BWP-GII-2

Chemistry	(A)	L.K.No. 1310	Paper Code No. 8482

Q.No.1 (1)	Which statement is incorrect : (A) All the metals are good conductor of electricity. (B) All the metals are good conductor of heat. (C) All the metals form positive ions. (D) All the metals form Acidic Oxides.
(2)	Chile Saltpetre has the chemical formula : (A) $NaNO_3$ (B) KNO_3 (C) $Na_2B_4O_7$ (D) $Na_2CO_3H_2O$
(3)	Tincal is mineral of : (A) Al (B) B (C) Si (D) C
(4)	Laughing Gas is chemically : (A) NO (B) N_2O (C) NO_2 (D) N_2O_4
(5)	Bleaching Powder may be produced by passing Chlorine over : (A) Calcium Carbonate (B) Hydrated Calcium Sulphate (C) Anhydrous Calcium Sulphate (D) Calcium Hydroxide
(6)	The Bond Angle in OF_2 molecule is : (A) 105° (B) 106° (C) 107° (D) 108°
(7)	The strength of binding energy of transition elements depends upon : (A) Number of Electron Pairs (B) Number of Unpaired Electrons (C) Number of Neutrons (D) Number of Protons
(8)	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
(9)	Vinyl Acetylene combines with HCl to form : (A) Polyacetylene (B) Benzene (C) Chloroprene (D) Divinyl Acetylene
(10)	Amongst the following, the compound that can be most readily Sulphonated is : (A) Toluene (B) Benzene (C) Nitrobenzene (D) Chlorobenzene
(11)	For which Mechanisms, the first step involved is the same : (A) E1 and E2 (B) E2 and S_N2 (C) S_N1 and E2 (D) E1 and S_N1
(12)	Which Compound is called Universal Solvent : (A) H_2O (B) CH_3OH (C) C_2H_5OH (D) CH_3-O-CH_3
(13)	Cannizzaro's Reaction is not given by : (A) Formaldehyde (B) Acetaldehyde (C) Benzaldehyde (D) Trimethyl Acetaldehyde
(14)	Which of the following reagents will react with both Aldehydes and Ketones : (A) Grignard Reagents (B) Tollen's Reagents (C) Fehling's Reagents (D) Benedict's Reagents
(15)	The solution of which Acid is used for seasoning of food : (A) Formic Acid (B) Acetic Acid (C) Benzoic Acid (D) Butanoic Acid
(16)	Which one of these is the formula of Palmitic Acid : (A) $C_{15}H_{31}COOH$ (B) $C_{16}H_{31}COOH$ (C) $C_{17}H_{35}COOH$ (D) $C_{18}H_{37}COOH$
(17)	Which is not a Calcarious Material : (A) Lime (B) Clay (C) Marble (D) Marine Shell

BWP-GII-21

Roll No.	1310 - 18000	Session (2017 –19) to (2020 – 22)	Inter (Part – II)
Chemistry (Subjective)	Inter – A – 2021	Time 2 : 40 Hours Marks : 68	Group 2nd

22 x 2 = 44

Q.No.2	(i)	What are Periods and Groups?
	(ii)	Define Electron Affinity. How does it vary in Periodic Table?
	(iii)	Write down chemical composition of : (a) Dolomite (b) Gypsum
	(iv)	Complete the given equations : (a) $NaNO_3 \xrightarrow{\Delta}$ (b) Be + NaOH $\longrightarrow$
	(v)	Write uses of Boric Acid.
	(vi)	Write two methods for the preparation of Borax.
	(vii)	Write down chemistry of Borax Bead Test.
	(viii)	HNO_2 acts as Oxidizing as well as reducing agent. Give one reaction in each case.
	(ix)	What is Aqua Regia? How does it dissolve gold ?
	(x)	What are Micronutrients?
	(xi)	Write four characteristics of a good fertilizer.
	(xii)	Name two Calcarious and two Argilacious raw materials for cement.
Q.No.3	(i)	How Iodine Pentoxide (I_2O_5) is prepared ? Give its reaction with Carbon Monoxide (CO).
	(ii)	Mention the factors upon which the Oxidizing Power of Halogens depends upon ?
	(iii)	Write down four physical properties of $HClO_4$.
	(iv)	What is the cause of Colour of Transition Element Compounds?
	(v)	Define Paramagnetism and Diamagnetism.
	(vi)	Draw the Structural Formulas for : (a) 2 , 4 , 6 – Trinitrotoluene (b) p – Hydroxybenzoic Acid
	(vii)	How Aromatic Hydrocarbons are classified?
	(viii)	How will you convert : (a) Ethyne into Ethanal (b) Ethanol into 2 - Butanone
	(ix)	Give four uses of Acetaldehyde.
	(x)	Give four uses of Acetic Acid.
	(xi)	How Acetic Acid is prepared from Acetylene ?
	(xii)	Give reactions of Acetic Acid with : (a) Na_2CO_3 (b) $NaHCO_3$
Q.No.4	(i)	What are Heterocyclic Compounds ? Give one example.
	(ii)	Define Cis – Trans Isomerism. Give one example.
	(iii)	Give two physical properties of Alkanes.
	(iv)	Discuss Catalytic Oxidation of Methane.
	(v)	What is Hydroxylation ? Give one example.
	(vi)	Define Nucleophile . Give two examples.
	(vii)	Give two properties of E_2 reactions.
	(viii)	Define Fermentation. What are its conditions?
	(ix)	" Lower Alcohols are readily soluble in water " . Justify.

Part - II

Q.No.5	(a)	Write down two similarities and two dissimilarities of Hydrogen with Halogens.	(4)
	(b)	Briefly describe the extraction of Sodium by Down's Cell.	(4)
Q.No.6	(a)	Describe manufacture of Nitric Acid by Birkeland and Eyde's Process.	(4)
	(b)	Write note on : (i) Tin Plating (ii) Zinc Coating	(4)
Q.No.7	(a)	Define Four Types of Isomerism with one example each.	(4)
	(b)	Explain with Mechanism the addition of Sodium Bisulphite to Acetone . What is the utility of this reaction?	(4)
Q.No.8	(a)	Give Polymerization Reactions of Ethyne to Prepare : (i) Divinyl Acetylene (ii) Synthetic Rubber (iii) Benzene	(4)
	(b)	What are β - elimination Reactions ? Differentiate between E_1 and E_2 reactions.	(4)
Q.No.9	(a)	Explain Alkylation and Acylation of Benzene with Mechanism.	(4)
	(b)	How the following compound can be prepared from phenol : (i) Bakelite (ii) Picric Acid (iii) Phenylacetate	(4)

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