



<b>Chemistry</b>	(B)	<b>L.K.No. 1465</b>	Paper Code No. 8483
Paper II	(Objective Type)	<b>Inter (1<sup>st</sup> - A - Exam 2024)</b>	
Time :	20 Minutes	<b>Inter (Part - II)</b>	<b>(Group Ist)</b>
Marks :	17	Session (2020 - 22) to (2022 - 24)	

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

*BWP-1-24*

Q.No.1	Reducing Smog contains high concentration of :
(1)	(A) O <sub>3</sub> (B) NO (C) SO <sub>2</sub> (D) H <sub>2</sub> O <sub>2</sub>
(2)	Peroxyacetylnitrate (PAN) is an irritant to human beings and it affects : (A) Eyes (B) Ears (C) Stomach (D) Nose
(3)	Which woody raw material is used for the manufacture of Paper Pulp : (A) Cotton (B) Bagasse (C) Poplar (D) Rice Straw
(4)	Which one of the following elements is not present in all Proteins : (A) Carbon (B) Sulphur (C) Nitrogen (D) Hydrogen
(5)	Which Acid is used in the manufacture of synthetic fibre : (A) Formic Acid (B) Oxalic Acid (C) Carbonic Acid (D) Acetic Acid
(6)	Cannizzaro's reaction is not given by : (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethyl Acetaldehyde
(7)	Which Enzyme is not involved in the Fermentation process : (A) Diastase (B) Zymase (C) Urease (D) Invertase
(8)	The removal of two atoms or groups from adjacent Carbon atoms in the presence of a base is called : (A) Substitution Reaction (B) Elimination Reaction (C) Hydrolytic Reaction (D) Decomposition Reaction
(9)	Aromatic Hydrocarbons are the derivative of : (A) Normal series of Paraffins (B) Alkene (C) Benzene (D) Cyclohexane
(10)	Preparation of vegetable ghee involves : (A) Halogenation (B) Hydrogenation (C) Hydroxylation (D) Dehydrogenation
(11)	Which Set of Hybrid Orbitals has Planar Triangular Shape : (A) sp <sup>3</sup> (B) sp (C) sp <sup>2</sup> (D) dsp <sup>2</sup>
(12)	The Colour of Transition Metal Complexes is due to : (A) d - d Transition of electrons (B) Ionization (C) Paramagnetic nature of Transition Elements (D) Loss of s - electrons
(13)	The Anhydride of HClO <sub>4</sub> is : (A) ClO <sub>3</sub> (B) ClO <sub>2</sub> (C) Cl <sub>2</sub> O <sub>5</sub> (D) Cl <sub>2</sub> O <sub>7</sub>
(14)	TNT is formed by the reaction of Nitric Acid with : (A) Phenol (B) Toluene (C) Glycerol (D) Aniline
(15)	Which Metal is used in Thermite Process because of its activity : (A) Iron (B) Copper (C) Aluminium (D) Zinc
(16)	Chile Saltpetre has the Chemical Formula : (A) NaNO <sub>3</sub> (B) KNO <sub>2</sub> (C) Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> (D) Na <sub>2</sub> CO <sub>3</sub> · H <sub>2</sub> O
(17)	Beryllium Oxide is an example of : (A) Acidic Oxide (B) Basic Oxide (C) Amphoteric Oxide (D) Peroxide

B





Roll No.	1465 - 15000	Inter (Part - II)	Session (2020 - 22) to (2022 - 24)
Chemistry (Subjective)	Inter (1st - A - Exam - 2024)	Group 1st BWP-1-24	Time 2 : 40 Hours Marks : 68

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.

Make Diagram where necessary.

Part - I

22 x 2 = 44

Q.No.2	(i)	Give the two points of similarity between Hydrogen and Alkali Metals.		
	(ii)	Define Hydration Energy. Give the factors affecting it.		
	(iii)	Write down two Characteristics of Lipids.	(iv)	How is Lime Mortar prepared?
	(v)	How the Chromate Ions are converted into Dichromate Ions? Give the reaction involved.	(vi)	Differentiate between Paramagnetic and Diamagnetic substances.
	(vii)	How Grignard Reagent is prepared? Why is it very reactive?	(viii)	Give the two points of difference between $S_N1$ and $S_N2$ reactions.
	(ix)	How is Polyvinyl Chloride prepared? Give its two uses.	(x)	Why is the Aqueous Solution of $Na_2CO_3$ Alkaline in nature?
	(xi)	Give the effect of temperature on Enzyme activity.	(xii)	Give the reactions taking place between 1-7 days in setting of Cement.
Q.No.3	(i)	Why does Aqua Regia dissolve Gold and Platinum?	(ii)	Write down comparison of properties of Oxygen and Sulphur ( any two).
	(iii)	What are Freons and Teflon?	(iv)	Name the Gas used for Earthquake Prediction.
	(v)	What is the role of Homologous Series in Organic Compounds ?	(vi)	Why the rates of Organic Reactions are slow?
	(vii)	How Methane is converted into HCHO in the presence of Catalyst (Cu) under high Temperature and Pressure?	(viii)	Describe Markownikov's Rule for the Addition of HX to Alkene.
	(ix)	Why Terminal Alkynes are acidic in nature? Give example.	(x)	What is the role of CFCs in destroying Ozone layer?
	(xi)	Define Dissolved Oxygen (DO) for the quality of Water.	(xii)	Describe Harmful effects of Chlorination of Water.
Q.No.4	(i)	What happens when Borax is heated with $H_2SO_4$ ?		
	(ii)	How does Aluminium reacts with $H_2SO_4$ and $N_2$ ?		
	(iii)	What is Asbestos? Give its uses.		
	(iv)	What is Wurtz Fittig Reaction?		
	(v)	Write the Structural Formula and names of two Hydroxy Acids.		
	(vi)	How will you prepare Ethanol from Starch?		
	(vii)	What is Canizaro's Reaction? Give one example.		
	(viii)	How $\alpha$ - Hydroxy Carboxylic Acid are prepared from Amino Acid?		
	(ix)	Write reaction of Ethyne with Water for formation of Acetic Acid.		

(Part - II)

3 x 8 = 24

Q.No.5	(a)	Justify the Position of Hydrogen with group I - A elements.	(4)
	(b)	Lithium shows peculiar behaviour. Mention any eight points.	(4)
Q.No.6	(a)	Explain Peculiar behaviour of Fluorine differ from other Halogens.	(4)
	(b)	What are Phosphatic Fertilizers and their importance with respect to Diammonium Phosphate?	(4)
Q.No.7	(a)	Define $sp^2$ Hybridization. Discuss it with a suitable example along with labelled diagram.	(4)
	(b)	How can you Prepare the following from Ethyl Chloride : (i) Propane Nitrile (ii) n - Butane (iii) Tetraethyl Lead (iv) Ethane	(4)
Q.No.8	(a)	Why Acetylene and Terminal Alkynes give acidic behaviour ? Give their evidences.	(4)
	(b)	How Acetaldehyde reacts with : (i) $H_2NOH$ (ii) $H_2N - NH_2$ (iii) 2, 4 - DNPH (iv) Phenyl Hydrazine.	(4)
Q.No.9	(a)	Give detail mechanism for the preparation of Acetophenone through Friedel Crafts Acylation reaction.	(4)
	(b)	How is Methyl Alcohol obtained on large Scale? How can it be distinguished from Ethyl Alcohol?	(4)



03-04-2024





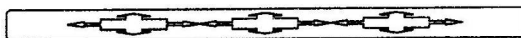
<b>Chemistry</b>	(A)	<b>L.K.No. 1466</b>	Paper Code No. 8482
Paper II	( Objective Type )	<b>Inter ( 1st - A - Exam 2024 )</b>	
Time :	20 Minutes	<b>Inter ( Part - II )</b>	<b>( Group 2nd )</b>
Marks :	17	Session (2020 - 22) to (2022 - 24)	

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

BWP-2-24

Q.No.1	Chile Saltpetre has the Chemical Formula :
(1)	(A) $\text{NaNO}_3$ (B) $\text{KNO}_3$ (C) $\text{Na}_2\text{B}_4\text{O}_7$ (D) $\text{Na}_2\text{CO}_3 \cdot \text{H}_2\text{O}$
(2)	Which element forms an ion with charge +3 : (A) Beryllium (B) Aluminium (C) Carbon (D) Silicon
(3)	Anhydride of $\text{HClO}_4$ is : (A) $\text{ClO}_3$ (B) $\text{ClO}_2$ (C) $\text{Cl}_2\text{O}_5$ (D) $\text{Cl}_2\text{O}_7$
(4)	Which of the following is a Typical Transition Metal : (A) Sc (B) Y (C) Ra (D) Co
(5)	A Double Bond consists of : (A) Two Sigma Bonds (B) One Sigma and One Pi Bond (C) One Sigma and Two Pi Bonds (D) Two Pi Bonds
(6)	Which one of the following Gases is used for Artificial Ripening of Fruits : (A) Ethene (B) Ethyne (C) Methane (D) Propane
(7)	The Conversion of n - Hexane into Benzene by heating in the Presence of Pt is called : (A) Isomerization (B) Rearrangement (C) De Alkylation (D) Aromatization
(8)	Elements of the Periodic Table are classified into blocks : (A) Four (B) Three (C) Five (D) Six
(9)	Sulphuric Acid acts as a Dehydrating agent in reaction with : (A) Formic Acid (B) Zinc (C) Copper (D) Sodium Hydroxide
(10)	The removal of two atoms or groups from adjacent Carbon atoms in the presence of a base is called : (A) Substitution Reaction (B) Elimination Reaction (C) Hydrolytic Reaction (D) Decomposition Reaction
(11)	Unpolluted Rain Water has a pH of : (A) 4.9 (B) 5.6 (C) 5.3 (D) 7.0
(12)	Newspaper can be recycled again and again by how many times : (A) 2 (B) 3 (C) 4 (D) 5
(13)	The Enzyme not involved in Fermentation of Starch : (A) Diastase (B) Zymase (C) Urease (D) Invertase
(14)	Cannizzaro's reaction is not given by : (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Triethyl Acetaldehyde
(15)	Which reagent is used to reduce a Carboxylic group to an Alcohol : (A) $\text{H}_2 / \text{Ni}$ (B) $\text{H}_2 / \text{Pt}$ (C) $\text{NaBH}_4$ (D) $\text{LiAlH}_4$
(16)	Which one of the following Enzymes brings about the Hydrolysis of Fats : (A) Urease (B) Maltase (C) Zymase (D) Lipase
(17)	Phosphorus helps the growth of : (A) Roots (B) Leave (C) Stem (D) Seed

B





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Chemistry (Subjective )	Inter ( 1st - A - Exam - 2024 )	(Group 2nd)	Time 2 : 40 Hours Marks : 68

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-2-24

Make Diagram where necessary.

Part - I

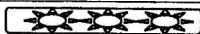
22 x 2 = 44

Q.No.2	(i)	The Oxidation State vary in a period but remain almost constant in a group. Write reason briefly.	
	(ii)	Define Shielding Effect.	
	(iii)	Why is 2% Gypsum added in the Cement?	(iv) BeO is Amphoteric . Prove it.
	(v)	Why $Fe^{+3}$ shows maximum Paramagnetic behaviour among first Transition Series?	(vi) What is Chromyl Chloride test? Give equation also.
	(vii)	What is Wurtz Synthesis ? Give equation also.	(viii) How Propanoic Acid is prepared from Ethyl Magnesium Bromide ? Give equation.
	(ix)	Define Iodine Number.	(x) Differentiate between Ligases and Lyases.
	(xi)	Write down any two importance of Proteins.	(xii) Why Phosphatic Fertilizers are provided to plants?
Q.No.3	(i)	Complete and balance the following Chemical equations : (a) $P + NO \rightarrow ?$ (b) $NO + Cl_2 \rightarrow ?$	(ii) $P_2O_5$ is a powerful Dehydrating Agent . Prove it giving example.
	(iii)	Arrange the following ions in order of increasing size : $F^-$ , $Cl^-$ , $I^-$ , $Br^-$ .	(iv) What is " Iodized Salt " ?
	(v)	What is the Composition of Natural Gas? Give its use.	(vi) Why there is no free Rotation around a Carbon - Carbon double bond?
	(vii)	Why Ethene is more reactive than Ethane?	(viii) How to Prepare good quality Polythene?
	(ix)	Convert : Propyne $\rightarrow$ Acetone .	(x) What is Oxidizing Smog?
	(xi)	How to measure the quality of Water naturally?	(xii) What are the Harmful effects of Chlorination of water?
Q.No.4	(i)	How does Borax serve as a Water Softening Agent?	
	(ii)	Give names alongwith the formulas of three important ores of Aluminium.	
	(iii)	Describe Four important uses of Silicates.	
	(iv)	What is the difference between Ortho - Para and Meta Directing Groups in the Mono- Substituted Benzene Ring?	
	(v)	What is the difference between Rectified Spirit and Absolute Alcohol?	
	(vi)	Write IUPAC names of the following Compounds : (a) $(CH_3)_3COH$ (b) $(CH_3)_2CHCH_2OH$	
	(vii)	Give General Mechanism of the Acid Catalyzed Nucleophilic Addition Reaction of Aldehydes and Ketones.	
	(viii)	What are Peptides ? How are Dipeptides formed?	
	(ix)	What happens when Calcium Acetate is Heated?	

( Part - II )

3 x 8 = 24

Q.No.5	(a)	Mention four points of similarity of Hydrogen each with Alkali Metals and Halogens.	2+2=4
	(b)	Describe with labelled diagram the manufacture of Sodium Hydroxide by Diaphragm Cell.	(4)
Q.No.6	(a)	What is Bleaching Powder? How can it be prepared by Beckmann's method?	(4)
	(b)	How Urea is manufactured? Give the reactions involved.	(4)
Q.No.7	(a)	What is Cracking of Petroleum and discuss its different types?	(4)
	(b)	Explain $S_N1$ Reaction with Complete Mechanism.	(4)
Q.No.8	(a)	Explain the Markownikov 's Rule with reaction mechanism.	(1 + 3) = (4)
	(b)	What is Aldol Condensation ? Why Acetaldehyde give this reaction ? Justify your answer with mechanism.	(1 + 3) = (4)
Q.No.9	(a)	Write down the mechanism of : (i) Friedel Craft Alkylation    (ii) Friedel Craft Acylation	(4)
	(b)	How Lucas Test is used to identify Primary , Secondary and Tertiary Alcohol?	(4)



03-04-2024