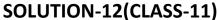


ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



<u>TOPIC</u>- REDOX EQUILIBRIA



SUBTOPIC- DETERMINATION OF OXIDATION NUMBER

SUBJECT – CHEMISTRY DURATION – 30 mins F.M. - 15 DATE -27.06.20

1.1 The equivalent mass of KMnO₄ in acidic medium is expressed in terms of its molecular mass (M) as-

(a) M/2 (b) M/5 (c) M/3 (d) M/6 **Ans. b**

1.2 In which of the following compounds, nitrogen exhibits the minimum oxidation state- (a) N_2H_4 (b) NH_3 (c) N_3H (d) NH_2OH Ans. b

1.3 Find the oxidation number of Cr in CrO₅-(a) +6 (b) +5 (c) +4 (d) +1 Ans. a

1.4 The transition element having maximum number of oxidation states-

(a) Ti (b) Cu (c) Mn (d) Cr

Ans. c

1.5 Which of the following compound contains an atom having fractional oxidation number? (a) Pb_3O_4 (b) CO_2 (c) $SnCl_2$ (d) $K_2Cr_2O_7$

Ans. a

1.6 H_2SO_4 acts as a strong oxidising agent. In which of the reaction, is it not acting as an oxidising agent?

(a) $C + 2H_2SO_4 \rightarrow CO_2 + 2SO_2 + 2H_2O$ (b) $CaF_2 + 2H_2SO_4 \rightarrow CaSO_4 + 2HF$ (c) $S + 2H_2SO_4 \rightarrow 3SO_2 + H_2O$ (d) $Cu + 2H_2SO_4 \rightarrow CuSO_4 + SO_2 + 2H_2O$ Ans. b

1.7 Find the oxidation state of Osmium in OsO₄:

(a) -1 (b) +8 (c) 0 (d) -2

Ans. b

1.8 Find the n-factor for Oxalic acid-(a) 1 b) 2 c) 3 d) 5 Ans. b

1.9 Which among the following is a reducing agent?

(a) $K_2Cr_2O_7$ b) $Na_2S_2O_3$. $5H_2O$ c) $KMnO_4$ d) H_2O_2 Ans. b

1.10 Among the given compounds, in which the oxidation number of the central atom has the maximum value?

(a) H₂S (b) HNO₃ (c) SnCl₂(d) H₂SO₃

Ans. b

1.11 Which among the following is an oxidizing agent?

(a) K₂Cr₂O₇ b) Na₂S₂O₃. 5H₂O c) FeSO₄ d) H₂S Ans. a

1.12 KMnO₄ exhibits maximum equivalent mass is-

(a) Acidic medium b) Basic medium c) Neutral medium d) Both acidic and basic medium Ans. b

1.13 Oxidation number of an element-

(a) Always remains same b) None of these c) can't be predicted d) May change Ans. b

1.14 The oxidation number of Cl in NOCIO4 is-

(a) +7 (b) + (c) +1 (d) -1 **Ans.** a

1.15 In which of the following oxidation number of Cr is +6-

(a) K₂Cr₂O₇ b) Na₃ [Cr (CN)₆] c) CrO₅ d) H₂SO₃ Ans. c

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