



# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

## WORKSHEET-13(CLASS-11)

### TOPIC- REDOX EQUILIBRIA

#### SUBTOPIC- DETERMINATION OF OXIDATION NUMBER

SUBJECT – CHEMISTRY

DURATION – 30 mins

F.M. - 15

DATE -29.06.20



1.1 The equivalent mass of a metal-

(a) Is same (b) Always change (c) It may remain unchanged but also change (d) Is not always same

1.2 In which of the following compounds, Phosphorus exhibits the minimum oxidation state-

(a)  $\text{PH}_3$  (b)  $\text{H}_3\text{PO}_3$  (c)  $\text{H}_3\text{PO}_4$  (d)  $\text{H}_3\text{PO}_2$

1.3 Find the oxidation number of S in  $\text{H}_2\text{SO}_5$ :

(a) +6 (b) +5 (c) +4 (d) +1

1.4 Among the oxides of Cr, i.e.  $\text{CrO}$ ,  $\text{Cr}_2\text{O}_3$  and  $\text{CrO}_2$  which one acts as an acidic oxide?

(a)  $\text{CrO}$  (b) Both a and d (c)  $\text{Cr}_2\text{O}_3$  (d)  $\text{CrO}_2$

1.5 Oxygen shows positive oxidation number in which of the following compounds?

(a)  $\text{K}_2\text{O}$  (b)  $\text{CO}_2$  (c)  $\text{H}_2\text{O}_2$  (d)  $\text{OF}_2$

1.6 The reaction which involves both oxidation and reduction simultaneously-

(a) Redox (b) None of these (c) Only reduction (d) Only Oxidation

1.7 Find the oxidation state of Osmium in  $\text{OsO}_4$ :

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

1.8 Find the n-factor for  $\text{KMnO}_4$ :

(a) 3 (b) 2 (c) 6 (d) 5

1.9 Which among the following has the central atom with fractional oxidation number?

(a)  $\text{K}_2\text{Cr}_2\text{O}_7$  (b)  $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$  (c)  $\text{Fe}_3\text{O}_4$  (d)  $\text{H}_2\text{O}_2$

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

(a)  $\text{H}_2\text{S}$  (b)  $\text{HNO}_3$  (c)  $\text{SnCl}_2$  (d)  $\text{H}_2\text{SO}_3$

**1.11 Which among the following has the maximum equivalent mass?**

(a)  $K_2Cr_2O_7$  b)  $Na_2S_2O_3 \cdot 5H_2O$  c)  $FeSO_4 \cdot (NH_4)_2SO_4 \cdot 6H_2O$  d)  $H_2S$

**1.12  $KMnO_4$  exhibits minimum equivalent mass is-**

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

**1.13 Oxidation number of transition metals is/are-**

(a) Always remains same b) None of these c) can't be predicted d) Variable

**1.14 The oxidation number(s) of N in  $(NH_4) NO_3$  is/are-**

(a) -3, +5 (b) -3, -5 (c) +3, +5 (d) +3, -5

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

(a)  $H_2SO_4$  b)  $H_2SO_3$  c)  $SO_2$  d)  $H_2S$

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