

CLASS : XIIth
DATE :

SUBJECT : CHEMISTRY
DPP NO. : 10

Topic :-REDOX REACTIONS

- How many milliliter of 0.5 N SnCl₂ solution will reduce 600 mL of 0.1 N HgCl₂ to Hg₂Cl₂?
a) 120 mL b) 60 mL c) 30 mL d) 240 mL
 - What weight of FeSO₄ (mol. wt. =152) will be oxidised by 200 mL of normal KMnO₄ solution in acidic solution?
a) 30.4 g b) 60.8 g c) 121.6 g d) 15.8 g
 - How many milligram of iron (Fe²⁺) are equal to 1 mL of 0.1055 N K₂Cr₂O₇ equivalent?
a) 5.9 mg b) 0.59 mg c) 59 mg d) 59 × 10⁻³ mg
 - Number of moles of MnO₄⁻ required to oxidise one mole of ferrous oxalate completely in acidic medium will be :
a) 0.4 mole b) 7.5 mole c) 0.2 mole d) 0.6 mole
 - A, B and C are three elements forming a part of compound in oxidation states of +2, +5 and -2 respectively. What could be the compound?
a) A₂(BC)₂ b) A₂(BC₄)₃ c) A₃(BC₄)₂ d) ABC
 - In an oxidation process for a cell M₁ → M₁ⁿ⁺ + ne, the other metal (M₂) being univalent showing reduction takes up theelectrons to complete redox reaction.
a) (n - 1) b) 1 c) n d) 2
 - In which of the following reactions, chlorine acts as an oxidising agent?
(i) CH₃CH₂OH + Cl₂ CH₃CHO + HCl
(ii) CH₃CHO + Cl₂ CCl₃CHO + HCl
(iii) CH₄ + Cl₂ CH₃Cl + HCl
- The correct answer is
- (i) only
 - (ii) only
 - (i) and (iii)
 - (i),(ii) and (iii)
- During a redox change, the oxidant K₂Cr₂O₇ is always reduced to :
a) Cr⁵⁺ b) Cr⁴⁺ c) Cr³⁺ d) Cr²⁺

9. When potassium permanganate is titrated against ferrous ammonium sulphate, the equivalent weight of potassium permanganate is :
 a) Molecular weight/10 b) Molecular weight/5 c) Molecular weight/2 d) Molecular weight
10. Which conversion is an oxidation?
 a) $\text{SO}_4^{2-} \rightarrow \text{SO}_3^{2-}$ b) $\text{Cu}^{2+} \rightarrow \text{Cu}$ c) $\text{H}^+ \rightarrow \text{H}$ d) $\text{H}^- \rightarrow \text{H}$
11. In which case +1 oxidation state is stable than +3?
 a) Ga b) Al c) Tl d) B
12. In the reduction of dichromate by Fe(II), the number of electrons involved per chromium atom is :
 a) 3 b) 1 c) 2 d) 4
13. When $\text{K}_2\text{Cr}_2\text{O}_7$ is converted into K_2CrO_4 , the change in oxidation number of chromium is
 a) 0 b) 5 c) 7 d) 9
14. Which of the following acts as both an oxidizing as well as reducing agent?
 a) HNO_3 b) HNO_2 c) HI d) H_2SO_4
15. In which of the following compounds, nitrogen exhibits highest oxidation state?
 a) N_3H b) NH_2OH c) N_2H_4 d) NH_3
16. 1 mole of MnO_4^{2-} in neutral aqueous medium disproportionates to :
 a) $\frac{2}{3}$ mole of MnO_4^- and $\frac{1}{3}$ mole of MnO_2
 b) $\frac{1}{3}$ mole of MnO_4^- and $\frac{2}{3}$ mole of MnO_2
 c) $\frac{1}{3}$ mole of Mn_2O_7 and $\frac{1}{3}$ mole of MnO_2
 d) $\frac{2}{3}$ mole of Mn_2O_7 and $\frac{1}{3}$ mole of MnO_2
17. Which one of the compound does not decolourised an acidified solution of KMnO_4 ?
 a) SO_2 b) FeCl_3 c) H_2O_2 d) FeSO_4
18. When one mole of KMnO_4 reacts with HCl, the volume of chlorine liberated at NTP will be:
 a) 11.2 litre b) 22.4 litre c) 44.8 litre d) 56.0 litre
19. What would happen when a small quantity of H_2O_2 is added to a solution of FeSO_4 ?
 a) Colour disappears
 b) H_2 is evolved
 c) An electron is added to Fe^{2+}
 d) An electron is lost by Fe^{2+}
20. The oxidation state of I in IPO_4 is
 a) +1 b) +3 c) +5 d) +7