

|                                       |                        |                            |
|---------------------------------------|------------------------|----------------------------|
| Date Planned : __ / __ / __           | Daily Tutorial Sheet-4 | Expected Duration : 90 Min |
| Actual Date of Attempt : __ / __ / __ | JEE Advanced (Archive) | Exact Duration : _____     |

46. State with balanced equation what happens when : (1993)  
 $\text{AgBr} + \text{Na}_2\text{S}_2\text{O}_3 \longrightarrow \dots + \dots$
47. State with balanced equation what happens when : (1993)  
 $(\text{NH}_4)_2\text{S}_2\text{O}_8 + \text{H}_2\text{O} + \text{MnSO}_4 \longrightarrow \dots + \dots + \dots$
48. State with balanced equation what happens when : (1994)  
 $[\text{MnO}_4]^{2-} + \text{H}^+ \longrightarrow \dots + [\text{MnO}_4]^- + \text{H}_2\text{O}$
49. State with balanced equation what happens when : (1994)  
 $\text{SO}_2(\text{aq}) + \text{Cr}_2\text{O}_7^{2-} + 2\text{H}^+ \longrightarrow \dots + \dots + \dots$
50. Which pair gives  $\text{Cl}_2$  at room temperature? (1995)  
 (A) conc.  $\text{HCl} + \text{KMnO}_4$  (B)  $\text{NaCl} + \text{conc. H}_2\text{SO}_4$   
 (C)  $\text{NaCl} + \text{MnO}_2$  (D)  $\text{NaCl} + \text{conc. HNO}_3$
51. Which one is solder? (1995)  
 (A) Cu and Pb (B) Zn and Cu (C) Pb and Sn (D) Fe and Zn
52. An aqueous solution of  $\text{FeSO}_4$ ,  $\text{Al}_2(\text{SO}_4)_3$  and chrome alum is heated with excess of  $\text{Na}_2\text{O}_2$  and filtered. The materials obtained are : (1996)  
 (A) a colourless filtrate and a green residue  
 (B) a yellow filtrate and a green residue  
 (C) a yellow filtrate and a brown residue  
 (D) a green filtrate and a brown residue
53. Which compound does not dissolve in hot, dilute  $\text{HNO}_3$ ? (1996)  
 (A)  $\text{HgS}$  (B)  $\text{PbS}$  (C)  $\text{CuS}$  (D)  $\text{CdS}$
54. Compare qualitatively the first and second ionisation potentials of copper and zinc. Explain the observation. (1996)
55. Write a balanced equation for the reaction of argentite with  $\text{KCN}$  and name the products in solution. (1996)
56. The number of moles of  $\text{KMnO}_4$  that will be needed to react with one mole of sulphite ion in acidic solution is : (1997)  
 (A)  $\frac{2}{5}$  (B)  $\frac{3}{5}$  (C)  $\frac{4}{5}$  (D) 1
57. Ammonium dichromate is used in some fireworks. The green coloured powder blown in the air is : (1997)  
 (A)  $\text{CrO}_3$  (B)  $\text{Cr}_2\text{O}_3$  (C)  $\text{Cr}$  (D)  $\text{CrO}(\text{O}_2)$

58. Write equations for the reaction of : (1997)  
(i) Silver bromide with hypo in photographic process.  
(ii) Cobaltous chloride with excess of  $\text{KNO}_2$  in aqueous acidic solution.
59. Write balanced equations for the oxidation of cuprous oxide to cupric hydroxide by alkaline  $\text{KMnO}_4$ . (1997)
60. Write balanced equations for the reaction of alkaline perbromate with zinc giving tetrahydroxozincate anion. (1997)