Chemistry	(D)	L.K.No.1310	Paper Code No. 8488
Paper II	(Objective Type)	Inter – A – 2022	(Group 2nd)
Time :	20 Minutes	Inter (Part II)	
Marks :	17	Session (2018 - 20) to (2020 – 22)	

Note : Four possible choices A , B , C ,D to each question are given. Which choice is correct fill that circle in front of that Question No. Use Marker or Pen to fill the circles. Cutting or filling two or more circles will result in Zero Mark in that Question.

BWP 9-2-22

Q.No.1 (1)	Keeping in view the size of Atoms , which order is the correct one : (A) Mg > Sr (B) Ba > Mg (C) Lu > Ce (D) Cl > I
(2)	Laughing Gas is chemically : (A) NO (B) N_2O (C) NO_2 (D) N_2O_4
(3)	Which metal is used in the Thermite process because of reactivity : (A) Iron (B) Copper (C) Aluminium (D) Zinc
(4)	Which one of the following does not belong to Alkaline Earth Metals : (A) Be (B) Ra (C) Ba (D) Rn
(5)	Hydrogen Bond is strongest between the Molecules of : (A) HF (B) HCl (C) HBr (D) HI
(6)	Formula of Chloroform is : (A) CH_3Cl (B) CCl_4 (C) CH_2Cl_2 (D) $CHCl_3$
(7)	Which set of Hybrid Orbitals has planar triangular shape : (A) sp^3 (B) sp (C) sp^2 (D) dsp^2
(8)	Which of the given is a typical transition metal : (A) Sc (B) Y (C) Ra (D) Co
(9)	Which of the following Acid can be used as a Catalyst in Friedel – Crafts reactions : (A) $AlCl_3$ (B) HNO_3 (C) $BeCl_2$ (D) NaCl
(10)	Cannizaro's Reaction is not given by : (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethyl Acetaldehyde
(11)	Which compound is more soluble in water : (A) C_2H_5OH (B) C_6H_5OH (C) CH_3COCH_3 (D) n - Hexanol
(12)	Elimination Bimolecular Reactions involves : (A) First Order Kinetics (B) Second Order Kinetics (C) Third Order Kinetics (D) Zero Order Kinetics
(13)	Which Acid is used in the manufacture of Synthetic Fibre : (A) Formic Acid (B) Oxalic Acid (C) Carbonic Acid (D) Acetic Acid
(14)	Ozone Layer is present in range of : (A) 0 --- 5 Km (B) 10 --- 15 Km (C) 15 – 25 Km (D) 25 – 28 Km
(15)	Phosphorus helps the growth of : (A) Root (B) Leaves (C) Stem (D) Seed
(16)	The Fibre which is made from Acrylonitrile as monomer : (A) PVC (B) Rayon Fibre (C) Acrylic Fibre (D) Polyester Fibre
(17)	Major source of Acid Deposition in atmosphere is : (A) SO (B) SO_2 (C) SO_3 (D) N_2

			(2018 – 20) to (2020 – 22)
Chemistry (Subjective)	**Inter – A – 2022**	Time 2 : 40 Hours Marks : 68	**(Group 2nd)**

Note: It is compulsory to attempt any (8 – 8) Parts each from Q.No. 2 , Q.No.3 and attempt any (6) Parts from Q.No.4. Attempt any (3) Questions from Part – II .Write same Question No. and its Part No. as given in the Question Paper.

BWP-G 2-22

Make Diagram where necessary.

Part - I 22 x 2 = 44

Q.No.2	(i)	The Hydration Energies of the Ions are in the given order : $Al^{3+} > Mg^{2+} > Na^{+}$ give reason.
	(ii)	Ionic Character of Halides decreases from left to right in a period, comment.
	(iii)	Why is the Aqueous Solution of Na_2CO_3 Alkaline in nature ?
	(iv)	Give decomposition reaction of Lithium Carbonate and Lithium Nitrate.
	(v)	Give the Chemistry of Borax Bead Text.
	(vi)	How does Orthoboric Acid react with : (a) Sodium Hydroxide (b) Ethyl Alcohol
	(vii)	How does Nitrogen differ from other elements of its group ?
	(viii)	Write any four uses of Sulphuric Acid.
	(ix)	Write down any two uses of $KMnO_4$
	(x)	Define Paramagnetism and Diamagnetism.
	(xi)	What are Nitrogeneous Fertilizers ? Give one example
	(xii)	Write down any four Calcarious material used for manufacture of Cement.
Q.No.3	(i)	What are Freons ? Write down their uses.
	(ii)	Write down the names and formulas of two Oxyacids of Chlorine.
	(iii)	Define Functional Group. Write name of functional group present in Aldehydes.
	(iv)	Why there is a no free rotation around a Carbon – Carbon Double Bond ?
	(v)	Why are Alkanes called Paraffins ?
	(vi)	What is Mustard Gas ? How it can be prepared ?
	(vii)	How is Acetylene prepared on Industrial Scale ?
	(viii)	How will you convert Ethyl Bromide into : (a) Ethylamine (b) Ethyl Acetate
	(ix)	Grignard reagent is considered as the most reactive compound. Justify it.
	(x)	Define Saponification. Give an example.
	(xi)	What is Acid Number ?
	(xii)	What are Trisaccharides ? Give an example.
Q.No.4	(i)	Write down the mechanism of Sulphonation of Benzene.
	(ii)	Write any four Ortho - para Directing Groups.
	(iii)	Ethyl Alcohol is liquid while Methyl Chloride is Gas . Give reason.
	(iv)	Why Absolute Alcohol can not be prepared by Fermentation Process ?
	(v)	What is Silver Mirror Test ?
	(vi)	What are Essential and Non – Essential Amino Acids ?
	(vii)	Give reaction of Acetic Acid with HI and $SOCl_2$.
	(viii)	Write down four harmful effects of Acid Rain.
	(ix)	Define Biochemical Oxygen Demand (BOD).

Part - II 3 x 8 = 24

Q.No.5	(a)	Discuss four blocks in Modern Periodic Table.	(4)
	(b)	What are Silicones ? How are they produced ? Give properties.	(4)
Q.No.6	(a)	Mention the problems faced during the preparation of NaOH by diaphragm cell . Also give their solution.	(4)
	(b)	Briefly explain the given terms by giving example : (a) Chelates (b) Ligands	(4)
Q.No.7	(a)	Define Hybridization. Explain sp^3 Hybridization.	(4)
	(b)	Write any four methods of preparation of Alkylhalides.	(4)
Q.No.8	(a)	Describe the Kolbe's Electrolytic Method for the preparation of Alkanes along with mechanism.	(4)
	(b)	Explain Aldol Condensation reaction with the help of mechanism of Acetaldehyde.	(4)
Q.No.9	(a)	How Benzene can be prepared from : (i) Cyclohexane (ii) n – Hexane (iii) Sodium Benzoate (iv) Phenol	(4)
	(b)	Write a note on Acidic behaviour of Phenol .	(4)