available	Topics to be Covered	Topic actually taken	Date of Actual taken	Reasons	Date of make up if short fall	Initial Date of Factual ?
29.04.21	4	Chapter I: Atomic structure : Fundamental particles (electron, proton & neutron) & Neutrons (mass and charge).	Fundamental particles (electron, proton & neutron & Neutrons) & Neutrons (mass and charge).	29.04.21	Ncii	—	S. Swain
01.05.21	4	Neutron Definition, mass and charge . Proton Definition, mass and charge . Atomic model (postulates and failure), Atomic mass and mass number, Definition, examples and number, Isotopes, Isobars and isotones.	Postulates and failure of atomic model .	01.05.21	Ncii	→	S. Swain
06.05.21	4	(Rutherford's Atomic model (postulates and failure), Atomic mass and mass number, Definition, examples and number, Isotopes, Isobars and isotones.)	→ Atomic mass and mass number, Definition, examples and number, Isotopes, Isobars and isotones.	06.05.21	Ncii	→	S. Swain
08.05.21	4	Properties of Isotopes, Isobars and isotones.	Properties of Isotopes, Isobars and isotones.	08.05.21	Ncii	→	S. Swain

13.05.21	A	Chapter 1: Atomic structure:	Bohr's Atomic model (Postulates only). Both-Bury scheme: Aufbau's principle. Hund's rule. Electronic configuration (up to atomic no 30).
15.05.21	A	Chapter 2: Chemical Bonding:	Definition, types (Electrovalent, Covalent and Coordinate bond with examples (formation of NaCl , MgCl_2 , H_2O_2 , N_2 , $\text{H}_2\text{O}, \text{CH}_4, \text{NH}_3, \text{NH}_4^+, \text{SO}_2$)). Dipole, types of electroneutral bond (bond with example NaCl , MgCl_2 , H_2O_2 , N_2 , $\text{H}_2\text{O}, \text{CH}_4, \text{NH}_3$). London dispersion force (bond between atoms of different elements). Hydrogen bonding (bond between hydrogen and nitrogen or oxygen atoms). Metallic bonding (bond between metal cations and delocalized electrons). Ionic bonding (bond between metal cation and non-metal anion).
16.05.21	A	Chapter 3 : Acid base theory :	of Arrhenius, Lowry Bronsted and Lewis theory for acid and base with examples (postulates and limitations only). Neutralization of acid & base. Definition of salt. Types of salts (Normal, acidic, basic, double, complex and mixed salts). Definitions with 2 examples from each).
17.05.21	A	Takken by G.S. Swami	Dt. fundachadi Bawrik



12.06.21	4	Chapter 4: Solutions : Definitions of atomic weight, molecular weight, equivalent weight. Determination of equivalent weight of Acid, Base and Salt. Modes of expression of the concentrations (Molarity, Normality & Molality) with Simple Problems. pH of solution () definition with simple numericals Importance of pH in industry (sugar, textile, paper industries only)	12.06.21	N211	—	8.5 hours
14.06.21	4	Definition and types (Strong & weak) of Electrolytes with example. Electrolysis () Principle of process with examples () Faraday's 1st and 2nd Law of electrolysis Law of Electrolysis (Statement , mathematical expression and Simple numerical) Industrial application of ; Electrolysis- Electropolating (Zinc only).	14.06.21	N211	—	8.5 hours
16.06.21	4	Chapter 6 : Corrosion: Definition of Corrosion, Types of Corrosion- Atmospheric Corrosion, Waterline corrosion. Mechanism of rusting of iron only. Protection from Corrosion by (i) Alloying and (ii) Galvanization.	16.06.21	N211	—	8.5 hours
18.06.21	4	Dr Arundhati Borkar Taken by	18.06.21	N211	—	8.5 hours
20.06.21	4	Dr Arundhati Borkar Taken by	20.06.21	N211	—	8.5 hours
22.06.21	4	Dr Arundhati Borkar Taken by	22.06.21	N211	—	8.5 hours
24.06.21	4	Dr Arundhati Borkar Taken by	24.06.21	N211	—	8.5 hours
26.06.21	4	Dr Arundhati Borkar Taken by	26.06.21	N211	—	8.5 hours
28.06.21	4	Dr Arundhati Borkar Taken by	28.06.21	N211	—	8.5 hours
30.06.21	4	Dr Arundhati Borkar Taken by	30.06.21	N211	—	8.5 hours
01.07.21	4	Dr Arundhati Borkar Taken by	01.07.21	N211	—	8.5 hours

10.04.21	A	Chaper 7 : Metallurgy: Definition of Mineral ores, gangue with example. Distinction between Ores And Minerals. General methods of extraction of metals.	i) Ore Dressing ii) Concentration (Gravity separation, froth floatation, magnetic separation, froth floatation & leaching) iii) Oxidation (Calcarinations, Roasting) iv) Reduction (Smelting, Defining & examples of flux, slag) v) Refining of the metal (Electro refining, & Distillation only)	15.04.21
08.04.21	A	Chaper 7 : Metallurgy: Definition of Mineral ores, gangue with example. Distinction between Ores And Minerals. General methods of extraction of metals.	i) Ore Dressing ii) Concentration (Gravity separation, froth floatation, magnetic separation, froth floatation & leaching) iii) Oxidation (Calcarinations, Roasting) iv) Reduction (Smelting, Defining & examples of flux, slag) v) Refining of the metal (Electro refining, & Distillation only)	15.04.21
03.04.21	A	Chaper 7 : Metallurgy: Definition of Mineral ores, gangue with example. Distinction between Ores And Minerals. General methods of extraction of metals.	i) Ore Dressing ii) Concentration (Gravity separation, froth floatation, magnetic separation, froth floatation & leaching) iii) Oxidation (Calcarinations, Roasting) iv) Reduction (Smelting, Defining & examples of flux, slag) v) Refining of the metal (Electro refining, & Distillation only)	15.04.21
14.04.21	A	Chaper 8 : Alloys: Definition of alloy. Types of alloy. - Types of alloy's (Ferrous, Non-Ferrous and Non-Metallic). Examples of alloys (Ferro, Non Ferro & Amalgam) with example. Composition and uses of Brass, Bronze, Almico, Duralumin	Types of alloys (Ferro, Non Ferro & Amalgam) with example. Composition and uses of Brass, Bronze, Almico, Duralumin	14.04.21
15.04.21	A	Chaper 9 : Hydrocarbons: Saturated Hydrocarbons (Huckel's rule only). Unsaturated Hydrocarbons (Definition with example) Aliphatic and Aromatic Hydrocarbons (Huckel's rule only). Differences between Aliphatic and aromatic hydrocarbons IUPAC system of nomenclature of Alkane, Alkene, Alkyne, alkyl halide and alcohol (Up to 6 carbons) with bond line notation.	Differences between Aliphatic and aromatic hydrocarbons IUPAC system of nomenclature of Alkane, Alkene, Alkyne, alkyl halide and alcohol (Up to 6 carbons) with bond line notation.	15.04.21

Q.3.2(a)	4	05-08-21	N111	—	—	Dr. Arunadhati Basak Taken by
Q.3.2(a)	4	05-08-21	N111	—	—	Water Treatment; Sources of water, Soft water, Hard water, hardness, types of Hardness (temporary or carbonate and permanent or non- carbonate and permanent or non- carbonate), Removal of hardness by lime process & advantages , soda method (hot lime & cold lime — principle, process & advantages , Advantages of Hot lime over cold lime process.
Q.3.2(a)	4	07-08-21	W111	—	—	Hardness , types of hardness and temporarily or carbonate and permanently or non-carbonate removed by lime soda method (hot lime & cold lime) process and advantage of hot lime regeneration of exhausted resins)
S.Swami	—	—	12.08.21	N111	—	Dr. Arunadhati Basak Taken by → Advanced stage of hot lime process and advantage and cold lime - principle, lime soda method (hot lime and cold lime and advantage), lime soda method (hot lime process and advantage), over cold lime process method (principle, procedure, advantage) in each case and the generation of grease), Purpose of lubrication specific uses of lubricants (Graphic Oils, semisolid with examples only) and lubricant, Types (solid, liquid and Chapter 11 : Lubricants: Definition of
S.Swami	—	—	12.08.21	N111	—	Dr. Arunadhati Basak Taken by elbowed nearly) and the generation of method (principle, procedure, advantage) in each case over cold lime process method (principle, procedure, advantage) in each case and the generation of grease), Purpose of lubrication specific uses of lubricants (Graphic Oils, semisolid with examples only) and lubricant, Types (solid, liquid and Chapter 11 : Lubricants: Definition of
13	4	07-08-21	W111	—	—	Dr. Arunadhati Basak Taken by
14	4	12.08.21	14	—	—	Organic Ion exchange method (principle, process, and regeneration of exhausted resins)

22.04.21	A	Dr. Arunesh Bawik Taken by	Liquid: Diesel, Petrol, and Kerosene --- Composition and uses. Gaseous: Producer gas and Water gas (Composition and uses). Elementary idea about LPG, CNG and coal gas Monomer, Polymer, Homo-polymer, Co-polymer and Degree of polymerization. Difference between Thermoplastic and Thermoset → Difference between $\text{BFR} < \text{Thermoset}$, Composition and uses of polythene. Comparison and uses of chloroethylene and bromoethylene Chloride and Bakelite. and uses of Polythene, & Poly-Vinyl Thermoplastic, Composition Difference between Thermosetting and polymers and Degree of polymerization. Monomer: Definition of Homo-polymer, Co-polymer and degree of polymerization → Definition of Monomers S.Swami	22.04.21 N.II →	22.04.21 N.II →	22.04.21 N.II →
24.04.21	A	Dr. Arunesh Bawik Taken by	Liquid: Definition of fuel, Definition of calorific value of fuel, Choice of good fuel. Classification of fuel S.Swami	24.04.21 N.II →	24.04.21 N.II →	24.04.21 N.II →
29.04.21	A	Dr. Arunesh Bawik Taken by	Polymer: Definition of Homo-polymer, Co-polymer and degree of polymerization → Definition of Monomers S.Swami	29.04.21 N.II →	29.04.21 N.II →	29.04.21 N.II →
31.04.21	A	Dr. Arunesh Bawik Taken by	Chloride and Bakelite. and uses of Polythene, & Poly-Vinyl Thermoplastic, Composition Difference between Thermosetting and polymers and Degree of polymerization. Monomer, Polymer, Homo-polymer, Co-polymer and Degree of polymerization. Homo-polymer, Co-polymer and degree of polymerization → Definition of Monomers S.Swami	31.04.21 N.II →	31.04.21 N.II →	31.04.21 N.II →
16		Rubber: Advantages of Vulcanised rubber Rubber (it's draw backs). Natural rubber is made of latex formed (Bubble) → Drawn of latex formed (Bubble) → Natural Rubber (Latex) • Natural rubber is made of latex formed over raw rubber. o wear raw rubber.	Rubber: Advantages of Vulcanised rubber Rubber (it's draw backs). Natural rubber is made of latex formed over raw rubber. o wear raw rubber.			
81.04.21	A	Chapter 14: Chemicals in Agriculture: Pesticides, Insecticides, herbicides, fungicides-Examples and uses.Bio fertilizers: Definition, examples and uses.	Dr. Arunesh Bawik Taken by			

(If any)

Online Class link:
Study Website:

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12.80.19.1
19.08.21

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REVISEON, previous year REVISION, previous
questions & answers discussion before questions X
MCQ discussion ,
answering discussion .

REVISEON, previous year REVISION, previous
questions & answers discussion before questions X
MCQ discussion ,
answering discussion .

S. Sauran

disussion

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19.08.21

86.1 out (marks)
15.08.2021
Sauran

BOOK REFERENCE: 1. Engineering Chemistry by Y.R.Sharma and P. Mitra, Kalyani Publishers
2. Text Book of Intermediate Chemistry Part -I and Part -II by Nandita Das, Sharma, Kalyani Publishers