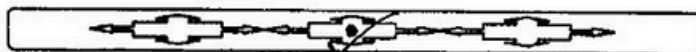


Time :	20 Minutes	Inter (Part II)	Group Ist
Marks :	17	Session (2015 -17) to (2017 - 19)	

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.

Q.No.1	Mark the correct statement :
(1)	(A) Na^+ is smaller than Na atom (B) Na^+ is larger than Na atom. (C) Cl^- is smaller than Cl atom (D) Cl^- (ion) and Cl (atom) are equal in size
(2)	Which one of the following does not belong to Alkaline earth metals : (A) Be (B) Ra (C) Ba (D) Rn
(3)	Which metal is used in the Thermite Process because of its reactivity : (A) Iron (B) Copper (C) Aluminium (D) Zinc
(4)	Laughing Gas is chemically : (A) NO (B) N_2O (C) NO_2 (D) N_2O_4
(5)	Which one of the given is the strongest Acid : (A) HClO (B) HClO_2 (C) HClO_3 (D) HClO_4
(6)	Coordination Number of Pt in $[\text{PtCl}(\text{NO}_2)(\text{NH}_3)_4]\text{SO}_4$ is : (A) 2 (B) 4 (C) 1 (D) 6
(7)	The state of Hybridization of Carbon in Methane is : (A) Sp^3 (B) Sp^2 (C) Sp (D) dSp^2
(8)	Synthetic Rubber is made by Polymerization of : (A) Chloroform (B) Acetylene (C) Divinyl Acetylene (D) Chloroprene
(9)	During Nitration of Benzene , the active Nitrating agent is : (A) NO_3 (B) NO_2^+ (C) NO_2^- (D) HNO_3
(10)	In Primary Alkyl Halides , the Halogen Atom is attached to a Carbon which is further attached to : (A) Two Carbon Atoms (B) Three Carbon Atoms (C) One Carbon Atom (D) Four Carbon Atoms
(11)	Which Compound is called a Universal Solvent : (A) H_2O (B) CH_3OH (C) $\text{C}_2\text{H}_5\text{OH}$ (D) $\text{CH}_3-\text{O}-\text{CH}_3$
(12)	The Carbon of Carbonyl Group is : (A) Sp Hybridized (B) Sp^2 Hybridized (C) Sp^3 Hybridized (D) dSp^2 Hybridized
(13)	Which Reagent is used to reduce a Carboxylic Group to an Alcohol : (A) H_2/Ni (B) H_2/Pt (C) NaBH_4 (D) LiAlH_4
(14)	Which of these Polymers is a Synthetic Polymer : (A) Animal Fat (B) Starch (C) Cellulose (D) Polyester
(15)	Which one of the following elements is present in all the proteins : (A) Cl (B) Cu (C) N (D) Al
(16)	Ammonium Nitrate fertilizer is not used for which crop : (A) Cotton (B) Wheat (C) Sugar (D) Paddy Rice
(17)	The main pollutant of Leather Tanneries in waste water is the salt of : (A) Lead (B) Chromium (VI) (C) Copper (D) Chromium (III)

B



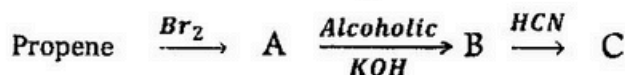
Make Diagram where necessary.

Part - I

22 x 2 = 44

- Q.No.2**
- The Oxidation States vary in a Period but remain almost constant in a group. Give reason.
 - Ionic Character of Halides decreases from left to the right in a period. Give reason.
 - What happened when : (i) Lithium Carbonate is Heated (b) Lithium Hydroxide is heated to red.
 - CO_2 is non-polar in nature. Explain.
 - Write formula of White Lead and write its one use.
 - How and under what conditions does **Aluminium** react with **Oxygen** and **Hydrogen**?
 - SO_3 is dissolved in H_2SO_4 and not in hot water. Give reason.
 - How does **Nitrogen** is different from other elements of its group?
 - Give the advantage of Contact Process for the manufacture of H_2SO_4 .
 - Define Cement.
 - What is Prilling in Urea manufacturing?
 - Oil Spillage affects the marine life. Justify.

- Q.No.3**
- Describe the importance of Wohler's Work in the development of Organic Chemistry.
 - Write down structural formula of product formed when **1-butene** reacts with Br_2 in CCl_4 .
 - Identify **A**, **B** and **C** in the following reaction :



- Give Products and necessary conditions for the following reactions :
 - Phenol with Zn
 - Benzene with SO_3
- How will you prepare **P-Nitrochloro Benzene** from **Benzene**?
- Give four characteristics of $\text{S}_{\text{N}}2$ reactions in **Alkyl Halides**.
- Give reactions and conditions to convert **Ethyl Bromide** into : (a) **Ethyl Alcohol** (b) **Ethyl Cyanide**
- What do you mean by Denaturing of Alcohol?
- How will you distinguish between an Alcohol and a Phenol by a chemical reaction?
- Give the reactions of **Acetic Acid** with : (a) NaOH (b) SOCl_2
- Write the structural formulae of : (a) **Oxalic Acid** (b) **Malonic Acid**
- Describe mechanism of reaction of **Acetic Acid** with **Ammonia**.

- Q.No.4**
- What is Iodized Salt?
 - Why has Iodine Metallic Luster?
 - What are Disproportionation Reactions? Explain your answer with an example.
 - Give systematic names to the given compounds : (a) $\text{K}_2[\text{Cu}(\text{CN})_4]$ (b) $[\text{Fe}(\text{CO})_5]$
 - Give four uses of **Formaldehyde**.
 - How will you distinguish between **Ethanal** and **Propanone**?
 - What are Derived Proteins? Give example.
 - What is the basic difference between **Starch** and **Cellulose**?
 - What are characters of **Lipids**?

Part - II

- Q.No.5**
- What are Oxides? Describe various types of Oxides. (4)
 - How **Sodium (Na)** is prepared by Down's Cell Process? (4)
- Q.No.6**
- How is **Potassium Dichromate** prepared? Give its reaction with : (a) FeSO_4 (b) KI (4)
 - What is Smog? Explain the pollutants which are main cause of smog. (4)
- Q.No.7**
- Define sp^2 Hybridization and on its basis explain the structure of Ethene. (4)
 - How can you convert **Benzene** into : (4)
 - Cyclohexane**
 - Maleic Anhydride**
 - Glyoxal**
 - Acetophenone**
- Q.No.8**
- How is **Ethanol** prepared from Molasses and Starch by Fermentation? (4)
 - Write down structural formula of the products formed when : (4)
 - 1-Butene** reacts with :
 - Cold dil $\text{KMnO}_4 / \text{OH}^-$**
 - HBr**
 - O_2 in the presence of Ag_2O**
 - HOCl**
- Q.No.9**
- Explain Mechanism of $\text{S}_{\text{N}}1$ reactions with a suitable example. (4)
 - For detection of **Aldehydes**, write down any two tests and also give their reactions. (4)

