

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

The number of moles of  $KMnO_4$  that will be required to react with one mol of ferrous oxalate is: 106.



**(A)** 
$$\frac{3}{5}$$

**(B)** 
$$\frac{2}{5}$$

(C) 
$$\frac{4}{5}$$

(D)

107. What volume of 0.1 M KMnO<sub>4</sub> is needed to oxidize 100 mg of FeC<sub>2</sub>O<sub>4</sub> in acid solution?

(D)

What volume of 3 M HNO<sub>3</sub> is needed to oxidize 8 g of Fe<sup>2+</sup> to Fe<sup>3+</sup>, HNO<sub>3</sub> gets converted to NO ?  $\bigcirc$ 108.

(D)

The minimum quantity of H<sub>2</sub>S needed to precipitate 64.5 gm of Cu<sup>2+</sup> will be nearly: 109.

**(D)** 2.0gm

Which of the following is/are redox reaction(s)?

(A) 
$$BaO_2 + H_2SO_4 \longrightarrow BaSO_4 + H_2O_2$$

**(B)** 
$$2BaO + O_2 \longrightarrow 2BaO_2$$

(C) 
$$2KClO_3 \longrightarrow 2KCl + 3O_2$$

**(D)** 
$$SO_2 + 2H_2S \longrightarrow 2H_2O + 3S$$

\*111. The reaction,  $3Br_2 + 6CO_3^{2-} + 3H_2O \longrightarrow 5Br^- + BrO_3^- + 6HCO_3^-$ 



(A) decolourization of reddish brown colour of Br<sub>9</sub>

addition of  $\mathrm{H_2SO_4}$  will increase intensity of reddish brown colour of  $\mathrm{Br_2}$ **(B)** 

(C) bromine is reduced

(D) it is disproportionation reaction or autoredox change

\*112. Which of the following statements is/are true if 1 mol of  $H_3PO_x$  is completely neutralized by 40g of NaOH?

x = 2 and acid is monobasic (A)



**(B)** x = 3 and acid is dibasic

(C) x = 4 and acid is tribasic

(D) x = 2 and acid does not form acid salt

113. Which is not a disproportionation reaction:



(A) 
$$2 \sim CHO \xrightarrow{Al(OC_2H_5)_3} \sim COOCH_2 \sim COOCH_2$$

(B) 
$$CHO + OH^- \longrightarrow CH_2OH + COO^-$$
  
 $COOH$   $COO^ COO^-$ 

(C) 
$$NaH + H_2O \longrightarrow NaOH + H_2$$

All the above (D)



## For Question No. 114 - 115



- (A) Both A and R are true and R is a correct explanation of A
- (B) Both A and R are true but R is not a correct explanation of A
- **(C)** A is true but R is false
- **(D)** Both A and R are false
- 114. Assertion (A): The reaction of ammonia solution with calomel  $(Hg_2Cl_2)$  is a disproportionation reaction in which a mixture Hg(II) amido chloride and mercury is formed.
  - **Reason (R):** In a disproportionation reaction species under reaction is neither oxidised nor reduced.
- 115. Assertion (A): When  $SnCl_2$  solution is added to  $HgCl_2$  solution, a milky white precipitate is obtained and on adding excess  $SnCl_2$ , a black precipitate is formed.
  - **Reason (R):** The disproportionation of Hg(II) is easier than its reduction only.

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