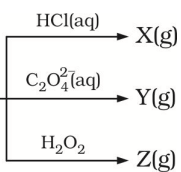


Date Planned : __ / __ / __	Daily Tutorial Sheet-9	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level-2	Exact Duration : _____

- 106.** The aqueous solution of copper (II) sulphate is slowly hydrolysed forming basic copper sulphate whose chemical composition is :
(A) $\text{CuSO}_4 \cdot \text{Cu}(\text{OH})_2$ **(B)** $\text{CuSO}_4 \cdot \text{CuO}$
(C) $\text{CuSO}_4 \cdot \text{Cu}(\text{OH})_2 \cdot \text{CuO}$ **(D)** $[\text{Cu}(\text{H}_2\text{O})_4]\text{SO}_4 \cdot \text{H}_2\text{O}$
- 107.** Passivity of iron is due to the formation of :
(A) Fe_2O_3 **(B)** Fe_3O_4 **(C)** FeSO_4 **(D)** None of these
- 108.** $\text{FeCr}_2\text{O}_4 + \text{Na}_2\text{CO}_3 + \text{O}_2 \xrightarrow{\text{Fusion}} [\text{X}] \xrightarrow[\text{H}_2\text{O}]{\text{H}^+} [\text{Y}] \xrightarrow[\text{H}^+]{\text{H}_2\text{O}_2} [\text{Z}]$ 
 Which of the following statement is true for the compound [X], [Y] and [Z] ?
(A) In all three compounds, the chromium is in +6 oxidation state
(B) [Z] is a deep blue-violet coloured compound which decomposes rapidly in aqueous solution into Cr^{3+} and dioxygen
(C) Saturated solution of [Y] gives bright orange compound, chromic anhydride, with concentrated H_2SO_4
(D) All of these
- 109.** Consider the following transformation : $2\text{CuX}_2 \xrightarrow{\text{Room temperature}} 2\text{CuX} + \text{X}_2 \uparrow$ 
 Then X^- can be :
(A) F^- , Br^- **(B)** Cl^- , Br^- **(C)** CN^- , I^- **(D)** Cl^- , F^-
- 110.** Zinc (II) ion on reaction with NaOH first give a white precipitate which dissolves in excess of NaOH due to the formation of :
(A) ZnO **(B)** $\text{Zn}(\text{OH})_2$ **(C)** $[\text{Zn}(\text{OH})_4]^{2-}$ **(D)** $[\text{Zn}(\text{H}_2\text{O})_4]^{2+}$
- 111.** Which of the following solid salt on heating with solid $\text{K}_2\text{Cr}_2\text{O}_7$ and conc. H_2SO_4 orange red vapours are evolved which turn aqueous NaOH solution yellow ?
(A) NaBr **(B)** NaCl **(C)** NaNO_3 **(D)** NaI
- 112.** Mercury is the only transition metal which is liquid at 0°C . Select incorrect statement for Hg :
(A) Hg is liquid at -20°C and 1 atm pressure
(B) It forms a divalent cation with metal-metal bond
(C) Its meniscus loss its shape on reaction with ozone
(D) Its chloride salts are soluble in water

- 113.** Here $\text{KMnO}_4(\text{aq})$ 
(A) $\text{X} = \text{Cl}_2(\text{g})$ **(B)** $\text{Y} = \text{CO}_2(\text{g})$ **(C)** $\text{Z} = \text{O}_2(\text{g})$ **(D)** All are correct

*114. Which of the following statement(s) is/are correct ?

- (A) The chief ore of zinc is cinnabar
- (B) Mac-Arther's process is used to extract silver
- (C) $\text{Na}_2\text{S}_2\text{O}_3$ is used to remove the unexposed AgBr from the photographic films
- (D) Nessler's reagent is a complex of zinc in +2 oxidation state

*115. The metal oxide which decomposes on heating is/are :

- (A) ZnO
- (B) Al_2O_3
- (C) Ag_2O
- (D) HgO