Mugberia Gangadhar Mahavidyalaya

Estd.-1964
NAAC Re-Accredited 'B'+ Level Govt. aided College
CPE (Under UGC XII Plan) & NCTE Approved Institutions
DBT Star College Scheme Recipient

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TEACHER'S DIARY

Department of Chemistry

Class Sem I, II, III, IV, V, VI - GE-1, II - B.Voc

Subject Chemistry

Session 2022-2023, 2023-2024

Teacher's Name Minakshi Maity

Time Table For Odd Semester

DAYS	1	2	3	4	5	6	7	8	9	10
Monday			SEM-3 C_6T		SES-V $C_{11}T$	SEM-V DSE	SEM-V -2P			
Tuesday			SEM-V $C_{11}T$	SEM-I GE-	SEM-I 1P (Nut)					
Wednesday		SEM-III B-VoC	SEM-II C_6T	SEM-I GE-	SEM-I 1P (Math)					
Thursday			SEM-III DSC-ICT	SEM-V B.VoCT		SEM-II GE-3P	SEM-II GE-3P			
Friday										
Saturday										
Sunday										

SUMMARY

Class	SEM-III	SEM-V	SEM-1	
Subject	Chemistry	Chemistry	Chemistry	
No. of Periods	6	5		

Time Table For Even semester

DAYS	1	2	3	4	5	6	7	8	9	10
Monday		SEM-VI $C_{13}T$	SEM-IV C_9T	SEM-II C_3T						
Tuesday	SEM-VI $C_{13}T$				SEM-IV C_9T	SEM-II GE	SEM-II -2P(Math)			
Wednesday		SEM-IV C_9P	SEM-IV C_9P	SEM-IV B.VoCT		SEM-II GE-	SEM-II 2P (Nut)			
Thursday		SEM-II C_3T	SEM-II GE 2T	SEM-IV C_9P	SEM-IV C_9P					
Friday										
Saturday										
Sunday										

SUMMARY

Class	SEM-II	SEM-IV	SEM-VI	
Subject	Chemistry	Chemistry	Chemistry	
No. of Periods	7	6	2	

2. A Syllabus of the Work in Outline

SEM-II

(C_3T)

⇒ Extra nuclear Structure of atom =

⇒ Chemical Periodicity ⇒

Modern IUPAC Periodic table, Effective nuclear charge, screening effects and penetration, Slater's rules, atomic radii, ionic radii, covalent radii, lathanide contraction. Ionisation potential, electron affinity and electronegativity and factors influencing these properties, group electronegativity. Gorup trends and periodic trends in these properties in respect of S, P, and d block elements. Secondary periodicity, Relativistic Effect, Innert pair effect.

⇒ Acid - Base Rections : ⇒

Acid - Base concept : Arrhenius concept, theory of solvent syatem. Bronsted - Lowry concept, Group characteristics of Lewis acid. solvent levelling and differentiating effects. Thermodynamic acidity parameter, Drago - Wayland equation. Super acids. Gas phase acidity and proton affinity. HSAB principle, Acid - base equilibria in aq. solution, pH, buffer, Acid - base neutralisation curves, indicator, choice of indicator.

⇒ Redox Reactions and precipitation Reactions : ⇒

C_3P

⇒ Acid and Base Titrations :

⇒ oxidation - reduction Titrimetric :

SEM-III

(C_6T)

⇒ Chemical Bonding - I

(i) Ionic Bond ⇒ General characteristics, types of ions, size effect, radius ratio rule and its application and limitations, packing of ions in crystals, Born - Lande equation with derivation and importance of Kapustiskii expression for lattice energy. Madelung constant, Born - Haber cycle and its application, Solvation energy. Defects in solids. Solubility energetics of dissolution process.

(ii) Covalent Bond ⇒ Polarizing power and polarizability, ionic potential, Fazan's rules. Lewis structure, formal charge. Valence bond Theory. The hydrogen molecule (Heitler - London), directional behaviour of covalent bonds, hybridizations, equivalent and non-equivalent hybrid orbitals, Bent's rule, Dipole-moments, VSEPR theory, Shapes of molecules and ions containing lone pairs and Bond pairs and multiple bonding.

⇒ Chemical Bonding - II

⇒ Radioactivity ⇒

C_6P

⇒ Iodo-/Iodimetric Titrations

⇒ Estimation of metal content in some selective samples.

3. Detailed Syllabus

(A) First Term

From ..... **To** .....

SEM-IV

(CgT)

⇒ General principles of Metallurgy ⇒

⇒ Chemistry of s and p Block Elements ⇒

Relative stability of different oxidation states, diagonal relationship and anomalous behaviour of first member of each group. Allotropy and catenation. Study of the following compounds with emphasis on structure, bonding, preparation, properties and uses. Beryllium hydrides and halides. Boric acid and Borates, boron nitrides, borohydrides and graphitic compounds, Silanes, oxides and oxoacids of nitrogen, phosphorous, Sulphur, and chlorine. Peroxo acids of sulpher, Sulphur-nitrogen compounds, interhalogen compounds, polyhalide ions, pseudohalogens, fluorocarbons and basic properties of halogens.

⇒ Noble Grasses :-

Occurrence and uses, rationalisation of inertness of noble gases, Clathrates, preparation and properties of XeF_2, XeF_4 and XeF_6, Nature of bonding in noble gas compounds. Xenon-oxygen compounds. Molekular shapes of noble gas compounds.

⇒ Inorganic Polymers.

⇒ Co-ordination chemistry - I

(CGP)

⇒ Complexometric titration =

1. Zn(II)
2. Ca(II) and Mg(II) in a mixture.
3. Hardness of water.

⇒ Inorganic preparations:

1. Cis and trans $K[Cr(C_2O_4)_2(H_2O)_2]$
2. Tris-ethylene diamine nickel(II) chloride.
3. Tetraammine carbonatocobalt(III) ion
4. $Mn(acac)_3$ and $Fe(acac)_3$

:= (SEM-V) =:

(CHT)

⇒ Co-ordination Chemistry - II

⇒ Chemistry of d and f-block elements:

Transition elements:

General comparison of 3d, 4d and 5d elements in term of electronic configuration, oxidation state, redox properties, co-ordination chemistry.

Lanthanoids and Actinoids:

General comparison on electronic configuration, oxidation states, colour, spectral and magnetic properties, Lanthanide contraction, separation of Lanthanides.

3. Detailed Syllabus
(B) Second Term

From ..... To .....

(C11P)

⇒ Chromatography of metal ions =

⇒ Gravimetry

⇒ Spectrophotometry

SEM-VI
(C13T)

⇒ Bioinorganic Chemistry

⇒ Organometallic Chemistry ⇒

Definition and classification of organometallic compounds on the basis of bond type. Concept of hapticity of organic ligands. 18-electron and 16-electron rules. Applications of 18-electron rule to metal carbonyls, nitrosyls, cyanides. General methods of preparation of mono and binuclear carbonyls of 3d series. Structure of mono and binuclear carbonyls, pi-acceptor behaviour of C.O, synergic effect and use of IR data to explain extent of back bonding. Zeise's salt: Preparation, structure, evidence of synergic effect. Ferrocene: Preparation and reactions. Reactions of organometallic complexes: substitution, oxidative addition, reductive elemination and insertion reactions.

⇒ Catalysis by Organometallic compounds ⇒

Study of the following industrial process-
alkene hydrogenation, hydroformylation, Wacker process, Fischer Tropsch reaction and Ziegler-Natta catalysis.

⇒ Reaction kinetics and Mechanism.

(GE-1 T)

SEM-I

Inorganic chemistry-I

⇒ Atomic Structure ⇒

⇒ Chemical periodicity ⇒

⇒ Acids and Bases ⇒

⇒ Redox reactions ⇒

GE-1 (P)

Inorganic chemistry ⇒

1. Estimation of sodium carbonate and sodium hydrogen carbonate present in a mixture.

2. Estimation of oxalic acid by titrating it with $KMnO_4$

3. Estimation of water of crystallisation in Mohr's salt by titrating with $KMnO_4$

4. Estimation of Fe(II) ions by titrating it with $K_2Cr_2O_7$ using internal indicator.

5. Estimation of Cu(II) ions iodimetrically using $Na_2S_2O_3$

3. Detailed Syllabus

(C) Third Term

From ..... To .....

(SEM-2)

(GLE-2T)

Inorganic Chemistry - II

⇒ Chemical bonding and Molecular Structure.

Ionic bonding : General characteristics of ionic bonding, Lattice energy, Born-Haber cycle, Born-Lande equation. polarising power and polarizability, Fajan's rule, dipole moment.

Covalent Bonding : VSEPR theory and hybridisation with suitable examples of Linear, trigonal planar, Square planar, tetrahedral, trigonal bipyramidal and octahedral arrangements.

Concepts of resonance of various organic and inorganic compounds and M.O approach.

⇒ Comparative study of p-block elements.

(GE-2P)

Inorganic Chemistry Lab⇒

Quantitative semimicroanalysis of mixtures containing three radicals.

Acid Radicals : Cl^-, Br^-, I^-, NO_2^-, NO_3^-, S^{2-}, SO_4^{2-}, PO_4^{3-}, BO_3^{3-}

Basic Radicals : Na^+, K^+, Ca^{2+}, Ba^{2+}, NH_4^+, Fe^{3+}, Ni^{2+}, Cu^{2+}

B.Voc.

(Part-II)

Inorganic Chemistry ⇒

1. Comparative Study of P-block elements:

2. Acid-base concept:

Arhenius and Bronsted Lowry concept, relative strength of acid bases, Lux-Flood concept, Lewis Concept, pH, buffer, HSAB principle.

3. Redox Chemistry:

Balancing of equation by ion-electron method. Nernst equation, formal potential, disproportionation and comproportionation reaction.

4. Chemical equilibrium:

paper-III

Inorganic qualitative analysis.

Inorganic quantitative analysis.

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Question and answer discussion on the chapter organometallic chemistry.	1P
	Structure, preparation, properties of NO_2 and N_2O_5	1P
	Theory of acid-bases	1P
6/09/22 – 11/09/22	Question and answer discussion on the chapter of organometalic chemistry	1P
	Structure, preparation and properties of oxide of P	1P
	Estimation of hardness of water	2P
	Question and answer for comparing acidity - basicity	1P
	Estimation of Zn^{2+} in a sample	2P
Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-V	Students are very interested on discussion.	
SEM-III	Students want the class through writting.	
SEM-III	Students are satisfied	
SEM-V	Very interested	
SEM-(V)	They want class notes	
SEM-(V)	Very much interested	
SEM-III	Very interested	
SEM-(V)	Very much interested	

11/09/22

Principal
Mugberia Gangadhar Mahavidyalaya

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Definition and characteristics of ionic bond	1P
13/09/22 - 18/09/22	General characteristics of 5d series elements.	1P
	Lattice energy definition and Derivation of Born-Lande equation	1P
19/09/22 - 24/09/22	Discussion of questions and answers on Born-Lande equation.	1P
	Detailed study of oxidation state, electronic configuration, redox chemistry and co-ordination chemistry of 5d elements.	1P
	Lewis definition of acid-base and classification of Lewis acid and Lewis base.	1P

Date	Home task for the week

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-III	Students are very much excited to draw ionic bonding between various elements	
SEM-V	Students want to take class notes	
SEM-III	Students are very much interested	
SEM-III	Students give the answers very correctly.	
SEM-V	Students clearly note down the class notes.	
SEM-I GE-I	Students are very much attentive in the class.	Principal 24-09-2022

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Lux-flood concept and solvent system concept	1P
26/09/25 - 1/10/25	Differentiating and Levelling solvent and HSAB principle	1P
	Introduction of F-block elements and electronic configuration of Lanthanides.	1P
01/01/22 - 5/11/22 (After puja vacation)	Bronsted theory of acid base and concept of conjugate acid-base.	1P
	Compare of different properties between 5d with 3d elements	1P
	Concept of solvation energy and therefore hydration energy.	1P
Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
1st (GE-1) SEM	Very much interested and curious	
1st (GE-1) SEM	They are very curious and want class note	
Sem-V	They want class note	
SEM-I GE-I	Students listen and understand the class very carefully.	
SEM-V	Students note down the class notes very carefully.	
SEM-III	Students are very attentive in the class.	

5.11.22
Principal
Mulgheria Gangadhar Mahavidyalaya

IV. DIARY

Date week ending	FORECAST	Amount Thught
	Application Of Born-Haber cycle and solvation energy	1P
	Oxidation states of Lanthanides & Magnetic moment calculation of lanthanides	1P
	Radius ratio rule and determine of radius ratio	1P
07/11/22 – 12/11/22	Arhenius and Bron-sted Lowry concept of acid-base	1P
	Practical instruction of estimation of oxalic acid by $KMnO_4$	2P
	Application of HSAB principle and question related to this.	1P

Date	Home task for the week

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-III	Students are interested about the class	
SEM-V	Very poor presence of students but present students are very much interested	
SEM-III	They are interested to calculate the values of radius ratio	
B.Voc 2nd	They give good response	
GE-1 (MAH)	They are very serious for listening the practical procedure.	
GE-1	They are very attentive in class.	

12/11/2022

Principal
Nagberia Gangadhar Mahavidyalaya

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Magnetic and spectral properties of Lanthanides	1P
	Radius ratio calculation for C.N=6 and C.N=8, and application of radius ratio rule	1P
14/11/22	Oxidation and reduction	1P
-19/11/22	Application of radius ratio rule and packing of ions in crystal	1P
	Lewis theory and Lux-flood theory of acid-base	1P
	Estimation of oxalic acid by KMnO4	2P
	Balance redox reaction by ion-electron method	1P
Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-V	Students are interested and they want to clear their doubt about spectra.	
SEM-III	They are very much attentive	
SEM-1(GE1)	They are very interested.	
SEM-III	They are very much attentive	
~~SEM~~ B.Voc	They are very curious	
GE-1 (Math)	Practical is done very sincerely.	
GE-1	They are very interested in the class.	19.11.2022 Principal Jangipur Gangadhar Mahavidyalaya

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Hard-soft acid base characteristics and principle and its application	1P
	Balance of redox reaction by ion-electron method.	1P
21/11/22 – 26/11/22	Give some redox reaction to balance it by ion-electron method.	1P
	Packing of ions in crystal in details.	1P
	Compare of different properties of 5d elements with 3d elements.	1P

Date	Home task for the week

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
B.Voc	Students are very much attentive in the class.	[signature] Principal Moyborla Gangadhar Mahavidyalaya
GE-2	Students are very much active and they do well in home task	
(GE-1)	Students are very interested in the class.	
SEM-III	Students are very much interested.	
SEM-V	Students note down the class note clearly.	[signature] Principal 26-11-2022 Moyborla Gangadhar Mahavidyalaya

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IV. DIARY

Date week ending	FORECAST	Amount Taught
	Packing of ions in crystal and defect in ionic crystal	1P
	Balancing of ionic equation by oxidation state method.	1P
	Spectra of lanthanides and lanthanide contraction	1P
28/11/22 -3/12/22	Isolation of lanthanides by ion-exchange method.	1P
	Instruction of the practical of estimation of oxalic acid by standard $KMnO_4$	2P
	R^H and problems related to this.	1P
	Defect in ionic crystal	1P
	Estimation of oxalic acid by standard $KMnO_4$ solution.	2P

Date	Home task for the week
28/11/22	Balance three redox equation by oxidation state method.

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-5	Students are very much attentive in class.	
GE-1	They are very much serious.	Principal 28.11.22 Mugberia Gangadhar Mahavidyalaya
SEM-5	They are very attractive about the class.	
SEM-V	They are very attentive in the class.	
SEM-1 GE-1	They are very much serious.	Principal 28.11.22 Mugberia Gangadhar Mahavidyalaya
B.Voc	Students are very attentive	
SeM-3	very much attractive.	
GE-1 (Hons)	They do well in the practical class.	
		28.11.22 Mugberia Gangadhar Mahavidyalaya
GE-1	They do all correctly	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Polarisation theory and factors affecting polarisation.	1P
	Estimation of oxalic acid by $KMnO_4$	2P
	Application of polarisation theory.	1P
4/12/22 – 9/12/22	Estimation of crystalisation of water of Mohr salt by standard $KMnO_4$.	2P
	Position of hydrogen in the periodic table and position of noble gases in the periodic table.	1P

Date	Home task for the week

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-III	They are very much interested	
GE-1 (NM)	They are very attentive in the practical class.	Principal Meghalaya Gangadhar Mahavidyalaya
SEM-III	Very much interested	
GE-1 (MM)	They are very serious in the practical class.	Principal 9-12-22 Meghalaya Gangadhar Mahavidyalaya
GE-1	They are very attractive in the class	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Postulates of valence Bond Theory.	1 P
	Atomic radius and ionic radius.	1P
	Estimation of water of crystallisation in Mohr salt by $KMnO_4$	2P
12/12/22 -17/12/22	Estimation of oxalic acid by $KMnO_4$	2P
	Estimation of oxalic acid by standard $KMnO_4$	2P
	concept of σ and π bond and their difference in details.	1P

Date	Home task for the week

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-III	Very much attractive in the class.	
GE-1	Very much attentive in the class.	Principal Mugberia Gangadhar Mahavidyalaya
GE-1 (Nut)	Very much interested	
GE-1 (Math)	Very much interested.	
GE-1 (Nut)	Students do the practical very seriously.	Principal 17.12.22 Mugberia Gangadhar Mahavidyalaya
SEM-III	Students are very much interested in the class.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Rules for hybridisation and classification of hybridisation	1P
	Change of radius along period and group and change of ionic radius from neutral atom	1P
19/12/22 -24/12/22	Detailed study of hybridisation with examples.	1P
	Estimation of crystallisation of water in Mohr salt.	2P
	Estimation of Fe(II) by standard $K_2Cr_2O_7$ solution	2P
Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-III	Very interested	
GE-1(T)	They are very interested.	Principal Meghela Gangadhar Mahavidyalaya
SEM-III	The students are very much interested about the class	
SEM-I GE-I (Math)	Students do the practical seriously.	Principal 24/12/22 Meghela Gangadhar Mahavidyalaya
SEM-I GE-I (Math)	Students are very much interested about the practical class.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	V.S.E.P.R Theory (Rule I and II)	1P
	Ionisation potential: Definition, Unit, factors depends on I.E, Change of it along period and along group with exception.	1P
2/1/23 - 7/1/23	VSEPR Theory (Rule III, IV and V, VI)	1P

Date	Home task for the week

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-III	They are very attentive in the class.	
GE-1	They are very much interested	[signature] Principal 7-1-23 Mugberia Gangadhar Mahavidyalaya
SEM-III	They are very much curious to know the Rule's application.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Lewis dot structure and formal charge calculation with example and exception.	1P
	Electron affinity : definition, units sign, factors affecting electron affinity, Change along period and group and example and exception.	1P
9/01/23 – 14/01/23		
	Estimation of Fe(II) by $K_2Cr_2O_7$ solution.	2P
	Bent's Rule and its application.	1P
	Estimation of Fe(II) by $K_2Cr_2O_7$ solution	2P
Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-III	They are very much interested	
GE-1	They are very attentive.	Principal 14.1.23 Maghela Computer Mahavidyalaya
GE-1(Nut)	They are very attractive.	
SEM-III	They are very attentive in the class.	
GE-1 (Math)	They are very much interested.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Electronegativity; definition. Factors affecting electronegativity. Change of electronegativity along period and group	1P
	Estimation of oxalic acid by titrating with $KMnO_4$	2P
16/01/23		
21/01/23		
	Lewis dot str and formal charge application	1P
	Discussion of question and answers for the chapter of Chemical periodicity	1P
Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
GE-1T	They are very much attentive in the class.	
GE-1(Nur)	They are very serious in the practical class.	Principal 21-1-23
SEM-III	They are very attentive in class.	
GE-1T	They are very interested in class.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Determination of Fe(II) by $K_2Cr_2O_7$	2P
	Discussion of some questions about chemical bonding chapter	1P
23/01/23 - 28/01/23	Determination of number of water of crystallisation in Mohr salt	2P
Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
GE-1 P(NM)	They are very serious in practical class.	
SEM-III	They are very interested.	Principal 28/1/23 Meghela Computer Mahavidyalaya
GE-1 P (Math)	Students are very much serious in practical class.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Bohr's theory and its applicatio	1P
	Delamination of Fe(II) by $K_2Cr_2O_7$	2P
	Atomic spectra of hydrogen	1P
	Estimation of oxalic acid by standard $KMnO_4$ solution	2P
30/01/23 – 4/02/23		
Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
GE-1T	very interested	
GE-1P(Hall)	They are very serious	
GE-1T	very much attentive in the class	Principal
GE-1P(NH)	Students are very much interested in the practical class.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Sommerfeld's model	1P
	Estimation of oxalic acid by standard $KMnO_4$ solution	2P
	Quantum numbers and their significance	1P
6/02/23 –11/02/23	Determination of number of crystallization of water by using Mohr's salt solution	

Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
GE-1 T	Very much curious in the class.	
GE-1P (Math)	Students are very much serious in the practical class.	
GE-1 T	They are curious about this.	[signature] Principal 11-2-23 Mugberia Gangadhar Mahavidyalaya
GE-1P (Nutr)	They are very attractive in the practical class.	

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IV. DIARY

Date week ending	FORECAST	Amount Taught
	Pauli's exclusion principle and its application.	1P
	Determination of Fe^{2+} by $K_2Cr_2O_7$ solution.	2P
13/02/2023 -18/02/23	Hund's rule and its application	1P
	Estimation of oxalic acid by $KMnO_4$.	2P

Date	Home task for the week

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
GE-1 T	They are very curious to solve the question on it.	
GE-1 P (Hall)	Students are very much interested in the practical class.	
GE-1 T	Students are curious in the theory class.	[signature] 18.2.23 Principal Magheria Gangadhar Mahavidyalaya
GE-1 P (Nall)	Students are very much serious in the practical class.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Aufbau's principle and its limitations.	1P
	Determination of number of crystallisation of water in Mohr's salt solution.	2P
20/02/23 - 25/02/23	Some question and answers discussion on atomic spectra.	1P
	Estimation of Fe^{2+} in Mohr's salt solution.	2P
	Introduction of organometallic Chemistry and classification of organometallic compound.	1P

Date	Home task for the week

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
GCE-1T	Students are very attentive the class rooom.	
GCE-1P	Students are very attractive in the class.	
GCE-1T	Students are curious in the class room.	Principal
GCE-1P	Students are very much attractive in the classroom.	
SEH-VI	Students are interested to listen the class.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	concept of 18 e rule for organometallic compounds.	1P
	Idea on complexometric titration	2P
27/02/23 – 4/03/23	Explanation of 18 e rule on the basis of Molecular orbital diagram.	1P
	Instruction is given for complexometric titration of Zn^{2+} by EDTA solution	1P

Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-VI	They are very much serious to listen this.	
SEM-IV	They are very attractive and give some question on this.	(signature) 4.3.23 Principal Magherla Gangadhar Mahavidyalaya
SEM-VI	They are curious to understand the facts.	
SEM-IV	They note down it carefully.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Calculation of total valence electron of some organo-metallic compounds.	1P
	Complexometric estimation of Zn^{2+} by EDTA solution	2P
6/03/23	—	
-11/03/23		

Date	Home task for the week

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-VI	They done this correctly.	
		11.3.23
SEM-IV	They done the practical very carefully and give the accurate result.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Application of 18 e rule to calculate the M-M bonds in some organometallic compounds	1P
	Determination of total hardness of water by EDTA	2P
13/03/23 - 18/03/23	Preparation, properties and structure of some mono and bi nuclear 3d metal organometallic compounds.	1P
	Determination of Ca (II) and Mg (II) in a mixture by EDTA solution.	2P
	Relative stability of different oxidation states of s and p block.	
Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-VI	They are very much interested to take the class.	
SEM-IV	They do this correctly and accurately.	[signature] 18.3.23 Principal Magheth Gangadhar Mahavidyalaya
SEM-VI	They note down carefully.	
SEM-IV	They do the practical very carefully but major students do not provide correct result.	
SEM-IV	They note down the facts very carefully.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Preparation properties, Structure and bonding of bi-nuclear organometallic compound.	1P
	Diagonal Relationship: Definition, cause and chemical similarity between diagonal elements.	1P
	Estimation of Ca(II) and Mg(II) in a mixture by complexometric titration.	2P
20/03/23 - 25/03/23		
	Synergic effect: introduction and M.O Diagram of CO for explaning the bonding pattern of 'CO' with Metal.	1P
	Anomalous behaviour of first Member of Gr I, Gr II and group 13.	1P
Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-VI	They are very much interested to note down the board work properly.	
SEM-IV	Students are very much active in the class and they write the class notes thoroughly.	15.3.23 Principal
SEM (IV) Practical	They are very much careful in the practical class and do the practical correctly.	
SEM-VI	The students are very much interested in the class.	
SEM-IV	Students note down the class notes properly.	

Date week ending	FORECAST	Amount Taught
	Preparation of tris ethylene diamine chloride bi hydrate.	2P
	Explenation of synergic effect and application of it to IR stretching frequency.	1P
27/03/23 – 01/04/23	Zeise's salt: preparation and structure and bonding and some questions and answer about it.	1P.
	Anomalous behaviour of first element of group 14, 15, 16 and 17	1P
	Preparation of Potasium bis oxalate chromate (III) ion.	2P

Date	Home task for the week	

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-IV (P)	Students do carefully the practical.	
SEM-VI (T)	Students are very much attentive in the practical class.	
SEM-VI (T)	Students are very much interested about the class.	1.4.23 Principal Mugberia Gangadhar Mahavidyalaya
SEM-IV	Students are very much interested to note down the class notes.	
SEM-IV	Students do the practical very carefully.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Ferrocene: Preparation and chemical properties. Reactions of organometallic compound: Ligand substitution reaction.	1P
	Allotropy: Definition and different allotropy of group 13, 14, 15 and 16 elements.	1P
03/04/23 - 8/04/23	Reaction of organometallic compounds - Oxidative addition.	1P
-	Structure, bonding, preparation, properties and uses of beryllium hydride and halide.	1P
Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-VI	Students listen the class very carefully.	
SEM-IV	Students note down the class notes very carefully.	8.4.23 Principal
SEM-VI	Students are very much active in the class.	
SEM-IV	They note down the class carefully.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Reaction of organometallic compounds Reductive elemination.	1P
10/09/23 – 15/09/23	Structure, bonding, preparation, properties and uses of boric acid and borate.	1P
	Reaction of organometallic compounds – migratory insertion	1P
	Concept of chemical bonding and ionic bonding.	1P
20/11/23 – 25/11/23	Concept of acid-Base:-Arhenius theory.	1P
	Concept of transition elements and introduction of 3d elements	1P
	Estimation of Fe^{2+} by $K_2Cr_2O_7$	2P
Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-VI	They listen the lesson carefully.	
SEM-IV	They note down the class notes Carefully.	
SEM-VI	They are very much serious in the class.	
SEM-III	They listen the lesson carefully.	
GE-1T	They are very carefull in the class	
SEM-V	They listen the lesson very carefully.	
GE-1P	They do the practical very carefully and correctly.	

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IV. DIARY

Date week ending	FORECAST	Amount Taught
	Characteristics of ionic bonding with proper explanation.	1P
	Electronic configuration and oxidation states of 3d elements	1P
27/11/23 -02/12/23	Acid-Base : Bronsted-Lowry theory with explanation and example.	1P
	Concept of lattice energy and derivation of Born-Lande equation.	1P
	Redox property of 3d elements and complex formation tendency of 3d elements.	1P
	Estimation of Fe^{2+} by $K_2Cr_2O_7$	2P
Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-III	They note down the class notes and listen carefully.	
SEM-V	They note down the class notes.	
GE-1T	They note down the class notes.	
		Principal 2-12-23
SEM-III	They listen the lession and note down the class notes.	
SEM-V	They note down the class notes.	
Minor-1P (Math)	They do the practical carefully and correctly.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Some question-answers on lattice energy.	1P
09/12/23	Introduction and oxidation states of 4d elements.	1P
	Concept of Conjugate acid and Base	1P
	Estimation of no of crystalline water in Mohr salt.	2P
	Concept of hydration energy and explanation of some question and answer on it.	1P
11/12/23 – 16/12/23	Redox and complexing property of 4d elements.	1P
	Lewis theory of acid-Base.	1P
	Estimation of no of crystal water in Mohr salt.	2P
Date	Home task for the week	

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-III	They answer the questions correctly.	
SEM-V	They note down the class notes.	9.12.23 Principal Maghaela Computer Mahavidyalaya
Minor-1T	They are very active in class.	
Minor-1P (Nutrition)	They do the practical carefully.	
SEM-III	They listen the class carefully.	
SEM-V	They note down the class notes.	16.12.23 Principal Maghaela Computer Mahavidyalaya
Minor-1T	They note down the class notes.	
Minor-1P (Math)	They do the practical carefully.	

IV. DIARY

Date week ending	FORECAST	Amount Taught
	Concept of Radius ratio and determination of it for C.N 2 and 3	1P
	Concept of acid-Base : Arhenius Theory	1P
	Introduction and electronic configuration of 5d elements.	1P
18/12/23		
-23/12/23	Determination of radius ratio for C.N 4 and 6	1P
	Concept of hard and soft acid and Base.	1P
	Estimation of oxalic acid by titrating it with KMnO4	2P

Date	Home task for the week

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-III	They note down the class notes	
B.Voc - T	They listen the lesson carefully.	
SEM-V	They note down the class notes.	
SEM-III	They do it correctly	Principal
Minor-1T	They listen the lesson attentively	
Minor-1P	They do the practical correctly	

IV. DIARY

Date week ending	FORECAST	Amount Taught
01/01/24	Determination of radius ratio for coordination number 8.	1P
-06/01/24	Hard-soft acid Base principle and its application.	1P
	Estimation of oxalic acid by titrating it with KMnO4	2P
	Application of radius ratio Rule.	1P
08/01/24 -13/01/24	Concept of oxidation states and determination of it.	1P
	Concept of polarisation and introduction of Fajan's Rule	1P
	Estimation of oxalic acid by titrating it with KMnO4	

Date	Home task for the week

IV. DIARY

Class and Subject	Notes and observation by the teacher	Remarks by Principal or HOD
SEM-III	They note down the class notes carefully.	
Minor-1T	They listen the loss attentively.	6.1.24 Principal Mugberia Gangadhar Mahavidyalaya
Minor-1P (Nutrition)	They do the practical correctly	
SEM-III	They are very much serius	
Miner-1T	They note down the class notes.	12.1.24 Principal Mugberia Gangadhar Mahavidyalaya
SEM-III	They are very much active in class.	
Minor-1P (Math)	They do the practical correctly	