

E.M. GOPALAKRISHNA KONE YADAVA WOMEN'S COLLEGE

An Autonomous Institution -Affiliated to Madurai Kamaraj University

Re-accredited (3rd Cycle) with Grade A⁺ & CGPA 3.51 by NAAC



LESSON PLAN

2022-2023

Ancillary Chemistry

(UG –Odd & Even Semester)



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LESSON PLAN
2022-2023

Class : I B.Sc Zoology & Mathematics

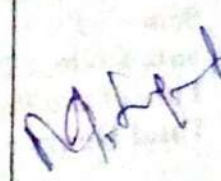
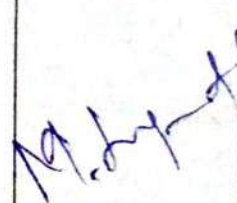
Sem : I

Sub. Code : 22OUZOGECH1

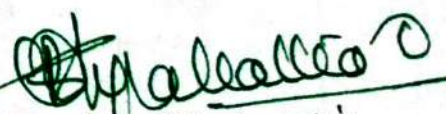
Title of the Paper: Chemistry-I-Inorganic, Organic & Physical Chemistry

Total Hours : 60

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
July	I	Water : Hardness of water -Types of Hardness - methods, removal of Temporary hardness - removal of Permanent hardness - Industrial implications of hardness in water-Estimation of hardness by EDTA method - units of hardness of water.	I B.Sc Zoology	10	Chalk and Talk Seminar, Group Discussion	
August	II	Periodic Table :Mendeleef's Periodic table -characteristics of Mendeleef's periodic table - merits and demerits - Modern periodic table -Periodic variations in properties - Atomic radius - Ionisation potential, Electron affinity- metallic and non metallic characters.	I B.Sc Zoology	11	Chalk and Talk Seminar, Group Discussion	
sep	III	Dyes : Definition- theory of colour and constitution- chromophore - auxochrome theory - classification: Based on chemical structure, based on their mode of application - preparation and uses: Methyl orange , congo red, malachite green.	I B.Sc Zoology	11	Chalk and Talk Seminar, Group Discussion	

Oct	IV	Electrochemical cells : Definition, voltaic cells - Daniell cell - Measurement of the EMF of a cell - cell reaction - Single electrode potentials - oxidation - reduction potentials - Gas electrodes - hydrogen electrode, chlorine electrode - EMF of cell in terms of Single Electrode Potential - Determination of Single Electrode Potentials with examples - Commercial cells - Leclanche cell and Lead acid storage cell.	I B.Sc Zoology	14	Chalk and Talk Seminar, Group Discussion	
Nov	V	Colloids: Definition - size of colloidal particles - classification - differences between lyophilic sols and lyophobic sols - preparation of sols - dispersion Method :Bredig's arc method, peptization - properties:Optical property-tyndall effect, kinectic property-brownian movement, electrical property-electrical double layer-application of colloids - colloidal medicines, sewage disposal, purification of water, artificial rain.	I B.Sc Zoology	14	Chalk and Talk Seminar, Group Discussion	


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LESSON PLAN

2022-2023

Class : I B.Sc Zoology & Mathematics

Sem : I


Sub. Code : 22OUMAGECH1

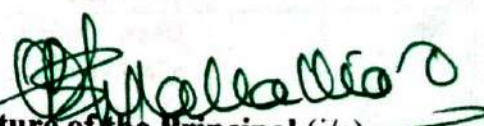
Title of the Paper: Chemistry-I-Inorganic, Organic & Physical Chemistry

Total Hours : 60

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
July	I	Water : Hardness of water -Types of Hardness - methods, removal of Temporary hardness - removal of Permanent hardness - Industrial implications of hardness in water-Estimation of hardness by EDTA method - units of hardness of water.	I B.Sc Maths	10	Chalk and Talk Seminar, Group Discussion	
August	II	Periodic Table :Mendeleef's Periodic table -characteristics of Mendeleef's periodic table - merits and demerits - Modern periodic table - Periodic variations in properties - Atomic radius - Ionisation potential, Electron affinity- metallic and non metallic characters.	I B.Sc Maths	11	Chalk and Talk Seminar, Group Discussion	
sep	III	Dyes : Definition- theory of colour and constitution- chromophore - auxochrome theory - classification: Based on chemical structure, based on their mode of application - preparation and uses: Methyl orange , congo red, malachite green..	I B.Sc Maths	11	Chalk and Talk Seminar, Group Discussion	

Oct	IV	Electrochemical cells : Definition, voltaic cells - Daniell cell - Measurement of the EMF of a cell - cell reaction - Single electrode potentials - oxidation - reduction potentials - Gas electrodes - hydrogen electrode, chlorine electrode - EMF of cell in terms of Single Electrode Potential - Determination of Single Electrode Potentials with examples - Commercial cells - Leclanche cell and Lead acid storage cell.	I B.Sc Maths	14	Chalk and Talk Seminar, Group Discussion	M. J. P. S.
Nov	V	Colloids: Definition - size of colloidal particles - classification- differences between lyophilic sols and lyophobic sols - preparation of sols- dispersion Method : Bredig's arc method, peptization - properties: Optical property-tyndall effect, kinectic property- brownian movement, electrical property- electrical double layer- application of colloids - colloidal medicines, sewage disposal, purification of water, artificial rain.	I B.Sc Maths	14	Chalk and Talk Seminar, Group Discussion	M. J. P. S.


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LESSON PLAN
2022-2023



Class : II B.Sc Zoology & Mathematics

Sem : III

Sub. Code : 21AK3


Title of the Paper: General chemistry -III

Total Hours : 60

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
July	I	Chemical Bonding a) Valence Bond Theory-Postulates of VB Theory -Types of overlap of Atomic orbitals- s-s Overlapping -s- p Overlapping -p - p Overlapping - Types of Covalent bond -Sigma bond, pi bond and their differences. b) Molecular Orbital Theory -Formation of molecular orbital (combination of s - s Orbital only) -Differences between bonding and anti bonding molecular orbitals-Molecular orbital diagram, Bond Order and Magnetic Properties for the following homonuclear diatomic molecules -Hydrogen, Helium and Nitrogen.	II B.Sc Zoology	12	Chalk and Talk Seminar, Group Discussion	
August	II	Oxidation and Reduction -Electronic concept of Oxidation and Reduction- oxidation number-differences between oxidation number and valency- rules for calculating oxidation number-solved examples- concept of -oxidising agents and reducing agents-redox reactions and half reactions. Modern concepts of Acids and Bases -Arrhenius concept, bronsted-lowry concept, Lewis concept and Usanovich concept-relative strengths of acids and bases -amphoteric solvents-Levelling effects.	II B.Sc Zoology	13	Chalk and Talk Seminar, Group Discussion	

sep	III	Halogen Compounds -Aliphatic halogen compounds -Preparation, Properties and uses of Chloroform and Carbon Tetrachloride - Aromatic halogen compounds - Preparation, Properties and uses of Chlorobenzene -Mechanism of aliphatic nucleophilic substitution - SN^1 - Explanation with Example - SN^2 - Explanation with Example- Differences between SN^1 and SN^2 Mechanisms.	II B Sc Zoology	12	Chalk and Talk Seminar, Group Discussion	c.b.b.
Oct	IV	Polymers a) Polymers-Definition-Classification of Polymerisation reactions-Addition-Polymerization-Condensation Polymerization. b) fibres-Definition-Manufacture and uses of important fibres -Polyamide fibre-Polyester fibre. c) Resins - Definition -Manufacture and uses of Amino resin, Unsaturated Polyester resin. d) Plastics - Definition -Classification of Plastic -Thermoplastics -Thermo setting plastics- Manufacture and uses of Polythene and PolyVinyl Chloride.	II B Sc Zoology	12	Chalk and Talk Seminar, Group Discussion	c.b.b.
Nov	V	Ionic Equilibria -Ionic Product of Water -Hydrolysis - definition - Nature of Salts solution undergoing Hydrolysis, degree of Hydrolysis and Hydrolysis constant of the following-Salts of strong acid and strong base -Salts of weak acid and strong base-Salts of strong acid and weak base -Salts of weak acid and weak base.	II B.Sc Zoology	11	Chalk and Talk Seminar, Group Discussion	c-b-b

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2022-2023

Class : II B.Sc Zoology & Mathematics

Sem : III

Sub. Code : 21AK3

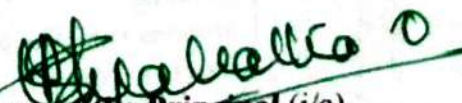
Title of the Paper: General chemistry -III

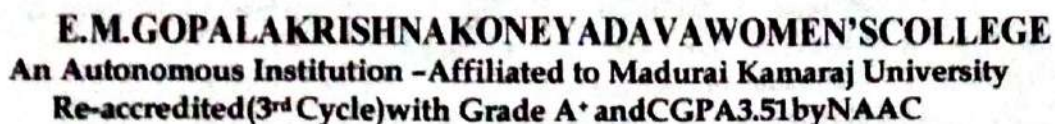
Total Hours : 60

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
July	I	Chemical Bonding a)Valence Bond Theory-Postulates of VB Theory -Types of overlap of Atomic orbitals- s -s Overlapping -s- p Overlapping -p - p Overlapping - Types of Covalent bond -Sigma bond, pi bond and their differences. b) Molecular Orbital Theory -Formation of molecular orbital (combination of s - s Orbital only) -Differences between bonding and anti bonding molecular orbitals-Molecular orbital diagram, Bond Order and Magnetic Properties for the following homonuclear diatomic molecules -Hydrogen, Helium and Nitrogen.	II B.Sc Maths	12	Chalk and Talk Seminar, Group Discussion	
August	II	Oxidation and Reduction- Electronic concept of Oxidation and Reduction- oxidation number-differences between oxidation number and valency- rules for calculating oxidation number- solved examples- concept of - oxidising agents and reducing agents-redox reactions and half reactions. Modern concepts of Acids and Bases- Arrhenius concept, bronsted-lowry concept, Lewis concept and Usanovich concept- relative strengths of acids and bases -amphoteric solvents- Levelling effects.	II B.Sc Maths	13	Chalk and Talk Seminar, Group Discussion	

sep	III	Halogen Compounds -Aliphatic halogen compounds -Preparation, Properties and uses of Chloroform and Carbon Tetrachloride - Aromatic halogen compounds - Preparation, Properties and uses of Chlorobenzene -Mechanism of aliphatic nucleophilic substitution -SN ¹ - Explanation with Example -SN ² - Explanation with Example-Differences between SN ¹ and SN ² Mechanisms.	II B.Sc Maths	12	Chalk and Talk Seminar, Group Discussion	c-h
Oct	IV	Polymers a) Polymers-Definition-Classification of Polymerisation reactions-Addition-Polymerization-Condensation Polymerization. b) fibres-Definition-Manufacture and uses of important fibres -Polyamide fibre-Polyester fibre. c) Resins - Definition -Manufacture and uses of Amino resin, Unsaturated Polyester resin. d) Plastics - Definition -Classification of Plastic -Thermoplastics -Thermo setting plastics- Manufacture and uses of Polythene and PolyVinyl Chloride.	II B.Sc Maths	12	Chalk and Talk Seminar, Group Discussion	e-b-b
Nov	V	Ionic Equilibria -Ionic Product of Water -Hydrolysis - definition - Nature of Salts solution undergoing Hydrolysis, degree of Hydrolysis and Hydrolysis constant of the following-Salts of strong acid and strong base -Salts of weak acid and strong base-Salts of strong acid and weak base -Salts of weak acid and weak base.	II B.Sc Maths	11	Chalk and Talk Seminar, Group Discussion	c-h-b.


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**2022-2023**

Class : I B.Sc Zoology & Mathematics

Sem : II

Sub. Code : 22OUZOGCH2

Title of the Paper: Chemistry-II - Organic, Applied & Analytical Chemistry

Total Hours : 60

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Jan	I	Fundamental Concepts: Tetra valency of carbon-hybridisation: sp^3 (CH_4), sp^2 (C_2H_4) and sp (C_2H_2)-bond fission: homolytic fission, heterolytic fission (one example each). Reaction intermediates: Definition - formation of carbonium ion, carbanion and free radical. Attacking reagents: Definition - nucleophiles and electrophiles (one example)	I B.Sc Zoology	12	Chalk and Talk Seminar, Group Discussion	M. S. P. A.
Feb	II	Condensed System & Heterocyclic Compounds: Condensed system: Introduction, Naphthalene - synthesis and properties (No structural elucidation). Heterocyclic compounds: Preparation and properties of furan, pyridine and quinoline.	I B.Sc Zoology	11	Chalk and Talk Seminar, Group Discussion	M. S. P. A.
March	III	Carbohydrates: Introduction-Classification - Mono Saccharide: Glucose-preparation, properties and uses -straight chain structure, cyclic structure and Haworth's structure of glucose -conversion of glucose into fructose and vice- versa. Disaccharide - sucrose manufacture, properties -structure only - distinction between glucose, fructose and sucrose.	I B.Sc Zoology	11	Chalk and Talk Seminar, Group Discussion	M. S. P. A.

April	IV	Corrosion : Definition - Causes of corrosion - Classification of corrosion - Differences between chemical and electrochemical corrosion - Galvanic corrosion - Differential aeration corrosion - Pitting corrosion - Stress corrosion - Factors influencing rate of corrosion - Various methods of preventing corrosion - Application of prevention of corrosion.	I B.Sc Zoology	13	Chalk and Talk Seminar, Group Discussion	<i>[Signature]</i>
May	V	Chromatographic techniques: Introduction - chromatography terms - Different chromatographic techniques and their applications - Thin layer chromatography, Paper chromatography, Ion- exchange chromatography - chromatography special techniques in current scenario.	I B.Sc Zoology	13	Chalk and Talk Seminar, Group Discussion	<i>[Signature]</i>

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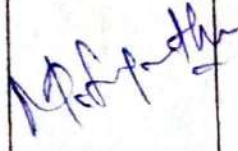
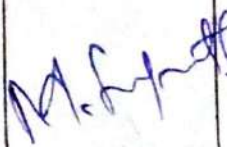
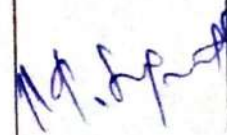
Class : I B.Sc Zoology & Mathematics

Sem : II

Sub. Code : 22OUMAGECH2

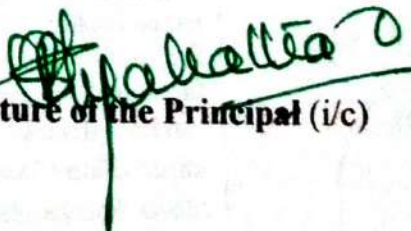
Title of the Paper: Chemistry-II - Organic, Applied & Analytical Chemistry

Total Hours : 60

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
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Feb	II	Condensed System & Heterocyclic Compounds: Condensed system: Introduction, Naphthalene - synthesis and properties (No structural elucidation). Heterocyclic compounds: Preparation and properties of furan, pyridine and quinoline.	I B.Sc Maths	11	Chalk and Talk Seminar, Group Discussion	
March	III	Carbohydrates: Introduction-Classification - Mono Saccharide: Glucose-preparation, properties and uses -straight chain structure, cyclic structure and Haworth's structure of glucose -conversion of glucose into fructose and vice- versa. Disaccharide - sucrose manufacture, properties -structure only - distinction between glucose, fructose and sucrose.	I B.Sc Maths	11	Chalk and Talk Seminar, Group Discussion	

April	IV	Corrosion : Definition - Causes of corrosion - Classification of corrosion - Differences between chemical and electrochemical corrosion - Galvanic corrosion - Differential aeration corrosion - Pitting corrosion - Stress corrosion - Factors influencing rate of corrosion - Various methods of preventing corrosion - Application of prevention of corrosion.	I B.Sc Maths	13	Chalk and Talk Seminar, Group Discussion	M. H. P. H.
May	V	Chromatographic techniques: Introduction - chromatography terms - Different chromatographic techniques and their applications - Thin layer chromatography, Paper chromatography, Ion- exchange chromatography - chromatography special techniques in current scenario.	I B.Sc Maths	13	Chalk and Talk Seminar, Group Discussion	M. H. P. H.


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LESSON PLAN

2022-2023

Class : II B.Sc Zoology & Mathematics

Sem : IV

Sub. Code : 21AK4


Title of the Paper: General chemistry -IV

Total Hours : 60

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Jan	I	Double Salts, Alums and Coordination compounds a) Double Salts And Alums - Definition -Double Salts - Alum-Distinction between Double salts and alums - Preparation and uses of ferrous ammonium sulphate - Preparation and uses of ferric Alum b) Coordination compounds -Definition - Definition of various terms involved in Coordination Chemistry -Werner's Theory - illustrate with example - Effective Atomic Number rule with examples -Valence Bond Theory -postulates, formation of $[\text{Co}(\text{NH}_3)_6]^{3+}$ complex.	II B.Sc Zoology	12	Chalk and Talk Seminar, Group Discussion	
Feb	II	Alkaloids and Terpenoids:- a) Alkaloids -Definition - Occurrence- Classification of alkaloids- Extraction of alkaloids- General Properties of alkaloids -Structure of Cocaine, Papaverine and Piperine. b) Terpenoids - Definition -Isoprene rule - Line formula of Terpenoids - Classification - Occurrence- Isolation of Terpenoids (Steam distillation method) - General properties-Structure of Citral, Geraniol, Menthol, Terpeneol and Dipentene (no structural elucidation).	II B.Sc Zoology	12	Chalk and Talk Seminar, Group Discussion	

March	III	Organic Compounds and Industrial Organic Compounds:- a) Preparation and uses of some Important Organic Compounds – Saccharin, Salicylic acid, Aspirin, Salol and Picric acid. b) Manufacture and uses of some Industrial organic compounds –Alcoholic beverages (Beer and wine), Absolute alcohol, n-butyl alcohol and Acetone.	II B.Sc Zoology	11	Chalk and Talk Seminar, Group Discussion	c-b-c
April	IV	Chemotherapy: Introduction-characteristics of a drug- Antibacterials-Definition-preparation and uses of Sulphanilamide-Antimalarials –definition-preparation and uses of chloroquine and Plasmoquine- Antibiotics-definition-classification-based on the specificity of their action, based on gram staining method- Arsenical drugs-definition- preparation and uses of Salvarsan.	II B.Sc Zoology	12	Chalk and Talk Seminar, Group Discussion	c-b-2
May	V	Fertilizers, Insecticides, Pesticides and Fungicides a) Fertilizers –Definition-role of various elements in plant growth -Manufacture and uses of Nitrogenous fertilizers-Calcium Ammonium Nitrate-Urea-Phosphatic fertilizers - Calcium Super Phosphate - Potash fertilizers-Potassium Nitrate -Potassium Sulphate b) Definition -Classification according to the mode of action - Insecticides, Pesticides and Fungicides - Preparation and uses of DDT and BHC.	II B.Sc Zoology	13	Chalk and Talk Seminar, Group Discussion	c-k-c

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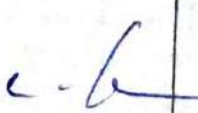
Class : II B.Sc Zoology & Mathematics

Sem : IV

Sub. Code : 21AK4

Title of the Paper: General chemistry -IV

Total Hours : 60

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Jan	I	Double Salts, Alums and Coordination compounds a) Double Salts And Alums - Definition -Double Salts - Alum-Distinction between Double salts and alums - Preparation and uses of ferrous ammonium sulphate - Preparation and uses of ferric Alum b) Coordination compounds -Definition - Definition of various terms involved in Coordination Chemistry -Werner's Theory - illustrate with example - Effective Atomic Number rule with examples -Valence Bond Theory -postulates, formation of $[\text{Co}(\text{NH}_3)_6]^{3+}$ complex.	II B.Sc Maths	12	Chalk and Talk Seminar, Group Discussion	
Feb	II	Alkaloids and Terpenoids:- a) Alkaloids -Definition - Occurrence- Classification of alkaloids- Extraction of alkaloids- General Properties of alkaloids -Structure of Cocaine, Papaverine and Piperine. b) Terpenoids - Definition -Isoprene rule - Line formula of Terpenoids - Classification - Occurrence- Isolation of Terpenoids (Steam distillation method) - General properties-Structure of Citral, Geraniol, Menthol, Terpeneol and Dipentene (no structural elucidation).	II B.Sc Maths	12	Chalk and Talk Seminar, Group Discussion	

March	III	Organic Compounds and Industrial Organic Compounds:- a) Preparation and uses of some Important Organic Compounds - Saccharin, Salicylic acid, Aspirin, Salol and Picric acid. b) Manufacture and uses of some Industrial organic compounds -Alcoholic beverages (Beer and wine), Absolute alcohol, n-butyl alcohol and Acetone.	II B.Sc Maths	11	Chalk and Talk Seminar, Group Discussion	c-b-b
April	IV	Chemotherapy: Introduction-characteristics of a drug- Antibacterials-Definition-preparation and uses of Sulphanilamide-Antimalarials -definition-preparation and uses of chloroquine and Plasmoquine- Antibiotics-definition-classification-based on the specificity of their action, based on gram staining method- Arsenical drugs-definition- preparation and uses of Salvarsan.	II B.Sc Maths	12	Chalk and Talk Seminar, Group Discussion	c-b-b
May	V	Fertilizers, Insecticides, Pesticides and Fungicides a) Fertilizers -Definition-role of various elements in plant growth -Manufacture and uses of Nitrogenous fertilizers-Calcium Ammonium Nitrate-Urea-Phosphatic fertilizers - Calcium Super Phosphate - Potash fertilizers-Potassium Nitrate -Potassium Sulphate b) Definition -Classification according to the mode of action - Insecticides, Pesticides and Fungicides - Preparation and uses of DDT and BHC.	II B.Sc Maths	13	Chalk and Talk Seminar, Group Discussion	c-b-b

c-b-b
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LESSON PLAN

2022-2023

Class : I B.Sc Zoology & Mathematics

Sem : I & II

Sub. Code : 22OUMAGECH2P

Title of the Paper: Practical – I Salt Analysis

Total Hours : 60

Month	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Jan	Instruction Demonstration Analysis of Anions (Acid radical) Demonstration Analysis of Cations (Basic radical)	I B.Sc Maths	12	Demonstration , Chalk and Talk, Discussion	c-b-b
Feb	Analysis of Anions for 2 batches Analysis of Cations for 2 batches	I B.Sc Maths	12	Demonstration , Chalk and Talk, Discussion	c-b-b
March	Analysis of inorganic salt – I for 2 batches Analysis of inorganic salt – II for 2 batches Analysis of inorganic salt – III for 2 batches	I B.Sc Maths	12	Demonstration , Chalk and Talk, Discussion	c-b-b
April	Analysis of inorganic salt – IV for 2 batches Analysis of inorganic salt – V for 2 batches Analysis of inorganic salt – VI for 2 batches	I B.Sc Maths	12	Demonstration , Chalk and Talk, Discussion	c-b-b
May	Revision for 2 batches Model test for 2 batches	I B.Sc Maths	12	Demonstration , Chalk and Talk, Discussion	c-b-b

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LESSON PLAN

2022-2023

Class : I B.Sc Zoology & Mathematics

Sem : I & II


Sub. Code : 22OUZOGCH2P

Title of the Paper: Practical – I Salt Analysis

Total Hours : 60

Month	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Jan	Instruction Demonstration Analysis of Anions (Acid radical) Demonstration Analysis of Cations (Basic radical)	I B.Sc Zoology	12	Demonstration , Chalk and Talk, Discussion	c. b. b.
Feb	Analysis of Anions for 2 batches Analysis of Cations for 2 batches	I B.Sc Zoology	12	Demonstration , Chalk and Talk, Discussion	c. b. b.
March	Analysis of inorganic salt – I for 2 batches Analysis of inorganic salt – II for 2 batches Analysis of inorganic salt – III for 2 batches	I B.Sc Zoology	12	Demonstration , Chalk and Talk, Discussion	c. b. b.
April	Analysis of inorganic salt – IV for 2 batches Analysis of inorganic salt – V for 2 batches Analysis of inorganic salt – VI for 2 batches	I B.Sc Zoology	12	Demonstration , Chalk and Talk, Discussion	c. b. b.
May	Revision for 2 batches Model test for 2 batches	I B.Sc Zoology	12	Demonstration , Chalk and Talk, Discussion	c. b. b.

c. b. b.
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2022-2023

Class : II B.Sc Zoology & Mathematics


Sem : III & IV

Sub. Code : 21AK4P

Title of the Paper: Volumetric Analysis

Total Hours : 60

Month	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
July	Instruction Demonstration for estimation of given solution Demonstration for estimation of given solution	II B.Sc Zoology	12	Demonstration , Chalk and Talk, Discussion	M. S. Senthil
August	Estimation of Na_2CO_3 for 2 batches Estimation of Mohr's salt for 2 batches	II B.Sc Zoology	12	Demonstration , Chalk and Talk, Discussion	M. S. Senthil
sep	Estimation of KMnO_4 for 2 batches Estimation of NaOH for 2 batches	II B.Sc Zoology	12	Demonstration , Chalk and Talk, Discussion	M. S. Senthil
Oct	Estimation of FeSO_4 for 2 batches Estimation of $\text{C}_2\text{H}_2\text{O}_4$ for 2 batches	II B.Sc Zoology	12	Demonstration , Chalk and Talk, Discussion	M. S. Senthil
Nov	Revision for 2 batches Model test for 2 batches	II B.Sc Zoology	12	Demonstration , Chalk and Talk, Discussion	M. S. Senthil


Signature of the HOD


Signature of the Principal (i/c)



E.M.GOPALAKRISHNAKONEYADAVAWOMEN'SCOLLEGE
An Autonomous Institution -Affiliated to Madurai Kamaraj University
Re-accredited(3rd Cycle)with Grade A⁺ and CGPA 3.51 by NAAC

LESSON PLAN

2022-2023

Class : II B.Sc Zoology & Mathematics

Sem : III & IV

Sub. Code : 21AK4P

Title of the Paper: Volumetric Analysis

Total Hours : 60

Month	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
July	Instruction for estimation of given solution Demonstration for estimation of given solution	II B.Sc Maths	12	Demonstration , Chalk and Talk, Discussion	
August	Estimation of Na_2CO_3 for 2 batches Estimation of Mohr's salt for 2 batches	II B.Sc Maths	12	Demonstration , Chalk and Talk, Discussion	
sep	Estimation of KMnO_4 for 2 batches Estimation of NaOH for 2 batches	II B.Sc Maths	12	Demonstration , Chalk and Talk, Discussion	
Oct	Estimation of FeSO_4 for 2 batches Estimation of $\text{C}_2\text{H}_2\text{O}_4$ for 2 batches	II B.Sc Maths	12	Demonstration , Chalk and Talk, Discussion	
Nov	Revision for 2 batches Model test for 2 batches	II B.Sc Maths	12	Demonstration , Chalk and Talk, Discussion	

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