

LESSON PLAN FOR EVEN SEM
SESSION 2017-18

Name of Assistant /Associate Professor : **Ajay Kumar**
Class/Section : **BSc 2nd Sem, Sec- A, B, C**
: **BSc 1st year Gp F₄L₁, F₉L₆**
: **MSc (P) Gp B**
Subject : **Chemistry**

UNIT/PART I	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 1-1-18	Chapter 1 : Hydrogen Bonding, Vander Waal's Forces, Metallic Bond and Semiconductors Hydrogen Bonding – Definition, types, Effects of hydrogen bonding on properties of substances, application. (Sec-A)	
DAY2 DATE 2-1-18	Brief discussion of various types of Van der Waals forces, Metallic bond – Qualitative idea of valence bond theory. (Sec-A)	
DAY3 DATE 3-1-18	Hydrogen Bonding – Definition, types, Effects of hydrogen bonding on properties of substances, application, (Sec-B)	Preparation of reference solutions. (Gp-F₄L₁)
DAY4 DATE 4-1-18	Brief discussion of various types of Van der Waals forces, Metallic bond – Qualitative idea of valence bond theory. (Sec-B)	Preparation of reference solutions. (Gp-F₄L₁) Inorganic Qualitative analysis: Inorganic mixture analysis (Gp-B)
DAY5 DATE 5-1-18	Hydrogen Bonding – Definition, types, Effects of hydrogen bonding on properties of substances, application, (Sec-C)	Preparation of reference solutions. (Gp-F₉L₆)
DAY6 DATE 6-1-18	Brief discussion of various types of Van der Waals forces, Metallic bond – Qualitative idea of valence bond theory. (Sec-C)	Preparation of reference solutions. (Gp-F₉L₆)
DAY7 DATE 8-1-18	Band theory of metallic bond (conductors, semiconductors, insulators). (Sec-A)	
DAY8 DATE 9-1-18	Semiconductors – Introduction, types and applications. (Sec-A)	
DAY9 DATE 10-1-18	Band theory of metallic bond (conductors, semiconductors, insulators). (Sec-B)	Redox titrations: Determination of Fe ²⁺ by Using KMnO ₄ , (Gp-F₄L₁)
DAY10 DATE 11-1-18	Semiconductors – Introduction, types and applications. (Sec-B)	Redox titrations: Determination of Fe ²⁺ by Using KMnO ₄ , (Gp-F₄L₁) , Inorganic mixture analysis (Gp-B)
DAY11 DATE 12-1-18	Band theory of metallic bond (conductors, semiconductors, insulators). (Sec-C)	Redox titrations: Determination of Fe ²⁺ by Using KMnO ₄ . (Gp-F₉L₆)

DAY12 DATE 13-1-18	Semiconductors – Introduction, types and applications. (Sec-C)	Redox titrations: Determination of Fe^{2+} by Using KMnO_4 , (Gp-F ₉ L ₆)
DAY13 DATE 15-1-18	Chapter 2 : s-Block elements Comparative study of the elements including diagonal relationship. (Sec-A)	
DAY 14 DATE 16-1-18	Anomalous behaviour of Lithium and Beryllium compared to other elements in the same group, salient features of hydrides, oxides. (Sec-A)	
DAY15 DATE 17-1-18	Chapter 2 : s-Block elements Comparative study of the elements including diagonal relationship. (Sec-B)	Redox titrations: Determination of $\text{C}_2\text{O}_4^{2-}$ by Using KMnO_4 , (Gp-F ₄ L ₁)
DAY16 DATE 18-1-18	Anomalous behaviour of Lithium and Beryllium compared to other elements in the same group, salient features of hydrides, oxides. (Sec-B)	Redox titrations: Determination of $\text{C}_2\text{O}_4^{2-}$ by Using KMnO_4 , (Gp-F ₄ L ₁), Inorganic mixture analysis (Gp-B)
DAY17 DATE 19-1-18	Chapter 2 : s-Block elements Comparative study of the elements including diagonal relationship. (Sec-C)	Redox titrations: Determination of $\text{C}_2\text{O}_4^{2-}$ by Using KMnO_4 , (Gp-F ₉ L ₆)
DAY18 DATE 20-1-18	Anomalous behaviour of Lithium and Beryllium compared to other elements in the same group, salient features of hydrides, oxides. (Sec-C)	Redox titrations: Determination of $\text{C}_2\text{O}_4^{2-}$ by Using KMnO_4 , (Gp-F ₉ L ₆)
DAY19 DATE 22-1-18	HOLIDAY	
DAY20 DATE 23-1-18	SPORTS DAY	
DAY21 DATE 24-1-18	HOLIDAY	
DAY22 DATE 25-1-18	Halides, Hydroxides (methods of preparation excluded), behaviour of solution in liquid NH_3 . (Sec-B)	Redox titrations: Determination of Fe^{2+} by Using $\text{K}_2\text{Cr}_2\text{O}_7$, (Gp-F ₄ L ₁), Inorganic mixture analysis (Gp-B)
DAY23 DATE 26-1-18	HOLIDAY	
DAY 24 DATE 27-1-18	Halides Hydroxides (methods of preparation excluded), behaviour of solution in liquid NH_3 . (Sec-C)	Redox titrations: Determination of Fe^{2+} by Using $\text{K}_2\text{Cr}_2\text{O}_7$, (Gp-F ₉ L ₆)
UNIT/PART II	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 29-1-18	Halides Hydroxides (methods of preparation excluded), behaviour of solution in liquid NH_3 . (Sec-A)	
DAY2 DATE 30-1-18	Chapter 3 : Chemistry of Noble Gases General physical properties, low chemical reactivity, chemistry of xenon. (Sec-A)	
DAY3 DATE 31-1-18	HOLIDAY	

DAY4 DATE 1-2-18	Chapter 3 : Chemistry of Noble Gases General physical properties, low chemical reactivity, chemistry of xenon. (Sec-B)	Redox titrations: Determination of Fe ²⁺ by Using K ₂ Cr ₂ O ₇ , (Gp-F ₄ L ₁), Inorganic mixture analysis (Gp-B)
DAY5 DATE 2-2-18	Chapter 3 : Chemistry of Noble Gases General physical properties, low chemical reactivity, chemistry of xenon. (Sec-C)	Redox titrations: Determination of Fe ²⁺ by Using K ₂ Cr ₂ O ₇ , (Gp-F ₉ L ₆)
DAY6 DATE 3-2-18	Structure and bonding in fluorides, oxides.(Sec-C)	Redox titrations: Determination of C ₂ O ₄ ²⁻ by Using K ₂ Cr ₂ O ₇ , (Gp-F ₉ L ₆)
DAY7 DATE 5-2-18	Structure and bonding in fluorides, oxides. (Sec-A)	
DAY8 DATE 6-2-18	oxyfluorides of xenon. (Sec-A)	
DAY9 DATE 7-2-18	Structure and bonding in fluorides, oxides. (Sec-B)	Redox titrations: Determination of C ₂ O ₄ ²⁻ by Using K ₂ Cr ₂ O ₇ , (Gp-F ₄ L ₁)
DAY10 DATE 8-2-18	Oxyfluorides of xenon. (Sec-B)	Redox titrations: Determination of C ₂ O ₄ ²⁻ by Using K ₂ Cr ₂ O ₇ , (Gp-F ₄ L ₁), Inorganic mixture analysis (Gp-B)
DAY11 DATE 9-2-18	ASSIGNMENT 1	
DAY12 DATE 10-2-18	HOLIDAY	
DAY13 DATE 12-2-18	Chapter 4 : p-Block elements: Electronic configuration, atomic and ionic size, Metallic character, melting point, ionization energy, electron affinity, electronegativity, (Sec-A)	
DAY14 DATE 13-2-18	HOLIDAY	
DAY15 DATE 14-2-18	Chapter 4 : p-Block elements: Electronic configuration, atomic and ionic size, Metallic character, melting point, ionization energy, electron affinity, electronegativity. (Sec-B)	Iodometric titrations: Determination of Cu ²⁺ (using standard hypo solution). (Gp-F ₄ L ₁)
DAY16 DATE 15-2-18	Inert pair effect and diagonal relationship. (Sec-B)	Iodometric titrations: Determination of Cu ²⁺ (using standard hypo solution). (Gp-F ₄ L ₁), Inorganic mixture analysis (Gp-B)
DAY17 DATE 16-2-18	oxyfluorides of xenon. (Sec-C)	Iodometric titrations: Determination of Cu ²⁺ (using standard hypo solution). (Gp-F ₉ L ₆)

DAY18 DATE 17-2-18	Chapter 4 : p-Block elements: Electronic configuration, atomic and ionic size, Metallic character, melting point, ionization energy, electron affinity, electronegativity. (Sec-C)	Iodometric titrations: Determination of Cu^{2+} (using standard hypo solution). (Gp-F ₉ L ₆)
DAY19 DATE 19-2-18	Inert pair effect and diagonal relationship. (Sec-A)	
DAY20 DATE 20-2-18	Diborane: Preparation, properties and structure (as an example of electron deficient compound and multicenter bonding), (Sec-A)	
DAY21 DATE 21-2-18	Diborane: Preparation, properties and structure (as an example of electron deficient compound and multicenter bonding), (Sec-B)	Complexometric titrations: Determination of Mg^{2+} by using EDTA (Gp-F ₄ L ₁)
DAY22 DATE 22-2-18	Borazine chemical properties and structure. (Sec-B)	Complexometric titrations: Determination of Zn^{2+} by using EDTA (Gp-F ₄ L ₁), Inorganic mixture analysis (Gp-B)
DAY23 DATE 23-2-18	Inert pair effect and diagonal relationship. (Sec-C)	Complexometric titrations: Determination of Mg^{2+} by using EDTA (Gp-F ₉ L ₆)
UNIT/PART III	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 24-2-18	Diborane: Preparation, properties and structure (as an example of electron deficient compound and multicenter bonding), (Sec-C)	Complexometric titrations: Determination of Zn^{2+} by using EDTA (Gp-F ₉ L ₆)
DAY2 DATE 26-2-18	Borazine chemical properties and structure, (Sec-A)	
DAY3 DATE 27-2-18	Relative strength of Trihalide of Boron as lewis acids, structure of aluminium(III) chloride. (Sec-A)	
DAY4 DATE 28-2-18	HOLIDAY	
DAY5 DATE 1-3-18	HOLIDAY	
DAY6 DATE 2-3-18	HOLIDAY	
DAY7 DATE 3-3-18	HOLIDAY	
DAY8 DATE 5-3-18	Catenation, Carbides, (Sec-A)	
DAY9 DATE 6-3-18	Fluoro carbons, silicates (structural aspects). (Sec-A)	
DAY10 DATE 7-3-18	Relative strength of Trihalide of Boron as lewis acids, structure of aluminium(III) chloride. (Sec-B)	Paper Chromatography Qualitative Analysis of any one of the following Inorganic cations Pb^{2+} , Cu^{2+} , Ca^{2+} , Ni^{2+} (Gp-F ₄ L ₁)
DAY11 DATE 8-3-18	Catenation, Carbides, (Sec-B)	Paper Chromatography Qualitative Analysis of any one

		of the following Inorganic anions Cl^- , Br^- , I^- and PO_4^{3-} and NO_3^- (Gp-F₄L₁), Inorganic mixture analysis (Gp-B)
DAY12 DATE 9-3-18	Borazine chemical properties and structure, (Sec-C)	Paper Chromatography Qualitative Analysis of any one of the following Inorganic cations Pb^{2+} , Cu^{2+} , Ca^{2+} , Ni^{2+} (Gp-F₉L₆)
DAY13 DATE 10-3-18	ASSIGNMENT 2	
DAY 14 DATE 12-3-18	Oxides: Structure of oxides of nitrogen, (Sec-A)	
DAY15 DATE 13-3-18	Structure of oxides of phosphorus, (Sec-A)	
DAY16 DATE 14-3-18	Fluoro carbons, silicates (structural aspects). (Sec-B)	Revision (Gp-F₄L₁)
DAY17 DATE 15-3-18	Oxides: Structure of oxides of nitrogen, (Sec-B)	Revision (Gp-F₄L₁), Inorganic mixture analysis (Gp-B)
DAY18 DATE 16-3-18	Relative strength of Trihalide of Boron as lewis acids, structure of aluminium(III) chloride, (Sec-C)	Paper Chromatography Qualitative Analysis of any one of the following Inorganic anions Cl^- , Br^- , I^- and PO_4^{3-} and NO_3^- (Gp-F₉L₆)
DAY19 DATE 17-3-18	Catenation, Carbides, (Sec-C)	Revision (Gp-F₉L₆)
DAY20 DATE 19-3-18	Oxyacids : Structure and relative acid strength of oxy acids of nitrogen, (Sec-A)	
DAY21 DATE 20-3-18	Oxyacids : Structure and relative acid strength of oxy acids of phosphorus, (Sec-A)	
DAY22 DATE 21-3-18	CONDITIONAL TEST	Revision (Gp-F₄L₁),
DAY23 DATE 22-3-18	CONDITIONAL TEST	Revision (Gp-F₄L₁), Inorganic mixture analysis (Gp-B)
DAY 24 DATE 23-3-18	HOLIDAY	
DAY 25 DATE 24-3-18	Fluoro carbons, silicates (structural aspects). (Sec-C)	
UNIT/PART IV	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 26-3-18	Structure of white and Red phosphorus, Oxy acids of sulphur – structure, (Sec-A)	
DAY2 DATE 27-3-18	Oxy acids of sulphur – acidic strength, (Sec-A)	
DAY3 DATE 28-3-18	Structure of oxides of phosphorus, (Sec-B)	Revision (Gp-F₄L₁)
DAY4	HOLIDAY	

DATE 29-3-18		
DAY5 DATE 30-3-18	Structure of oxides of nitrogen and phosphorus, (Sec-C)	Revision (Gp-F ₉ L ₆)
DAY6 DATE 31-3-18	Oxyacids : Structure and relative acid strength of oxy acids of nitrogen and phosphorus, (Sec-C)	Revision (Gp-F ₉ L ₆)
DAY7 DATE 2-4-18	Hydrogen Peroxide – properties and uses, (Sec-A)	
DAY8 DATE 3-4-18	Interhalogen compounds (their properties and structures), (Sec-A)	
DAY9 DATE 4-4-18	Oxyacids : Structure and relative acid strength of oxy acids of nitrogen and phosphorus, (Sec-B)	Revision (Gp-F ₄ L ₁)
DAY10 DATE 5-4-18	Structure of white and Red phosphorus, Oxy acids of sulphur – structure and acidic strength, (Sec-B)	Revision (Gp-F ₄ L ₁), Inorganic mixture analysis (Gp-B)
DAY11 DATE 6-4-18	Structure of white and Red phosphorus, Oxy acids of sulphur – structure and acidic strength, (Sec-C)	Revision (Gp-F ₉ L ₆)
DAY12 DATE 7-4-18	Hydrogen Peroxide – properties and uses. (Sec-C)	Revision (Gp-F ₉ L ₆)
DAY13 DATE 9-4-18	Hydra and oxy acids of chlorine – structure and comparison of acid strength, (Sec-A)	
DAY14 DATE 10-4-18	Cationic nature of Iodine, (Sec-A)	
DAY15 DATE 11-4-18	Hydrogen Peroxide – properties and uses. (Sec-B)	Revision / Examination (Gp-F ₄ L ₁)
DAY16 DATE 12-4-18	Interhalogen compounds (their properties and structures), (Sec-B)	Revision / Examination (Gp-F ₄ L ₁), Revision / Examination (Gp-B)
DAY17 DATE 13-4-18	Interhalogen compounds (their properties and structures), (Sec-C)	Revision / Examination (Gp-F ₉ L ₆)
DAY18 DATE 14-4-18	HOLIDAY	
DAY19 DATE 16-4-18	Revision / Examination, (Sec-A)	
DAY20 DATE 17-4-18	Revision / Examination, (Sec-A)	
DAY21 DATE 18-4-18	HOLIDAY	
DAY22 DATE 19-4-18	Hydra and oxy acids of chlorine – structure and comparison of acid strength, Cationic nature of Iodine (Sec-B)	Revision / Examination (Gp-F ₄ L ₁), Revision / Examination (Gp-B)
DAY23 DATE 20-4-18	Hydra and oxy acids of chlorine – structure and comparison of acid strength, Cationic nature of Iodine (Sec-C)	Revision / Examination (Gp-F ₉ L ₆)
DAY24 DATE 21-4-18	Revision / Examination, (Sec-C)	Revision / Examination (Gp-F ₉ L ₆)
DAY25 DATE 23-4-18	Revision / Examination, (Sec-A)	

DAY26 DATE 24-4-18	Revision / Examination, (Sec-A)	
DAY27 DATE 25-4-18	Revision / Examination, (Sec-B)	Revision / Examination (Gp-F₄L₁)
DAY28 DATE 26-4-18	Revision / Examination, (Sec-B)	Revision / Examination (Gp-F₄L₁) , Revision / Examination (Gp-B)
DAY29 DATE 27-4-18	Revision / Examination, (Sec-C)	Revision / Examination (Gp-F₉L₆)
DAY30 DATE 28-4-18	Revision / Examination, (Sec-C)	Revision / Examination (Gp-F₉L₆)
DAY31 DATE 30-4-18	HOLIDAY	