DPP
DAILY PRACTICE PROBLEMS

CLASS : XIIth **SUBJECT : CHEMISTRY**
DATE : **DPP NO. : 7**

Topic :-REDOX REACTIONS

1. Bleaching action of SO_2 is due to :
   a) Reduction b) Oxidation c) Hydrolysis d) Acidic nature

2. In $N_2 + 2H_2O \longrightarrow NH_4^+ + NO_2^-$; N is :
   a) Oxidised b) Reduced c) Both (a) and (b) d) None of these

3. If three electrons are lost by a metal ion M^{3+}, its final oxidation number will be :
   a) Zero b) +6 c) +2 d) +4

4. In the reaction, $NaH + H_2O \longrightarrow NaOH + H_2$:
   a) H^- is oxidised
   b) Na^+ is reduced
   c) Both NaH and H_2O are reduced
   d) None of the above

5. Which of the following acts as an oxidizing agent?
   a) HNO_3 b) Cl_2 c) $FeCl_3$ d) All of these

6. How many gram of I_2 are present in a solution which requires 40 mL, of 0.11 *N* $Na_2S_2O_3$ to react with it, $S_2O_3^{2-} + I_2 \longrightarrow S_4O_6^{2-} + 2I^-$?
   a) 12.7 g b) 0.558 g c) 25.4 g d) 11.4 g

7. The number of mole of $KMnO_4$ that will be needed to react with one mole of sulphite ion in acidic solution is :
   a) 2/5 b) 3/5 c) 4/5 d) 1

8. What weight of HNO_3 is required to make 1 litre of 2 *N* solution to be used as an oxidising agent in the reaction? $3Cu + 8HNO_3 \longrightarrow 3Cu(NO_3)_2 + 2NO + 4H_2O$
   a) 63 g b) 21 g c) 42 g d) 84 g

9. The oxidation state of two sulphur atoms in $H_2S_2O_8$
   a) -6 b) -2 c) $+6$ d) -4

10. In a conjugate pair of reductant and oxidant, the oxidant has :
    a) Higher ox.no. b) Lower ox.no. c) Same ox.no. d) Either of these

11. In the equation, $H_2S + 2HNO_3 \longrightarrow 2H_2O + 2NO_2 + S$. The equivalent weight of hydrogen sulphide is :

a) 17 b) 34 c) 68 d) 18

12. In which transfer of five electrons takes place?

a) $MnO_4^- \longrightarrow Mn^{2+}$ b) $CrO_4^{2-} \longrightarrow Cr^{3+}$ c) $MNO_4^- \longrightarrow MnO_2$ d) $Cr_2O_7^{2-} \longrightarrow 2Cr^{3+}$

13. Oxidation number of nitrogen is highest in

a) N_3H b) N_2O_4 c) NH_2OH d) NH_3

14. Starch gives blue colour with :

a) KI b) I_2 c) Cl_2 d) None of these

15. The number of mole of potassium salt, *i.e*, $KHC_2O_4.H_2C_2O_4 .2H_2O$ oxidised by one mole of permanganate ion is :

a) 2/5 b) 4/5 c) 1 d) 5/4

16. When an acidified solution of ferrous ammonium sulphate is treated with $KMnO_4$ solution, the ion which is oxidised is :

a) Fe^{2+} b) SO_4^{2-} c) NH_4^+ d) MnO_4^-

17. Oxidation number of N in N_3H is :

a) -3 b) $+3$ c) Zero d) $-1/3$

18. Hydrogen peroxide in aqueous solution decomposes on warming to give oxygen according to the equation, $2H_2O_2(aq) \longrightarrow 2H_2O(l) + O_2(g)$ under conditions where one mole of gas occupies 24 d m^3, 100 cm^3 of XM solution of H_2O_2 produces 3 dm^3 of O_2. Thus, X is :

a) 2.5 b) 1 c) 0.5 d) 0.25

19. $CuSO_4$ and KI on mixing gives :

a) $CuI_2 + K_2SO_4$ b) $Cu_2I_2 + K_2SO_4$ c) $Cu_2I_2 + K_2SO_4 + I_2$ d) $CuI_2 + K_2SO_4 + I_2$

20. Which metal exhibits more than one oxidation states?

a) Na b) Mg c) Al d) Fe