# ©゙doubtnut 

India's Number 1 Education App

## CHEMISTRY

# BOOKS - VK JAISWAL CHEMISTRY (HINGLISH) 

## TYPES OF REACTIONS

LEVEL 1

1. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}+2 \mathrm{NaOH} \rightarrow \mathrm{Pb}(\mathrm{OH})_{2} \downarrow+2 \mathrm{NaNO}_{3}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction
2. $\mathrm{Zn}(\mathrm{OH})_{2} \downarrow+2 \mathrm{NaOH} \rightarrow \mathrm{Na}_{2} \mathrm{ZnO}_{2}+2 \mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: B

## - Watch Video Solution

3. $2 \mathrm{Na}\left[\mathrm{Al}(\mathrm{OH})_{4}\right]+\mathrm{CO}_{2} \rightarrow 2 \mathrm{Al}(\mathrm{OH})_{3} \downarrow+\mathrm{Na}_{2} \mathrm{CO}_{3}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

4. $\mathrm{CuSO}_{4}+2 \mathrm{NaOH}$ (excess) $\rightarrow \mathrm{Cu}(\mathrm{OH})_{2} \downarrow+\mathrm{Na}_{2} \mathrm{SO}_{4}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: A

## - Watch Video Solution

5. $\mathrm{Fe}(\mathrm{OH})_{3} \downarrow+\mathrm{NaOH}$ (excess) $\rightarrow$ No reaction
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: d

## - Watch Video Solution

6. $\mathrm{Mg}(\mathrm{OH})_{2} \downarrow+2 \mathrm{HCl} \rightarrow \mathrm{MgCl}_{2}+2 \mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b
7. $\mathrm{Mn}\left(\mathrm{NO}_{3}\right)_{2}+2 \mathrm{NaOH} \rightarrow \mathrm{Mn}(\mathrm{OH})_{2} \downarrow+2 \mathrm{NaNO}_{3}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

8. $\mathrm{CH}_{3} \mathrm{COOAg} \downarrow+\mathrm{HNO}_{3} \rightarrow \mathrm{AgNO}_{3}+\mathrm{CH}_{3} \mathrm{COOH}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b

## ( Watch Video Solution

9. $\mathrm{Hg}\left(\mathrm{NO}_{3}\right)_{2}+\mathrm{NH}_{3}$ (soln.) $\rightarrow \mathrm{MgO} \cdot \mathrm{HgNH}_{2} \mathrm{NO}_{3} \downarrow$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

10. $\mathrm{Cu}(\mathrm{OH})_{2} \downarrow+4 \mathrm{NH}_{3}($ soln. $) \rightarrow\left[\mathrm{Cu}\left(\mathrm{NH}_{3}\right)_{4}\right]^{2+}+2 \mathrm{OH}^{-}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

11. $\mathrm{CaC}_{2} \mathrm{O}_{4} \downarrow+\mathrm{CH}_{3} \mathrm{COOH} \rightarrow$ No reaction
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: d

12. $\mathrm{BaC}_{2} \mathrm{O}_{4} \downarrow+2 \mathrm{AcOH} \rightarrow \mathrm{Ba}(\mathrm{AcO})_{2}+\mathrm{H}_{2} \mathrm{C}_{2} \mathrm{O}_{4}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b

## - Watch Video Solution

13. $\mathrm{Fe}(\mathrm{CN})_{2} \downarrow+4 \mathrm{KCN} \rightarrow \mathrm{K}_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b

## - Watch Video Solution

14. $\mathrm{SrC}_{2} \mathrm{O}_{4} \downarrow+2 \mathrm{HCl} \rightarrow \mathrm{SrCl}_{2}+\mathrm{H}_{2} \mathrm{C}_{2} \mathrm{O}_{4}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

15. $\mathrm{Fe}(\mathrm{CN})_{2} \downarrow+\mathrm{KCN} \rightarrow \mathrm{K}_{3} \mathrm{Fe}(\mathrm{CN})_{6}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

16. $\mathrm{CaSO}_{3} \downarrow+\mathrm{SO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{Ca}\left(\mathrm{HSO}_{3}\right)_{2}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b
17. $\mathrm{K}_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]+\mathrm{ZnSO}_{4} \rightarrow \mathrm{Zn}_{2}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right] \downarrow$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

18. $3 \mathrm{PbS} \downarrow+8 \mathrm{HNO}_{3}($ dil. $) \rightarrow 3 \mathrm{~Pb}\left(\mathrm{NO}_{3}\right)_{2}+3 \mathrm{~S}+2 \mathrm{NO} \uparrow$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b

## - Watch Video Solution

19. $\mathrm{K}_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]+2 \mathrm{CuSO}_{4} \rightarrow \mathrm{Cu}_{2}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right] \downarrow$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

20. $\mathrm{MnS} \downarrow+2 \mathrm{HCl} \rightarrow \mathrm{MnCL}_{2}+\mathrm{H}_{2} \mathrm{~S} \uparrow$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

21. $\mathrm{AgCl} \downarrow+2 \mathrm{KCN} \rightarrow K\left[\mathrm{Ag}(\mathrm{CN})_{2}\right]+\mathrm{KCl}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b
22. $\mathrm{HgS} \downarrow+\mathrm{Na}_{2} \mathrm{~S} \Leftrightarrow \mathrm{Na}_{2}\left[\mathrm{HgS}_{2}\right]$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b

## - Watch Video Solution

23. $\mathrm{CuSO}_{4}+2 \mathrm{KCN} \rightarrow \mathrm{CuCN} \downarrow+(\mathrm{CN})_{2} \uparrow+\mathrm{K}_{2} \mathrm{SO}_{4}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

24. $\mathrm{FeS} \downarrow+2 \mathrm{HCl} \rightarrow \mathrm{FeCl}_{2}+\mathrm{H}_{2} \mathrm{~S} \uparrow$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

25. $\mathrm{Cd}(\mathrm{CN})_{2} \downarrow+2 \mathrm{KCN} \rightarrow \mathrm{K}_{2}\left[\mathrm{Cd}(\mathrm{CN})_{4}\right]$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

26. $2 \mathrm{AgF}+\mathrm{MgCl}_{2} \rightarrow \mathrm{MgF}_{2} \downarrow+2 \mathrm{AgCl} \downarrow$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

27. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}+2 \mathrm{KI} \rightarrow \mathrm{PbI}_{2} \downarrow+2 \mathrm{KNO}_{3}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

28. $\mathrm{PbCl}_{2} \downarrow+$ hot water $\rightarrow \mathrm{Pb}^{2}$ (aq. $)+2 \mathrm{Cl}^{-}$(aq. $)$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b

## - Watch Video Solution

29. $\mathrm{HgI}_{2} \downarrow+\mathrm{KI} \Leftrightarrow K_{2}\left[\mathrm{HgI}_{4}\right]$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

30. $\mathrm{AgI} \downarrow+2 \mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3} \rightarrow \mathrm{Na}_{3}\left[\mathrm{Ag}\left(\mathrm{S}_{2} \mathrm{O}_{3}\right)_{2}\right]+\mathrm{NaI}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

31. $\mathrm{CuSO}_{4}+2 \mathrm{KI} \rightarrow \mathrm{CuI} \downarrow+\frac{1}{2} \mathrm{I}_{2}+\mathrm{K}_{2} \mathrm{SO}_{4}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

32. $\mathrm{KNO}_{2}+\mathrm{AgF} \rightarrow \mathrm{AgNO}_{2} \downarrow+\mathrm{KF}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

33. $\mathrm{BaSO}_{4} \downarrow+\mathrm{Na}_{2} \mathrm{CO}_{3} \rightarrow \mathrm{BaCO}_{3} \downarrow+\mathrm{Na}_{2} \mathrm{SO}_{4}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: c

## ( Watch Video Solution

34. $\mathrm{FeCl}_{3}+\mathrm{Na}_{3} \mathrm{PO}_{4} \rightarrow \mathrm{FePO}_{4} \downarrow+3 \mathrm{NaCl}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

35. $\mathrm{BaSO}_{4} \downarrow+$ dil. HCl (excess) $\rightarrow$ No reaction
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: d

## - Watch Video Solution

36. $2 \mathrm{AgNO}_{3}+\mathrm{Na}_{2} \mathrm{C}_{2} \mathrm{O}_{4} \rightarrow \mathrm{Ag}_{2} \mathrm{C}_{2} \mathrm{O}_{4} \downarrow+2 \mathrm{NaNO}_{3}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

37. $2 \mathrm{BaCrO}_{4} \downarrow+4 \mathrm{HCl} \rightarrow 2 \mathrm{BaCl}_{2}+\mathrm{H}_{2} \mathrm{Cr}_{2}+\mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b

## - Watch Video Solution

38. $\mathrm{PbCrO}_{4} \downarrow+4 \mathrm{NaOH}$ (excess) $\rightarrow \mathrm{Na}_{2}\left[\mathrm{~Pb}(\mathrm{OH})_{4}\right]$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

39. $\mathrm{BaCrO}_{4} \downarrow+\mathrm{CH}_{3} \mathrm{COOH}$ (excess) $\rightarrow$ No reaction
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: d

## - Watch Video Solution

40. $\mathrm{PbCl}_{2} \downarrow+\mathrm{H}_{2} \mathrm{SO}_{4} \Leftrightarrow \mathrm{PbSO}_{4} \downarrow+2 \mathrm{HCL}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: c

## - Watch Video Solution

41. $\mathrm{Ba}\left(\mathrm{NO}_{3}\right)_{2}+\mathrm{Na}_{2} \mathrm{SO}_{4} \rightarrow \mathrm{BaSO}_{4} \downarrow+2 \mathrm{NaNO}_{3}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

42. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}+\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow \mathrm{PbSO}_{4} \downarrow+2 \mathrm{HNO}_{3}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

43. $\mathrm{SrCrO}_{4} \downarrow+2 \mathrm{AcOH}$ (excess) $\rightarrow \mathrm{Sr}(\mathrm{ArO})_{2} \rightarrow$ No dissolution
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

44. $\mathrm{MCrO}_{4} \downarrow\left(\mathrm{M}^{2+}=\mathrm{Ba}^{2+} \mathrm{Pb}^{2+}\right)+\mathrm{AcOH} \rightarrow$ No dissolution
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: d

## - Watch Video Solution

45. $\mathrm{CaCl}_{2}+\mathrm{Na}_{2} \mathrm{C}_{2} \mathrm{O}_{4} \rightarrow \mathrm{CaC}_{2} \mathrm{O}_{4} \downarrow+2 \mathrm{NaCl}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

46. $\mathrm{CaSO}_{4}+\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2} \rightarrow \mathrm{PbSO}_{4} \downarrow+\mathrm{Ca}\left(\mathrm{NO}_{3}\right)_{2}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

47. $\mathrm{Hg}_{20}\left(\mathrm{NO}_{3}\right)_{2}+\mathrm{NH}_{3}$ (solution) $\rightarrow \mathrm{Hg} \downarrow+\mathrm{HgO} \cdot \mathrm{NH}_{3} \mathrm{NO}_{3} \downarrow$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

48. $\mathrm{BaCO}_{3} \downarrow+2 \mathrm{HCl} \rightarrow \mathrm{BaCl}_{2}+\mathrm{CO}_{2} \uparrow+\mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

49. $\mathrm{AlCl}_{3}+3 \mathrm{NaOH} \rightarrow \mathrm{Al}(\mathrm{OH})_{3} \downarrow+3 \mathrm{NaCl}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

50. $\mathrm{BaCO}_{3} \downarrow+\mathrm{CO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{Ba}\left(\mathrm{HCO}_{3}\right)_{2}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

51. $\mathrm{ZnS} \downarrow+2 \mathrm{HCl} \rightarrow \mathrm{ZnCl}_{2}+\mathrm{H}_{2} \mathrm{~S} \uparrow$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b
52. $\mathrm{NiCl}_{2}+2 \mathrm{dmg} \xrightarrow{\mathrm{NH}_{4} \mathrm{OH}} \mathrm{Ni}(\mathrm{dmg})_{2} \downarrow$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

53. $\mathrm{CaCl}_{2}+\mathrm{Na}_{2} \mathrm{SO}_{4} \rightarrow$ No reaction
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: d

## - Watch Video Solution

54. $\mathrm{BaCO}_{3} \downarrow+2 \mathrm{AcOH} \rightarrow \mathrm{Ba}(\mathrm{AcO})_{2}+\mathrm{CO}_{2} \uparrow+\mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

55. $\mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}+\mathrm{BaCl}_{2} \rightarrow \mathrm{BaS}_{2} \mathrm{O}_{3} \downarrow+2 \mathrm{NaCl}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

56. $\mathrm{Ba}(\mathrm{AcO})_{2}+\mathrm{K}_{2} \mathrm{CrO}_{4} \rightarrow \mathrm{BaCrO}_{4} \downarrow+2 \mathrm{AcOK}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

57. $3 \mathrm{AgNO}_{3}+\mathrm{Na}_{3} \mathrm{PO}_{4} \rightarrow \mathrm{Ag}_{3} \mathrm{PO}_{4} \downarrow+3 \mathrm{NaNO}_{3}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

58. $\mathrm{Ag}_{2} \mathrm{CO}_{3} \downarrow+2 \mathrm{HCl} \rightarrow \mathrm{AgCl} \downarrow+\mathrm{CO}_{2} \uparrow+\mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: c

## - Watch Video Solution

59. $\mathrm{BaSO}_{3} \downarrow+\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow \mathrm{BaSO}_{4} \downarrow+\mathrm{SO}_{2} \uparrow+\mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: c

## - Watch Video Solution

60. $\mathrm{HgS} \downarrow+\mathrm{HNO}_{3}$ (conc.) $\rightarrow$ No dissolution.
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: d

## - Watch Video Solution

61. $\mathrm{Sr}(\mathrm{ACO})_{2}+\mathrm{Ag}_{2} \mathrm{SO}_{4} \rightarrow 2 \mathrm{AcOAg} \downarrow+\mathrm{SrSO}_{4} \downarrow$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

62. $\mathrm{Ca}(\mathrm{OH})_{2}+2 \mathrm{FH} \rightarrow \mathrm{CaF}_{2} \downarrow+2 \mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

63. $\mathrm{Ca}(\mathrm{OH})_{2}+\mathrm{CO}_{2} \rightarrow \mathrm{CaCO}_{3} \downarrow+2 \mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: a

## - Watch Video Solution

64. $\mathrm{CaSO}_{3} \downarrow+\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow \mathrm{CaSO}_{4}+\mathrm{SO}_{2} \uparrow+\mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

65. $\mathrm{Ca}(\mathrm{OH})_{2}+\mathrm{SO}_{2} \rightarrow \mathrm{CaSO}_{3} \downarrow+\mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

66. $\mathrm{Na}_{2} \mathrm{SO}_{3}+\mathrm{BaCl}_{2} \rightarrow \mathrm{BaSO}_{3} \downarrow+2 \mathrm{NaCl}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

67. $\mathrm{Pb}(\mathrm{AcO})_{2}+\mathrm{H}_{2} \mathrm{~S} \rightarrow \mathrm{PbS} \downarrow+2 \mathrm{AcOH}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

68. $\mathrm{NaCl}+\mathrm{AbNO}_{3} \rightarrow \mathrm{AgCl} \downarrow+\mathrm{NaO}_{3}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

69. $\mathrm{HgI}_{2} \downarrow+2 \mathrm{HI} \rightarrow \mathrm{K}_{2}\left[\mathrm{HgI}_{4}\right]$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

70. $\mathrm{PbO}_{2}+\mathrm{HNO}_{3}($ dil. $) \rightarrow$ No dissolution.
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: d

## - Watch Video Solution

71. $\mathrm{PbO}_{2}+\mathrm{HNO}_{3}$ (Conc.) $\rightarrow \mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}+\mathrm{H}_{2} \mathrm{O}+[\mathrm{O}]$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b
72. $\mathrm{K}_{2}\left[\mathrm{Cd}(\mathrm{CN})_{4}\right]+\mathrm{H}_{2} \mathrm{~S} \rightarrow \mathrm{CdS} \downarrow+2 \mathrm{KCN}+2 \mathrm{HCN}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

73. $\mathrm{Pb}(\mathrm{AcO})_{2}+\mathrm{Na}_{2} \mathrm{CrO}_{4} \rightarrow \mathrm{PbCrO}_{4} \downarrow+2 \mathrm{AcONa}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

74. $\mathrm{NaBr}+\mathrm{AgNO}_{3} \rightarrow \mathrm{AgBr} \downarrow+\mathrm{NaNO}_{3}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

75. $\underset{2}{\underline{B}} \mathrm{O}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{BO}_{3}+\mathrm{H}_{2} \mathrm{O} \Leftrightarrow \mathrm{H}\left[\mathrm{B}(\mathrm{OH})_{4}\right]+\mathrm{H}^{+}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

76. $\mathrm{SO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## - Watch Video Solution

77. $\underline{B F}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} B \mathrm{O}_{3}+\mathrm{H}\left[\mathrm{BF}_{4}\right]$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

78. $\mathrm{TeF}_{6-}(6)+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{6} \mathrm{TeO}_{6}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

79. $\mathrm{H}_{4} \mathrm{P}_{2} \mathrm{O}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## - Watch Video Solution

80. $\underline{\mathrm{CO}}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## - Watch Video Solution

81. $\mathrm{SO}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

82. $\mathrm{H}_{4} \mathrm{P}_{2} \mathrm{O}_{6}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{3}+\mathrm{H}_{3} \mathrm{PO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: c

## - Watch Video Solution

83. $\underline{B C l}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{BO}_{3}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

84. $\mathrm{IF}_{7}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}_{4}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

85. $\mathrm{CO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{CO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

86. $\mathrm{Cl}_{2} \mathrm{O}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HClO}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: b

## - Watch Video Solution

87. $\mathrm{H}_{4} \mathrm{P}_{2} \mathrm{O}_{7}+\mathrm{H}_{2} \mathrm{O} \rightarrow 2 \mathrm{H}_{3} \mathrm{PO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

88. $\underline{C C l}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## D Watch Video Solution

89. $\mathrm{CIF}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HClO}_{3}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

90. $\mathrm{N}_{2} \mathrm{O}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## - Watch Video Solution

91. $\mathrm{ClO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HClO}_{2}+\mathrm{HClO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: c

## - Watch Video Solution

92. $\mathrm{H}_{4} \mathrm{P}_{2} \mathrm{O}_{8}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{4}+\mathrm{H}_{2} \mathrm{O}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

93. $\mathrm{NF}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## - Watch Video Solution

94. $\underline{\mathrm{BrF}}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HBrO}_{3}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

95. $\underline{\mathrm{NO}}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## D Watch Video Solution

96. $\mathrm{ClO}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HClO}_{3}+\mathrm{HClO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

97. $\mathrm{HNO}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HNO}_{3}+\mathrm{H}_{2} \mathrm{O}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

98. $\mathrm{NCl}_{3}+3 \mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{NH}_{3}+3 \mathrm{HOCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## - View Text Solution

99. $\mathrm{IF}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}_{3}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

100. $\mathrm{N}_{2} \mathrm{O}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HNO}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## - Watch Video Solution

101. $\mathrm{Cl}_{2} \mathrm{O}_{7}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HClO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

102. $\mathrm{H}_{3} \underline{P O}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{4}+\mathrm{H}_{2} \mathrm{O}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

103. $\mathrm{SiF}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{4} \mathrm{SiO}_{4}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

104. $\mathrm{ICl}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}_{2}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: b

## - Watch Video Solution

105. $\mathrm{N}_{2} \mathrm{O}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HNO}_{3}+\mathrm{HNO}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: c

## - Watch Video Solution

106. $\mathrm{I}_{2} \mathrm{O}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

107. $\mathrm{H}_{2} \mathrm{SO}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{4}+\mathrm{H}_{2} \mathrm{O}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

108. $\mathrm{SiCl}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{4} \mathrm{SiO}_{4}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

109. $\mathrm{CrO}_{2} \mathrm{Cl}_{2}+2 \mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{CrO}_{4}+2 \mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

110. $\mathrm{N}_{2} \mathrm{O}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HNO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

111. $\underline{P C l}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{3}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: b

## - Watch Video Solution

112. $\underline{C l F}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HClO}_{2}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## D Watch Video Solution

113. $\underline{\mathrm{SiO}_{2}}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## - Watch Video Solution

114. $\mathrm{H}_{4} \mathrm{~B}_{2} \mathrm{O}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow 2 \mathrm{H}_{3} \mathrm{BO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

115. $\mathrm{H}_{4} \mathrm{~S}_{2} \mathrm{O}_{6}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{3}+\mathrm{H}_{2} \mathrm{SO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: c

## - Watch Video Solution

116. $\underline{P C l}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{4}+5 \mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

117. $\underline{\mathrm{ClF}}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HOCl}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: b

## - Watch Video Solution

118. $\mathrm{P}_{4} \mathrm{O}_{6}+6 \mathrm{H}_{2} \mathrm{O} \rightarrow 4 \mathrm{H}_{3} \mathrm{PO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## - Watch Video Solution

119. $\mathrm{H}_{4} \mathrm{~B}_{2} \mathrm{O}_{6}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{BO}_{3}+\mathrm{H}_{2} \mathrm{O}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

120. $\mathrm{H}_{6} \mathrm{Si}_{2} \mathrm{O}_{7}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{4} \mathrm{SiO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

121. $\underline{S F}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{3}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## - Watch Video Solution

122. $\underline{\mathrm{Br}} \mathrm{F}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HBrO}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: b

## - Watch Video Solution

123. $\mathrm{H}_{2} \mathrm{~S}_{2} \mathrm{O}_{7}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

124. $\mathrm{H}_{2} \mathrm{~S}_{2} \mathrm{O}_{8}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{4}+\mathrm{H}_{2} \mathrm{O}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

125. $\underline{S F}_{6}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## - Watch Video Solution

126. $\mathrm{Icl}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: b

## - Watch Video Solution

127. $\mathrm{ICl}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## - Watch Video Solution

128. $\mathrm{P}_{4} \mathrm{O}_{10}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

129. $\underline{P}_{-} \mathrm{OCl}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{4}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

130. $\mathrm{IOF}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}_{4}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

131. $\mathrm{P}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## - Watch Video Solution

132. $\mathrm{Na} \underline{H}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{NaOH}+\mathrm{H}_{2} \uparrow$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## - Watch Video Solution

133. $\mathrm{B}_{2} \mathrm{H}_{6}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{BO}_{3}+\mathrm{H}_{2} \uparrow$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

134. $\mathrm{Cl}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HOCl}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: b

## D Watch Video Solution

135. $\mathrm{S}_{\mathrm{g}}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction.
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## - Watch Video Solution

136. $\mathrm{SOcl}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{3}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## - Watch Video Solution

137. $\mathrm{SO}_{2} \mathrm{Cl}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{4}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

138. $\mathrm{SiH}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{4} \mathrm{SiO}_{4}+\mathrm{H}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

139. $\mathrm{I}_{\underline{z}}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## D Watch Video Solution

140. $\mathrm{SOF}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{4}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

141. $\mathrm{F}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HF}+\mathrm{O}_{2}$ (Ozonide oxygen)
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## - Watch Video Solution

142. $C(s)+\mathrm{O}_{2}(\mathrm{~g}) \stackrel{\Delta}{\rightarrow} \mathrm{CO}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## D Watch Video Solution

143. $3 \mathrm{Mg}(\mathrm{s})+\mathrm{N}_{2}(g) \rightarrow M g_{3} N_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

## - Watch Video Solution

144. $\mathrm{Na} \underline{H}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{NaoH}+\mathrm{H}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: bc

## - Watch Video Solution

145. $\mathrm{CuSO}_{4}$ (aq. $)+\mathrm{Zn}(\mathrm{s}) \rightarrow \mathrm{ZnSO}_{4}+\mathrm{Cu} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

146. $\mathrm{Na}(\mathrm{s})+\mathrm{H}_{2} \mathrm{O}(\mathrm{l}) \xrightarrow{\text { R.T. }} \mathrm{NaOH}+\mathrm{H}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

147. $\mathrm{Ca}(\mathrm{s})+\mathrm{H}_{2} \mathrm{O}(\mathrm{l}) \xrightarrow{\text { R.T. }} \mathrm{Ca}(\mathrm{OH})_{2}+\mathrm{H}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

148. $\mathrm{Mg}(\mathrm{s})+\mathrm{H}_{2} \mathrm{O}(\mathrm{l}) \xrightarrow{\text { warm }} \mathrm{Mg}(\mathrm{OH})_{2}+\mathrm{H}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D.For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

149. $\mathrm{Fe}(\mathrm{s})+\mathrm{H}_{2} \mathrm{O}(\mathrm{l}) \xrightarrow{\text { Boil }} \mathrm{Fe}_{3} \mathrm{O}_{4}+\mathrm{H}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

150. $\mathrm{Zn}(\mathrm{s})+2 \mathrm{HCl} \rightarrow \mathrm{ZnCl}_{2}+\mathrm{H}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

151. $\mathrm{Mg}(\mathrm{s})+2 \mathrm{HCl} \rightarrow \mathrm{MgCl}_{2}+\mathrm{H}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D.For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

152. $\mathrm{Fe}(\mathrm{s})+2 \mathrm{HCl} \rightarrow \mathrm{FeCl}_{2}+\mathrm{H}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## D Watch Video Solution

153. $\mathrm{Cl}_{2}(\mathrm{~g})+\mathrm{KI}($ aq. $) \rightarrow \mathrm{KCl}+\mathrm{I}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

154. $\mathrm{H}_{2} \mathrm{O}_{2} \xrightarrow{\text { R.T. }} \mathrm{H}_{2} \mathrm{O}+\frac{1}{2} \mathrm{O}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## - Watch Video Solution

155. $\mathrm{P}_{4}+\mathrm{NaOH} \rightarrow \mathrm{PH}_{3} \uparrow+\mathrm{NaH}_{2} \mathrm{PO}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

## - Watch Video Solution

156. $\mathrm{S}_{8}+\mathrm{NaOH} \rightarrow \mathrm{Na}_{2} \mathrm{~S}+\mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

## - Watch Video Solution

157. $\mathrm{Cl}_{2}+\mathrm{NaoH} \rightarrow \mathrm{NaCl}+\mathrm{NaOCl}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D.For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

## - Watch Video Solution

158. $\mathrm{I}_{2}+\mathrm{NaOH} \rightarrow \mathrm{NaI}+\mathrm{NaOI}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

## D Watch Video Solution

159. $\mathrm{Pb}_{3} \mathrm{O}_{4}+\mathrm{HCl}($ dil. $) \xrightarrow{\text { warm }} \mathrm{PbCl}_{2} \downarrow+\mathrm{Cl}_{2}+\mathrm{H}_{2} \mathrm{O}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

160. $\mathrm{Pb}_{3} \mathrm{O}_{4}+\mathrm{HNO}_{3}$ (dil. $) \xrightarrow{\text { R.T. }} \mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}+\mathrm{PbO}_{2} \downarrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D.For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

## - Watch Video Solution

161. $\mathrm{PbO}_{2}+\mathrm{HCl}($ dil. $) \stackrel{\text { warm }}{\rightarrow} \mathrm{PbCl}_{2} \downarrow+\mathrm{Cl}_{2} \uparrow+\mathrm{H}_{2} \mathrm{O}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

162. $\mathrm{Cr}_{2} \mathrm{O}_{7}^{2-}+\mathrm{H}^{+}+\mathrm{SO}_{3}^{2-} \rightarrow \mathrm{Cr}^{3+}$ (aq. $)+\mathrm{SO}_{4}^{2-}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

163. $\mathrm{MnO}_{4}^{-}+\mathrm{H}^{+}+\mathrm{Br}^{-} \rightarrow \mathrm{Mn}^{3+}$ (aq. $)+\mathrm{Br}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

164. $\mathrm{Fe}^{2+}$ (aq. $)+\mathrm{Cr}_{2} \mathrm{O}_{7}^{2-}+\mathrm{H}^{+} \rightarrow \mathrm{Fe}^{3+}($ aq. $)+\mathrm{Cr}^{3+}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## D Watch Video Solution

165. $\mathrm{I}_{2}+\mathrm{S}_{2} \mathrm{O}_{3}^{2-} \rightarrow I^{-}+\mathrm{S}_{4} \mathrm{O}_{6}^{2-}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

166. $\mathrm{Cu}^{2+}(a q)+2 I^{-} \rightarrow \mathrm{CuI} \downarrow+\frac{1}{2} I_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

167. What is redox reaction ? Identify the substance oxidised and the substance reduced in the following reactions:
(i) $\mathrm{MnO}_{2}+4 \mathrm{HCl} \rightarrow \mathrm{MnCl}_{2}+2 \mathrm{H}_{2} \mathrm{O}+\mathrm{Cl}_{2}$
(ii) $\mathrm{CuO}+\mathrm{H}_{2} \rightarrow \mathrm{Cu}+\mathrm{H}_{2} \mathrm{O}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

168. $\mathrm{H}_{3} \mathrm{PO}_{2}+\mathrm{AgNO}_{2} \rightarrow \mathrm{Ag} \downarrow+\mathrm{H}_{3} \mathrm{PO}_{4}+\mathrm{NO}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

169. $\mathrm{H}_{3} \mathrm{PO}_{2}+\mathrm{CuSO}_{4} \rightarrow \mathrm{Cu} \downarrow+\mathrm{H}_{3} \mathrm{PO}_{4}+\mathrm{HNO}_{3}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

$\Delta$
170. $\mathrm{NaNO}_{3} \rightarrow \mathrm{NaNO}_{2}+\mathrm{O}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

Answer: d
R.T.
171. $\mathrm{N}_{2} \mathrm{O}_{3} \rightarrow \mathrm{NO}+\mathrm{NO}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: ad

## - Watch Video Solution

172. $\mathrm{Ca}(\mathrm{OH})_{2}+\mathrm{Cl}_{2} \rightarrow \mathrm{CaOCl}_{2}$ or $\mathrm{Ca}(\mathrm{OCl}) \mathrm{Cl}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

## - Watch Video Solution

173. $\mathrm{XeF}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{Xe}+\mathrm{XeO}_{3}+\mathrm{HF}+\mathrm{O}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

174. $\mathrm{XO}+\mathrm{I}_{2} \mathrm{O}_{5}(\mathrm{~s}) \rightarrow \mathrm{CO}_{2}+\mathrm{I}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

175. $\mathrm{FeCr}_{2} \mathrm{O}_{4}+\mathrm{Na}_{2} \mathrm{CO}_{3}+\mathrm{O}_{2} \rightarrow \mathrm{Fe}_{2} \mathrm{O}_{3} \downarrow+\mathrm{Na}_{2} \mathrm{CrO}_{4}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

176. $\mathrm{MnO}_{2}+2 \mathrm{KOH}+\frac{1}{2} \mathrm{O}_{2} \rightarrow \mathrm{~K}_{2} \mathrm{MnO}_{4}+\mathrm{H}(2) \mathrm{O}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## D Watch Video Solution

177. $\mathrm{K}_{2} \mathrm{MnO}_{4}+\mathrm{H}^{+} \rightarrow \mathrm{KMnO}_{4}+\mathrm{MnO}_{2} \downarrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

## - Watch Video Solution

178. $\mathrm{KMnO}_{4} \xrightarrow{\Delta} \mathrm{~K}_{2} \mathrm{MnO}_{4}+\mathrm{MnO}_{2}+\mathrm{O}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

## - Watch Video Solution

179. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7} \xrightarrow{\Delta} \mathrm{~K}_{2} \mathrm{CrO}_{4}+\mathrm{Cr}_{2} \mathrm{O}_{3}+\mathrm{O}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D.For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

## - Watch Video Solution

180. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{Cr}_{2} \mathrm{O}_{7} \xrightarrow{\Delta} \mathrm{~N}_{2} \uparrow+\mathrm{Cr}_{2} \mathrm{O}_{3} \downarrow+\mathrm{H}_{2} \mathrm{O} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

## - Watch Video Solution

181. $\mathrm{NH}_{4} \mathrm{Cl}+\mathrm{NaNO}_{2} \xrightarrow{\Delta} \mathrm{~N}_{2} \uparrow+\mathrm{NaCl}+\mathrm{H}_{2} \mathrm{O}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: b

## - Watch Video Solution

182. $B a\left(N_{3}\right)_{2} \xrightarrow{\Delta} B a+N_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

183. $\mathrm{N}_{2}+\mathrm{O}_{2} \xrightarrow{\text { High temp. }} \mathrm{NO} \uparrow$-Heat.
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: cd

## - Watch Video Solution

184. $\mathrm{N}_{2}+3 \mathrm{H}_{2} \rightarrow \mathrm{NH}_{3}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

## - Watch Video Solution

$\Delta$
185. $\mathrm{NH}_{4} \mathrm{NO}_{3} \rightarrow \mathrm{~N}_{2} \mathrm{O}+\mathrm{H}_{2} \mathrm{O}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: bd

186. $\mathrm{NaNO}_{2}+\mathrm{FeSO}_{4}+\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow\left[\mathrm{Fe}\left(\mathrm{H}_{2} \mathrm{O}\right)_{5} \mathrm{NO}^{2}\right] \mathrm{SO}_{4}$ (Ring complex)
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

$-11^{\circ} \mathrm{C}$
187. $\mathrm{NO}+\mathrm{NO}_{2} \rightarrow \mathrm{~N}_{2} \mathrm{O}_{3}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: bd

## - Watch Video Solution

188. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2} \stackrel{\Delta}{\rightarrow} \mathrm{PbO}+\mathrm{NO}_{2}+\mathrm{O}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

189. $P_{4}+6 \mathrm{Cl}_{2} \rightarrow \mathrm{PCl}_{3}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: cd

## - Watch Video Solution

$\Delta$
190. $\mathrm{P}_{4}+10 \mathrm{Cl}_{2} \rightarrow \mathrm{PCl}_{5}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: cd

## - Watch Video Solution

## $\Delta$

191. $\mathrm{Ag}+\mathrm{PCl}_{5} \rightarrow \mathrm{AgCl}+\mathrm{PCl}_{3}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

192. $\mathrm{Sn}+\mathrm{PCl}_{5} \rightarrow \mathrm{SnCl}_{4}+\mathrm{PCl}_{3}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

$\Delta$
193. $\mathrm{PCl}_{5} \rightarrow \mathrm{PCl}_{3}+\mathrm{Cl}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

## - Watch Video Solution

194. Red P+Alkali $\rightarrow \mathrm{Na}_{4} \mathrm{P}_{2} \mathrm{O}_{6}+\mathrm{P}_{2} \mathrm{H}_{4}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

195. $\mathrm{H}_{3} \mathrm{PO}_{3} \xrightarrow{\Delta} \mathrm{H}_{3} \mathrm{PO}_{4}+\mathrm{PH}_{3} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: ad

## - Watch Video Solution

$\Delta$
196. $\mathrm{Se}_{2} \mathrm{Cl}_{2} \rightarrow \mathrm{SeCl}_{4}+\mathrm{Se}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: ad

## - Watch Video Solution

197. $\mathrm{Na}_{2} \mathrm{~S}+\mathrm{H}_{2} \mathrm{SO}_{4}$ (Conc.) $\rightarrow \mathrm{S} \downarrow+\mathrm{SO}_{2}+\mathrm{Na}_{2} \mathrm{SO}_{4}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

198. $\mathrm{MnO}_{2}+\mathrm{NaCl}+\mathrm{H}_{2} \mathrm{SO}_{4}($ Conc. $) \rightarrow \mathrm{MnSO}_{4}+\mathrm{Cl}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

199. $\mathrm{NaBr}+\mathrm{MnO}_{2}+\mathrm{H}_{2} \mathrm{SO}_{4}$ (Conc.) $\rightarrow \mathrm{MnSO}_{4}+\mathrm{Br}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

200. $\mathrm{NaI}+\mathrm{H}_{2} \mathrm{SO}_{4}$ (Conc.) $\rightarrow \mathrm{Na}_{2} \mathrm{SO}_{4}+\mathrm{SO}_{2} \uparrow+\mathrm{I}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

201. $\mathrm{NaI}+\mathrm{MnO}_{2}+\mathrm{H}_{2} \mathrm{SO}_{4}$ (Conc.) $\rightarrow \mathrm{MnSO}_{4}+\mathrm{I}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

202. $\mathrm{NaNO}_{3}+\mathrm{H}_{2} \mathrm{SO}_{4}$ (Conc.) $\xrightarrow{\text { Hot }} \mathrm{Na}_{2} \mathrm{SO}_{4}+\mathrm{NO}_{2} \uparrow+\mathrm{O}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

## - Watch Video Solution

203. $\mathrm{Na}_{2} \mathrm{C}_{2} \mathrm{O}_{4}+\mathrm{H}_{2} \mathrm{SO}_{4}($ Conc. $) \rightarrow \mathrm{Na}_{2} \mathrm{SO}_{4}+\mathrm{CO}+\mathrm{CO}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

204. $3 \mathrm{PbS}+8 \mathrm{HNO}_{3}($ Dil. $) \rightarrow 3 \mathrm{~Pb}\left(\mathrm{NO}_{3}\right)_{2}+3 \mathrm{~S} \downarrow+2 \mathrm{NO}+4 \mathrm{H}_{2} \mathrm{O}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

205. $\mathrm{S}+\mathrm{HNO}_{3}($ Dil. $) \rightarrow \mathrm{H}_{2} \mathrm{SO}_{4}+\mathrm{No} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

206. $\mathrm{CuSO}_{4}+\mathrm{Zn}(\mathrm{s}) \rightarrow \mathrm{ZnSO}_{4}+\mathrm{Cu}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

207. $2 \mathrm{NaOH}+\mathrm{Zn}(\mathrm{OH})_{2} \downarrow \rightarrow \mathrm{Na}_{2} \mathrm{ZnO}_{2}+2 \mathrm{H}_{2} \mathrm{O}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

## - Watch Video Solution

208. $\mathrm{Mn}(\mathrm{OH})_{2}+\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow \mathrm{MnSO}_{4}+2 \mathrm{H}_{2} \mathrm{O}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## - Watch Video Solution

209. $2 \mathrm{AgNO}_{3}+2 \mathrm{NaOH} \rightarrow \mathrm{Ag}_{2} \mathrm{O} \downarrow+2 \mathrm{NaNO}_{3}+\mathrm{H}_{2} \mathrm{O}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: a

## - Watch Video Solution

210. $\mathrm{Cr}(\mathrm{OH})_{3} \downarrow+\mathrm{NH}_{3}($ Excess $) \rightarrow\left[\mathrm{Cr}\left(\mathrm{NH}_{3}\right)_{6}\right]^{3+}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## - Watch Video Solution

211. $\mathrm{CuSO}_{4}+\mathrm{NH}_{3}$ (excess) $\rightarrow\left[\mathrm{Cu}\left(\mathrm{NH}_{3}\right)_{4}\right]^{2+}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: b
212. $\mathrm{NiCl}_{2}+\mathrm{NH}_{3}$ (excess) $\rightarrow\left[\mathrm{Ni}\left(\mathrm{NH}_{3}\right)_{6}\right]^{2+}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## - Watch Video Solution

213. $\mathrm{FeCl}_{3}+\mathrm{NH}_{3}$ (excess) $\rightarrow \mathrm{Fe}(\mathrm{OH})_{3} \downarrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: a

## - Watch Video Solution

214. $\mathrm{Na}_{2}\left[\mathrm{Zn}(\mathrm{OH})_{4}\right]+4 \mathrm{HCl} \rightarrow \mathrm{ZnCl}_{2}+\mathrm{NaCl}+\mathrm{H}_{2} \mathrm{O}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

## - Watch Video Solution

215. $\left[\mathrm{Cr}\left(\mathrm{NH}_{3}\right)_{6}\right]^{3+}+6 \mathrm{HCl} \rightarrow \mathrm{Cr}^{3+}(a q)+6 \mathrm{NH}_{4} \mathrm{Cl}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## - Watch Video Solution

216. $2 \mathrm{KCN}+\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2} \rightarrow \mathrm{~Pb}(\mathrm{CN})_{2} \downarrow+2 \mathrm{KNO}_{3}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

217. $4 \mathrm{KCN}+\mathrm{Fe}(\mathrm{CN})_{2} \downarrow \rightarrow \mathrm{~K}_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## - Watch Video Solution

218. $3 \mathrm{KCN}+\mathrm{Fe}(\mathrm{CN})_{3} \downarrow \rightarrow \mathrm{~K}_{3}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## - Watch Video Solution

219. $\mathrm{CuSO}_{4}+\mathrm{KCN}($ excess $) \rightarrow \mathrm{K}_{2}\left[\mathrm{Cu}(\mathrm{CN})_{4}\right]+\frac{1}{2}(\mathrm{CN})_{2}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

## ( Watch Video Solution

220. ${ }^{\mathrm{K}} \mathrm{K}_{-}(3)\left[\mathrm{Fe}(\mathrm{CN})_{-}(6)\right]+\mathrm{FeCl}(3)$ to $\mathrm{Fe}\left[\mathrm{Fe}(\mathrm{CN})_{-}(6)\right]$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## - Watch Video Solution

221. $\mathrm{K}_{3}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]+\mathrm{FeCl}_{2} \rightarrow \mathrm{Fe}_{3}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]_{2} \downarrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: a

222. $K I+\mathrm{BiI}_{2} \downarrow \rightarrow K\left[\mathrm{BiI}_{4}\right]$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## - Watch Video Solution

223. $2 \mathrm{KI}+\mathrm{HgI}_{2} \downarrow \rightarrow \mathrm{~K}_{2}\left[\mathrm{HgI}_{4}\right]$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## D Watch Video Solution

224. $\mathrm{KI}+\mathrm{AgNO}_{3} \rightarrow \mathrm{AgI} \downarrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: a

## - Watch Video Solution

225. $2 \mathrm{KI}+\mathrm{FeCl}_{2} \rightarrow$ No reaction.
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## - Watch Video Solution

226. $2 \mathrm{KI}+\mathrm{CuSO}_{4} \rightarrow \mathrm{CuI} \downarrow+\frac{1}{2} \mathrm{I}_{2}+\mathrm{K}_{2} \mathrm{SO}_{4}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

227. $\mathrm{BaCO}_{3} \downarrow+\mathrm{CO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{Ba}\left(\mathrm{HCO}_{3}\right)_{2}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

## - Watch Video Solution

228. $\mathrm{Ba}(\mathrm{OH})_{2}+\mathrm{CO}_{2} \rightarrow \mathrm{BaCO}_{3} \downarrow+\mathrm{H}_{2} \mathrm{O}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## D Watch Video Solution

229. $\mathrm{BaSO}_{3} \downarrow+\mathrm{SO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{Ba}\left(\mathrm{HSO}_{3}\right)_{2}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

## - Watch Video Solution

230. $\mathrm{Ba}(\mathrm{OH})_{2}+\mathrm{SO}_{2} \rightarrow \mathrm{BaSO}_{3} \downarrow+\mathrm{H}_{2} \mathrm{O}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

## D Watch Video Solution

231. $\mathrm{Na}_{2} \mathrm{CO}_{3}+\mathrm{PbSO}_{4} \rightarrow \mathrm{PbCO}_{3} \downarrow+\mathrm{Na}_{2} \mathrm{SO}_{4}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

232. $\mathrm{Na}_{2} \mathrm{CO}_{3}+\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2} \rightarrow \mathrm{PbCO}_{3} \downarrow+\mathrm{NaNO}_{3}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

## - Watch Video Solution

233. $\mathrm{Na}_{2} \mathrm{CO}_{3}+\mathrm{KNO}_{3} \rightarrow$ No reaction
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

## D Watch Video Solution

234. $\mathrm{Na}_{2} \mathrm{CO}_{3}+\mathrm{AgNO}_{3} \rightarrow \mathrm{Ag}_{2} \mathrm{CO}_{3} \downarrow+\mathrm{NaNO}_{3}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

## (3) Watch Video Solution

235. $\mathrm{Na}_{3} \mathrm{PO}_{4}+\mathrm{Fe}_{2}\left(\mathrm{SO}_{4}\right)_{3} \rightarrow \mathrm{FePO}_{4} \downarrow+\mathrm{Na}_{2} \mathrm{SO}_{4}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: a

## - Watch Video Solution

236. $\mathrm{NiCl}_{2}$ (solution) $+\mathrm{NaNO}_{3}$ (solution) $\rightarrow$ No reaction
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

237. $\mathrm{CuSO}_{4}$ (solution) $+\mathrm{ZnCl}_{2}$ (solution) $\rightarrow$ No reaction
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## - Watch Video Solution

238. $\mathrm{FeSO}_{4}+\mathrm{Na}_{2} \mathrm{~S} \rightarrow \mathrm{FeS} \downarrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## D Watch Video Solution

239. $\mathrm{FeCl}_{3}+\mathrm{KI} \rightarrow \mathrm{Fe}^{2+}$ (aq.) $+\mathrm{KI}+\mathrm{I}_{2}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: b

## - Watch Video Solution

240. $\mathrm{AlCl}_{3}+\mathrm{Na}_{3} \mathrm{PO}_{4} \rightarrow \mathrm{AlPO}_{4} \downarrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

## - Watch Video Solution

241. $\mathrm{CrCl}_{3}$ (solution) $+\mathrm{ZnSO}_{4}$ (Solution) $\rightarrow$ No reaction
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

242. $\mathrm{Na}_{2} \mathrm{CrO}_{4}+\mathrm{HCl} \rightarrow \mathrm{H}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}+\mathrm{Na}_{2} \mathrm{SO}_{4}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## - Watch Video Solution

243. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}+\mathrm{NaOH} \rightarrow \mathrm{CrO}_{4}^{2-}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## D Watch Video Solution

244. $\mathrm{Na}_{2} \mathrm{CrO}_{4}+\mathrm{AgF} \rightarrow \mathrm{Ag}_{2} \mathrm{CrO}_{4} \downarrow+\mathrm{NaF}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: a

## ( Watch Video Solution

245. $\mathrm{KMnO}_{4}+\mathrm{NaNO}_{3} \rightarrow$ No reaction
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## - Watch Video Solution

246. $\mathrm{MnSO}_{4}+\mathrm{Sr}\left(\mathrm{NO}_{3}\right)_{2} \rightarrow \mathrm{SrSO}_{4} \downarrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

247. $\mathrm{ZnSO}_{4}$ (solution) $+\mathrm{MgCl}_{2}($ solution $) \rightarrow$ No reaction
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

## - Watch Video Solution

248. $\mathrm{AgNO}_{3}$ (solution) +NaF (solution) $\rightarrow$ No reaction.
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

## D Watch Video Solution

249. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{SO}_{4}+\mathrm{Ba}(\mathrm{OH})_{2} \rightarrow \mathrm{BaSO}_{4} \downarrow+2 \mathrm{NH}_{3} \uparrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

## - Watch Video Solution

250. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{SO}_{4}+\mathrm{Sr}(\mathrm{OH})_{2} \rightarrow \mathrm{SrSO}_{4} \downarrow+2 \mathrm{NH}_{3} \uparrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

## - Watch Video Solution

251. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}+2 \mathrm{NaOH} \rightarrow \mathrm{Pb}(\mathrm{OH})_{2} \downarrow+2 \mathrm{NaNO}_{3}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

252. $\mathrm{Zn}(\mathrm{OH})_{2} \downarrow+2 \mathrm{NaOH} \rightarrow \mathrm{Na}_{2} \mathrm{ZnO}_{2}+2 \mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

253. $2 \mathrm{Na}\left[\mathrm{Al}(\mathrm{OH})_{4}\right]+\mathrm{CO}_{2} \rightarrow 2 \mathrm{Al}(\mathrm{OH})_{3} \downarrow+\mathrm{Na}_{2} \mathrm{CO}_{3}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

254. $\mathrm{CuSO}_{4}+2 \mathrm{NaOH}$ (excess) $\rightarrow \mathrm{Cu}(\mathrm{OH})_{2} \downarrow+\mathrm{Na}_{2} \mathrm{SO}_{4}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## ( Watch Video Solution

255. $\mathrm{Fe}(\mathrm{OH})_{3} \downarrow+\mathrm{NaOH}$ (excess) $\rightarrow$ No reaction
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: d

## D Watch Video Solution

256. $\mathrm{Mg}(\mathrm{OH})_{2} \downarrow+2 \mathrm{HCl} \rightarrow \mathrm{MgCl}_{2}+2 \mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b
257. $\mathrm{Mn}\left(\mathrm{NO}_{3}\right)_{2}+2 \mathrm{NaOH} \rightarrow \mathrm{Mn}(\mathrm{OH})_{2} \downarrow+2 \mathrm{NaNO}_{3}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

258. $\mathrm{CH}_{3} \mathrm{COOAg} \downarrow+\mathrm{HNO}_{3} \rightarrow \mathrm{AgNO}_{3}+\mathrm{CH}_{3} \mathrm{COOH}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## D Watch Video Solution

259. $\mathrm{Hg}\left(\mathrm{NO}_{3}\right)_{2}+\mathrm{NH}_{3}$ (soln.) $\rightarrow \mathrm{MgO} \cdot \mathrm{HgNH}_{2} \mathrm{NO}_{3} \downarrow$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

260. $\mathrm{Cu}(\mathrm{OH})_{2} \downarrow+4 \mathrm{NH}_{3}$ (soln.) $\rightarrow\left[\mathrm{Cu}\left(\mathrm{NH}_{3}\right)_{4}\right]^{2+}+2 \mathrm{OH}^{-}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## D Watch Video Solution

261. $\mathrm{CaC}_{2} \mathrm{O}_{4} \downarrow+\mathrm{CH}_{3} \mathrm{COOH} \rightarrow$ No reaction
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: d

262. $\mathrm{BaC}_{2} \mathrm{O}_{4} \downarrow+2 \mathrm{AcOH} \rightarrow \mathrm{Ba}(\mathrm{AcO})_{2}+\mathrm{H}_{2} \mathrm{C}_{2} \mathrm{O}_{4}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

263. $\mathrm{Fe}(\mathrm{CN})_{2} \downarrow+4 \mathrm{KCN} \rightarrow \mathrm{K}_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## - Watch Video Solution

264. $\mathrm{SrC}_{2} \mathrm{O}_{4} \downarrow+2 \mathrm{HCl} \rightarrow \mathrm{SrCl}_{2}+\mathrm{H}_{2} \mathrm{C}_{2} \mathrm{O}_{4}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

265. $\mathrm{Fe}(\mathrm{CN})_{2} \downarrow+\mathrm{KCN} \rightarrow \mathrm{K}_{3} \mathrm{Fe}(\mathrm{CN})_{6}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## D Watch Video Solution

266. $\mathrm{CaSO}_{3} \downarrow+\mathrm{SO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{Ca}\left(\mathrm{HSO}_{3}\right)_{2}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b
267. $\mathrm{K}_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]+2 \mathrm{ZnSO}_{4} \rightarrow \mathrm{Zn}_{2}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right] \downarrow+2 \mathrm{~K}_{2} \mathrm{SO}_{4}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

268. $3 \mathrm{PbS} \downarrow+8 \mathrm{HNO}_{3}($ dil. $) \rightarrow 3 \mathrm{~Pb}\left(\mathrm{NO}_{3}\right)_{2}+3 \mathrm{~S}+2 \mathrm{NO} \uparrow$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## - Watch Video Solution

269. $\mathrm{K}_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]+2 \mathrm{CuSO}_{4} \rightarrow \mathrm{Cu}_{2}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right] \downarrow+2 \mathrm{~K}_{2} \mathrm{SO}_{4}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

270. $\mathrm{MnS} \downarrow+2 \mathrm{HCl} \rightarrow \mathrm{MnCl}_{2}+\mathrm{H}_{2} \mathrm{~S} \uparrow$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## D Watch Video Solution

271. $\mathrm{AgCl} \downarrow+2 \mathrm{KCN} \rightarrow \mathrm{K}\left[\mathrm{Ag}(\mathrm{CN})_{2}\right]+\mathrm{KCl}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b
272. $\mathrm{HgS} \downarrow+\mathrm{Na}_{2} \mathrm{~S} \Leftrightarrow \mathrm{Na}_{2}\left[\mathrm{HgS}_{2}\right]$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

273. $\mathrm{CuSO}_{4}+2 \mathrm{KCN} \rightarrow \mathrm{CuCN} \downarrow+(\mathrm{CN})_{2} \uparrow+\mathrm{K}_{2} \mathrm{SO}_{4}$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

274. $\mathrm{FeS} \downarrow+2 \mathrm{HCl} \rightarrow \mathrm{FeCl}_{2}+\mathrm{H}_{2} \mathrm{~S} \uparrow$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

275. $\mathrm{Cd}(\mathrm{CN})_{2} \downarrow+2 \mathrm{KCN} \rightarrow \mathrm{K}_{2}\left[\mathrm{Cd}(\mathrm{CN})_{4}\right]$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## D Watch Video Solution

276. $2 \mathrm{AgF}+\mathrm{MgCl}_{2} \rightarrow \mathrm{MgF}_{2} \downarrow+2 \mathrm{AgCl} \downarrow$
A. For precipitate formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

277. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}+2 \mathrm{KI} \rightarrow \mathrm{PbI}_{2} \downarrow+2 \mathrm{KNO}_{3}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

278. $\mathrm{PbCl}_{2} \downarrow+$ hot water $\rightarrow \mathrm{Pb}^{2}$ (aq. $)+2 \mathrm{Cl}^{-}$(aq. )
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## D View Text Solution

279. $\mathrm{HgI}_{2} \downarrow+\mathrm{KI} \Leftrightarrow \mathrm{K}_{2}\left[\mathrm{HgI}_{4}\right]$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - View Text Solution

280. $\mathrm{AgI} \downarrow+2 \mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3} \rightarrow \mathrm{Na}_{3}\left[\mathrm{Ag}\left(\mathrm{S}_{2} \mathrm{O}_{3}\right)_{2}\right]+\mathrm{NaI}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

281. $\mathrm{CuSO}_{4}+2 \mathrm{KI} \rightarrow \mathrm{CuI} \downarrow+\frac{1}{2} \mathrm{I}_{2}+\mathrm{K}_{2} \mathrm{SO}_{4}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

282. $\mathrm{KNO}_{2}+\mathrm{AgF} \rightarrow \mathrm{AgNO}_{2} \downarrow+\mathrm{KF}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - View Text Solution

283. $\mathrm{BaSO}_{4} \downarrow+\mathrm{Na}_{2} \mathrm{CO}_{3} \rightarrow \mathrm{BaCO}_{3} \downarrow+\mathrm{Na}_{2} \mathrm{SO}_{4}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: c

## D Watch Video Solution

284. $\mathrm{FeCl}_{3}+\mathrm{Na}_{3} \mathrm{PO}_{4} \rightarrow \mathrm{FePO}_{4} \downarrow+3 \mathrm{NaCl}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

285. $\mathrm{BaSO}_{4} \downarrow+$ dil. HCl (excess) $\rightarrow$ No reaction
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: d

## D Watch Video Solution

286. $2 \mathrm{AgNO}_{3}+\mathrm{Na}_{2} \mathrm{C}_{2} \mathrm{O}_{4} \rightarrow \mathrm{Ag}_{2} \mathrm{C}_{2} \mathrm{O}_{4} \downarrow+2 \mathrm{NaNO}_{3}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

287. $2 \mathrm{BaCrO}_{4} \downarrow+4 \mathrm{HCl} \rightarrow 2 \mathrm{BaCl}_{2}+\mathrm{H}_{2} \mathrm{Cr}_{2}+\mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b

## - Watch Video Solution

288. $\mathrm{PbCrO}_{4} \downarrow+4 \mathrm{NaOH}$ (excess) $\rightarrow \mathrm{Na}_{2}\left[\mathrm{~Pb}(\mathrm{OH})_{4}\right]+\mathrm{Na}_{2} \mathrm{CrO}_{4}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## D Watch Video Solution

289. $\mathrm{BaCrO}_{4} \downarrow+\mathrm{CH}_{3} \mathrm{COOH}$ (excess) $\rightarrow$ No reaction
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: d

## - Watch Video Solution

290. $\mathrm{PbCl}_{2} \downarrow+\mathrm{H}_{2} \mathrm{SO}_{4} \Leftrightarrow \mathrm{PbSO}_{4} \downarrow+2 \mathrm{HCL}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: c

## D Watch Video Solution

291. $\mathrm{Ba}\left(\mathrm{NO}_{3}\right)_{2}+\mathrm{Na}_{2} \mathrm{SO}_{4} \rightarrow \mathrm{BaSO}_{4} \downarrow+2 \mathrm{NaNO}_{3}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

292. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}+\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow \mathrm{PbSO}_{4} \downarrow+2 \mathrm{HNO}_{3}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

293. $\mathrm{SrCrO}_{4} \downarrow+2 \mathrm{AcOH}$ (excess) $\rightarrow \mathrm{Sr}(\mathrm{ArO})_{2} \rightarrow$ No dissolution
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## - View Text Solution

294. $\mathrm{MCrO}_{4} \downarrow\left(\mathrm{M}^{2+}=\mathrm{Ba}^{2+} \mathrm{Pb}^{2+}\right)+\mathrm{AcOH} \rightarrow$ No dissolution
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: d

## - Watch Video Solution

295. $\mathrm{CaCl}_{2}+\mathrm{Na}_{2} \mathrm{C}_{2} \mathrm{O}_{4} \rightarrow \mathrm{CaC}_{2} \mathrm{O}_{4} \downarrow+2 \mathrm{NaCl}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

296. $\mathrm{CaSO}_{4}+\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2} \rightarrow \mathrm{PbSO}_{4} \downarrow+\mathrm{Ca}\left(\mathrm{NO}_{3}\right)_{2}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

297. $\mathrm{Hg}_{2}\left(\mathrm{NO}_{3}\right)_{2}+\mathrm{NH}_{3}$ (solution) $\rightarrow \mathrm{Hg} \downarrow+\mathrm{HgO} \cdot \mathrm{NH}_{3} \mathrm{NO}_{3} \downarrow$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## D Watch Video Solution

298. $\mathrm{BaCO}_{3} \downarrow+2 \mathrm{HCl} \rightarrow \mathrm{BaCl}_{2}+\mathrm{CO}_{2} \uparrow+\mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## D Watch Video Solution

299. $\mathrm{AlCl}_{3}+3 \mathrm{NaOH} \rightarrow \mathrm{Al}(\mathrm{OH})_{3} \downarrow+3 \mathrm{NaCl}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

300. $\mathrm{BaCO}_{3} \downarrow+\mathrm{CO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{Ba}\left(\mathrm{HCO}_{3}\right)_{2}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

301. $\mathrm{ZnS} \downarrow+2 \mathrm{HCl} \rightarrow \mathrm{ZnCl}_{2}+\mathrm{H}_{2} \mathrm{~S} \uparrow$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b
302. $\mathrm{NiCl}_{2}+2 \mathrm{dmg} \xrightarrow[4]{ } \mathrm{OH} \mathrm{Ni}(\mathrm{dmg})_{2} \downarrow$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## D Watch Video Solution

303. $\mathrm{CaCl}_{2}+\mathrm{Na}_{2} \mathrm{SO}_{4} \rightarrow$ No reaction
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## D Watch Video Solution

304. $\mathrm{BaCO}_{3} \downarrow+2 \mathrm{AcOH} \rightarrow \mathrm{Ba}(\mathrm{AcO})_{2}+\mathrm{CO}_{2} \uparrow+\mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## ( Watch Video Solution

305. $\mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}+\mathrm{BaCl}_{2} \rightarrow \mathrm{BaS}_{2} \mathrm{O}_{3} \downarrow+2 \mathrm{NaCl}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

306. $\mathrm{Ba}(\mathrm{AcO})_{2}+\mathrm{K}_{2} \mathrm{CrO}_{4} \rightarrow \mathrm{BaCrO}_{4} \downarrow+2 \mathrm{AcOK}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

307. $3 \mathrm{AgNO}_{3}+\mathrm{Na}_{3} \mathrm{PO}_{4} \rightarrow \mathrm{Ag}_{3} \mathrm{PO}_{4} \downarrow+3 \mathrm{NaNO}_{3}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

308. $\mathrm{Ag}_{2} \mathrm{CO}_{3} \downarrow+2 \mathrm{HCl} \rightarrow \mathrm{AgCl} \downarrow+\mathrm{CO}_{2} \uparrow+\mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: c

## D Watch Video Solution

309. $\mathrm{BaSO}_{3} \downarrow+\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow \mathrm{BaSO}_{4} \downarrow+\mathrm{SO}_{2} \uparrow+\mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: c

## - Watch Video Solution

310. $\mathrm{HgS} \downarrow+\mathrm{HNO}_{3}$ (conc.) $\rightarrow$ No dissolution.
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: d

## - Watch Video Solution

311. $\mathrm{Sr}(\mathrm{ACO})_{2}+\mathrm{Ag}_{2} \mathrm{SO}_{4} \rightarrow 2 \mathrm{AcOAg} \downarrow+\mathrm{SrSO}_{4} \downarrow$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

312. $\mathrm{Ca}(\mathrm{OH})_{2}+2 \mathrm{FH} \rightarrow \mathrm{CaF}_{2} \downarrow+2 \mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

313. $\mathrm{Ca}(\mathrm{OH})_{2}+\mathrm{CO}_{2} \rightarrow \mathrm{CaCO}_{3} \downarrow+2 \mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## D Watch Video Solution

314. $\mathrm{CaSO}_{3} \downarrow+\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow \mathrm{CaSO}_{4}+\mathrm{SO}_{2} \uparrow+\mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

315. $\mathrm{Ca}(\mathrm{OH})_{2}+\mathrm{SO}_{2} \rightarrow \mathrm{CaSO}_{3} \downarrow+\mathrm{H}_{2} \mathrm{O}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

316. $\mathrm{Na}_{2} \mathrm{SO}_{3}+\mathrm{BaCl}_{2} \rightarrow \mathrm{BaSO}_{3} \downarrow+2 \mathrm{NaCl}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

317. $\mathrm{Pb}(\mathrm{AcO})_{2}+\mathrm{H}_{2} \mathrm{~S} \rightarrow \mathrm{PbS} \downarrow+2 \mathrm{AcOH}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

318. $\mathrm{NaCl}+\mathrm{AbNO}_{3} \rightarrow \mathrm{AgCl} \downarrow+\mathrm{NaO}_{3}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

319. $\mathrm{HgI}_{2} \downarrow+2 \mathrm{HI} \rightarrow \mathrm{K}_{2}\left[\mathrm{HgI}_{4}\right]$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: b

## - Watch Video Solution

320. $\mathrm{PbO}_{2}+\mathrm{HNO}_{3}($ dil. $) \rightarrow$ No dissolution.
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: d

## D Watch Video Solution

321. $\mathrm{PbO}_{2}+\mathrm{HNO}_{3}$ (Conc.) $\rightarrow \mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}+\mathrm{H}_{2} \mathrm{O}+[\mathrm{O}]$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

Answer: b
322. $\mathrm{K}_{2}\left[\mathrm{Cd}(\mathrm{CN})_{4}\right]+\mathrm{H}_{2} \mathrm{~S} \rightarrow \mathrm{CdS} \downarrow+2 \mathrm{KCN}+2 \mathrm{HCN}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

323. $\mathrm{Pb}(\mathrm{AcO})_{2}+\mathrm{Na}_{2} \mathrm{CrO}_{4} \rightarrow \mathrm{PbCrO}_{4} \downarrow+2 \mathrm{AcONa}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## - Watch Video Solution

324. $\mathrm{NaBr}+\mathrm{AgNO}_{3} \rightarrow \mathrm{AgBr} \downarrow+\mathrm{NaNO}_{3}$
A. For precipitate formation formation reaction
B. For precipitate dissolution reaction
C. For precipitate exchange reaction
D. For no reaction

## Answer: a

## ( Watch Video Solution

325. $\underline{B}_{2} \mathrm{O}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{BO}_{3}+\mathrm{H}_{2} \mathrm{O} \Leftrightarrow H\left[\mathrm{~B}(\mathrm{OH})_{4}\right]+\mathrm{H}^{+}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

326. $\mathrm{SO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Watch Video Solution

327. $\underline{B} F_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} B \mathrm{O}_{3}+\mathrm{H}\left[\mathrm{BF}_{4}\right]$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

328. $\underline{T e F}_{6-}$ (6) $+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{6} \mathrm{TeO}_{6}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

329. $\mathrm{H}_{4} \mathrm{P}_{2} \mathrm{O}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: b
330. $\underline{\mathrm{CO}}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: d

## - Watch Video Solution

331. $\mathrm{SO}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

332. $\mathrm{H}_{4} \mathrm{P}_{2} \mathrm{O}_{6}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{3}+\mathrm{H}_{3} \mathrm{PO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: c

333. $\underline{B C l}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{BO}_{3}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

334. $\mathrm{IF}_{7}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}_{4}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

335. $\mathrm{SO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

336. $\mathrm{Cl}_{2} \mathrm{O}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HClO}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: b

## D Watch Video Solution

337. $\mathrm{H}_{4} \mathrm{P}_{2} \mathrm{O}_{7}+\mathrm{H}_{2} \mathrm{O} \rightarrow 2 \mathrm{H}_{3} \mathrm{PO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

338. $\underline{C C l}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

339. $\underline{C I F}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HClO}_{3}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

340. $\mathrm{N}_{2} \mathrm{O}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## D Watch Video Solution

341. $\mathrm{ClO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HClO}_{2}+\mathrm{HClO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: c

342. $\mathrm{H}_{4} \mathrm{P}_{2} \mathrm{O}_{8}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{4}+\mathrm{H}_{2} \mathrm{O}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

343. $\mathrm{NF}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## D Watch Video Solution

344. $\underline{\mathrm{Br}}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HBrO}_{3}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

345. $\underline{\mathrm{NO}}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: d

## - Watch Video Solution

346. $\mathrm{ClO}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HClO}_{3}+\mathrm{HClO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - View Text Solution

347. $\mathrm{HNO}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HNO}_{3}+\mathrm{H}_{2} \mathrm{O}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

348. $\mathrm{IF}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}_{3}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: d

## - Watch Video Solution

349. $\mathrm{IF}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}_{3}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

350. $\mathrm{N}_{2} \mathrm{O}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HNO}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: b
351. $\mathrm{Cl}_{2} \mathrm{O}_{7}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HClO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

352. $\mathrm{H}_{3} \underline{P}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{4}+\mathrm{H}_{2} \mathrm{O}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

353. $\mathrm{SiF}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{4} \mathrm{SiO}_{4}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

354. $\mathrm{ICl}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}_{2}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: b

## - Watch Video Solution

355. $\mathrm{N}_{2} \mathrm{O}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HNO}_{3}+\mathrm{HNO}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: c

## D Watch Video Solution

356. $\mathrm{I}_{2} \mathrm{O}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

357. $\mathrm{H}_{2} \mathrm{SO}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{4}+\mathrm{H}_{2} \mathrm{O}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

358. $\mathrm{SiCl}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{4} \mathrm{SiO}_{4}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

359. $\mathrm{CrO}_{2} \mathrm{Cl}_{2}+2 \mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{CrO}_{4}+2 \mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

360. $\mathrm{N}_{2} \mathrm{O}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HNO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

361. ${\underset{\sim}{P}}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{3}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: b

## D Watch Video Solution

362. $\mathrm{ClF}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HClO}_{2}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: b
363. $\mathrm{SiO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: d

## - Watch Video Solution

364. $\mathrm{H}_{4} \mathrm{~B}_{2} \mathrm{O}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow 2 \mathrm{H}_{3} \mathrm{BO}_{3}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

365. $\mathrm{H}_{4} \mathrm{~S}_{2} \mathrm{O}_{6}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{3}+\mathrm{H}_{2} \mathrm{SO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: c

366. $\underline{P C l}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{4}+5 \mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

367. $\underline{\text { ClF }}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HOCl}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: b

## - Watch Video Solution

368. $\mathrm{H}_{4} \mathrm{~B}_{2} \mathrm{O}_{6}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{BO}_{3}+\mathrm{H}_{2} \mathrm{O}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: b
369. $\mathrm{H}_{4} \mathrm{~B}_{2} \mathrm{O}_{6}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{BO}_{3}+\mathrm{H}_{2} \mathrm{O}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

370. $\mathrm{H}_{6} \mathrm{Si}_{2} \mathrm{O}_{7}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{4} \mathrm{SiO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

371. $\underline{S F}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{3}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: b
372. $\underline{\mathrm{Br}} \mathrm{F}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HBrO}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: b

## - Watch Video Solution

373. $\mathrm{H}_{2} \mathrm{~S}_{2} \mathrm{O}_{7}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

374. $\mathrm{H}_{2} \mathrm{~S}_{2} \mathrm{O}_{8}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{4}+\mathrm{H}_{2} \mathrm{O}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

375. $\underline{S F}_{6}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: d

## - Watch Video Solution

376. $\mathrm{Icl}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: b

## D Watch Video Solution

377. $\mathrm{ICl}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: c

378. $\mathrm{P}_{4} \mathrm{O}_{10}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{4}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

379. $\underline{P O C l}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{4}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## D Watch Video Solution

380. $\mathrm{IOF}_{5}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HIO}_{4}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

381. $\mathrm{P}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## D Watch Video Solution

382. $\mathrm{Na} \underline{H}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{NaOH}+\mathrm{H}_{2} \uparrow$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## D Watch Video Solution

383. $\mathrm{B}_{2} \mathrm{H}_{6}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{BO}_{3}+\mathrm{H}_{2} \uparrow$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

384. $\mathrm{Cl}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HOCl}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: b

## - Watch Video Solution

385. $\mathrm{S}_{\mathrm{g}}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction.
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## D Watch Video Solution

386. $\mathrm{SOcl}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{3}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

Answer: b
387. $\mathrm{SO}_{2} \mathrm{Cl}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{4}+\mathrm{HCl}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

388. $\mathrm{SiH}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{4} \mathrm{SiO}_{4}+\mathrm{H}_{2}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

389. $\mathrm{I}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow$ No reaction
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

390. $\mathrm{SOF}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SO}_{4}+\mathrm{HF}$
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: a

## - Watch Video Solution

391. $\mathrm{F}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HF}+\mathrm{O}_{2}$ (Ozonide oxygen)
A. If product is oxy acid with -ic suffix.
B. If product is oxy acid with -ous suffix
C. If product are two oxy acids one with -ic suffix and otherone with ous suffix.
D. If product is not oxy acid, neither with -ic suffix nor with -ous suffix

## Answer: d

## - Watch Video Solution

392. $C(s)+\mathrm{O}_{2}(\mathrm{~g}) \stackrel{\Delta}{\rightarrow} \mathrm{CO}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

393. $3 \mathrm{Mg}(\mathrm{s})+N_{2}(g) \rightarrow M g_{3} N_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

## D Watch Video Solution

394. $\mathrm{NaH}(\mathrm{s})+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{NaOH}+\mathrm{H}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: bc

## D Watch Video Solution

395. $\mathrm{CuSO}_{4}$ (aq. $)+\mathrm{Zn}(s) \rightarrow \mathrm{ZnSO}_{4}+\mathrm{Cu} \downarrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

396. $\mathrm{Na}(\mathrm{s})+\mathrm{H}_{2} \mathrm{O}(\mathrm{l}) \xrightarrow{\text { R.T. }} \mathrm{NaOH}+\mathrm{H}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

397. $\mathrm{Ca}(\mathrm{s})+\mathrm{H}_{2} \mathrm{O}(\mathrm{l}) \xrightarrow{\text { R.T. }} \mathrm{Ca}(\mathrm{OH})_{2}+\mathrm{H}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## D Watch Video Solution

398. $\mathrm{Mg}(\mathrm{s})+\mathrm{H}_{2} \mathrm{O}(\mathrm{l}) \xrightarrow{\text { warm }} \mathrm{Mg}(\mathrm{OH})_{2}+\mathrm{H}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

399. $\mathrm{Fe}(\mathrm{s})+\mathrm{H}_{2} \mathrm{O}(\mathrm{l}) \xrightarrow{\text { Boil }} \mathrm{Fe}_{3} \mathrm{O}_{4}+\mathrm{H}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

400. $\mathrm{Zn}(\mathrm{s})+2 \mathrm{HCl} \rightarrow \mathrm{ZnCl}_{2}+\mathrm{H}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## D Watch Video Solution

401. $\mathrm{Mg}(\mathrm{s})+2 \mathrm{HCl} \rightarrow \mathrm{MgCl}_{2}+\mathrm{H}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

402. $\mathrm{Fe}(\mathrm{s})+2 \mathrm{HCl} \rightarrow \mathrm{FeCl}_{2}+\mathrm{H}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

403. $\mathrm{Cl}_{2}(\mathrm{~g})+\mathrm{KI}($ aq. $) \rightarrow \mathrm{KCl}+\mathrm{I}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## D Watch Video Solution

404. $\mathrm{H}_{2} \mathrm{O}_{2} \xrightarrow{\text { R.T. }} \mathrm{H}_{2} \mathrm{O}+\frac{1}{2} \mathrm{O}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: ad

405. $\mathrm{P}_{4}+\mathrm{NaOH} \rightarrow \mathrm{PH}_{3} \uparrow+\mathrm{NaH}_{2} \mathrm{PO}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

## - Watch Video Solution

406. $\mathrm{S}_{8}+\mathrm{NaOH} \rightarrow \mathrm{Na}_{2} \mathrm{~S}+\mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

## D Watch Video Solution

407. $\mathrm{Cl}_{2}+\mathrm{NaOH} \rightarrow \mathrm{NaCl}+\mathrm{NaOCl}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

408. $\mathrm{I}_{2}+\mathrm{NaOH} \rightarrow \mathrm{NaI}+\mathrm{NaOI}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

## - Watch Video Solution

409. $\mathrm{Pb}_{3} \mathrm{O}_{4}+\mathrm{HCl}($ dil. $) \xrightarrow{\text { warm }} \mathrm{PbCl}_{2} \downarrow+\mathrm{Cl}_{2}+\mathrm{H}_{2} \mathrm{O}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## D Watch Video Solution

410. $\mathrm{Pb}_{3} \mathrm{O}_{4}+\mathrm{HNO}_{3}($ dil. $) \xrightarrow{\text { R.T. }} \mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}+\mathrm{PbO}_{2} \downarrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

411. $\mathrm{PbO}_{2}+\mathrm{HCl}(\text { dil. })^{\text {warm }} \mathrm{PbCl}_{2} \downarrow+\mathrm{Cl}_{2} \uparrow+\mathrm{H}_{2} \mathrm{O}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

412. $\mathrm{Cr}_{2} \mathrm{O}_{7}^{2-}+\mathrm{H}^{+}+\mathrm{SO}_{3}^{2-} \rightarrow \mathrm{Cr}^{3+}$ (aq. $)+\mathrm{SO}_{4}^{2-}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## D Watch Video Solution

413. $\mathrm{MnO}_{4}^{-}+\mathrm{H}^{+}+\mathrm{Br}^{-} \rightarrow \mathrm{Mn}^{3+}$ (aq. $)+\mathrm{Br}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

414. $\mathrm{Fe}^{2+}$ (aq. $)+\mathrm{Cr}_{2} \mathrm{O}_{7}^{2-}+\mathrm{H}^{+} \rightarrow \mathrm{Fe}^{3+}($ aq. $)+\mathrm{Cr}^{3+}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

415. $I_{2}+S_{2} O_{3}^{2-} \rightarrow I^{-}+S_{4} O_{6}^{2-}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## D Watch Video Solution

416. $\mathrm{Cu}^{2+}(a q)+2 I^{-} \rightarrow C u I \downarrow+\frac{1}{2} I_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

417. $\mathrm{CuO}+\mathrm{H}_{2} \rightarrow \mathrm{Cu} \downarrow+\mathrm{H}_{2} \mathrm{O}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

418. $\mathrm{H}_{3} \mathrm{PO}_{2}+\mathrm{AgNO}_{2} \rightarrow \mathrm{Ag} \downarrow+\mathrm{H}_{3} \mathrm{PO}_{4}+\mathrm{NO}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## D Watch Video Solution

419. $\mathrm{H}_{3} \mathrm{PO}_{2}+\mathrm{CuSO}_{4} \rightarrow \mathrm{Cu} \downarrow+\mathrm{H}_{3} \mathrm{PO}_{4}+\mathrm{HNO}_{3}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

420. $\mathrm{NaNO}_{3} \xrightarrow{\Delta} \mathrm{NaNO}_{2}+\mathrm{O}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

Answer: d

## - Watch Video Solution

R.T.
421. $\mathrm{N}_{2} \mathrm{O}_{3} \rightarrow \mathrm{NO}+\mathrm{NO}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: ad

## - Watch Video Solution

422. $\mathrm{Ca}(\mathrm{OH})_{2}+\mathrm{Cl}_{2} \rightarrow \mathrm{CaOCl}_{2}$ or $\mathrm{Ca}(\mathrm{OCl}) \mathrm{Cl}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

423. $\mathrm{XeF}_{4}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{Xe}+\mathrm{XeO}_{3}+\mathrm{HF}+\mathrm{O}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D.For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

## - Watch Video Solution

424. $\mathrm{CO}+\mathrm{I}_{2} \mathrm{O}_{5}(\mathrm{~s}) \rightarrow \mathrm{CO}_{2}+\mathrm{I}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## D Watch Video Solution

425. $\mathrm{FeCr}_{2} \mathrm{O}_{4}+\mathrm{Na}_{2} \mathrm{CO}_{3}+\mathrm{O}_{2} \rightarrow \mathrm{Fe}_{2} \mathrm{O}_{3} \downarrow+\mathrm{Na}_{2} \mathrm{CrO}_{4}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

426. $\mathrm{MnO}_{2}+2 \mathrm{KOH}+\frac{1}{2} \mathrm{O}_{2} \rightarrow \mathrm{~K}_{2} \mathrm{MnO}_{4}+\mathrm{H}_{2} \mathrm{O}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

427. $\mathrm{K}_{2} \mathrm{MnO}_{4}+\mathrm{H}^{+} \rightarrow \mathrm{KMnO}_{4}+\mathrm{MnO}_{2} \downarrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

## D Watch Video Solution

428. $\mathrm{KMnO}_{4} \xrightarrow{\Delta} \mathrm{~K}_{2} \mathrm{MnO}_{4}+\mathrm{MnO}_{2}+\mathrm{O}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

429. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7} \stackrel{\Delta}{\rightarrow} \mathrm{~K}_{2} \mathrm{CrO}_{4}+\mathrm{Cr}_{2} \mathrm{O}_{3}+\mathrm{O}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

## - Watch Video Solution

430. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{Cr}_{2} \mathrm{O}_{7} \stackrel{\Delta}{\rightarrow} \mathrm{~N}_{2} \uparrow+\mathrm{Cr}_{2} \mathrm{O}_{3} \downarrow+\mathrm{H}_{2} \mathrm{O} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

## - Watch Video Solution

431. $\mathrm{NH}_{4} \mathrm{Cl}+\mathrm{NaNO}_{2} \xrightarrow{\Delta} \mathrm{~N}_{2} \uparrow+\mathrm{NaCl}+\mathrm{H}_{2} \mathrm{O}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## - Watch Video Solution

432. $B a\left(N_{3}\right)_{2} \xrightarrow{\Delta} B a+N_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

Answer: d

## - Watch Video Solution

433. $\mathrm{N}_{2}+\mathrm{O}_{2} \xrightarrow{\text { High temp. }} \mathrm{NO} \uparrow$-Heat.
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: cd

## - Watch Video Solution

434. $\mathrm{N}_{2}+3 \mathrm{H}_{2} \rightarrow \mathrm{NH}_{3}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## - Watch Video Solution

$\Delta$
435. $\mathrm{NH}_{4} \mathrm{NO}_{3} \rightarrow \mathrm{~N}_{2} \mathrm{O}+\mathrm{H}_{2} \mathrm{O}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: bd

## - Watch Video Solution

436. $\mathrm{NaNO}_{2}+\mathrm{FeSO}_{4}+\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow\left[\mathrm{Fe}\left(\mathrm{H}_{2} \mathrm{O}\right)_{5} \mathrm{NO}\right] \mathrm{SO}_{4}$ (Ring complex)
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

$-11^{\circ} \mathrm{C}$
437. $\mathrm{NO}+\mathrm{NO}_{2} \rightarrow \mathrm{~N}_{2} \mathrm{O}_{3}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## - Watch Video Solution

438. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2} \xrightarrow{\Delta} \mathrm{PbO}+\mathrm{NO}_{2}+\mathrm{O}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: d

## - Watch Video Solution

$\Delta$
439. $P_{4}+6 \mathrm{Cl}_{2} \rightarrow \mathrm{PCl}_{3}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: cd

## - Watch Video Solution

440. $\mathrm{P}_{4}+10 \mathrm{Cl}_{2} \xrightarrow{\Delta} \mathrm{PCl}_{5}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## - Watch Video Solution

$$
\text { 441. } \mathrm{Ag}+\mathrm{PCl}_{5} \stackrel{\Delta}{\rightarrow} \mathrm{AgCl}+\mathrm{PCl}_{3}
$$

A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

$\Delta$
442. $\mathrm{Sn}+\mathrm{PCl}_{5} \rightarrow \mathrm{SnCl}_{4}+\mathrm{PCl}_{3}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

443. $\mathrm{PCl}_{5} \xrightarrow{\Delta} \mathrm{PCl}_{3}+\mathrm{Cl}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## D Watch Video Solution

444. Red P+Alkali $\rightarrow \mathrm{Na}_{4} \mathrm{P}_{2} \mathrm{O}_{6}+\mathrm{P}_{2} \mathrm{H}_{4}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

## D Watch Video Solution

445. $\mathrm{H}_{3} \mathrm{PO}_{3} \xrightarrow{\Delta} \mathrm{H}_{3} \mathrm{PO}_{4}+\mathrm{PH}_{3} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: ad

## - Watch Video Solution

$\Delta$
446. $\mathrm{Se}_{2} \mathrm{Cl}_{2} \rightarrow \mathrm{SeCl}_{4}+\mathrm{Se}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## - Watch Video Solution

447. $\mathrm{Na}_{2} \mathrm{~S}+\mathrm{H}_{2} \mathrm{SO}_{4}$ (Conc.) $\rightarrow \mathrm{S} \downarrow+\mathrm{SO}_{2}+\mathrm{Na}_{2} \mathrm{SO}_{4}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

448. $\mathrm{MnO}_{2}+\mathrm{NaCl}+\mathrm{H}_{2} \mathrm{SO}_{4}$ (Conc.) $\rightarrow \mathrm{MnSO}_{4}+\mathrm{Cl}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

449. $\mathrm{NaBr}+\mathrm{MnO}_{2}+\mathrm{H}_{2} \mathrm{SO}_{4}$ (Conc.) $\rightarrow \mathrm{MnSO}_{4}+\mathrm{Br}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

450. $\mathrm{NaI}+\mathrm{H}_{2} \mathrm{SO}_{4}$ (Conc. $) \rightarrow \mathrm{Na}_{2} \mathrm{SO}_{4}+\mathrm{SO}_{2} \uparrow+\mathrm{I}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

451. $\mathrm{NaI}+\mathrm{MnO}_{2}+\mathrm{H}_{2} \mathrm{SO}_{4}$ (Conc.) $\rightarrow \mathrm{MnSO}_{4}+\mathrm{I}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

452. $\mathrm{NaNO}_{3}+\mathrm{H}_{2} \mathrm{SO}_{4}$ (Conc. ) $\xrightarrow{\mathrm{Hot}} \mathrm{Na}_{2} \mathrm{SO}_{4}+\mathrm{NO}_{2} \uparrow+\mathrm{O}_{2} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D.For either thermal combination redox reaction or thermal decomposition redox reaction.

## D Watch Video Solution

453. $\mathrm{Na}_{2} \mathrm{C}_{2} \mathrm{O}_{4}+\mathrm{H}_{2} \mathrm{SO}_{4}($ Conc. $) \rightarrow \mathrm{Na}_{2} \mathrm{SO}_{4}+\mathrm{CO}+\mathrm{CO}_{2}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: a

## D Watch Video Solution

454. $3 \mathrm{PbS}+8 \mathrm{HNO}_{3}($ Dil. $) \rightarrow 3 \mathrm{~Pb}\left(\mathrm{NO}_{3}\right)_{2}+3 \mathrm{~S} \downarrow+2 \mathrm{NO}+4 \mathrm{H}_{2} \mathrm{O}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

455. $\mathrm{S}+\mathrm{HNO}_{3}($ Dil. $) \rightarrow \mathrm{H}_{2} \mathrm{SO}_{4}+\mathrm{NO} \uparrow$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## - Watch Video Solution

456. $\mathrm{CuSO}_{4}+\mathrm{Zn}(\mathrm{s}) \rightarrow \mathrm{ZnSO}_{4}+\mathrm{Cu}$
A. For disproportionation reaction.
B. For comproportionation reaction.
C. For either intermolecular redox reaction or displacement reaction
D. For either thermal combination redox reaction or thermal decomposition redox reaction.

## Answer: c

## ( Watch Video Solution

457. $2 \mathrm{NaOH}+\mathrm{Zn}(\mathrm{OH})_{2} \downarrow \rightarrow \mathrm{Na}_{2} \mathrm{ZnO}_{2}+2 \mathrm{H}_{2} \mathrm{O}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

## - Watch Video Solution

458. $\mathrm{Mn}(\mathrm{OH})_{2}+\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow \mathrm{MnSO}_{4}+2 \mathrm{H}_{2} \mathrm{O}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

459. $2 \mathrm{AgNO}_{3}+2 \mathrm{NaOH} \rightarrow \mathrm{Ag}_{2} \mathrm{O} \downarrow+2 \mathrm{NaNO}_{3}+\mathrm{H}_{2} \mathrm{O}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: a

## - Watch Video Solution

460. $\mathrm{Cr}(\mathrm{OH})_{3} \downarrow+\mathrm{NH}_{3}($ Excess $) \rightarrow\left[\mathrm{Cr}\left(\mathrm{NH}_{3}\right)_{6}\right]^{3+}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: b

## - Watch Video Solution

461. $\mathrm{CuSO}_{4}+\mathrm{NH}_{3}($ excess $) \rightarrow\left[\mathrm{Cu}\left(\mathrm{NH}_{3}\right)_{4}\right]^{2+}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: b

## - Watch Video Solution

462. $\mathrm{NiCl}_{2}+\mathrm{NH}_{3}$ (excess) $\rightarrow\left[\mathrm{Ni}\left(\mathrm{NH}_{3}\right)_{6}\right]^{2+}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## D Watch Video Solution

463. $\mathrm{FeCl}_{3}+\mathrm{NH}_{3}($ excess $) \rightarrow \mathrm{Fe}(\mathrm{OH})_{3} \downarrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: a

464. $\mathrm{Na}_{2}\left[\mathrm{Zn}(\mathrm{OH})_{4}\right]+4 \mathrm{HCl} \rightarrow \mathrm{ZnCl}_{2}+\mathrm{NaCl}+\mathrm{H}_{2} \mathrm{O}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

## - Watch Video Solution

465. $\left[\mathrm{Cr}\left(\mathrm{NH}_{3}\right)_{6}\right]^{3+}+6 \mathrm{HCl} \rightarrow \mathrm{Cr}^{3+}(\mathrm{aq})+6 \mathrm{NH}_{4} \mathrm{Cl}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: b

## - Watch Video Solution

466. $2 \mathrm{KCN}+\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2} \rightarrow \mathrm{~Pb}(\mathrm{CN})_{2} \downarrow+2 \mathrm{KNO}_{3}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

## - Watch Video Solution

467. $4 \mathrm{KCN}+\mathrm{Fe}(\mathrm{CN})_{2} \downarrow \rightarrow \mathrm{~K}_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## D Watch Video Solution

468. $3 \mathrm{KCN}+\mathrm{Fe}(\mathrm{CN})_{3} \downarrow \rightarrow \mathrm{~K}_{3}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: b
469. $\mathrm{CuSO}_{4}+\mathrm{KCN}($ excess $) \rightarrow \mathrm{K}_{3}\left[\mathrm{Cu}(\mathrm{CN})_{4}\right]+\frac{1}{2}(\mathrm{CN})_{2}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

## - Watch Video Solution

470. $\mathrm{K}_{3}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]+\mathrm{FeCl}_{3} \rightarrow \mathrm{Fe}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right] \downarrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: b

## - Watch Video Solution

471. $\mathrm{K}_{3}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]+\mathrm{FeCl}_{2} \rightarrow \mathrm{Fe}_{3}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]_{2} \downarrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: a

## - Watch Video Solution

472. $\mathrm{KI}+\mathrm{BiI}_{2} \downarrow \rightarrow K\left[\mathrm{BiI}_{4}\right]$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## D Watch Video Solution

473. $2 \mathrm{KI}+\mathrm{HgI}_{2} \downarrow \rightarrow \mathrm{~K}_{2}\left[\mathrm{HgI}_{4}\right]$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

474. $\mathrm{KI}+\mathrm{AgNO}_{3} \rightarrow \mathrm{AgI} \downarrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: a

## - Watch Video Solution

475. $2 \mathrm{KI}+\mathrm{FeCl}_{2} \rightarrow$ No reaction.
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: b

## - Watch Video Solution

476. $2 \mathrm{KI}+\mathrm{CuSO}_{4} \rightarrow \mathrm{CuI} \downarrow+\frac{1}{2} \mathrm{I}_{2}+\mathrm{K}_{2} \mathrm{SO}_{4}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

## Watch Video Solution

477. $\mathrm{BaCO}_{3} \downarrow+\mathrm{CO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{Ba}\left(\mathrm{HCO}_{3}\right)_{2}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

## - Watch Video Solution

478. $\mathrm{Ba}(\mathrm{OH})_{2}+\mathrm{CO}_{2} \rightarrow \mathrm{BaCO}_{3} \downarrow+\mathrm{H}_{2} \mathrm{O}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

479. $\mathrm{BaSO}_{3} \downarrow+\mathrm{SO}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{Ba}\left(\mathrm{HSO}_{3}\right)_{2}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

## - Watch Video Solution

480. $\mathrm{Ba}(\mathrm{OH})_{2}+\mathrm{SO}_{2} \rightarrow \mathrm{BaSO}_{3} \downarrow+\mathrm{H}_{2} \mathrm{O}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: d

## - Watch Video Solution

481. $\mathrm{Na}_{2} \mathrm{CO}_{3}+\mathrm{PbSO}_{4} \rightarrow \mathrm{PbCO}_{3} \downarrow+\mathrm{Na}_{2} \mathrm{SO}_{4}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

## - Watch Video Solution

482. $\mathrm{Na}_{2} \mathrm{CO}_{3}+\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2} \rightarrow \mathrm{PbCO}_{3} \downarrow+\mathrm{NaNO}_{3}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

## D Watch Video Solution

483. $\mathrm{Na}_{2} \mathrm{CO}_{3}+\mathrm{KNO}_{3} \rightarrow$ No reaction
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

484. $\mathrm{Na}_{2} \mathrm{CO}_{3}+\mathrm{AgNO}_{3} \rightarrow \mathrm{Ag}_{2} \mathrm{CO}_{3} \downarrow+\mathrm{NaNO}_{3}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

## - Watch Video Solution

485. $\mathrm{Na}_{3} \mathrm{PO}_{4}+\mathrm{Fe}_{2}\left(\mathrm{SO}_{4}\right)_{3} \rightarrow \mathrm{FePO}_{4} \downarrow+\mathrm{Na}_{2} \mathrm{SO}_{4}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: a

## - Watch Video Solution

486. $\mathrm{NiCl}_{2}$ (solution) $+\mathrm{NaNO}_{3}$ (solution) $\rightarrow \mathrm{No}$ reaction
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: b

## - Watch Video Solution

487. $\mathrm{CuSO}_{4}$ (solution) $+\mathrm{ZnCl}_{2}$ (solution) $\rightarrow$ No reaction
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## D Watch Video Solution

488. $\mathrm{FeSO}_{4}+\mathrm{Na}_{2} \mathrm{~S} \rightarrow \mathrm{FeS} \downarrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: a

489. $\mathrm{FeCL}_{3}+\mathrm{KI} \rightarrow \mathrm{Fe}^{2+}$ (aq. $)+\mathrm{KI}_{3}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: b

## D View Text Solution

490. $\mathrm{AlCl}_{3}+\mathrm{Na}_{3} \mathrm{PO}_{4} \rightarrow \mathrm{AlPO}_{4} \downarrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: d

## ( Watch Video Solution

491. $\mathrm{CrCl}_{3}$ (solution) $+\mathrm{ZnSO}_{4}$ (Solution) $\rightarrow$ No reaction
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: b

## - Watch Video Solution

492. $\mathrm{Na}_{2} \mathrm{CrO}_{4}+\mathrm{HCl} \rightarrow \mathrm{H}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}+\mathrm{Na}_{2} \mathrm{SO}_{4}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

## D Watch Video Solution

493. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}+\mathrm{NaoH} \rightarrow \mathrm{CrO}_{4}^{2-}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: b

494. $\mathrm{Na}_{2} \mathrm{CrO}_{4}+\mathrm{AgF} \rightarrow \mathrm{Ag}_{2} \mathrm{CrO}_{4} \downarrow+\mathrm{NaF}$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: a

## - Watch Video Solution

495. $\mathrm{KMnO}_{4}+\mathrm{NaNO}_{3} \rightarrow$ No reaction
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: b

## - Watch Video Solution

496. $\mathrm{MnSO}_{4}+\mathrm{Sr}\left(\mathrm{NO}_{3}\right)_{2} \rightarrow \mathrm{SrSO}_{4} \downarrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

## - View Text Solution

497. $\mathrm{ZnSO}_{4}($ solution $)+\mathrm{MgCl}_{2}$ (solution) $\rightarrow$ No reaction
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

## - Watch Video Solution

498. $\mathrm{AgNO}_{3}$ (solution) +NaF (solution) $\rightarrow$ No reaction.
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: c

499. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{SO}_{4}+\mathrm{Ba}(\mathrm{OH})_{2} \rightarrow \mathrm{BaSO}_{4} \downarrow+2 \mathrm{NH}_{3} \uparrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

Answer: d

## - Watch Video Solution

500. $\left(\mathrm{PH}_{4}\right)_{2} \mathrm{SO}_{4}+\mathrm{Sr}(\mathrm{OH})_{2} \rightarrow \mathrm{SrSO}_{4} \downarrow+2 \mathrm{NH}_{3} \uparrow$
A. For coloured ppt./Black ppt
B. For coloured solution.
C. for clear/colourless solution
D. For white ppt.

## Answer: d

## - Watch Video Solution

## LEVEL 2

1. Which of the following metal nitrate produces gaseous product when reacts with KCN solution?
A. $\mathrm{Cu}\left(\mathrm{NO}_{3}\right)_{2}$
B. $\mathrm{AgNO}_{3}$
C. $\mathrm{Cd}\left(\mathrm{NO}_{3}\right)_{2}$
D. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}$

## Answer: A

2. Which of these reaction in correct?
A. $\mathrm{Cl}^{-}+\mathrm{Br}_{2} \rightarrow \mathrm{Br}^{-}+\mathrm{Cl}_{2}$
B. Mohr's salt $\stackrel{\mathrm{NaOH} \text { solution }}{\rightarrow} \mathrm{NH}_{3} \uparrow(\mathrm{~g})$
$\mathrm{SO}_{3}$
C. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$ solution $\rightarrow$ Green colour solution
$\mathrm{NaOH} \quad$ Excess NaOH
D. $\mathrm{FeCl}_{2} \rightarrow$ (ppt. coloured) $\rightarrow \quad$ Soluble complex

## Answer: B

## - Watch Video Solution

3. Compound which on heating produces paramagnetic acidic gas?
A. $\mathrm{Mg}\left(\mathrm{NO}_{3}\right)_{2}$
B. $\mathrm{Fe}_{2}\left(\mathrm{SO}_{4}\right)_{3}$
C. $\mathrm{FeCO}_{3}$
D. $\mathrm{HgC}_{2} \mathrm{O}_{4}$

## D Watch Video Solution

4. Which compound on heating produces produces coloured metal oxide finally?
A. $\mathrm{Al}_{2}\left(\mathrm{SO}_{4}\right)_{3}$
B. $\mathrm{HgCO}_{3} 3 \mathrm{Hg}(\mathrm{OH})_{2}$
C. $\mathrm{Cu}\left(\mathrm{NO}_{3}\right)_{2}$
D. $\mathrm{Ba}(\mathrm{OH})_{2}$

## Answer: C

## - Watch Video Solution

5. $\quad P$ (Coloured solution) $+\mathrm{BaCl}_{2} \rightarrow Q \downarrow$ (White) $+R$ (Coloured solution) ltBrgt Then salt ' $P$ ' in above reaction is:
A. $\mathrm{Na}_{2} \mathrm{CrO}_{4}$
B. $\mathrm{ZnSO}_{4}$
C. $\mathrm{CuSO}_{4}$
D. $\mathrm{AgNO}_{3}$

## Answer: C

## - Watch Video Solution

6. Oxygen gas is not produced from the following decomposition reaction:
$\Delta$
A. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7} \rightarrow$
B. $\mathrm{Ag}_{2} \mathrm{C}_{2} \mathrm{O}_{4} \xrightarrow{\Delta}$
C. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2} \xrightarrow{\Delta}$
D. $\mathrm{Ag}_{2} \mathrm{CO}_{3} \xrightarrow{\Delta}$
7. Consider the following reaction and select incorrect statement about gas (P):
$\mathrm{Zn}+\mathrm{HNO}_{3}($ Dilute $) \rightarrow \mathrm{Zn}\left(\mathrm{NO}_{3}\right)_{2}+P \uparrow$
A. Gives neutral solution in water
B. Contains more $\mathrm{O}_{2}$ than Air
C. Forms brownn ring with $\mathrm{FeSO}_{4}$ solution
D. None of these

## Answer: C

## - Watch Video Solution

8. Which of the following ionic/molecular species does not disproportionate in water at room temperature?
A. $\mathrm{NO}_{2}$
B. $\mathrm{Cu}^{+}$
C. $\mathrm{MnO}_{4}^{2-}$
D. $\mathrm{Ca}(\mathrm{Ocl}) \mathrm{Cl}$

## Answer: D

## - Watch Video Solution

9. Which halogen oxidizes water at room temperature but does not undergo disproportionation into it?
A. $F_{2}$
B. $\mathrm{Cl}_{2}$
C. $B r_{2}$
D. $I_{2}$
10. Which of the following combination doen's evolve $\mathrm{Cl}_{2}$ gas?
A. $\mathrm{HCl}(\mathrm{aq})+.\mathrm{KMnO}_{4}$
B. $\mathrm{HCl}+\mathrm{MnO}_{2}$
C. $\mathrm{HCl}+\mathrm{I}_{2}$
D. $\mathrm{HCl}+\mathrm{F}_{2}$

## Answer: C

Watch Video Solution
11. Which of the following combination does not liberated $\mathrm{NH}_{3}$ gas?
A. Heating of $\mathrm{NH}_{4} \mathrm{ClO}_{4}$
B. Heating of $\mathrm{NH}_{4} \mathrm{Cl}$
C. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{CO}_{30+\mathrm{NaOH}}$
D. $\mathrm{Li}_{3} \mathrm{~N}+\mathrm{H}_{2} \mathrm{O}$

Answer: A

## - Watch Video Solution

12. Which of the following compound on heating does not produce metal oxide?
A. $\mathrm{MgCl}_{2} \cdot 6 \mathrm{H}_{2} \mathrm{O}$
B. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$
C. $\mathrm{K}_{2} \mathrm{CO}_{3}$
D. $\mathrm{Cu}\left(\mathrm{NO}_{3}\right)_{2}$

## Answer: C

## - Watch Video Solution

13. Select the compound in which HCl is not the product of Hydrolysis:
A. $\mathrm{NCl}_{3}$
B. $\mathrm{PCl}_{3}$
C. $\mathrm{AsCl}_{3}$
D. $\mathrm{BiCl}_{3}$

## Answer: A

## - Watch Video Solution

14. How many moles of $\mathrm{H}_{2} \mathrm{O}$ are liberated when one mole hydrated $\mathrm{MgCl}_{2}$ is heated?
A. 6
B. 5
C. 4
D. 3

## Answer: B

## - Watch Video Solution

15. Consider the following sequence of reaction:

$$
\left.\mathrm{M}^{2+} \text { (aq. }\right) \xrightarrow{\mathrm{NH}_{4} \mathrm{Cl}(\mathrm{~s})+\left(\mathrm{NH}_{4}\right)_{2} \mathrm{CO}_{3} \mathrm{sol} .} \begin{aligned}
& \mathrm{CH}_{3} \mathrm{COOH} \\
& \rightarrow
\end{aligned} \mathrm{Q} \downarrow \xrightarrow{\rightarrow} \text { Followed by addition of }\left(\mathrm{NH}_{4}\right)_{2} \mathrm{C}_{2} \mathrm{O}_{4}
$$

Which of the following cation can form ppt. Q but does not form ppt. 'R' ?
A. $\mathrm{Mg}^{2+}(a q$.
B. $C a^{2+}($ aq. $)$
C. $S r^{2+}$ (aq.)
D. $B a^{2+}(a q$. $)$

## Answer: D

## - Watch Video Solution

16. Which of the following compound does not liberated oxygen gas on warming with conc. $\mathrm{H}_{2} \mathrm{SO}_{4}$ ?
A. $\mathrm{SO}_{3}$
B. $\mathrm{PbO}_{2}$
C. $\mathrm{MnO}_{2}$
D. $\mathrm{CrO}_{5}$

## Answer: A

## - Watch Video Solution

17. One of the hydrolysed product of the following compound does not react with silica of glass vessel:
A. $B F_{3}$
B. $\mathrm{ClF}_{5}$
C. $\mathrm{XeF}_{2}$
D. $S F_{4}$

## Answer: A

## - Watch Video Solution

Warm
18. $M$ (Salt) + Dil. $\mathrm{HCl} \xrightarrow{\rightarrow} \mathrm{P} \downarrow+N \uparrow$
gas ' N ' changes colour of $\mathrm{FeSO}_{4}$ solution into yellow solution then salt M in above reaction is
A. $\mathrm{BaS}_{2} \mathrm{O}_{3}$
B. $\mathrm{Ag}_{2} \mathrm{SO}_{3}$
C. $\mathrm{AgNO}_{2}$
D. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}$

## Answer: C

19. $\mathrm{Pb}+$ Dil. $\mathrm{HNO}_{3} \xrightarrow{\text { Warm }} \mathrm{P}+\mathrm{Q} \uparrow+\mathrm{H}_{2} \mathrm{O}$

Incorrect statement for Q is:
A. Paramagnetic colourless gas
B. It is oxidized to paramagnetic coloured gas by air
C. It combines with $\mathrm{Fe}_{2}\left(\mathrm{SO}_{4}\right)_{3}$
D. It can be also obtained by disproportionation of $\mathrm{HNO}_{2}$

## Answer: C

## - Watch Video Solution

20. In which of the following redox reaction precipitate is not formed?
A. $\mathrm{Cr}^{3+}$ (aq. ) $+\mathrm{Na}_{2} \mathrm{O}_{2}$ (Solution) $\rightarrow$
B. $\mathrm{Fe}^{3+}$ (aq. $)+\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S} \rightarrow$
C. $\mathrm{Mn}^{2+}($ aq. $)+\mathrm{H}_{2} \mathrm{O}_{2}+\mathrm{NH}_{3}($ Solution $) \rightarrow$
D. $\mathrm{Fe}^{2+}($ aq. $)+\mathrm{Na}_{2} \mathrm{O}_{2}$ (solution) $\rightarrow$

## Answer: A

## - Watch Video Solution

21. Which metal sulphide is soluble in excess $\mathrm{NH}_{3}$ solution?
A. ZnS
B. MnS
C. FeS
D. $\mathrm{Cr}_{2} \mathrm{~S}_{3}$

## Answer: D

22. $\mathrm{I}^{-}$(aq. $)+\mathrm{MnO}_{4}^{-}$(aq. $) \xrightarrow{\mathrm{H}^{+}} \mathrm{X}+\mathrm{Mn}^{2+}$ (aq.)

## Neutral or

$\mathrm{I}^{-}$(aq. $)+\mathrm{MnO}_{4}^{-}($aq. $) \quad \rightarrow \quad$ weakly $\mathrm{OH}^{-} Y+\mathrm{MnO}_{2}$

$$
\mathrm{ZnSO}_{4}
$$

$\mathrm{MnO}_{4}^{-}$(aq. $)+\mathrm{Mn}^{2+}$ (aq. $) \rightarrow \mathrm{Z}+4 \mathrm{H}^{+}$
Product $X, Y$ and $Z$ are respectively.
A. $\mathrm{I}_{2}, \mathrm{IO}_{3}^{-}, \mathrm{MnO}_{2}$
B. $\mathrm{IO}_{3}^{-}, \mathrm{I}_{2}, \mathrm{MnO}_{2}$
C. $\mathrm{I}_{2}, \mathrm{IO}_{3}^{-}, \mathrm{MnO}_{4}^{2-}$
D. $\mathrm{IO}_{3}^{-}, \mathrm{I}_{2}, \mathrm{MnO}_{4}^{2-}$

## Answer: A

## - Watch Video Solution

R.T.
23. $\mathrm{Br}_{2}+\mathrm{NaOH} \rightarrow Y+Z$

If $Y$ gives precipitate with $\mathrm{AgNO}_{3}$, then Z does not undergo reaction with:
A. $C r^{3+}$ (aq. $)$
B. $F e^{2+}(a q$.
C. $A l^{3+}$ (aq.)
D. $\mathrm{Sn}^{2+}(a q$.

## Answer: C

## - Watch Video Solution

## $\Delta$

24. $(P) \rightarrow(Q)$ Metallic solid $+(R) \uparrow+(S) \uparrow$
$\Delta$
$(X) \rightarrow(Y)$ amphoteric $+(R) \uparrow+(S) \uparrow$
$P \& X$ are respectively:
A. $\mathrm{AgNO}_{3}, \mathrm{LiNO}_{3}$
B. $\mathrm{AgNO}_{3}, \mathrm{~Pb}\left(\mathrm{NO}_{3}\right)_{2}$
C. $\mathrm{Hg}_{2}\left(\mathrm{NO}_{3}\right)_{2}, \mathrm{Ca}\left(\mathrm{NO}_{3}\right)_{2}$
D. $\mathrm{NaNO}_{3}, \mathrm{Zn}\left(\mathrm{NO}_{3}\right)_{2}$
25. Iodine is not oxidized to iodic acid/iodicanhydride by:
A. conc. $\mathrm{HNO}_{3}$
B. conc. $\mathrm{H}_{2} \mathrm{SO}_{4}$
C. Excess $\mathrm{Cl}_{2}$ water
D. conc. $\mathrm{H}_{3} \mathrm{PO}_{4}$

## Answer: D

## - Watch Video Solution

26. Colourless gas that has oxidising as well as reducing properties:
A. $\mathrm{CO}_{2}$
B. $\mathrm{SO}_{2}$
C. $\mathrm{NO}_{2}$
D. $\mathrm{SO}_{3}$

## Answer: B

## - Watch Video Solution

27. $\mathrm{Pb}+$ Dil. $\mathrm{HNO}_{3} \xrightarrow{\text { Warm }} \mathrm{P}+\mathrm{Q} \uparrow+\mathrm{H}_{2} \mathrm{O}$

Incorrect statement for Q is:
A. Paramagnetic colourless gas
B. It is oxidized to paramagnetic coloured gas by air
C. It combines with $\mathrm{Fe}_{2}\left(\mathrm{SO}_{4}\right)_{3}$
D. It is also obtained by disproportionation of $\mathrm{HNO}_{2}$

## Answer: C

## - Watch Video Solution

28. Which reaction has positive value of $\Delta G^{\circ}$ ?
A. $\mathrm{F}_{2}+\mathrm{H}_{2} \mathrm{O} \xrightarrow{\text { R.T. }} 2 \mathrm{HF}+\frac{1}{2} \mathrm{O}_{2} \uparrow$
R.t.
B. $\mathrm{Cl}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HCl}+\mathrm{HOCl}$
C. $\mathrm{Br}_{2}+\mathrm{H}_{2} \mathrm{O} \xrightarrow{\text { R.T. }} \mathrm{HBr}+\mathrm{HOBr}$
R.T.
D. $\mathrm{I}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HI}+\mathrm{HOI}$

## Answer: D

## - Watch Video Solution

29. Which does not undergo comproportionation reaction?
A. $\mathrm{H}_{2} \mathrm{~S}+\mathrm{SO}_{2} \rightarrow$
B. $I^{-}(a q)+.\mathrm{IO}_{3}^{-}($aq. $)+\mathrm{H}^{+}(a q.) \rightarrow$
C. $\mathrm{K}_{2} \mathrm{MnO}_{4}+\mathrm{H}^{+}($aq. $) \rightarrow$
D. $\mathrm{MnO}_{4}^{-}+\mathrm{Mn}^{2+}($ aq. $) \rightarrow$

## D Watch Video Solution

30. Select the incorrect match:
A. $\mathrm{Fe}^{3+}+\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]^{4-} \rightarrow$ Blue colour ppt.
B. $\mathrm{Fe}^{3+}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]^{3-} \rightarrow$ Red brown colouration
C. $\mathrm{Fe}^{2+}+\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]^{3-} \rightarrow$ Blue colour ppt.
D. $\mathrm{Fe}^{2+}+\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]^{4-} \rightarrow$ Red brown colouration

## Answer: D

## - Watch Video Solution

31. $\mathrm{Cu}^{2+}$ (aq.) $+X^{-}$(aq.) $\stackrel{\text { R.T. }}{\rightarrow} \mathrm{CuX} \downarrow+X_{2}$
' X ' cannot be:
A. $\mathrm{Cl}^{-}(a q$.
B. $I^{-}(a q$.
C. $C N^{-}$(aq.)
D. $S C N^{-}$(aq. )

## Answer: A

## - Watch Video Solution

32. In which of the following reaction $\mathrm{SO}_{2}$ gas is not produced?
warm
A. $\mathrm{S}_{8}+$ conc. $\quad \mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow$
warm
B. $\mathrm{S}_{8}+$ conc. $\mathrm{HNO}_{3} \rightarrow$
C. $\mathrm{PbS}+\mathrm{O}_{2} \stackrel{\Delta}{\rightarrow}$
D. $\mathrm{FeS}_{2}+\mathrm{O}_{2} \stackrel{\Delta}{\rightarrow}$

## Answer: B

33. Which metal gives $\mathrm{NH}_{4} \mathrm{NO}_{3}$, when react with dilute $\mathrm{HNO}_{3}$ acid?
A. Zn
B. $P b$
C. Cu
D. $A u$

## Answer: A

## - Watch Video Solution

34. Select the salt whose aqueous solution is not green:
A. $\mathrm{FeSO}_{4}$
B. $\mathrm{CrCl}_{3}$
C. $\mathrm{NiCl}_{2}$
D. $\mathrm{MnCl}_{2}$

## Answer: D

## - Watch Video Solution

35. Select the ion exchange reaction, which proceeds to forward direction in aqueous medium:

Aqueous
A. $2 \mathrm{AgCl}+\mathrm{CaF}_{2} \rightarrow 2 \mathrm{AgF}+\mathrm{CaCl}_{2}$

Aqueous
B. $\mathrm{BaSO}_{4}+2 \mathrm{NaOH} \rightarrow \mathrm{Ba}(\mathrm{OH})_{2}+\mathrm{Na}_{2} \mathrm{SO}_{4}$
C. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}+2 \mathrm{CH}_{3} \mathrm{COONa} \xrightarrow{\text { Aqueous }} \mathrm{Pb}(\mathrm{OAc})_{2}+2 \mathrm{NaNO}_{3}$

Aqueous
D. $\mathrm{Na}_{2} \mathrm{CrO}_{4}+\mathrm{BaCl}_{2} \rightarrow \mathrm{BaCrO}_{4}+2 \mathrm{NaCl}$

## Answer: D

## - Watch Video Solution

36. Which of the following metal hydroxide is not soluble in exces of $\mathrm{NH}_{3}$ solution?
A. $\mathrm{Fe}(\mathrm{OH})_{2}$
B. $\mathrm{Ni}(\mathrm{OH})_{2}$
C. $\mathrm{Cd}(\mathrm{OH})_{2}$
D. $\mathrm{Cu}(\mathrm{OH})_{2}$

## Answer: A

## - Watch Video Solution

37. Which of the following combination of reagents does not undergo redox reaction in aqueous medium?
A. $\mathrm{SnCl}_{2}+\mathrm{HgCl}_{2}$
B. $\mathrm{CuSO}_{4}+\mathrm{KCN}$
C. $\mathrm{Pb}\left(\mathrm{CH}_{3} \mathrm{COO}\right)_{2}+\mathrm{KI}$
D. $\mathrm{Ag}_{2} \mathrm{O}+\mathrm{SO}_{2}$

## Answer: C

## - Watch Video Solution

38. $K_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]+\mathrm{M}^{X+}($ aq. $) \rightarrow M_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]_{X} \downarrow$ Coloured precipitate

Which of the following cation does not respond to the above reaction?
A. $\mathrm{Cu}^{2+}$ (aq.)
B. $F e^{3+}$ (aq.)
C. $\mathrm{Zn}^{2+}$ (aq.)
D. None of these

## Answer: C

- Watch Video Solution

39. Sodium salt solution $+\mathrm{AgNO}_{3}$ soln. $\rightarrow$ Coloured precipitate.

If coloured precipitate is soluble in both dil. $\mathrm{HNO}_{3}$ and excess conc. $\mathrm{NH}_{3}$ solution then which of the following anion is present in the salt solution?
A. $S^{2-}(a q$.
B. $I^{-}$(aq.)
C. $\mathrm{PO}_{4}^{3-}$ (aq.)
D. $\mathrm{Br}^{-}$(aq.)

## Answer: C

## - Watch Video Solution

40. Chlorine gas is not produced by heating:
A. $\mathrm{SOCl}_{2}$
B. $\mathrm{PbCl}_{4}$
C. $\mathrm{FeCl}_{3}$
D. $\mathrm{Hg}_{2} \mathrm{Cl}_{2}$

Answer: D

## - Watch Video Solution

41. Which of the following anion does not prodcue prepitate with $\mathrm{BaCl}_{2}$ solution however gives precipitate with $\mathrm{AgNO}_{3}$ ?
A. $\mathrm{CO}_{3}^{2-}$ (aq. )
B. $\mathrm{C}_{2} \mathrm{O}_{4}^{2-}$ (aq.)
C. $\mathrm{MnO}_{4}^{-}$(aq.)
D. $S^{2-}$ (aq.)

## Answer: D

## - Watch Video Solution

42. Which of the following compound is completely water soluble?
A. $\mathrm{BaSO}_{4}$
B. $\mathrm{Ba}(\mathrm{OH})_{2}$
C. $\mathrm{Al}(\mathrm{OH})_{3}$
D. $\mathrm{CaF}_{2}$

## Answer: B

## - Watch Video Solution

43. Which chemical reaction contains incorrect products?
A. $\mathrm{SnSO}_{4} \xrightarrow{\Delta} \mathrm{SnO}_{2}+\mathrm{SO}_{3} \uparrow+\mathrm{SO}_{2} \uparrow$
B. $\mathrm{Ag}_{2} \mathrm{C}_{2} \mathrm{O}_{4} \xrightarrow{\Delta} \mathrm{Ag}+\mathrm{CO}_{2} \uparrow$
C. $\mathrm{P}_{4} \mathrm{O}_{10}(\mathrm{~s})+\mathrm{CaO}(\mathrm{s}) \stackrel{\Delta}{\rightarrow} \mathrm{Ca}_{3}\left(\mathrm{PO}_{4}\right)_{2}$
D. $\mathrm{PbCl}_{4} \stackrel{\Delta}{\rightarrow} \mathrm{PbCl}_{2}+\mathrm{Cl}_{2} \uparrow$

## - Watch Video Solution

44. Which of the following compound undergoes disproportionation in presence of $\mathrm{SO}_{3}$ gas?
A. $\mathrm{K}_{2} \mathrm{MnO}_{4}$
B. $\mathrm{K}_{2} \mathrm{CrO}_{4}$
C. $I_{2}$
D. $\mathrm{Mg}\left(\mathrm{NO}_{3}\right)_{2}$

## Answer: A

45. Consider the following reaction:
$K_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]$
$X($ aq. $) \quad \rightarrow \quad$ Chocolate brown ppt.
$\mathrm{AgNO}_{3}$
$X(a q.) \rightarrow$ White ppt. (insoluble in dil. $\mathrm{HNO}_{3}$ )
Then ' $X$ ' will be:
A. $\mathrm{ZnSO}_{4}$
B. $\mathrm{CuCl}_{2}$
C. $\mathrm{FeSO}_{4}$
D. $\mathrm{FeCl}_{3}$

## Answer: B

## - Watch Video Solution

46. Which of the following reagent does not oxidize HCl ?
A. $\mathrm{PbO}_{2}$
B. conc. $\mathrm{H}_{2} \mathrm{SO}_{4}$
C. $\mathrm{MnO}_{2}$
D. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7} / \mathrm{H}^{-}$

## Answer: B

## - Watch Video Solution

47. Select correct match:

## Anions

(a) $\mathrm{CO}_{3}^{2-}, \mathrm{SO}_{3}^{2-}$
(b) $\mathrm{CO}_{3}^{2-}, \mathrm{HCO}_{3}^{-}$
(c) $\mathrm{SO}_{3}^{2-}, \mathrm{SO}_{4}^{2-}$
(d) $\mathrm{Cl}^{-}, \mathrm{Br}^{-}$

## Separated by reagent

$\mathrm{BaCl}_{2}$
$\mathrm{CaCl}_{2}$
$\left(\mathrm{CH}_{3} \mathrm{COO}\right)_{2} \mathrm{~Pb}$
$\mathrm{AgNO}_{3}$

## - View Text Solution

48. Which of the following compound does not produce green coloured product on thermal decomposition?
A. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$
B. $\mathrm{KMnO}_{4}$
C. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$
D. $\mathrm{NH}_{4} \mathrm{NO}_{3}$

## Answer: D

## - Watch Video Solution

49. Aqueous solution of $\mathrm{FeSO}_{4}$ does not produce precipitate with:
A. NaOH
B. $\mathrm{NH}_{3}$ solution
C. $\mathrm{Na}_{2} \mathrm{CO}_{3}$
D. None of these

## Answer: D

50. Comproportionationn occurs between:
A. $\mathrm{Cl}^{-}$(aq. $)+\mathrm{ClO}^{-}$(aq. $)+\mathrm{OH}^{-}$(aq. $)$
B. $\mathrm{PH}_{3}(g)+\mathrm{H}_{3} \mathrm{PO}_{4}$ acid
C. $\mathrm{Na}_{2} \mathrm{~S}($ aq. $)+\mathrm{Na}_{2} \mathrm{SO}_{3}$ (aq. )
D. $\mathrm{MnO}_{4}^{-}($aq. $)+\mathrm{Mn}^{2+}($ aq. $)+\mathrm{ZnSO}_{4}$ (aq. $)$

## Answer: D

## - View Text Solution

51. Colour of $\mathrm{CrO}_{4}^{2-}$ (aq.) is not changed by
A. dil. HCl
B. $\mathrm{NH}_{3}$ solution
C. $\mathrm{CH}_{3} \mathrm{COOH}$
D. $\mathrm{NO}_{2}$ gas

## Answer: B

## - Watch Video Solution

52. $\mathrm{Mg}_{3} \mathrm{~N}_{2}(\mathrm{~s})+\mathrm{H}_{2} \mathrm{O} \xrightarrow{\text { R.T. }} \mathrm{P} \downarrow+\mathrm{Q} \uparrow$

Excess 'Q' gas does not form coloured complex with:
A. $N i^{2+}(a q$.
B. $\mathrm{Zn}^{2+}(a q$. $)$
C. $\mathrm{Cr}^{3+}$ (aq.)
D. $\mathrm{Cu}^{2+}$ (aq.)

## Answer: B

53. Which of the following pair of cations cann be separated by excess NaOH solution?
A. $\mathrm{Fe}^{3+}$ (aq. $)+\mathrm{Zn}^{3+}$ (aq.)
B. $\mathrm{Mn}^{2+}(a q),. \mathrm{Cd}^{2+}$ (aq.)
C. $\mathrm{Mg}^{2+}(a q),. \mathrm{Hg}^{2+}($ aq. $)$
D. $\mathrm{Al}^{3+}$ (aq. ), $\mathrm{Cr}^{3+}$ (aq.)

## Answer: A

## - Watch Video Solution

54. Consider following reaction:
$\mathrm{Cl}_{2}(\mathrm{~g})+\mathrm{H}_{2} \mathrm{O} \xrightarrow{\text { R.T. }} P+Q$
If molecular weight of $P$ is less than $Q$ then incorrect statement is:
A. On warming 'P' can form deep red coloured vapours with $\mathrm{CrO}_{3}$
B. Q' exhibits bleaching property
C. $\mathrm{MnO}_{2}$ can change 'P' into $\mathrm{Cl}_{2}$ gas on warming
D. P' reacts with $\mathrm{H}_{2} \mathrm{~S}$ gas while ' $Q$ ' does not

## Answer: D

## - View Text Solution

55. Which of the following reagent can dissolves precipitate of $\mathrm{HgS} \downarrow$
A. $\mathrm{NH}_{3}$ solution
B. conc. HCl
C. conc. $\mathrm{HNO}_{3}$
D. $\mathrm{Na}_{2} \mathrm{~S}$ solution

## Answer: D

## - Watch Video Solution

56. Which of the following reaction is incorrect?
A. $\mathrm{PCl}_{3}+3 \mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{3}+3 \mathrm{HCl}$
B. $\mathrm{NCl}_{3}+3 \mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{NH}_{3}+3 \mathrm{HOCl}$
C. $\mathrm{SbCl}_{3}+3 \mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SbO}_{3}+3 \mathrm{HCl}$
D. $\mathrm{BiCl}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{BiOCl}+2 \mathrm{HCl}$

## Answer: C

## - Watch Video Solution

57. Concentrated sodium hydroxiide can separate a mixture of:
A. $\mathrm{Al}^{3+}$ and $\mathrm{Cr}^{3+}$
B. $\mathrm{Cr}^{3+}$ and $\mathrm{Fe}^{3+}$
C. $A l^{3+}$ and $\mathrm{Zn}^{2+}$
D. $\mathrm{Zn}^{2+}$ and $\mathrm{Pb}^{2+}$

## Answer: B

## - Watch Video Solution

58. Select correct set of species which can't react with water burt react with NaOH ,
(i) $\mathrm{NO}_{2}$
(ii) $P_{4}$
(iii) $A l$
(iv) $I_{2}$
A. Only (iv)
B. (iii) and (iv)
C. (ii), (iii) and (iv)
D. all (i), (ii), (iii) and (iv)

## Answer: C

59. Fe (Finely powdered) $++\mathrm{HCl}($ dil.) $\rightarrow P+Q \uparrow$

Compound 'P' does not precipitate with:
A. $\mathrm{AgNO}_{3}$
B. $K_{3}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]$
C. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}$
D. $\mathrm{NH}_{4} \mathrm{Cl}+\mathrm{NH}_{4} \mathrm{OH}$

## Answer: D

## - Watch Video Solution

60. Which combination gives maximum number of products?
A. $\mathrm{P}_{4}+\mathrm{SOCl}_{2}$
B. $\mathrm{P}_{4}+\mathrm{SO}_{2} \mathrm{Cl}_{2}$
C. $\mathrm{XeF}_{4}+\mathrm{H}_{2} \mathrm{O}$
D. $\mathrm{NH}_{4} \mathrm{NO}_{3}+\mathrm{Zn}+$ Excess Excess NaOH

## Answer: C

## ( Watch Video Solution

61. $C u^{2+}$ (aq.) does not undergo redox reaction with solution:
A. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}$
B. $\mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}$
C. KI
D. $\mathrm{NH}_{4} \mathrm{SCN}$

## Answer: A

## - Watch Video Solution

62. Hydrolysis of which of the following compound liberates acidic gas?
A. $L i_{2} \mathrm{NH}$
B. $A l_{2} S_{3}$
C. $\mathrm{CaC}_{2}$
D. $C a N C N$

## Answer: B

## - Watch Video Solution

63. The non-metal which does not react with water but reacts with alkali?
A. Boron
B. Bromine
C. $P_{4}$
D. Fluorine

## Answer: C

64. A very dilute acidic solution of $\mathrm{Cd}^{2+} \& N i^{2+}$ gives only yelllwo ppt. of CdS on passing $\mathrm{H}_{2} \mathrm{~S}$, this is due to:
A. solubility product $\left(K_{S p}\right)$ of CdS is more than that of NiS.
B. Solubility product $\left(K_{S p}\right)$ of CdS is less than that of NiS.
C. $\mathrm{Cd}^{2+}$ belong to II B group while $\mathrm{Ni}^{2+}$ belongs to IVth group
D. CdS is insoluble in yellow ammonium sulphide (YAS).

## Answer: B

## - Watch Video Solution

65. Thermal decomposition of which of the salt listed below yield a basic and acidic oxides simultaneously?
A. $\mathrm{NH}_{4} \mathrm{ClO}_{4}$
B. $\mathrm{CaCO}_{3}$
C. $\mathrm{NanO}_{3}$
D. $\mathrm{NH}_{4} \mathrm{NO}_{2}$

## Answer: B

## - Watch Video Solution

66. What are formed products, when aqueous solution of $\mathrm{CuCl}_{2}$ and $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}$ are mixed?
A. CuS(aq.) and $\mathrm{NH}_{4} \mathrm{Cl}(\mathrm{s})$
B. $\mathrm{CuS}(\mathrm{s})$ and $\mathrm{NH}_{4} \mathrm{Cl}($ aq. $)$
C. $\mathrm{CuS}($ aq. $)$ and $\mathrm{NH}_{4} \mathrm{Cl}(\mathrm{g})$
D. $\mathrm{CuS}(\mathrm{s})$ and $\mathrm{NH}_{4} \mathrm{Cl}(\mathrm{s})$

## Answer: B

## - Watch Video Solution

67. Which of the following compound does not react with cold and dil.
$\mathrm{HNO}_{3}$ ?
A. PbO
B. $\mathrm{PbO}_{2}$
C. $\mathrm{FeSO}_{4}$
D. $\mathrm{PbCl}_{2}$

## Answer: B

## - Watch Video Solution

68. The incorrect order of solubility in water is:
A. $\mathrm{Ca}(\mathrm{OH})_{2}<\mathrm{Sr}(\mathrm{OH})_{2}<\mathrm{Ba}(\mathrm{OH})_{2}$
B. $\mathrm{Li}_{2} \mathrm{CO}_{3}<\mathrm{Na}_{2} \mathrm{CO}_{3}<\mathrm{K}_{2} \mathrm{CO}_{3}$
C. $\mathrm{CsNO}_{3}<\mathrm{RbNO}_{3}<\mathrm{KNO}_{3}$
D. $\mathrm{BeS}_{2} \mathrm{O}_{3}<\mathrm{MgS}_{2} \mathrm{O}_{3}<\mathrm{CaS}_{2} \mathrm{O}_{3}$

## Answer: D

## - Watch Video Solution

69. The correct order of increasing solubility in water is:
A. $K F<N a F<L i F$
B. $\mathrm{NaHCO}_{3}<\mathrm{KHCO}_{3}<\mathrm{RbHCO}_{3}$
C. $\mathrm{K}_{2} \mathrm{CO}_{3}<\mathrm{Na}_{2} \mathrm{CO}_{3}<\mathrm{Li}_{2} \mathrm{CO}_{3}$
D. $\mathrm{LiNO}_{3}<\mathrm{NaNO}_{3}<\mathrm{KNO}_{3}$

## Answer: B

## - Watch Video Solution

70. Bromine is commercially prepared from sea water by displacement reaction

$$
\mathrm{Cl}_{2}+2 \mathrm{Br}^{-}(\text {aq. }) \rightarrow 2 \mathrm{Cl}^{-}(\text {aq. })+\mathrm{Br}_{2}
$$

$\mathrm{Br}_{2}$ gas thus formed is dissolved into solution of $\mathrm{Na}_{2} \mathrm{CO}_{3}$ and then pure $\mathrm{Br}_{2}$ iis obtained by treatment of the solution with :
A. $\mathrm{Ca}(\mathrm{OH})_{2}$
B. NaOH
C. $\mathrm{H}_{2} \mathrm{SO}_{4}$
D. HI

## Answer: C

## - Watch Video Solution

71. Which of the following metal on burning in moist air does not give smell of ammonia?
A. Mg
B. Ca
C. K
D. Li

## Answer: C

## - Watch Video Solution

72. Gas that can not be collected over water is:
A. $N_{2}$
B. $\mathrm{O}_{2}$
C. $\mathrm{SO}_{2}$
D. $\mathrm{PH}_{3}$

## Answer: C

## - Watch Video Solution

73. Compound having lowest thermal stability is:
A. $\mathrm{NaHCO}_{3}$
B. $\mathrm{KHCO}_{3}$
C. $\mathrm{RbHCO}_{3}$
D. $\mathrm{CsHCO}_{3}$

## Answer: A

## - Watch Video Solution

74. Which of the following statement is incorrect regarding $\mathrm{Fe}^{2+}$ and $\mathrm{Fe}^{3+}$ cations?
A. $\mathrm{Fe}^{3+}$ gives brown colour solution with potassium ferricyanide
B. $\mathrm{Fe}^{2+}$ gives blue precipitate with potassium ferricyanide
C. $\mathrm{Fe}^{3+}$ gives red colour solution with potassium thiocyanate
D. $\mathrm{Fe}^{2+}$ gives brown colour with ammonium thiocyanate

## Answer: D

75. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$ on heating liberates a gas. The same gas will be obtained by
A. Heating $\mathrm{NH}_{4} \mathrm{NO}_{2}$
B. Heating $\mathrm{NH}_{4} \mathrm{NO}_{3}$
C. Heating $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{SO}_{4}$
D. Treatment $\mathrm{Mg}_{3} \mathrm{~N}_{2}$ with $\mathrm{H}_{2} \mathrm{O}$

## Answer: A

## - Watch Video Solution

76. Which of the following compound liberates acidic gas during its hydrolysis?
A. $C a_{3} P_{2}$
B. AIN
C. $A l_{2} S_{3}$
D. $\mathrm{CaH}_{2}$

## Answer: C

## - Watch Video Solution

77. Which of the following combination does not evolve $\mathrm{Cl}_{2}$ gas?
A. $\mathrm{HCl}(\mathrm{aq})+.\mathrm{KMnO}_{4}$
B. $\mathrm{HCl}+\mathrm{MnO}_{2}$
C. $\mathrm{HCl}+\mathrm{Br}_{2}$
D. $\mathrm{HCl}+\mathrm{F}_{2}$

## Answer: C

78. $\mathrm{NH}_{3}$ gas does not liberate by which of the following combination?
A. Heating of $\mathrm{NH}_{4} \mathrm{ClO}_{4}$
B. Heating of $\mathrm{NH}_{4} \mathrm{Cl}$
C. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{CO}_{3}+\mathrm{NaOH}$
D. $\mathrm{Li}_{3} \mathrm{~N}+\mathrm{H}_{2} \mathrm{O}$

## Answer: A

## - Watch Video Solution

79. If salt Q undergoes redox reaction with $\mathrm{H}_{2} \mathrm{~S}$ in acidic medium then which of the following species can not be possible product?
A. $\mathrm{MnO}_{4}^{2-}$ (aq.)
B. $S$
C. $\mathrm{MnO}_{2}$
D. both (a) and (c)

## - Watch Video Solution

Heat
$\mathrm{Cr}_{2} \mathrm{O}_{7}^{2-} / \mathrm{H}^{+}$
80. Metal sulphate $(A) \rightarrow \operatorname{oxide}(B)+\operatorname{gas}(C)+\operatorname{gas}(D) \rightarrow \quad$ Green $\mathrm{Na}_{2} \mathrm{O}_{2}$
solution $\rightarrow$ ExcessEyellow solution

Compound A, B, C, D are E are respectively:
A. $\mathrm{FeSO}_{4}, \mathrm{Fe}_{2} \mathrm{O}_{3}, \mathrm{SO}_{3}, \mathrm{SO}_{2}, \mathrm{Na}_{2} \mathrm{CrO}_{4}$
B. $\mathrm{Al}_{2}\left(\mathrm{So}_{4}\right)_{3}, \mathrm{Al}_{2} \mathrm{O}_{3}, \mathrm{SO}_{3}, \mathrm{SO}_{2}, \mathrm{Na}_{2} \mathrm{CrO}_{4}$
C. $\mathrm{CuSO}_{4}, \mathrm{CuO}, \mathrm{SO}_{3}, \mathrm{SO}_{2}, \mathrm{NaCrO}_{4}$
D. $\mathrm{ZnSO}_{4}, \mathrm{ZnO}_{2}, \mathrm{SO}_{3}, \mathrm{SO}_{2}, \mathrm{Na}_{2} \mathrm{CrO}_{4}$

## Answer: A

81. Which of the following radical does not liberate gas with ( $\mathrm{Zn}+\mathrm{dil} . \mathrm{HCl}$ ) on warming?
A. $S^{2-}$
B. $\mathrm{SO}_{3}^{2-}$
C. $\mathrm{NO}_{3}^{2-}$
D. $\mathrm{CH}_{3} \mathrm{COO}^{-}$

## Answer: C

## - Watch Video Solution

82. Which of the following cation does not give precipitate with $\mathrm{H}_{2} \mathrm{~S}$ in neutral medium?
A. $F e^{3+}$
B. $\mathrm{Cu}^{2+}$
C. $B i^{3+}$
D. $\mathrm{Ag}^{+}$

## Answer: A

## - Watch Video Solution

warm
83. $\mathrm{NaCl}($ solid $)+\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$ (solid) + conc. $\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow$ Reddish brown fumes of ' $X$ '.

The oxidation state of central atom in compound ' $X$ ' is:
A. +6
B. +3
C. +2
D. zero

## Answer: A

84. Diamagnetic gas neutral towards water is:
A. $\mathrm{N}_{2} \mathrm{O}$
B. $\mathrm{NO}_{2}$
C. NO
D. $\mathrm{N}_{2} \mathrm{O}_{3}$

## Answer: A

## - Watch Video Solution

85. Which of the following reagent can be used to separate AgCl and AgI ?
A. dil. $\mathrm{HNO}_{3}$
B. $\mathrm{NH}_{4} \mathrm{OH}$ solution
C. KCN solution
D. $\mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}$ solution

## D Watch Video Solution

86. When $\mathrm{PbO}_{2}$ reacts with conc. $\mathrm{HNO}_{3}$ then evolved gas is:
A. $\mathrm{NO}_{2}$
B. $\mathrm{O}_{2}$
C. $N_{2}$
D. $\mathrm{N}_{2} \mathrm{O}$

## Answer: B

## - Watch Video Solution

87. In a closed container there is a mixture of $\mathrm{SO}_{2}, \mathrm{CO}_{2}$ and $\mathrm{O}_{2}$ gas, which sequence of reagent can be helpful to separate them ?
(I) Limewater
(II) Acidified potassium dichromate
(III) Alkaline pyragallol.
A. (I),(II) and (III)
B. (II), (I), (III)
C. (III),(II), (I)
D. (III), (I), (II)

## Answer: B

## - Watch Video Solution

88. Which salt is colourless?
A. $\mathrm{KMnO}_{4}$
B. $\mathrm{BaSO}_{4}$
C. $\mathrm{NaCrO}_{4}$
D. $\mathrm{CoCl}_{2}$

## Answer: B

## - Watch Video Solution

89. Which of the following Xenon compound does not produce explosive $\mathrm{XeO}_{3}$ on its complete hydrolysis?
A. $\mathrm{XeO}_{2} \mathrm{~F}_{2}$
B. $X e F_{2}$
C. $\mathrm{XeF}_{4}$
D. $\mathrm{XeF}_{6}$

## Answer: B

## - Watch Video Solution

90. $\mathrm{FeSO}_{4} \cdot 7 \mathrm{H}_{2} \mathrm{O}$ (Green vitriol) salt on thermal decomposition does not produce:
A. $\mathrm{SO}_{2}$
B. $\mathrm{O}_{2}$
C. $\mathrm{SO}_{3}$
D. $\mathrm{H}_{2} \mathrm{O}$ vapour

## Answer: B

## - Watch Video Solution

91. $\mathrm{X}(\mathrm{aq})+\mathrm{Na}_{2} \mathrm{O}_{2} \rightarrow \mathrm{Y}$ (aq. $) \rightarrow \mathrm{Z} \downarrow$ Insoluble in dil. HCl
$X$ and $Y$ are different sodium salts, then anion present in the salt $(X)$ is:
A. $\mathrm{Cr}_{2} \mathrm{O}_{7}^{2-}$
B. $\mathrm{C}_{2} \mathrm{O}_{4}^{2-}$
C. $\mathrm{SO}_{3}^{2-}$
D. $\mathrm{SO}_{4}^{2-}$

## Answer: C

92. Which of the following chloride does not react with $\mathrm{PCl}_{5}$ on heating?
A. $\mathrm{Hg}_{2} \mathrm{Cl}_{2}$
B. $\mathrm{FeCl}_{2}$
C. $\mathrm{S}_{2} \mathrm{Cl}_{2}$
D. $\mathrm{BCl}_{3}$

## Answer: D

## - Watch Video Solution

## 93.

$\stackrel{\text { Air }}{\text { P(soln.)(Coloured) } \xrightarrow{\text { KOH }} \mathrm{Q} \text { (soln.)(Coloured) } \xrightarrow{\rightarrow} \mathrm{R} \downarrow \text { (ppt.) (Insoluble in both excess NaOH a }}$
then P contains:
A. $\mathrm{Cu}^{2+}$ (aq.)
B. $F e^{2+}(a q$.
C. $\mathrm{Cr}^{2+}$ (aq.)
D. $\mathrm{Ni}^{2+}(a q$. $)$

## Answer: B

## - Watch Video Solution

94. $X_{2} S_{n}+$ water $\rightarrow X(\mathrm{OH})_{n} \downarrow+Y \uparrow$ (Gas) $\xrightarrow{\mathrm{Pb}\left(\mathrm{CH}_{3} \mathrm{COO}\right)_{2}} \mathrm{Z} \downarrow$ (Black ppt.)

Then (X) cation can not be:
A. $F e^{3+}$
B. $A l^{3+}$
C. $\mathrm{Cr}^{3+}$
D. $M g^{2+}$

## Answer: A

95. X (satl) $+\mathrm{AgNO}_{3}$ (aq.) $\rightarrow Y \downarrow$ (yellow ppt.) (soluble in excess of $\mathrm{NH}_{3}$ solution)

Salt X, does not contain:
A. $\mathrm{PO}_{4}^{3-}$
B. $\mathrm{Br}^{-}$
C. $I^{-}$
D. $\mathrm{AsO}_{3}^{3-}$

## Answer: C

## Watch Video Solution

## Excess

96. $M^{n+}$ (aq. $)+K I \rightarrow X \downarrow p p t . \rightarrow K I$ ppt. remains insoluble in excess KI solution. Then cation $M^{n+}$ (aq. ) can be:
A. $\mathrm{Pb}^{2+}$ (aq.)
B. $\mathrm{Cu}^{2+}($ aq. $)$
C. $B i^{3+}$ (aq.)
D. $\mathrm{Hg}^{2+}$ (aq.)

## Answer: B

## - Watch Video Solution

97. Aqueous solution of which of the following cation gives precipitate with potash alum?
A. $\mathrm{Cu}^{2+}$ (aq.)
B. $Z n^{2+}(a q$.
C. $B a^{2+}$ (aq.)
D. $\mathrm{Ni}^{2+}$ (aq.)

## Answer: C

98. Colour of acidified $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$ is not changed by:
A. $\mathrm{H}_{2} \mathrm{O}_{2}$
B. $\mathrm{Sn}^{2+}$ (aq.)
C. $H F$
D. HBr

## Answer: C

## - Watch Video Solution

99. Which of the following metal nitrate produces gaseous product when reacts with KCN solution?
A. $\mathrm{Cu}\left(\mathrm{NO}_{3}\right)_{2}$
B. $\mathrm{AgNO}_{3}$
C. $\mathrm{Cd}\left(\mathrm{NO}_{3}\right)_{2}$
D. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}$

## Answer: A

## - Watch Video Solution

100. Which of these reaction in correct?
A. $\mathrm{Cl}^{-}+\mathrm{Br}_{2} \rightarrow \mathrm{Br}^{-}+\mathrm{Cl}_{2}$
B. Mohr's salt $\stackrel{\mathrm{NaOH} \text { solution }}{\rightarrow} \mathrm{NH}_{3} \uparrow(\mathrm{~g})$

$$
\mathrm{SO}_{3}
$$

C. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$ solution $\rightarrow$ Green colour solution

NaOH
Excess NaOH
D. $\mathrm{FeCl}_{2} \rightarrow$ (ppt. coloured) $\rightarrow \quad$ Soluble complex

## Answer: B

## D Watch Video Solution

101. Compound which on heating produces paramagnetic acidic gas?
A. $\mathrm{Mg}\left(\mathrm{NO}_{3}\right)_{2}$
B. $\mathrm{Fe}_{2}\left(\mathrm{SO}_{4}\right)_{3}$
C. $\mathrm{FeCO}_{3}$
D. $\mathrm{HgC}_{2} \mathrm{O}_{4}$

## Answer: A

## - Watch Video Solution

102. Which compound on heating produces produces coloured metal oxide finally?
A. $\mathrm{Al}_{2}\left(\mathrm{SO}_{4}\right)_{3}$
B. $\mathrm{HgCO}_{3} 3 \mathrm{Hg}(\mathrm{OH})_{2}$
C. $\mathrm{Cu}\left(\mathrm{NO}_{3}\right)_{2}$
D. $\mathrm{Ba}(\mathrm{OH})_{2}$

## Answer: C

## - Watch Video Solution

103. $P($ Coloured solution $)+\mathrm{BaCl}_{2} \rightarrow Q \downarrow$ (White) $+R$ (Coloured solution) ItBrgt Then salt ' $P$ ' in above reaction is:
A. $\mathrm{Na}_{2} \mathrm{CrO}_{4}$
B. $\mathrm{ZnSO}_{4}$
C. $\mathrm{CuSO}_{4}$
D. $\mathrm{AgNO}_{3}$

## Answer: C

## D Watch Video Solution

104. Oxygen gas is not produced from the following decomposition reaction:
A. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7} \rightarrow$
B. $\mathrm{Ag}_{2} \mathrm{C}_{2} \mathrm{O}_{4} \xrightarrow{\Delta}$
C. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2} \xrightarrow{\Delta}$
D. $\mathrm{Ag}_{2} \mathrm{CO}_{3} \xrightarrow{\Delta}$

## Answer: B

## - Watch Video Solution

105. Consider the following reaction and select incorrect statement about gas (P):
$\mathrm{Zn}+\mathrm{HNO}_{3}($ Dilute $) \rightarrow \mathrm{Zn}\left(\mathrm{NO}_{3}\right)_{2}+P \uparrow$
A. Gives neutral solution in water
B. Contains more $\mathrm{O}_{2}$ than Air
C. Forms brownn ring with $\mathrm{FeSO}_{4}$ solution
D. None of these

## Answer: C

## D Watch Video Solution

106. Which of the following ionic/molecular species does not disproportionate in water at room temperature?
A. $\mathrm{NO}_{2}$
B. $C u^{+}$
C. $\mathrm{MnO}_{4}^{2-}$
D. $\mathrm{Ca}(\mathrm{OCl}) \mathrm{Cl}$

## Answer: D

## - Watch Video Solution

107. Which halogen oxidizes water at room temperature but does not undergo disproportionation into it?
A. $F_{2}$
B. $\mathrm{Cl}_{2}$
C. $B r_{2}$
D. $I_{2}$

## Answer: A

## D Watch Video Solution

108. Which of the following combination doen's evolve $\mathrm{Cl}_{2}$ gas?
A. $\mathrm{HCl}($ aq. $)+\mathrm{KMnO}_{4}$
B. $\mathrm{HCl}+\mathrm{MnO}_{2}$
C. $\mathrm{HCl}+\mathrm{I}_{2}$
D. $\mathrm{HCl}+\mathrm{F}_{2}$

## Answer: C

109. Which of the following combination does not liberated $\mathrm{NH}_{3}$ gas?
A. Heating of $\mathrm{NH}_{4} \mathrm{ClO}_{4}$
B. Heating of $\mathrm{NH}_{4} \mathrm{Cl}$
C. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{CO}_{30+\mathrm{NaOH}}$
D. $\mathrm{Li}_{3} \mathrm{~N}+\mathrm{H}_{2} \mathrm{O}$

## Answer: A

## - Watch Video Solution

110. Which of the following compound on heating does not produce metal oxide?
A. $\mathrm{MgCl}_{2} \cdot 6 \mathrm{H}_{2} \mathrm{O}$
B. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$
C. $\mathrm{K}_{2} \mathrm{CO}_{3}$
D. $\mathrm{Cu}\left(\mathrm{NO}_{3}\right)_{2}$

Answer: C

## - Watch Video Solution

111. Select the compound in which HCl is not the product of Hydrolysis:
A. $\mathrm{NCl}_{3}$
B. $\mathrm{PCl}_{3}$
C. $\mathrm{AsCl}_{3}$
D. $\mathrm{BiCl}_{3}$

## Answer: A

## - Watch Video Solution

112. How many moles of $\mathrm{H}_{2} \mathrm{O}$ are liberated when one mole hydrated $\mathrm{MgCl}_{2}$ is heated?
A. 6
B. 5
C. 4
D. 3

## Answer: B

## - Watch Video Solution

113. Consider the following sequence of reaction:

$\mathrm{M}^{2+}$ (aq. $) \xrightarrow{\mathrm{NH}_{4} \mathrm{Cl}(\mathrm{s})+\left(\mathrm{NH}_{4}\right)_{2} \mathrm{CO}_{3} \mathrm{sol} .}$| $\mathrm{CH}_{3} \mathrm{COOH}$ |
| :--- | $\mathrm{Q} \underset{ }{\rightarrow}$ Followed by addition of $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{C}_{2} \mathrm{O}_{4}$

Which of the following cation can form ppt. Q but does not form ppt. 'R' ?
A. $\mathrm{Mg}^{2+}$ (aq.)
B. $C a^{2+}(a q$.
C. $S r^{2+}$ (aq.)
D. $B a^{2+}$ (aq.)

## Answer: D

## D Watch Video Solution

114. Which of the following compound does not liberated oxygen gas on warming with conc. $\mathrm{H}_{2} \mathrm{SO}_{4}$ ?
A. $\mathrm{SO}_{3}$
B. $\mathrm{PbO}_{2}$
C. $\mathrm{MnO}_{2}$
D. $\mathrm{CrO}_{5}$

## Answer: A

115. One of the hydrolysed product of the following compound does not react with silica of glass vessel:
A. $B F_{3}$
B. $\mathrm{ClF}_{5}$
C. $\mathrm{XeF}_{2}$
D. $\mathrm{SF}_{4}$

## Answer: A

## - Watch Video Solution

116. $M$ (Salt) + Dil. $\mathrm{HCl} \rightarrow \mathrm{Parm}+Q \uparrow+\mathrm{H}_{2} \mathrm{O}$
gas ' $Q$ ' changes colour of $\mathrm{FeSO}_{4}$ solution into yellow solution then salt $M$ in above reaction is

[^0]B. $\mathrm{Ag}_{2} \mathrm{SO}_{3}$
C. $\mathrm{AgNO}_{2}$
D. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}$

## Answer: C

## - Watch Video Solution

117. $\mathrm{Pb}+$ Dil. $\mathrm{HNO}_{3} \xrightarrow{\text { Warm }} \mathrm{P}+\mathrm{Q} \uparrow+\mathrm{H}_{2} \mathrm{O}$

Incorrect statement for $Q$ is:
A. Paramagnetic colourless gas
B. It is oxidized to paramagnetic coloured gas by air
C. It combines with $\mathrm{Fe}_{2}\left(\mathrm{SO}_{4}\right)_{3}$
D. It can be also obtained by disproportionation of $\mathrm{HNO}_{2}$

## Answer: C

118. In which of the following redox reaction precipitate is not formed?
A. $\mathrm{Cr}^{3+}$ (aq. $)+\mathrm{Na}_{2} \mathrm{O}_{2}$ (Solution) $\rightarrow$
B. $\mathrm{Fe}^{3+}$ (aq. $)+\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S} \rightarrow$
C. $\mathrm{Mn}^{2+}($ aq. $)+\mathrm{H}_{2} \mathrm{O}_{2}+\mathrm{NH}_{3}($ Solution $) \rightarrow$
D. $\mathrm{Fe}^{2+}($ aq. $)+\mathrm{Na}_{2} \mathrm{O}_{2}$ (solution) $\rightarrow$

## Answer: A

## - Watch Video Solution

119. Which metal sulphide is soluble in excess $\mathrm{NH}_{3}$ solution?
A. ZnS
B. MnS
C. FeS
D. $\mathrm{Cr}_{2} \mathrm{~S}_{3}$

Answer: D

## - View Text Solution

120. $\mathrm{I}^{-}$(aq. $)+\mathrm{MnO}_{4}^{-}($aq. $) \xrightarrow{\mathrm{H}^{+}} \mathrm{X}+\mathrm{Mn}^{2+}$ (aq. $)$
$\mathrm{I}^{-}$(aq. $)+\mathrm{MnO}_{4}^{-}$(aq. $) \xrightarrow{\text { Neutral or }}$ weakly $\mathrm{OH}^{-} Y+\mathrm{MnO}_{2}$
$\mathrm{MnO}_{4}^{-}($aq. $)+\mathrm{Mn}^{2+}($ aq. $) \xrightarrow{\mathrm{ZnSO}_{4}} \mathrm{Z}+4 \mathrm{H}^{+}$

Product $\mathrm{X}, \mathrm{Y}$ and Z are respectively.
A. $\mathrm{I}_{2}, \mathrm{IO}_{3}^{-}, \mathrm{MnO}_{2}$
B. $\mathrm{IO}_{3}^{-}, \mathrm{I}_{2}, \mathrm{MnO}_{2}$
C. $\mathrm{I}_{2}, \mathrm{IO}_{3}^{-}, \mathrm{MnO}_{4}^{2-}$
D. $\mathrm{IO}_{3}^{-}, \mathrm{I}_{2}, \mathrm{MnO}_{4}^{2-}$

## Answer: A

R.T.
121. $\mathrm{Br}_{2}+\mathrm{NaOH} \rightarrow Y+Z$

If $Y$ gives precipitate with $\mathrm{AgNO}_{3}$, then Z does not undergo reaction with:
A. $C r^{3+}$ (aq. $)$
B. $F e^{2+}(a q$.
C. $A l^{3+}$ (aq.)
D. $\mathrm{Sn}^{2+}(a q$.

## Answer: C

## - Watch Video Solution

$\Delta$
122. $(P) \rightarrow(Q)$ Metallic solid $+(R) \uparrow+(S) \uparrow$
$\Delta$
$(X) \rightarrow(Y)$ amphoteric $+(R) \uparrow+(S) \uparrow$

P\& $X$ are respectively:

$$
\text { A. } \mathrm{AgNO}_{3}, \mathrm{LiNO}_{3}
$$

B. $\mathrm{AgNO} \mathrm{H}_{3}, \mathrm{~Pb}\left(\mathrm{NO}_{3}\right)_{2}$
C. $\mathrm{Hg}_{2}\left(\mathrm{NO}_{3}\right)_{2}, \mathrm{Ca}\left(\mathrm{NO}_{3}\right)_{2}$
D. $\mathrm{NaNO}_{3}, \mathrm{Zn}\left(\mathrm{NO}_{3}\right)_{2}$

## Answer: B

## - Watch Video Solution

123. Iodine is not oxidized to iodic acid/iodicanhydride by:
A. conc. $\mathrm{HNO}_{3}$
B. conc. $\mathrm{H}_{2} \mathrm{SO}_{4}$
C. Excess $\mathrm{Cl}_{2}$ water
D. conc. $\mathrm{H}_{3} \mathrm{PO}_{4}$

## Answer: D

124. Colourless gas that has oxidising as well as reducing properties:
A. $\mathrm{CO}_{2}$
B. $\mathrm{SO}_{2}$
C. $\mathrm{NO}_{2}$
D. $\mathrm{SO}_{3}$

## Answer: B

## - Watch Video Solution

125. $\mathrm{Pb}+$ Dil. $\mathrm{HNO}_{3} \xrightarrow{\text { Warm }} \mathrm{P}+\mathrm{Q} \uparrow+\mathrm{H}_{2} \mathrm{O}$

Incorrect statement for $Q$ is:
A. Paramagnetic colourless gas
B. It is oxidized to paramagnetic coloured gas by air
C. It combines with $\mathrm{Fe}_{2}\left(\mathrm{SO}_{4}\right)_{3}$
D. It is also obtained by disproportionation of $\mathrm{HNO}_{2}$

## Answer: C

## - Watch Video Solution

126. Which reaction has positive value of $\Delta G^{\circ}$ ?
A. $\mathrm{F}_{2}+\mathrm{H}_{2} \mathrm{O} \xrightarrow{\text { R.T. }} 2 \mathrm{HF}+\frac{1}{2} \mathrm{O}_{2} \uparrow$
R.T.
B. $\mathrm{Cl}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HCl}+\mathrm{HOCl}$
C. $\mathrm{Br}_{2}+\mathrm{H}_{2} \mathrm{O} \xrightarrow{\text { R.T. }} \mathrm{HBr}+\mathrm{HOBr}$
R.T.
D. $\mathrm{I}_{2}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{HI}+\mathrm{HOI}$

## Answer: D

## - View Text Solution

127. Which does not undergo comproportionation reaction?
A. $\mathrm{H}_{2} \mathrm{~S}+\mathrm{SO}_{2} \rightarrow$
B. $I^{-}($aq. $)+\mathrm{IO}_{3}^{-}($aq. $)+H^{+}($aq. $) \rightarrow$
C. $\mathrm{K}_{2} \mathrm{MnO}_{4}+\mathrm{H}^{+}$(aq.) $\rightarrow$
D. $\mathrm{MnO}_{4}^{-}+\mathrm{Mn}^{2+}($ aq. $) \rightarrow$

## Answer: C

## - Watch Video Solution

128. Select the incorrect match:
A. $\mathrm{Fe}^{3+}+\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]^{4-} \rightarrow$ Blue colour ppt.
B. $\mathrm{Fe}^{3+}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]^{3-} \rightarrow$ Red brown colouration
C. $\mathrm{Fe}^{2+}+\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]^{3-} \rightarrow$ Blue colour ppt.
D. $\mathrm{Fe}^{2+}+\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]^{4-} \rightarrow$ Red brown colouration

## Answer: D

129. $\mathrm{Cu}^{2+}$ (aq. $)+X^{-}($aq. $) \xrightarrow{\text { R.T. }} \mathrm{CuX} \downarrow+X_{2}$
' X ' cannot be:
A. $\mathrm{Cl}^{-}(a q$.
B. $I^{-}$(aq.)
C. $C N^{-}$(aq.)
D. $\operatorname{SCN}^{-}$(aq.)

## Answer: A

## - Watch Video Solution

130. In which of the following reaction $\mathrm{SO}_{2}$ gas is not produced?
A. $\mathrm{S}_{8}+$ conc. $\quad \mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow$
warm
B. $\mathrm{S}_{8}+$ conc. $\mathrm{HNO}_{3} \rightarrow$
C. $\mathrm{PbS}+\mathrm{O}_{2} \rightarrow$
D. $\mathrm{FeS}_{2}+\mathrm{O}_{2} \xrightarrow{\Delta}$

## Answer: B

## D Watch Video Solution

131. Which metal gives $\mathrm{NH}_{4} \mathrm{NO}_{3}$, when react with dilute $\mathrm{HNO}_{3}$ acid?
A. Zn
B. $P b$
C. Cu
D. $A u$

## Answer: A

132. Select the salt whose aqueous solution is not green:
A. $\mathrm{FeSO}_{4}$
B. $\mathrm{CrCl}_{3}$
C. $\mathrm{NiCl}_{2}$
D. $\mathrm{MnCl}_{2}$

## Answer: D

## - Watch Video Solution

133. Select the ion exchange reaction, which proceeds to forward direction in aqueous medium:

Aqueous
A. $2 \mathrm{AgCl}+\mathrm{CaF}_{2} \rightarrow 2 \mathrm{AgF}+\mathrm{CaCl}_{2}$

Aqueous
B. $\mathrm{BaSO}_{4}+2 \mathrm{NaOH} \rightarrow \mathrm{Ba}(\mathrm{OH})_{2}+\mathrm{Na}_{2} \mathrm{SO}_{4}$
C. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}+2 \mathrm{CH}_{3} \mathrm{COONa} \xrightarrow{\text { Aqueous }} \mathrm{Pb}(\mathrm{OAc})_{2}+2 \mathrm{NaNO}_{3}$
D. $\mathrm{Na}_{2} \mathrm{CrO}_{4}+\mathrm{BaCl}_{2} \rightarrow \mathrm{BaCrO}_{4}+2 \mathrm{NaCl}$

## Answer: D

## - Watch Video Solution

134. Which of the following metal hydroxide is not soluble in exces of $\mathrm{NH}_{3}$ solution?
A. $\mathrm{Fe}(\mathrm{OH})_{2}$
B. $\mathrm{Ni}(\mathrm{OH})_{2}$
C. $\mathrm{Cd}(\mathrm{OH})_{2}$
D. $\mathrm{Cu}(\mathrm{OH})_{2}$

## Answer: A

## - Watch Video Solution

135. Which of the following combination of reagents does not undergo redox reaction in aqueous medium?
A. $\mathrm{SnCl}_{2}+\mathrm{HgCl}_{2}$
B. $\mathrm{CuSO}_{4}+\mathrm{KCN}$
C. $\mathrm{Pb}\left(\mathrm{CH}_{3} \mathrm{COO}\right)_{2}+\mathrm{KI}$
D. $\mathrm{Ag}_{2} \mathrm{O}+\mathrm{SO}_{2}$

## Answer: C

## - Watch Video Solution

136. $\mathrm{K}_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]+\mathrm{M}^{X+}(a q.) \rightarrow M_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]_{X} \downarrow$ Coloured precipitate

Which of the following cation does not respond to the above reaction?
A. $\mathrm{Cu}^{2+}$ (aq.)
B. $F e^{3+}(a q$.
C. $\mathrm{Zn}^{2+}(a q$.
D. None of these

## Answer: C

## - View Text Solution

137. Sodium salt solution $+\mathrm{AgNO}_{3}$ soln. $\rightarrow$ Coloured precipitate.

If coloured precipitate is soluble in both dil. $\mathrm{HNO}_{3}$ and excess conc. $\mathrm{NH}_{3}$ solution then which of the following anion is present in the salt solution?
A. $S^{2-}(a q$.
B. $I^{-}$(aq.)
C. $\mathrm{PO}_{4}^{3-}$ (aq.)
D. $\mathrm{Br}^{-}$(aq.)

## Answer: C

## - Watch Video Solution

138. Chlorine gas is not produced by heating:
A. $\mathrm{SOCl}_{2}$
B. $\mathrm{PbCl}_{4}$
C. $\mathrm{FeCl}_{3}$
D. $\mathrm{Hg}_{2} \mathrm{Cl}_{2}$

## Answer: D

## - Watch Video Solution

139. Which of the following anion does not prodcue prepitate with $\mathrm{BaCl}_{2}$ solution however gives precipitate with $\mathrm{AgNO}_{3}$ ?
A. $\mathrm{CO}_{3}^{2-}$ (aq.)
B. $\mathrm{C}_{2} \mathrm{O}_{4}^{2-}$ (aq. )
C. $\mathrm{MnO}_{4}^{-}$(aq.)
D. $S^{2-}$ (aq.)

## D Watch Video Solution

140. Which of the following compound is completely water soluble?
A. $\mathrm{BaSO}_{4}$
B. $\mathrm{Ba}(\mathrm{OH})_{2}$
C. $\mathrm{Al}(\mathrm{OH})_{3}$
D. $\mathrm{CaF}_{2}$

## Answer: B

## - Watch Video Solution

141. Which chemical reaction contains incorrect products?
A. $\mathrm{SnSO}_{4} \xrightarrow{\Delta} \mathrm{SnO}_{2}+\mathrm{SO}_{3} \uparrow+\mathrm{SO}_{2} \uparrow$
B. $\mathrm{Ag}_{2} \mathrm{C}_{2} \mathrm{O}_{4} \xrightarrow{\Delta} \mathrm{Ag}+\mathrm{CO}_{2} \uparrow$
C. $\mathrm{P}_{4} \mathrm{O}_{10}(\mathrm{~s})+\mathrm{CaO}(\mathrm{s}) \stackrel{\Delta}{\rightarrow} \mathrm{Ca}_{3}\left(\mathrm{PO}_{4}\right)_{2}$
D. $\mathrm{PbCl}_{4} \xrightarrow{\Delta} \mathrm{PbCl}_{2}+\mathrm{Cl}_{2} \uparrow$

## Answer: A

## - Watch Video Solution

142. Which of the following compound undergoes disproportionation in presence of $\mathrm{SO}_{3}$ gas?
A. $\mathrm{K}_{2} \mathrm{MnO}_{4}$
B. $\mathrm{K}_{2} \mathrm{CrO}_{4}$
C. $I_{2}$
D. $\mathrm{Mg}\left(\mathrm{NO}_{3}\right)_{2}$

## Answer: A

143. Consider the following reaction:

$$
K_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]
$$

$X($ aq. $) \quad \rightarrow \quad$ Chocolate brown ppt.
$\mathrm{AgNO}_{3}$
$X($ aq. $) \rightarrow$ White ppt. (insoluble in dil. $\mathrm{HNO}_{3}$ )
Then ' X ' will be:
A. $\mathrm{ZnSO}_{4}$
B. $\mathrm{CuCl}_{2}$
C. $\mathrm{FeSO}_{4}$
D. $\mathrm{FeCl}_{3}$

## Answer: B

## - Watch Video Solution

144. Which of the following reagent does not oxidize HCl ?
A. $\mathrm{PbO}_{2}$
B. conc. $\mathrm{H}_{2} \mathrm{SO}_{4}$
C. $\mathrm{MnO}_{2}$
D. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7} / \mathrm{H}^{-}$

## Answer: B

## - Watch Video Solution

145. Select correct match:

## Anions

(a) $\mathrm{CO}_{3}^{2-}, \mathrm{SO}_{3}^{2-}$
(b) $\mathrm{CO}_{3}^{2-}, \mathrm{HCO}_{3}^{-}$
(c) $\mathrm{SO}_{3}^{2-}, \mathrm{SO}_{4}^{2-}$
(d) $\mathrm{Cl}^{-}, \mathrm{Br}^{-}$

Separated by reagent

## $\mathrm{BaCl}_{2}$

$\mathrm{CaCl}_{2}$
$\left(\mathrm{CH}_{3} \mathrm{COO}\right)_{2} \mathrm{~Pb}$
$\mathrm{AgNO}_{3}$
146. Which of the following compound does not produce green coloured product on thermal decomposition?
A. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$
B. $\mathrm{KMnO}_{4}$
C. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$
D. $\mathrm{NH}_{4} \mathrm{NO}_{3}$

## Answer: D

## - Watch Video Solution

147. Aqueous solution of $\mathrm{FeSO}_{4}$ does not produce precipitate with:
A. NaOH
B. $\mathrm{NH}_{3}$ solution
C. $\mathrm{Na}_{2} \mathrm{CO}_{3}$
D. None of these

## - Watch Video Solution

148. Comproportionationn occurs between:
A. $\mathrm{Cl}^{-}($aq. $)+\mathrm{ClO}^{-}($aq. $)+\mathrm{OH}^{-}($aq. $)$
B. $\mathrm{PH}_{3}(g)+\mathrm{H}_{3} \mathrm{PO}_{4}$ acid
C. $\mathrm{Na}_{2} \mathrm{~S}($ aq. $)+\mathrm{Na}_{2} \mathrm{SO}_{3}$ (aq. )
D. $\mathrm{MNO}_{4}^{2-}$ (aq. ) $+\mathrm{Mn}^{2+}$ (aq. ) $+\mathrm{ZnSO}_{4}$ (aq. )

## Answer: D

## - View Text Solution

149. Colour of $\mathrm{CrO}_{4}^{2-}$ (aq.) is not changed by

$$
\text { A. dil. } \mathrm{HCl}
$$

B. $\mathrm{NH}_{3}$ solution
C. $\mathrm{CH}_{3} \mathrm{COOH}$
D. $\mathrm{NO}_{2}$ gas

## Answer: B

## - Watch Video Solution

150. $\mathrm{Mg}_{3} \mathrm{~N}_{2}(\mathrm{~s})+\mathrm{H}_{2} \mathrm{O} \xrightarrow{\text { R.T. }} \mathrm{P} \downarrow+Q \uparrow$

Excess 'Q' gas does not form coloured complex with:
A. $N i^{2+}(a q$.
B. $\mathrm{Zn}^{2+}$ (aq.)
C. $\mathrm{Cr}^{3+}(a q$.
D. $\mathrm{Cu}^{2+}$ (aq.)

## Answer: B

151. Which of the following pair of cations cann be separated by excess NaOH solution?
A. $\mathrm{Fe}^{3+}$ (aq. $)+\mathrm{Zn}^{2+}$ (aq. )
B. $\mathrm{Mn}^{2+}($ aq. $), \mathrm{Cd}^{2+}($ aq. $)$
C. $M g^{2+}$ (aq. ), $M g^{2+}$ (aq.)
D. $A l^{3+}$ (aq. $), \mathrm{Cr}^{3+}$ (aq. )

## Answer: A

## - Watch Video Solution

152. Consider following reaction:
R.T.
$\mathrm{Cl}_{2}(\mathrm{~g})+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{P}+Q$
If molecular weight of $P$ is less than $Q$ then incorrect statement is:
A. On warming 'P' can form deep red coloured vapours with $\mathrm{CrO}_{3}$
B. Q' exhibits bleaching property
C. $\mathrm{MnO}_{2}$ can change $P$ into $\mathrm{Cl}_{2}$ gas on warming
D. P' reacts with $\mathrm{H}_{2} \mathrm{~S}$ gas while 'Q' does not

## Answer: D

## D Watch Video Solution

153. Which of the following reagent can dissolves precipitate of $\mathrm{HgS} \downarrow$
A. $\mathrm{NH}_{3}$ solution
B. conc. HCl
C. conc. $\mathrm{HNO}_{3}$
D. $N a_{2} S$ solution

## Answer: D

154. Which of the following reaction is incorrect?
A. $\mathrm{PCl}_{3}+3 \mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{3} \mathrm{PO}_{3}+3 \mathrm{HCl}$
B. $\mathrm{NCl}_{3}+3 \mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{NH}_{3}+3 \mathrm{HOCl}$
C. $\mathrm{SbCl}_{3}+3 \mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{H}_{2} \mathrm{SbO}_{3}+3 \mathrm{HCl}$
D. $\mathrm{BiCl}_{3}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{BiOCl}+2 \mathrm{HCl}$

## Answer: C

## - Watch Video Solution

155. Concentrated sodium hydroxiide can separate a mixture of:
A. $\mathrm{Al}^{3+}$ and $\mathrm{Cr}^{3+}$
B. $\mathrm{Cr}^{3+}$ and $\mathrm{Fe}^{3+}$
C. $\mathrm{Al}^{3+}$ and $\mathrm{Zn}^{2+}$
D. $\mathrm{Zn}^{2+}$ and $\mathrm{Pb}^{2+}$

## Answer: B

## D Watch Video Solution

156. Select correct set of species which can't react with water but react with NaOH ,
(i) $\mathrm{NO}_{2}$
(ii) $P_{4}$
(iii) Al
(iv) $I_{2}$
A. Only (iv)
B. (iii) and (iv)
C. (ii), (iii) and (iv)
D. all (i), (ii), (iii) and (iv)

## Answer: C

157. $\mathrm{Fe}($ Finely powdered) $++\mathrm{HCl}($ dil.) $\rightarrow P+Q \uparrow$

Compound 'P' does not precipitate with:
A. $\mathrm{AgnO}_{3}$
B. $K_{3}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]$
C. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}$
D. $\mathrm{NH}_{4} \mathrm{Cl}+\mathrm{NH}_{4} \mathrm{OH}$

## Answer: D

## - Watch Video Solution

158. Which combination gives maximum number of products?
A. $\mathrm{P}_{4}+\mathrm{SOCl}_{2}$
B. $\mathrm{P}_{4}+\mathrm{SO}_{2} \mathrm{Cl}_{2}$
C. $\mathrm{XeF}_{4}+\mathrm{H}_{2} \mathrm{O}$
D. $\mathrm{NH}_{4} \mathrm{NO}_{3}+\mathrm{Zn}+$ Excess Excess NaOH

## Answer: C

## - Watch Video Solution

159. $\mathrm{Cu}^{2+}$ (aq.) does not undergo redox reaction with solution:
A. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}$
B. $\mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}$
C. $K I$
D. $\mathrm{NH}_{4} \mathrm{SCN}$

## Answer: A

## - Watch Video Solution

160. Hydrolysis of which of the following compound liberates acidic gas?
A. $L i_{2} \mathrm{NH}$
B. $A l_{2} S_{3}$
C. $\mathrm{CaC}_{2}$
D. $C a N C N$

## Answer: B

## - View Text Solution

161. The non-metal which does not react with water but reacts with alkali?
A. Boron
B. Bromine
C. $P_{4}$
D. Fluorine

## Answer: C

162. A very dilute acidic solution of $\mathrm{Cd}^{2+} \& \mathrm{Ni}^{2+}$ gives only yelllwo ppt. of CdS on passing $\mathrm{H}_{2} \mathrm{~S}$, this is due to:
A. solubility product $\left(K_{S p}\right)$ of CdS is more than that of NiS.
B. Solubility product $\left(K_{s p}\right)$ of $C d S$ is less than that of NiS.
C. $\mathrm{Cd}^{2+}$ belong to II B group while $\mathrm{Ni}^{2+}$ belongs to $I V$ th group
D. CdS is insoluble in yellow ammonium sulphide (YAS).

## Answer: B

## - Watch Video Solution

163. Thermal decomposition of which of the salt listed below yield a basic and acidic oxides simultaneously?
A. $\mathrm{NH}_{4} \mathrm{ClO}_{4}$
B. $\mathrm{CaCO}_{3}$
C. $\mathrm{NanO}_{3}$
D. $\mathrm{NH}_{4} \mathrm{NO}_{2}$

## Answer: B

## - Watch Video Solution

164. What are formed products, when aqueous solution of $\mathrm{CuCl}_{2}$ and $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}$ are mixed?
A. CuS(aq.) and $\mathrm{NH}_{4} \mathrm{Cl}(\mathrm{s})$
B. $\mathrm{CuS}(\mathrm{s})$ and $\mathrm{NH}_{4} \mathrm{Cl}($ aq. $)$
C. $\mathrm{CuS}($ aq. $)$ and $\mathrm{NH}_{4} \mathrm{Cl}(\mathrm{g})$
D. $\mathrm{CuS}(\mathrm{s})$ and $\mathrm{NH}_{4} \mathrm{Cl}(\mathrm{s})$

## Answer: B

- Watch Video Solution

165. Which of the following compound does not react with cold and dil.
$\mathrm{HNO}_{3}$ ?
A. PbO
B. $\mathrm{PbO}_{2}$
C. $\mathrm{FeSO}_{4}$
D. $\mathrm{PbCl}_{2}$

## Answer: B

## - Watch Video Solution

166. The incorrect order of solubility in water is:
A. $\mathrm{Ca}(\mathrm{OH})_{2}<\mathrm{Sr}(\mathrm{OH})_{2}<\mathrm{Ba}(\mathrm{OH})_{2}$
B. $\mathrm{Li}_{2} \mathrm{CO}_{3}<\mathrm{Na}_{2} \mathrm{CO}_{3}<\mathrm{K}_{2} \mathrm{CO}_{3}$
C. $\mathrm{CsNO}_{3}<\mathrm{RbNO}_{3}<\mathrm{KNO}_{3}$
D. $\mathrm{BeS}_{2} \mathrm{O}_{3}<\mathrm{MgS}_{2} \mathrm{O}_{3}<\mathrm{CaS}_{2} \mathrm{O}_{3}$

## Answer: D

## - Watch Video Solution

167. The correct order of increasing solubility in water is:
A. $K F<N a F<L i F$
B. $\mathrm{NaHCO}_{3}<\mathrm{KHCO}_{3}<\mathrm{RbHCO}_{3}$
C. $\mathrm{K}_{2} \mathrm{CO}_{3}<\mathrm{Na}_{2} \mathrm{CO}_{3}<\mathrm{Li}_{2} \mathrm{CO}_{3}$
D. $\mathrm{LiNO}_{3}<\mathrm{NaNO}_{3}<\mathrm{KNO}_{3}$

## Answer: B

## - Watch Video Solution

168. Bromine is commercially prepared from sea water by displacement reaction

$$
\mathrm{Cl}_{2}+2 \mathrm{Br}^{-}(\text {aq. }) \rightarrow 2 \mathrm{Cl}^{-}(\text {aq. })+\mathrm{Br}_{2}
$$

$\mathrm{Br}_{2}$ gas thus formed is dissolved into solution of $\mathrm{Na}_{2} \mathrm{CO}_{3}$ and then pure $\mathrm{Br}_{2}$ iis obtained by treatment of the solution with :
A. $\mathrm{Ca}(\mathrm{OH})_{2}$
B. NaOH
C. $\mathrm{H}_{2} \mathrm{SO}_{4}$
D. HI

## Answer: C

## - Watch Video Solution

169. Which of the following metal on burning in moist air does not give smell of ammonia?
A. Mg
B. Ca
C. K
D. Li

## Answer: C

## - Watch Video Solution

170. Gas that can not be collected over water is:
A. $N_{2}$
B. $\mathrm{O}_{2}$
C. $\mathrm{SO}_{2}$
D. $\mathrm{PH}_{3}$

## Answer: C

## - Watch Video Solution

171. Compound having lowest thermal stability is:
A. $\mathrm{NaHCO}_{3}$
B. $\mathrm{KHCO}_{3}$
C. $\mathrm{RbHCO}_{3}$
D. $\mathrm{CsHCO}_{3}$

## Answer: A

## - Watch Video Solution

172. Which of the following statement is incorrect regarding $\mathrm{Fe}^{2+}$ and $\mathrm{Fe}^{3+}$ cations?
A. $\mathrm{Fe}^{3+}$ gives brown colour solution with potassium ferricyanide
B. $\mathrm{Fe}^{2+}$ gives blue precipitate with potassium ferricyanide
C. $\mathrm{Fe}^{3+}$ gives red colour solution with potassium thiocyanate
D. $\mathrm{Fe}^{2+}$ gives brown colour with ammonium thiocyanate
173. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$ on heating liberates a gas. The same gas will be obtained by
A. Heating $\mathrm{NH}_{4} \mathrm{NO}_{2}$
B. Heating $\mathrm{NH}_{4} \mathrm{NO}_{3}$
C. Heating $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{SO}_{4}$
D. Treatment $\mathrm{Mg}_{3} \mathrm{~N}_{2}$ with $\mathrm{H}_{2} \mathrm{O}$

## Answer: A

## - Watch Video Solution

174. Which of the following compound liberates acidic gas during its hydrolysis?
A. $C a_{3} P_{2}$
B. AIN
C. $A l_{2} S_{3}$
D. $\mathrm{CaH}_{2}$

## Answer: C

## - Watch Video Solution

175. Which of the following combination does not evolve $\mathrm{Cl}_{2}$ gas?
A. $\mathrm{HCl}(\mathrm{aq})+.\mathrm{KMnO}_{4}$
B. $\mathrm{HCl}+\mathrm{MnO}_{2}$
C. $\mathrm{HCl}+\mathrm{Br}_{2}$
D. $\mathrm{HCl}+\mathrm{F}_{2}$

## Answer: C

176. $\mathrm{NH}_{3}$ gas does not liberate by which of the following combination?
A. Heating of $\mathrm{NH}_{4} \mathrm{ClO}_{4}$
B. Heating of $\mathrm{NH}_{4} \mathrm{Cl}$
C. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{CO}_{3}+\mathrm{NaOH}$
D. $\mathrm{Li}_{3} \mathrm{~N}+\mathrm{H}_{2} \mathrm{O}$

## Answer: A

## - Watch Video Solution

177. If salt Q undergoes redox reaction with $\mathrm{H}_{2} \mathrm{~S}$ in acidic medium then which of the following species can not be possible product?
A. $\mathrm{MnO}_{4}^{2-}$ (aq.)
B. $S$
C. $\mathrm{MnO}_{2}$
D. both (a) and (c)

## Answer: D

## - Watch Video Solution

Heat
$\mathrm{Cr}_{2} \mathrm{O}_{7}^{2-} / \mathrm{H}^{+}$
178. Metal sulphate $(A) \rightarrow$ oxide $(B)+\operatorname{gas}(C)+\operatorname{gas}(D) \rightarrow \quad$ Green $\mathrm{Na}_{2} \mathrm{O}_{2}$
solution $\rightarrow$ ExcessEyellow solution

Compound A, B, C, D are E are respectively:
A. $\mathrm{FeSO}_{4}, \mathrm{Fe}_{2} \mathrm{O}_{3}, \mathrm{SO}_{3}, \mathrm{SO}_{2}, \mathrm{Na}_{2} \mathrm{CrO}_{4}$
B. $\mathrm{Al}_{2}\left(\mathrm{So}_{4}\right)_{3}, \mathrm{Al}_{2} \mathrm{O}_{3}, \mathrm{SO}_{3}, \mathrm{SO}_{2}, \mathrm{Na}_{2} \mathrm{CrO}_{4}$
C. $\mathrm{CuSO}_{4}, \mathrm{CuO}, \mathrm{SO}_{3}, \mathrm{SO}_{2}, \mathrm{NaCrO}_{4}$
D. $\mathrm{ZnSO}_{4}, \mathrm{ZnO}_{2}, \mathrm{SO}_{3}, \mathrm{SO}_{2}, \mathrm{Na}_{2} \mathrm{CrO}_{4}$

## Answer: A

179. Which of the following radical does not liberate gas with (Zn+dil. HCl ) on warming?
A. $S^{2-}$
B. $\mathrm{SO}_{3}^{2-}$
C. $\mathrm{NO}_{3}^{2-}$
D. $\mathrm{CH}_{3} \mathrm{COO}^{-}$

## Answer: C

## - Watch Video Solution

180. Which of the following cation does not give precipitate with $\mathrm{H}_{2} \mathrm{~S}$ in neutral medium?
A. $F e^{3+}$
B. $\mathrm{Cu}^{2+}$
C. $B i^{3+}$
D. $\mathrm{Ag}^{+}$

## Answer: A

## - Watch Video Solution

## warm

181. $\mathrm{NaCl}($ solid $)+\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$ (solid) + conc. $\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow$ Reddish brown fumes of 'X'.

The oxidation state of central atom in compound ' $X$ ' is:
A. +6
B. +3
C. +2
D. zero

## Answer: A

182. Diamagnetic gas neutral towards water is:
A. $\mathrm{N}_{2} \mathrm{O}$
B. $\mathrm{NO}_{2}$
C. NO
D. $\mathrm{N}_{2} \mathrm{O}_{3}$

## Answer: A

## - Watch Video Solution

183. Which of the following reagent can be used to separate AgCl and Agl?
A. dil. $\mathrm{HNO}_{3}$
B. $\mathrm{NH}_{4} \mathrm{OH}$ solution
C. KCN solution
D. $\mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}$ solution

## - Watch Video Solution

184. When $\mathrm{PbO}_{2}$ reacts with conc. $\mathrm{HNO}_{3}$ then evolved gas is:
A. $\mathrm{NO}_{2}$
B. $\mathrm{O}_{2}$
C. $N_{2}$
D. $\mathrm{N}_{2} \mathrm{O}$

## Answer: B

## - Watch Video Solution

185. In a closed container there is a mixture of $\mathrm{SO}_{2}, \mathrm{CO}_{2}$ and $\mathrm{O}_{2}$ gas, which sequence of reagent can be helpful to separate them?
(I) Limewater
(II) Acidified potassium dichromate
(III) Alkaline pyragallol.
A. (I),(II) and (III)
B. (II), (I), (III)
C. (III),(II), (I)
D. (III), (I), (II)

## Answer: B

## - Watch Video Solution

186. Which salt is colourless?
A. $\mathrm{KMnO}_{4}$
B. $\mathrm{BaSO}_{4}$
C. $\mathrm{NaCrO}_{4}$
D. $\mathrm{CoCl}_{2}$

## D Watch Video Solution

187. Which of the following Xenon compound does not produce explosive $\mathrm{XeO}_{3}$ on its complete hydrolysis?
A. $\mathrm{XeO}_{2} \mathrm{~F}_{2}$
B. $X e F_{2}$
C. $\mathrm{XeF}_{4}$
D. $\mathrm{XeF}_{6}$

## Answer: B

## - Watch Video Solution

188. $\mathrm{FeSO}_{4} \cdot 7 \mathrm{H}_{2} \mathrm{O}$ (Green vitriol) salt on thermal decomposition does not produce:
A. $\mathrm{SO}_{2}$
B. $\mathrm{O}_{2}$
C. $\mathrm{SO}_{3}$
D. $\mathrm{H}_{2} \mathrm{O}$ vapour

## Answer: B

## - Watch Video Solution

$\mathrm{BaCl}_{2}$
189. $X(a q)+\mathrm{Na}_{2} \mathrm{O}_{2} \rightarrow Y(a q.) \rightarrow Z \downarrow$ Insoluble in dil. HCl
$X$ and $Y$ are different sodium salts, then anion present in the salt $(X)$ is:
A. $\mathrm{Cr}_{2} \mathrm{O}_{7}^{2-}$
B. $\mathrm{C}_{2} \mathrm{O}_{4}^{2-}$
C. $\mathrm{SO}_{3}^{2-}$
D. $\mathrm{SO}_{4}^{2-}$

## Answer: C

190. Which of the following chloride does not react with $\mathrm{PCl}_{5}$ on heating?
A. $\mathrm{Hg}_{2} \mathrm{Cl}_{2}$
B. $\mathrm{FeCl}_{2}$
C. $\mathrm{S}_{2} \mathrm{Cl}_{2}$
D. $\mathrm{BCl}_{3}$

## Answer: D

## - Watch Video Solution

## 191.

$\stackrel{\text { Air }}{\text { P(soln.)(Coloured) } \xrightarrow{\text { KOH }} \mathrm{Q} \text { (soln.)(Coloured) } \xrightarrow{\rightarrow} \mathrm{R} \downarrow \text { (ppt.) (Insoluble in both excess NaOH a }}$
then P contains:
A. $\mathrm{Cu}^{2+}$ (aq.)
B. $F e^{2+}(a q$.
C. $\mathrm{Cu}^{2+}$ (aq.)
D. $\mathrm{Ni}^{2+}$ (aq.)

## Answer: B

## - Watch Video Solution

192. $X_{2} S_{n}+$ water $\rightarrow X(\mathrm{OH})_{n} \downarrow+Y \uparrow$ (Gas) $\underset{\rightarrow}{\mathrm{Pb}\left(\mathrm{CH}_{3} \mathrm{COO}\right)_{2}} \mathrm{Z} \downarrow$ (Black ppt.)

Then $(X)$ cation can not be:
A. $F e^{3+}$ gives brown colour solution with potassium ferricyanide
B. $A l^{3+}$
C. $\mathrm{Cr}^{3+}$
D. $M g^{2+}$

## Answer: A

193. $\mathrm{X}($ satl $)+\mathrm{AgNO}_{3}$ (aq.) $\rightarrow Y \downarrow$ (yellow ppt.) (soluble in excess of $\mathrm{NH}_{3}$ solution)

Salt X, does not contain:
A. $\mathrm{PO}_{4}^{3-}$
B. $\mathrm{Br}^{-}$
C. $I^{-}$
D. $\mathrm{AsO}_{3}^{3-}$

## Answer: C

## Watch Video Solution

## Excess

194. $M^{n+}($ aq. $)+K I \rightarrow X \downarrow p p t . \rightarrow K I$ ppt. remains insoluble in excess KI solution. Then cation $M^{n+}$ (aq. ) can be:
A. $P b^{2+}$ (aq.)
B. $\mathrm{Cu}^{2+}($ aq. $)$
C. $\mathrm{Bi}^{3+}$ (aq.)
D. $\mathrm{Hg}^{2+}$ (aq.)

## Answer: B

## - Watch Video Solution

195. Aqueous solution of which of the following cation gives precipitate with potash alum?
A. $C u^{2+}(a q$. $)$
B. $\mathrm{Zn}^{2+}($ aq. $)$
C. $B a^{2+}(a q$.
D. $\mathrm{Ni}^{2+}$ (aq.)

## Answer: C

196. Colour of acidified $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$ is not changed by:
A. $\mathrm{H}_{2} \mathrm{O}_{2}$
B. $\mathrm{Sn}^{2+}$ (aq.)
C. $H F$
D. HBr

## Answer: C

Watch Video Solution

Q. Species P and S are respectively:
A. $S O_{3}^{2-}($ aq. $), S$
B. $\mathrm{SO}_{3}^{2-}$ (aq. ), $\mathrm{S}_{2} \mathrm{O}_{3}^{2-}$ (aq.)
C. $\mathrm{S}_{2} \mathrm{O}_{3}^{2-}$ (aq. $), \mathrm{SO}_{3}^{2-}$ (aq.)
D. None of these

## Answer: B

## - View Text Solution


Q. 'T' cannot be identify by:
A. $\mathrm{NH}_{3}$ solution
B. $\mathrm{NH}_{4} \mathrm{SCN}$
C. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}$
D. Excess KCN

## Answer: B

## - View Text Solution

3. Consider three $P, Q, R$, salts among them $P$ and $Q$ salts have different cations annd also have different coloured polyatomic anion due to charge transfer phenomenon while $P$ and $R$ salts have same cation but have different anions. Salts R decomposes into an acidic gas an a basic
gas.
Q. Salt R can not be:
A. $\mathrm{NH}_{4} \mathrm{NO}_{3}$
B. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{CO}_{3}$
C. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}$
D. $\mathrm{NH}_{4} \mathrm{Cl}$

## Answer: A

## - Watch Video Solution

4. Consider three $P, Q, R$, salts among them $P$ and $Q$ salts have different cations annd also have different coloured polyatomic anion due to charge transfer phenomenon while $P$ and $R$ salts have same cation but have different anions. Salts R decomposes into an acidic gas an a basic gas.
Q. Salt P decomposes on heating into a coloured solid, neutral gas a
neutral vapour, then which of the following can not be the product of salt

## P after decomposition?

A. $N_{2}$
B. $\mathrm{Cr}_{2} \mathrm{O}_{3}$
C. $I_{2}$
D. $\mathrm{H}_{2} \mathrm{O}$

## Answer: C

## - Watch Video Solution

5. Consider three $P, Q, R$, salts among them $P$ and $Q$ salts have different cations annd also have different coloured polyatomic anion due to charge transfer phenomenon while $P$ and $R$ salts have same cation but have different anions. Salts $R$ decomposes into an acidic gas an a basic gas.
Q. If salt Q underrgoes redox reaction with $\mathrm{H}_{2} \mathrm{~S}$ in acidic medium then which of the following speies can not be possible product?
A. $\mathrm{MnO}_{4}^{2-}(a q$.
B. $S$
C. $\mathrm{MnO}_{2}$
D. Both (a) and (c)

## Answer: D

## - Watch Video Solution

6. Three compound $\mathrm{X}, \mathrm{Y}$ and Z were taken into three different laboratory vessels annd they are carried out by a chemist in his car. The car caught fire due to short circuit and the chemist came out of the car and noticed following observations:
Q. Compound X changes into white substnace along with liberation of neutral oxide and then white substnace decomposed into three products among which two are acidic oxides. among these oxides non-polar oxide can undergo polar cyclic polymer on cooling. the compound X will be:
A. $\mathrm{MgSO}_{4} \cdot 7 \mathrm{H}_{2} \mathrm{O}$
B. $\mathrm{ZnSO}_{4} \cdot 7 \mathrm{H}_{2} \mathrm{O}$
C. $\mathrm{CaSO}_{4} \cdot 2 \mathrm{H}_{2} \mathrm{O}$
D. $\mathrm{FeSO}_{4} \cdot 7 \mathrm{H}_{2} \mathrm{O}$

## Answer: D

## - Watch Video Solution

7. Three compound $\mathrm{X}, \mathrm{Y}$ and Z were taken into three different laboratory vessels annd they are carried out by a chemist in his car. The car caught fire due to short circuit and the chemist came out of the car and noticed following observations:
Q. Compound $Y$ produced two oxides, among these oe oxide turns anhydrous $\mathrm{CuSO}_{4}$ into blue and other gas slows down fire in the car, then $Y$ is
A. $\mathrm{NH}_{4} \mathrm{NO}_{2}$
B. $\mathrm{NaHCO}_{3}$
C. $\mathrm{MgC}_{2} \mathrm{O}_{4}$
D. $\mathrm{NH}_{4} \mathrm{NO}_{3}$

## Answer: B

## - Watch Video Solution

8. Three compound $\mathrm{X}, \mathrm{Y}$ and Z were taken into three different laboratory vessels annd they are carried out by a chemist in his car. The car caught fire due to short circuit and the chemist came out of the car and noticed following observations:
Q. Which of the following compound does not react with cold and dil.
$\mathrm{HNO}_{3}$ ?
A. PbO
B. $\mathrm{PbO}_{2}$
C. $\mathrm{FeSO}_{4}$
D. $\mathrm{PbCl}_{2}$

## Answer: B

## - Watch Video Solution

9. In salts of polyatomic anion, as polarising power of cation increases, thermal stability of the salt decreases, and decomposed species may further undergo redox reaction.
Q. Which of the following species undergoes non-redox thermal decomposition reaction on heating?
A. $\mathrm{FeSO}_{4}$
B. $\mathrm{SnSO}_{4}$
C. $\mathrm{H}_{2} \mathrm{C}_{2} \mathrm{O}_{4}$
D. $\mathrm{Na}_{2} \mathrm{HPO}_{4}$

## Answer: D

## - Watch Video Solution

10. In salts of polyatomic anion, as polarising power of cation increases, thermal stability of the salt decreases, and decomposed species may further undergo redox reaction.
Q. Water soluble salt ( $x$ ) was heated into three products $A, B$ and $C$ and $B$ and C are two different paramagnetiic gases. A is red in hot condition, then salt ( x ) is:
A. $\mathrm{Hg}\left(\mathrm{NO}_{3}\right)_{2}$
B. $\mathrm{FeC}_{2} \mathrm{O}_{4}$
C. $\mathrm{ZnSO}_{4}$
D. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}$

## Answer: D

## - Watch Video Solution

11. Dioxygen directly reacts with nearly all metals annd non-metals except some metals (e.g., $\mathrm{Au}, \mathrm{Pt}$ ) and some noble gases and form oxide(s). Oxides
can be simple (e.g., $\mathrm{MgO}, \mathrm{Al}_{2} \mathrm{O}_{3}$ ) or mixed $\left(\mathrm{Pb}_{3} \mathrm{O}_{4}, \mathrm{Fe}_{3} \mathrm{O}_{4}\right)$. Simple oxides can be classified on the basic of their acidic, basic or amphoteric character. an oxide that combines with water to give an acid is termed acidic oxide (i.e., $\mathrm{SO}_{2}, \mathrm{Cl}_{2} \mathrm{O}_{7}, \mathrm{CO}_{2}, \mathrm{~N}_{2} \mathrm{O}_{5}$ ). for example, $\mathrm{SO}_{2}$ combines with water to give $\mathrm{H}_{2} \mathrm{SO}_{3}$, an acid.



Then select correct statement with respect to gas ' $Q$ '?
A. Paramagnetic gas
B. Neutral oxide
C. Colourles gas
D. Diatomic gas

## Answer: A

## - View Text Solution

12. Dioxygen directly reacts with nearly all metals annd non-metals except some metals (e.g., Au, Pt) and some noble gases and form oxide(s). Oxides can be simple (e.g., $\mathrm{MgO}, \mathrm{Al}_{2} \mathrm{O}_{3}$ ) or mixed $\left(\mathrm{Pb}_{3} \mathrm{O}_{4}, \mathrm{Fe}_{3} \mathrm{O}_{4}\right)$. Simple oxides can be classified on the basic of their acidic, basic or amphoteric character. an oxide that combines with water to give an acid is termed acidic oxide (i.e., $\mathrm{SO}_{2}, \mathrm{Cl}_{2} \mathrm{O}_{7}, \mathrm{CO}_{2}, \mathrm{~N}_{2} \mathrm{O}_{5}$ ). for example, $\mathrm{SO}_{2}$ combines with water to give $\mathrm{H}_{2} \mathrm{SO}_{3}$, an acid.

Gaseous non-metal $(A) \xrightarrow[\text { approp }]{\mathrm{O}_{2}} P \uparrow \xrightarrow{\mathrm{O}_{2}} Q \uparrow \xrightarrow{\mathrm{HPD} P} R$ (oxy acid) $+P \uparrow$
Q. If,


Then select incorrect statement with respect to gas ' X '
A. burning sulphur smell
B. Reacts with $\mathrm{Cl}_{2}$
C. Residue of sulphur with $\mathrm{H}_{2} \mathrm{~S}$
D. Does not react with $\mathrm{Ca}(\mathrm{OCl}) \mathrm{Cl}$

## Answer: D

## - View Text Solution

13. Consider the following reactions and answer the following questions.

M(Double salt) $+\mathrm{NH}_{4} \mathrm{Cl}(\mathrm{s})+\mathrm{NH}_{4} \mathrm{OH} \rightarrow$ No ppt.
M(double salt) +NaOH solution $\rightarrow N \uparrow+P \downarrow$ (coloured ppt.)
Q. Which of the following pair of cations are present in salt M ?
A. $\mathrm{PH}_{4}^{+}, \mathrm{Mg}^{2+}$
B. $\mathrm{NH}_{4}^{+}, \mathrm{Fe}^{3+}$
C. $\mathrm{PH}_{4}^{+}, \mathrm{Zn}^{2+}$
D. $\mathrm{NH}_{4}^{+}, \mathrm{Fe}^{2+}$

## Answer: D

## - Watch Video Solution

14. Consider the following reactions and answer the following questions.

M (Double salt) $+\mathrm{NH}_{4} \mathrm{Cl}(\mathrm{s})+\mathrm{NH}_{4} \mathrm{OH} \rightarrow$ No ppt.
M(double salt) +NaOH solution $\rightarrow N \uparrow+P \downarrow$ (coloured ppt.)
$Q . P \downarrow+$ conc. $\mathrm{HCl} \rightarrow Q$ (coloured solution)
Incorrect statement about Q is:
A. It can exist in dimeric form
B. Its aqueous solution is acidic
C. It is used in methylene blue test for $\mathrm{H}_{2} \mathrm{~S}$
D. On passing $\mathrm{Cl}_{2}$ gas colour of aqueous solution of Q changes

## Answer: C

## - Watch Video Solution

15. Consider the following reactions and answer the following questions.

M(Double salt) $+\mathrm{NH}_{4} \mathrm{Cl}(\mathrm{s})+\mathrm{NH}_{4} \mathrm{OH} \rightarrow$ No ppt.
M(double salt) +NaOH solution $\rightarrow N \uparrow+P \downarrow$ (coloured ppt.)
Q. Reaction does not occur with salt M and gas N :
A. $\mathrm{NaNO}_{2}+$ dil. $\mathrm{H}_{2} \mathrm{SO}_{4}+\mathrm{M}$ (salt solution) $\rightarrow$
B. $\mathrm{HgI}_{2}+N \uparrow \rightarrow$
C. M(salt solution) $+\mathrm{H}_{2} \mathrm{~S} \rightarrow$
D. M (salt solution) $+B r_{2} \rightarrow$

## Answer: C

## - Watch Video Solution


16.
Q. Compound ' X ' is:
A. $\mathrm{NaNO}_{3}$
B. $\mathrm{Ag}_{2} \mathrm{C}_{2} \mathrm{O}_{4}$
C. $\mathrm{PbSO}_{4}$
D. $\mathrm{ZnCO}_{3}$

17.
Q. Incorrect statement ' $Y$ ' changes on heating:
A. Colour of ' $Y$ ' changes on heating
B. $\mathrm{Z}^{\prime}$ is anhydride of $\mathrm{H}_{2} \mathrm{CO}_{3}$
C. $\mathrm{Y}^{\prime}$ can react with NaOH
D. $Z^{\prime}$ does not act as Lewis acid

## Answer: D

## - View Text Solution

18. The unique behaviour of $C U$, having a positive $E^{\circ}$ (reduction potential) accounts for its inability to liberate $\mathrm{H}_{2}$ from acids. Only oxidising acids (nitric acid and hot concentrated sulphuric acid) react with Cu . The high energy of transform $\mathrm{Cu}(\mathrm{s})$ to $\mathrm{Cu}^{2+}(a q$.) is not balanced by its hydration enthalpy.

On the other hand, $\mathrm{All} \mathrm{Cu}(I I)$ halides are known except iodide. in this case, $\mathrm{Cu}^{2+}$ oxidises $\mathrm{I}^{-}$to $\mathrm{I}_{2}$ :
$2 \mathrm{Cu}^{2+}+4 \mathrm{I}^{-} \rightarrow 2 \mathrm{CuI}(\mathrm{s})+\mathrm{I}_{2}$
However, copper (I) compounds are unstable in aqueous solution annd undergo disproportionation.
$2 \mathrm{Cu}^{+}($aq. $) \rightarrow \mathrm{Cu}^{2+}$ (aq. $)+\mathrm{Cu}$
The stability of $\mathrm{Cu}^{2+}\left(a q\right.$.) rather than $\mathrm{Cu}^{+}(a q)$ is due to the much more negative $\Delta_{\mathrm{Hyd}}$ of $\mathrm{Cu}^{2+}$ (aq.) than $\mathrm{Cu}^{+}$(aq.)
Q. Consider the following transformation:
$\mathrm{CuSO}_{4}$ (aq.) +KI (excess) $\rightarrow$ product
Select the correct statement:
A. Product contains $\left[\mathrm{Cu}\left(\mathrm{H}_{2} \mathrm{O}_{4}\right)\right]^{2+}$ ion.
B. Presence of brown colouration in product is due to $I_{3}^{-}$ion
C. Oxidation state of sulphur in reactant and product is different
D. white ppt. of $\mathrm{CuI}_{2}$ is observed in product

## Answer: B

## D Watch Video Solution

19. The unique behaviour of CU , having a positive $E^{\circ}$ (reduction potential) accounts for its inability to liberate $\mathrm{H}_{2}$ from acids., Only oxidising acids (nitric acid and hot concentrated sulphuric acid) react with Cu . The high energy of transform $\mathrm{Cu}(\mathrm{s})$ to $\mathrm{Cu}^{2+}(a q$. ) is not balanced by its hydration enthalpy.

On the other hand, $\mathrm{All} \mathrm{Cu}(I I)$ halides are known except iodide. in this case,
$\mathrm{Cu}^{2+}$ oxidises $\mathrm{I}^{-}$to $\mathrm{I}_{2}$ :
$2 \mathrm{Cu}^{2+}+4 \mathrm{I}^{-} \rightarrow 2 \mathrm{CuI}(\mathrm{s})+I_{2}$
However, copper (I) compounds are unstable in aqueous solution annd undergo disproportionation.

$$
2 \mathrm{Cu}^{+}(\text {aq. }) \rightarrow \mathrm{Cu}^{2+}(\text { aq. })+\mathrm{Cu}
$$

The stability of $\mathrm{Cu}^{2+}(a q$.$) rather than \mathrm{Cu}^{+}(a q)$ is due to the much more
negative $\Delta_{H y d}$ of $\mathrm{Cu}^{2+}(a q$.$) than \mathrm{Cu}^{+}(a q$.
Q. Select the correct chemical change:
A. $\mathrm{Cu}+$ Dil. $\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow \mathrm{CuSO}_{4}+\mathrm{H}_{2}(\mathrm{~g})$
B. $\mathrm{Cu}+$ dil. $\mathrm{HNO}_{3} \rightarrow \mathrm{Cu}\left(\mathrm{NO}_{3}\right)_{2}+\mathrm{N}_{2} \mathrm{O}(\mathrm{g})$
C. $\mathrm{CuSO}_{4}($ aq. $)+\mathrm{KCN}($ excess $) \rightarrow \mathrm{K}_{2}\left[\mathrm{Cu}(\mathrm{CN})_{4}\right]$
D. $\mathrm{CuSO}_{4}($ aq. $)+\mathrm{NH}_{4} \mathrm{OH} \rightarrow \mathrm{Cu}(\mathrm{OH})_{2} \downarrow$

## Answer: D

## - Watch Video Solution

Aqueous solution of two water soluble salts

Q. When $\mathrm{H}_{2} \mathrm{~S}$ gas was passed into filtrate (P), a coloured precipitate was
obtained, then cation present in the filtrate is:
A. $\mathrm{Zn}^{2+}$ (aq.)
B. $\mathrm{Cr}^{3+}$ (aq.)
C. $\mathrm{Al}^{3+}$ (aq.)
D. $\mathrm{Pb}^{2+}$ (aq.)

## Answer: D

## - View Text Solution

## Aqueous solution of two water soluble salts


Q. Precipitate (Q) was treated withdil. HCl and coloured solution was obtained. On passing $\mathrm{H}_{2} \mathrm{~S}$ gas into this solution no precipitate was
obtained but colour of the solution changes, then cation present in the precipitate (Q) can be identified by:
A. $\mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}$ solution
B. KI + Starch
C. $K_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]$
D. All

## Answer: D

## - View Text Solution

22. 


Q. Species P and S are respectively:
A. $\mathrm{SO}_{3}^{2-}$ (aq.), S
B. $\mathrm{SO}_{3}^{2-}$ (aq. ), $\mathrm{S}_{2} \mathrm{O}_{3}^{2-}$ (aq.)
C. $\mathrm{S}_{2} \mathrm{O}_{3}^{2-}$ (aq. ), $\mathrm{SO}_{3}^{2-}$ (aq.)
D. None of these

## Answer: B

## - View Text Solution

23. 


Q. 'T' cannot be identify by:
A. $\mathrm{NH}_{3}$ solution
B. $\mathrm{NH}_{4} \mathrm{SCN}$
C. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}$
D. Excess KCN

## Answer: B

## D View Text Solution

24. Consider three $P, Q, R$, salts among them $P$ and $Q$ salts have different cations annd also have different coloured polyatomic anion due to charge transfer phenomenon while $P$ and $R$ salts have same cation but have different anions. Salts R decomposes into an acidic gas an a basic gas.
Q. Salt R can not be:
A. $\mathrm{NH}_{4} \mathrm{NO}_{3}$
B. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{CO}_{3}$
C. $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}$
D. $\mathrm{NH}_{4} \mathrm{Cl}$

## Answer: A

25. Consider three $P, Q, R$, salts among them $P$ and $Q$ salts have different cations annd also have different coloured polyatomic anion due to charge transfer phenomenon while $P$ and $R$ salts have same cation but have different anions. Salts R decomposes into an acidic gas an a basic gas.
Q. Salt P decomposes on heating into a coloured solid, neutral gas a neutral vapour, then which of the following can not be the product of salt Pafter decomposition?
A. $N_{2}$
B. $\mathrm{Cr}_{2} \mathrm{O}_{3}$
C. $I_{2}$
D. $\mathrm{H}_{2} \mathrm{O}$

## Answer: C

## - Watch Video Solution

26. Consider three $P, Q, R$, salts among them $P$ and $Q$ salts have different cations annd also have different coloured polyatomic anion due to charge transfer phenomenon while $P$ and $R$ salts have same cation but have different anions. Salts $R$ decomposes into an acidic gas an a basic gas.
Q. If salt Q underrgoes redox reaction with $\mathrm{H}_{2} \mathrm{~S}$ in acidic medium then which of the following speies can not be possible product?
A. $\mathrm{MnO}_{4}^{2-}$ (aq.)
B. $S$
C. $\mathrm{MnO}_{2}$
D. Both (a) and (c)

## Answer: D

## - Watch Video Solution

27. Three compound $\mathrm{X}, \mathrm{Y}$ and Z were taken into three different laboratory vessels annd they are carried out by a chemist in his car. The car caught
fire due to short circuit and the chemist came out of the car and noticed following observations:
Q. Compound X changes into white substnace along with liberation of neutral oxide and then white substnace decomposed into three products among which two are acidic oxides. among these oxides non-polar oxide can undergo polar cyclic polymer on cooling. the compound X will be:
A. $\mathrm{MgSO}_{4} \cdot 7 \mathrm{H}_{2} \mathrm{O}$
B. $\mathrm{ZnSO}_{4} \cdot 7 \mathrm{H}_{2} \mathrm{O}$
C. $\mathrm{CaSO}_{4} \cdot 2 \mathrm{H}_{2} \mathrm{O}$
D. $\mathrm{FeSO}_{4} \cdot 7 \mathrm{H}_{2} \mathrm{O}$

## Answer: D

## - Watch Video Solution

28. Three compound $\mathrm{X}, \mathrm{Y}$ and Z were taken into three different laboratory vessels annd they are carried out by a chemist in his car. The car caught fire due to short circuit and the chemist came out of the car and noticed
following observations:
Q. Compound $Y$ produced two oxides, among these oe oxide turns anhydrous $\mathrm{CuSO}_{4}$ into blue and other gas slows down fire in the car, then $Y$ is
A. $\mathrm{NH}_{4} \mathrm{NO}_{2}$
B. $\mathrm{NaHCO}_{3}$
C. $\mathrm{MgC}_{2} \mathrm{O}_{4}$
D. $\mathrm{NH}_{4} \mathrm{NO}_{3}$

## Answer: B

## - Watch Video Solution

29. Three compound $\mathrm{X}, \mathrm{Y}$ and Z were taken into three different laboratory vessels annd they are carried out by a chemist in his car. The car caught fire due to short circuit and the chemist came out of the car and noticed following observations:
Q. Which of the following compound does not react with cold and dil. $\mathrm{HNO}_{3}$ ?
A. PbO
B. $\mathrm{PbO}_{2}$
C. $\mathrm{FeSO}_{4}$
D. $\mathrm{PbCl}_{2}$

## Answer: B

## - Watch Video Solution

30. In salts of polyatomic anion, as polarising power of cation increases, thermal stability of the salt decreases, and decomposed species may further undergo redox reaction.
Q. Which of the following species undergoes non-redox thermal decomposition reaction on heating?
A. $\mathrm{FeSO}_{4}$
B. $\mathrm{SnSO}_{4}$
C. $\mathrm{H}_{2} \mathrm{C}_{2} \mathrm{O}_{4}$
D. $\mathrm{Na}_{2} \mathrm{HPO}_{4}$

## Answer: D

## D Watch Video Solution

31. In salts of polyatomic anion, as polarising power of cation increases, thermal stability of the salt decreases, and decomposed species may further undergo redox reaction.
Q. Water soluble salt ( $x$ ) was heated into three products $A, B$ and $C$ and $B$ and $C$ are two different paramagnetiic gases. $A$ is red in hot condition, then salt ( $x$ ) is:
A. $\mathrm{Hg}\left(\mathrm{NO}_{3}\right)_{2}$
B. $\mathrm{FeC}_{2} \mathrm{O}_{4}$
C. $\mathrm{ZnSO}_{4}$
D. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}$

## Answer: D

## - Watch Video Solution

32. Dioxygen directly reacts with nearly all metals annd non-metals except some metals (e.g., $\mathrm{Au}, \mathrm{Pt}$ ) and some noble gases and form oxide(s). Oxides can be simple (e.g., $\mathrm{MgO}, \mathrm{Al}_{2} \mathrm{O}_{3}$ ) or mixed $\left(\mathrm{Pb}_{3} \mathrm{O}_{4}, \mathrm{Fe}_{3} \mathrm{O}_{4}\right)$. Simple oxides can be classified on the basic of their acidic, basic or amphoteric character. an oxide that combines with water to give an acid is termed acidic oxide (i.e., $\mathrm{SO}_{2}, \mathrm{Cl}_{2} \mathrm{O}_{7}, \mathrm{CO}_{2}, \mathrm{~N}_{2} \mathrm{O}_{5}$ ). for example, $\mathrm{SO}_{2}$ combines with water to give $\mathrm{H}_{2} \mathrm{SO}_{3}$, an acid.

$$
\text { Gaseous non-metal }(A) \xrightarrow[\text { approp temp }]{\mathrm{O}_{2}} P \uparrow \xrightarrow{\mathrm{O}_{2}} Q \uparrow \xrightarrow{\mathrm{HPO} \rho} R \text { (oxy acid) }+P \uparrow
$$

Q. If,



Then select correct statement with respect to gas ' $Q$ '?
A. Paramagnetic gas
B. Neutral oxide
C. Colourles gas
D. Diatomic gas

## Answer: A

## D View Text Solution

33. Dioxygen directly reacts with nearly all metals annd non-metals except some metals (e.g., Au, Pt) and some noble gases and form oxide(s). Oxides can be simple (e.g., $\mathrm{MgO}, \mathrm{Al}_{2} \mathrm{O}_{3}$ ) or mixed $\left(\mathrm{Pb}_{3} \mathrm{O}_{4}, \mathrm{Fe}_{3} \mathrm{O}_{4}\right)$. Simple oxides can be classified on the basic of their acidic, basic or amphoteric character. an oxide that combines with water to give an acid is termed acidic oxide (i.e., $\mathrm{SO}_{2}, \mathrm{Cl}_{2} \mathrm{O}_{7}, \mathrm{CO}_{2}, \mathrm{~N}_{2} \mathrm{O}_{5}$ ). for example, $\mathrm{SO}_{2}$ combines with water to give $\mathrm{H}_{2} \mathrm{SO}_{3}$, an acid.

Gaseous non-metal $(A) \xrightarrow[\text { appop }]{\mathrm{O}_{2}} P \uparrow \xrightarrow{\mathrm{O}_{2}} Q \uparrow \xrightarrow{\mathrm{HPD} \rho} R$ (oxy acid) $+P \uparrow$
Q. If



Then ' X ' is
A. NO
B. $\mathrm{CO}_{2}$
C. $\mathrm{SO}_{2}$
D. $\mathrm{SO}_{3}$

## Answer: C

## - View Text Solution

34. Dioxygen directly reacts with nearly all metals annd non-metals except some metals (e.g., Au, Pt) and some noble gases and form oxide(s). Oxides can be simple (e.g., $\mathrm{MgO}, \mathrm{Al}_{2} \mathrm{O}_{3}$ ) or mixed $\left(\mathrm{Pb}_{3} \mathrm{O}_{4}, \mathrm{Fe}_{3} \mathrm{O}_{4}\right)$. Simple oxides can be classified on the basic of their acidic, basic or amphoteric character. an oxide that combines with water to give an acid is termed acidic oxide (i.e., $\mathrm{SO}_{2}, \mathrm{Cl}_{2} \mathrm{O}_{7}, \mathrm{CO}_{2}, \mathrm{~N}_{2} \mathrm{O}_{5}$ ). for example, $\mathrm{SO}_{2}$ combines with
water to give $\mathrm{H}_{2} \mathrm{SO}_{3}$, an acid.
Gaseous non-metal (A) $\xrightarrow{\mathrm{O}_{2}} P \uparrow \xrightarrow{\mathrm{O}_{2}} Q \uparrow \xrightarrow{H 0 p} R$ (oxy acid) $+P \uparrow$
Q. If,

Solid non-metal $(B) \xrightarrow{O_{2}} X \uparrow \xrightarrow{O_{2}} Y \uparrow \xrightarrow{\mathrm{O}_{\rho}} Z$ (oxy acid) + Heat

1. If, $Z$ (dil.) $\xrightarrow{\xrightarrow[\mathrm{Cu}]{\mathrm{Cu}} \mathrm{H}_{2} \uparrow}$ No reaction


Then select incorrect statement with respect to gas ' X '
A. burning sulphur smell
B. Reacts with $\mathrm{Cl}_{2}$
C. Residue of sulphur with $\mathrm{H}_{2} \mathrm{~S}$
D. Does not react with $\mathrm{Ca}(\mathrm{OCl}) \mathrm{Cl}$

## Answer: D

## D View Text Solution

35. Consider the following reactions and answer the following questions.
$\mathrm{M}($ Double salt $)+\mathrm{NH}_{4} \mathrm{Cl}(\mathrm{s})+\mathrm{NH}_{4} \mathrm{OH} \rightarrow$ No ppt.

M (double salt) +NaOH solution $\rightarrow N \uparrow+P \downarrow$ (coloured ppt.)
Q. Which of the following pair of cations are present in salt $M$ ?
A. $\mathrm{PH}_{4}^{+}, \mathrm{Mg}^{2+}$
B. $\mathrm{NH}_{4}^{+}, \mathrm{Fe}^{3+}$
C. $\mathrm{PH}_{4}^{+}, \mathrm{Zn}^{2+}$
D. $\mathrm{NH}_{4}^{+}, \mathrm{Fe}^{2+}$

## Answer: D

## - Watch Video Solution

36. Consider the following reactions and answer the following questions.

M (Double salt) $+\mathrm{NH}_{4} \mathrm{Cl}(\mathrm{s})+\mathrm{NH}_{4} \mathrm{OH} \rightarrow$ No ppt.
M (double salt) +NaOH solution $\rightarrow N \uparrow+P \downarrow$ (coloured ppt.)
Q. $P \downarrow+$ conc. $\mathrm{HCl} \rightarrow Q$ (coloured solution)

Incorrect statement about Q is:
A. It can exist in dimeric form
B. Its aqueous solution is acidic
C. It is used in methylene blue test for $\mathrm{H}_{2} \mathrm{~S}$
D. On passing $\mathrm{Cl}_{2}$ gas colour of aqueous solution of Q changes

## Answer: C

## - Watch Video Solution

37. Consider the following reactions and answer the following questions.

M (Double salt) $+\mathrm{NH}_{4} \mathrm{Cl}(\mathrm{s})+\mathrm{NH}_{4} \mathrm{OH} \rightarrow$ No ppt.
M(double salt) +NaOH solution $\rightarrow N \uparrow+P \downarrow$ (coloured ppt.)
Q. Reaction does not occur with salt M and gas N :
A. $\mathrm{NaNO}_{2}+$ dil. $\mathrm{H}_{2} \mathrm{SO}_{4}+\mathrm{M}$ (salt solution) $\rightarrow$
B. $\mathrm{HgI}_{2}+N \uparrow \rightarrow$
C. M(salt solution) $+\mathrm{H}_{2} \mathrm{~S} \rightarrow$
D. $M$ (salt solution) $+B r_{2} \rightarrow$

## Answer: C

## - Watch Video Solution


38.
Q. Compound ' X ' is:
A. $\mathrm{NaNO}_{3}$
B. $\mathrm{Ag}_{2} \mathrm{C}_{2} \mathrm{O}_{4}$
C. $\mathrm{PbSO}_{4}$
D. $\mathrm{ZnCO}_{3}$

## Answer: D


39.
Q. Incorrect statement ' $Y$ ' changes on heating:
A. Colour of ' $Y$ ' changes on heating
B. $\mathrm{Z}^{\prime}$ is anhydride of $\mathrm{H}_{2} \mathrm{CO}_{3}$
C. $\mathrm{Y}^{\prime}$ can react with NaOH
D. $Z^{\prime}$ does not act as Lewis acid

## Answer: D

## - View Text Solution

40. The unique behaviour of CU , having a positive $E^{\circ}$ (reduction potential) accounts for its inability to liberate $\mathrm{H}_{2}$ from acids. Only oxidising acids (nitric acid and hot concentrated sulphuric acid) react with Cu . The high energy of transform $\mathrm{Cu}(\mathrm{s})$ to $\mathrm{Cu}^{2+}$ (aq. ) is not balanced
by its hydration enthalpy.
On the other hand, $\mathrm{All} \mathrm{Cu}(I I)$ halides are known except iodide. in this case, $\mathrm{Cu}^{2+}$ oxidises $\mathrm{I}^{-}$to $\mathrm{I}_{2}$ :
$2 \mathrm{Cu}^{2+}+4 \mathrm{I}^{-} \rightarrow 2 \mathrm{CuI}(\mathrm{s})+\mathrm{I}_{2}$
However, copper (I) compounds are unstable in aqueous solution annd undergo disproportionation.
$2 \mathrm{Cu}^{+}$(aq.) $\rightarrow \mathrm{Cu}^{2+}$ (aq.) +Cu
The stability of $\mathrm{Cu}^{2+}(a q$.$) rather than \mathrm{Cu}^{+}(a q)$ is due to the much more negative $\Delta_{\mathrm{Hyd}}$ of $\mathrm{Cu}^{2+}$ (aq. ) than $\mathrm{Cu}^{+}$(aq.)
Q. Consider the following transformation:
$\mathrm{CuSO}_{4}($ aq. $)+\mathrm{KI}$ (excess) $\rightarrow$ product
Select the correct statement:
A. Product contains $\left[\mathrm{Cu}\left(\mathrm{H}_{2} \mathrm{O}_{4}\right)\right]^{2+}$ ion.
B. Presence of brown colouration in product is due to $I_{3}^{-}$ion
C. Oxidation state of sulphur in reactant and product is different
D. white ppt. of $\mathrm{CuI}_{2}$ is observed in product

## Answer: B

41. The unique behaviour of $C U$, having a positive $E^{\circ}$ (reduction potential) accounts for its inability to liberate $\mathrm{H}_{2}$ from acids. Only oxidising acids (nitric acid and hot concentrated sulphuric acid) react with Cu . The high energy of transform $\mathrm{Cu}(\mathrm{s})$ to $\mathrm{Cu}^{2+}(a q$. ) is not balanced by its hydration enthalpy.

On the other hand, All $\mathrm{Cu}(I I)$ halides are known except iodide. in this case, $\mathrm{Cu}^{2+}$ oxidises $I^{-}$to $I_{2}$ :
$2 \mathrm{Cu}^{2+}+4 \mathrm{I}^{-} \rightarrow 2 \mathrm{CuI}(\mathrm{s})+\mathrm{I}_{2}$
However, copper (I) compounds are unstable in aqueous solution annd undergo disproportionation.

$$
\left.2 \mathrm{Cu}^{+}(\text {aq. }) \rightarrow \mathrm{Cu}^{2+} \text { (aq. }\right)+\mathrm{Cu}
$$

The stability of $\mathrm{Cu}^{2+}(a q$.$) rather than \mathrm{Cu}^{+}(a q)$ is due to the much more negative $\Delta_{\mathrm{Hyd}}$ of $\mathrm{Cu}^{2+}$ (aq.) than $\mathrm{Cu}^{+}$(aq.)
Q. Select the correct chemical change:
A. $\mathrm{Cu}+$ Dil. $\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow \mathrm{CuSO}_{4}+\mathrm{H}_{2}(\mathrm{~g})$
B. $\mathrm{Cu}+$ dil. $\mathrm{HNO}_{3} \rightarrow \mathrm{Cu}\left(\mathrm{NO}_{3}\right)_{2}+\mathrm{N}_{2} \mathrm{O}(\mathrm{g})$
C. $\mathrm{CuSO}_{4}($ aq. $)+\mathrm{KCN}($ excess $) \rightarrow K_{2}\left[\mathrm{Cu}(C N)_{4}\right]$
D. $\mathrm{CuSO}_{4}($ aq. $)+\mathrm{NH}_{4} \mathrm{OH} \rightarrow \mathrm{Cu}(\mathrm{OH})_{2} \downarrow$

## Answer: D

## - View Text Solution

## Aqueous solution of two water soluble salts


Q. When $\mathrm{H}_{2} \mathrm{~S}$ gas was passed into filtrate (P), a coloured precipitate was obtained, then cation present in the filtrate is:
A. $\mathrm{Zn}^{2+}(a q$.
B. $\mathrm{Cr}^{3+}(\mathrm{aq}$.
C. $A l^{3+}$ (aq.)
D. $\mathrm{Pb}^{2+}$ (aq.)

## Answer: D

## - View Text Solution

Aqueous solution of two water soluble salts

Q. Precipitate (Q) was treated withdil. HCl and coloured solution was obtained. On passing $\mathrm{H}_{2} \mathrm{~S}$ gas into this solution no precipitate was obtained but colour of the solution changes, then cation present in the precipitate ( Q ) can be identified by:
A. $\mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}$ solution
B. $K I+$ Starch
C. $K_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]$
D. All

## Answer: D

## - View Text Solution

## ONE OR MORE ANSWERS IS/ARE CORRECT

1. Which of the following combination of species can evolve $\mathrm{O}_{2}$ ?
A. $\mathrm{PbO}_{2}+$ warm conc. $\mathrm{H}_{2} \mathrm{SO}_{4}$
B. $\mathrm{NaOH}+\mathrm{F}_{2}$
C. $\mathrm{PbO}_{2}+$ conc. $\mathrm{HNO}_{3}$
D. $\mathrm{XeF}_{2}+\mathrm{H}_{2} \mathrm{O}$

## Answer: A::B::C::D

2. $\mathrm{SO}_{2}(\mathrm{~g})+\mathrm{Cl}_{2}(\mathrm{~g}) \rightarrow X \xrightarrow{\mathrm{P}_{4}} \mathrm{Y}+\mathrm{Z}$
then $\mathrm{X}, \mathrm{Y}$ and Z can be :
A. $\mathrm{SOCl}_{2}$
B. $\mathrm{SO}_{2} \mathrm{Cl}_{2}$
C. $\mathrm{SO}_{2}$
D. $\mathrm{PCl}_{5}$

## Answer: B::C::D

## - Watch Video Solution

3. Which of the following nitrate salt solution neither produce ppt. with excess NaOH nor with excess $\mathrm{NH}_{4} \mathrm{OH}$ solution?
A. $\mathrm{Al}\left(\mathrm{NO}_{3}\right)_{3}$
B. $\mathrm{Zn}\left(\mathrm{NO}_{3}\right)_{2}$
C. $\mathrm{Cr}\left(\mathrm{NO}_{3}\right)_{3}$
D. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}$

## Answer: B::C

## - Watch Video Solution

4. Which of the following compound(s) give two acids on dissolution in $\mathrm{H}_{2} \mathrm{O}$ ?
A. $\mathrm{P}_{4} \mathrm{O}_{8}$
B. $\mathrm{PCl}_{3}$
C. $\mathrm{NO}_{2}$
D. $\mathrm{C}_{3} \mathrm{O}_{2}$

## Answer: A::B::C

$$
1: 20 \quad \mathrm{H}_{2} \mathrm{O} \quad \mathrm{H}_{2} \mathrm{O} \quad \mathrm{H}_{2} \mathrm{O}
$$

5. $\mathrm{Xe}+\mathrm{F}_{2} \rightarrow X \rightarrow Y \rightarrow Z \rightarrow \mathrm{XeO}_{3}$

Select correct option(s) for $X, Y, Z$ and given chemical change:
A. $X, Y$ and $Z$ are in same oxidation state
B. All have equal number of lone pair on central atom
C. All are non-planar
D. All have equal number of covalent bonds

## Answer: A::B::C::D

## ( Watch Video Solution

6. Which of the following sulphide(s) does/do not liberate $\mathrm{H}_{2} \mathrm{~S}$ on warming with dil. HCl ?
A. HgS
B. ZnS
C. FeS

## D. CuS

Answer: A: D

## - Watch Video Solution

Hot
7. $\mathrm{I}_{2}+\mathrm{Na}_{2} \mathrm{CO}_{3}$ "soln." $\rightarrow X+Y$

If ' X ' gives coloured ppt. with $\mathrm{Pb}\left(\mathrm{CH}_{3} \mathrm{COO}\right)_{2}$ solution, then ' Y ' will respond to which of the following ?
A. $Y+H^{+}($aq. $)+H_{2} S$
B. $\mathrm{Y}+\mathrm{Cr}_{2} \mathrm{O}_{7}^{2-}$ (aq. $)+\mathrm{OH}^{-}($aq. $)$
C. $Y+H^{+}$(aq. $)+\mathrm{SO}_{2}$
D. $Y+H^{+}$(aq. $)+I^{-}(a q$.

## Answer: A::C::D

8. 



Incorrect statement about ' R ' is
A. Antichlor agent
B. Fixing agent in photography
C. Forms ppt. with $\mathrm{CaCl}_{2}$ solution
D. Reduces $\mathrm{Cu}^{2+}(a q)$ cation

## Answer: C

## D View Text Solution

9. $\mathrm{NO}_{2}$ gas evolves on thermal decomposition of which of the following compound(s)?
A. $\mathrm{Hg}\left(\mathrm{NO}_{3}\right)_{2}$
B. $\mathrm{KNO}_{3}$
C. $\mathrm{N}_{2} \mathrm{O}_{4}$
D. $\mathrm{N}_{2} \mathrm{O}_{3}$

## Answer: A::C::D

## - Watch Video Solution

10. Which of the following precipitate(s) is/are dissolved to colourless solution on adding sufficient amount of dilute HCl ?
A. $\mathrm{CaCO}_{3}$
B. $\mathrm{BaCrO}_{4}$
C. $\mathrm{MgC}_{2} \mathrm{O}_{4}$
D. $\mathrm{BaSO}_{4}$

## Answer: A:C

11. Which of the following combination of reagent(s) produce observable change in aqueous medium?
A. $\mathrm{Ba}(\mathrm{OH})_{2}$ solution $+\mathrm{SO}_{2}(\mathrm{~g})$
B. AgF solution $+\mathrm{NaNO}_{3}$ solution
C. $\mathrm{Pb}(\mathrm{OAc})_{2}$ soution $+\mathrm{Na}_{2} \mathrm{CO}_{3}$ solution
D. $\mathrm{CuCl}_{2}$ solution $+\mathrm{NH}_{3}$ (excess)

## Answer: A::C::D

## - Watch Video Solution

12. Which of the following species is/are not liberating oxygen gas on reaction with water at $25^{\circ} \mathrm{C}$ ?
A. $\mathrm{Na}_{2} \mathrm{O}_{2}$
B. $\mathrm{Cl}_{2}$
C. $P_{4}$
D. $\mathrm{KO}_{2}$

## Answer: B::C

## - Watch Video Solution

13. Hydrogen gas is not evolved by:
A. $\mathrm{Mg}+\mathrm{NH}_{3}$ (liq. )
B. $\mathrm{B}_{2} \mathrm{H}_{6}+\mathrm{H}_{2} \mathrm{O}$
C. $\mathrm{NaNH}_{2}+\mathrm{H}_{2} \mathrm{O}$
D. $\mathrm{Be}+\mathrm{H}_{2} \mathrm{O}$

## Answer: A::C::D

## - Watch Video Solution

14. Which of the following metal sulphide does not undergo hydrolysis?
A. $C r_{2} S_{3}$
B. $A l_{2} S_{3}$
C. $M g S$
D. FeS

## Answer: D

## - Watch Video Solution

15. Which of the following gas is not dried by conc. $\mathrm{H}_{2} \mathrm{SO}_{4}$ ?
A. HCl
B. HBr
C. $\mathrm{H}_{2} \mathrm{~S}$
D. $\mathrm{SO}_{2}$

Answer: B::C

(soluble in excess conc. $\mathrm{NH}_{3}$ solution)
16.

Which of the following anion cannot be in $X$ ?
A. $F^{-}$
B. $\mathrm{Cl}^{-}$
C. $\mathrm{Br}^{-}$
D. $I^{-}$

## Answer: A::D

## - View Text Solution

17. When ozone reacts with an excess of potassium iodide solution buffered with a borate buffer (pH 9.2) iodine is liberated which can be
titrated against a standard solution of sodium thiosulphate, this is a quantitative method for estimating $O_{3}$ gas. when liberated $I_{2}$ and sodium thiosulphate will react, then product is/are:
A. $\mathrm{S}_{4} \mathrm{O}_{6}^{2-}$
B. $\mathrm{SO}_{4}^{2-}$
C. $\mathrm{S}_{2} \mathrm{O}_{4}^{2-}$
D. $S^{0}$

## Answer: A

## - Watch Video Solution

18. In which of the following reactions $\mathrm{NH}_{3}$ gas evolution occurs?
warm
A. $\mathrm{NO}_{3}^{-}+\mathrm{Zn}+$ dil. $\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow$
B. $\mathrm{NH}_{4}^{+}$salt $+\mathrm{NaOH} \xrightarrow{\Delta}$
C. AlN + steam $\rightarrow$
D. $\mathrm{CH}_{3} \mathrm{COONH}_{3} \rightarrow$

## Answer: B::C::D

## D Watch Video Solution

19. Which of the following compound() during heating undergo redox decomposition reaction?
A. $\mathrm{HgCO}_{3}(\mathrm{~s})$
B. $\mathrm{Ag}_{2} \mathrm{C}_{2} \mathrm{O}_{4}(\mathrm{~s})$
C. $\mathrm{FeCl}_{3} \cdot 6 \mathrm{H}_{2} \mathrm{O}(\mathrm{s})$
D. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}(\mathrm{~s})$

## Answer: A::B::D

## - Watch Video Solution

20. Which of the following combination of species undergo(es) comproportionation?

$$
\mathrm{Zn} \frac{\varnothing}{\mathrm{Z}} \mathrm{nSO}_{4}
$$

A. $\mathrm{MnO}_{4}^{-}($aq. $)+\mathrm{Mn}^{2+}($ aq. $) \quad \rightarrow$ warm
B. $\mathrm{S}+$ conc. $\mathrm{H}_{2} \mathrm{SO}_{4}$ (excess) $\rightarrow$
C. $\mathrm{PH}_{3}+\mathrm{H}_{3} \mathrm{PO}_{4} \rightarrow$
cool
D. $\mathrm{NO}(\mathrm{g})+\mathrm{NO}_{2}(\mathrm{~g}) \rightarrow$

## Answer: A::D

## - Watch Video Solution

21. Which of the following combination of species can evolve $\mathrm{O}_{2}$ ?
A. $\mathrm{PbO}_{2}+$ warm conc. $\mathrm{H}_{2} \mathrm{SO}_{4}$
B. $\mathrm{NaOH}+\mathrm{F}_{2}$
C. $\mathrm{PbO}_{2}+$ conc. $\mathrm{HNO}_{3}$
D. $\mathrm{XeF}_{2}+\mathrm{H}_{2} \mathrm{O}$

## Answer: A::B::C::D

## - Watch Video Solution

22. $\mathrm{SO}_{2}(\mathrm{~g})+\mathrm{Cl}_{2}(\mathrm{~g}) \rightarrow \mathrm{X} \xrightarrow{\mathrm{P}_{4}} \mathrm{Y}+\mathrm{Z}$
then $\mathrm{X}, \mathrm{Y}$ and Z can be :
A. $\mathrm{SOCl}_{2}$
B. $\mathrm{SO}_{2} \mathrm{Cl}_{2}$
C. $\mathrm{SO}_{2}$
D. $\mathrm{PCl}_{5}$

## Answer: B::C::D

## - Watch Video Solution

23. Which of the following nitrate salt solution neither produce ppt. with excess NaOH nor with excess $\mathrm{NH}_{4} \mathrm{OH}$ solution?
A. $\mathrm{Al}\left(\mathrm{NO}_{3}\right)_{3}$
B. $\mathrm{Zn}\left(\mathrm{NO}_{3}\right)_{2}$
C. $\mathrm{Cr}\left(\mathrm{NO}_{3}\right)_{3}$
D. $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}$

## Answer: B::C

## - Watch Video Solution

24. Which of the following compound(s) give two acids on dissolution in $\mathrm{H}_{2} \mathrm{O}$ ?
A. $P_{4} O_{8}$
B. $\mathrm{PCl}_{3}$
C. $\mathrm{NO}_{2}$
D. $\mathrm{C}_{3} \mathrm{O}_{2}$

## Answer: A::B::C

## - Watch Video Solution

$$
1: 20 \quad \mathrm{H}_{2} \mathrm{O} \quad \mathrm{H}_{2} \mathrm{O} \quad \mathrm{H}_{2} \mathrm{O}
$$

25. $\mathrm{Xe}+\mathrm{F}_{2} \rightarrow X \rightarrow Y \rightarrow \mathrm{Z} \rightarrow \mathrm{XeO}_{3}$

Select correct option(s) for $\mathrm{X}, \mathrm{Y}, \mathrm{Z}$ and given chemical change:
A. $X, Y$ and $Z$ are in same oxidation state
B. All have equal number of lone pair on central atom
C. All are non-planar
D. All have equal number of covalent bonds

## Answer: A::B::C::D

## - Watch Video Solution

26. Which of the following sulphide(s) does/do not liberate $H_{2} \mathrm{~S}$ on warming with dil. HCl ?
A. HgS
B. ZnS
C. FeS
D. CuS

## Answer: A:D

## - Watch Video Solution

27. $\mathrm{I}_{2}+\mathrm{Na}_{2} \mathrm{CO}_{3}$ "soln." $\xrightarrow{\text { Hot }} \mathrm{X}+\mathrm{Y}$

If ' X ' gives coloured ppt. with $\mathrm{Pb}\left(\mathrm{CH}_{3} \mathrm{COO}\right)_{2}$ solution, then ' $Y$ ' will respond to which of the following ?
A. $Y+H^{+}($aq. $)+H_{2} S$
B. $\mathrm{Y}+\mathrm{Cr}_{2} \mathrm{O}_{7}^{2-}(\mathrm{aq})+.\mathrm{OH}^{-}($aq. $)$
C. $\mathrm{Y}+\mathrm{H}^{+}$(aq. $)+\mathrm{SO}_{2}$
D. $Y+H^{+}(a q)+.I^{-}(a q$.

Answer: A::B::D

## - Watch Video Solution



Incorrect statement about ' R ' is
A. Antichlor agent
B. Fixing agent in photography
C. Forms ppt. with $\mathrm{CaCl}_{2}$ solution
D. Reduces $\mathrm{Cu}^{2+}(a q)$ cation

## Answer: C

29. $\mathrm{NO}_{2}$ gas evolves on thermal decomposition of which of the following compound(s)?
A. $\mathrm{Hg}\left(\mathrm{NO}_{3}\right)_{2}$
B. $\mathrm{KNO}_{3}$
C. $\mathrm{N}_{2} \mathrm{O}_{4}$
D. $\mathrm{N}_{2} \mathrm{O}_{3}$

## Answer: A::C::D

## - Watch Video Solution

30. Which of the following precipitate(s) is/are dissolved to colourless solution on adding sufficient amount of dilute HCl ?
A. $\mathrm{CaCO}_{3}$
B. $\mathrm{BaCrO}_{4}$
C. $\mathrm{MgC}_{2} \mathrm{O}_{4}$
D. $\mathrm{BaSO}_{4}$

## Answer: A:C

## - Watch Video Solution

31. Which of the following combination of reagent(s) produce observable change in aqueous medium?
A. $\mathrm{Ba}(\mathrm{OH})_{2}$ solution $+\mathrm{SO}_{2}(\mathrm{~g})$
B. AgF solution $+\mathrm{NaNO}_{3}$ solution
C. $\mathrm{Pb}(\mathrm{OAc})_{2}$ soution $+\mathrm{Na}_{2} \mathrm{CO}_{3}$ solution
D. $\mathrm{CuCl}_{2}$ solution $+\mathrm{Na}_{3}$ (excess)

## Answer: A::C::D

32. Which of the following species is/are not liberating oxygen gas on reaction with water at $25^{\circ} \mathrm{C}$ ?
A. $\mathrm{Na}_{2} \mathrm{O}_{2}$
B. $\mathrm{Cl}_{2}$
C. $P_{4}$
D. $\mathrm{KO}_{2}$

## Answer: B::C

## - Watch Video Solution

33. Hydrogen gas is not evolved by:
A. $\mathrm{Mg}+\mathrm{NH}_{3}$ (liq. )
B. $\mathrm{B}_{2} \mathrm{H}_{6}+\mathrm{H}_{2} \mathrm{O}$
C. $\mathrm{NaNH}_{2}+\mathrm{H}_{2} \mathrm{O}$
D. $\mathrm{Be}+\mathrm{H}_{2} \mathrm{O}$

## - Watch Video Solution

34. Which of the following metal sulphide does not undergo hydrolysis?
A. $C r_{2} S_{3}$
B. $A l_{2} S_{3}$
C. $M g S$
D. FeS

## Answer: D

## Watch Video Solution

35. Which of the following gas is not dried by conc. $\mathrm{H}_{2} \mathrm{SO}_{4}$ ?
A. HCl
B. HBr
C. $\mathrm{H}_{2} \mathrm{~S}$
D. $\mathrm{SO}_{2}$

## Answer: B::C

## - Watch Video Solution


(soluble in excess
conc. $\mathrm{NH}_{3}$ solution)
36.

## D View Text Solution

37. When ozone reacts with an excess of potassium iodide solution buffered with a borate buffer ( pH 9.2 ) iodine is liberated which can be titrated against a standard solution of sodium thiosulphate, this is a quantitative method for estimating $O_{3}$ gas. when liberated $I_{2}$ and sodium thiosulphate will react, then product is/are:
A. $\mathrm{S}_{4} \mathrm{O}_{6}^{2-}$
B. $\mathrm{SO}_{4}^{2-}$
C. $\mathrm{S}_{2} \mathrm{O}_{4}^{2-}$
D. $S^{0}$

## Answer: A

## - Watch Video Solution

38. In which of the following reactions $\mathrm{NH}_{3}$ gas evolution occurs?
warm
A. $\mathrm{NO}_{3}^{-}+\mathrm{Zn}+$ dil. $\mathrm{H}_{2} \mathrm{SO}_{4} \rightarrow$
B. $\mathrm{NH}_{4}^{+}$salt $+\mathrm{NaOH} \xrightarrow{\Delta}$
C. AlN + steam $\rightarrow$
$\Delta$
D. $\mathrm{CH}_{3} \mathrm{COONH}_{3} \rightarrow$

## Answer: B::C::D

## - Watch Video Solution

39. Which of the following compound() during heating undergo redox decomposition reaction?
A. $\mathrm{HgCO}_{3}(\mathrm{~s})$
B. $\mathrm{Ag}_{2} \mathrm{C}_{2} \mathrm{O}_{4}(\mathrm{~s})$
C. $\mathrm{FeCl}_{3} \cdot 6 \mathrm{H}_{2} \mathrm{O}(\mathrm{s})$
D. $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}(\mathrm{~s})$

## D Watch Video Solution

40. Which of the following combination of species undergo(es) comproportionation?

$$
\mathrm{Zn} \frac{\varnothing}{\mathrm{Z}} \mathrm{nSO}_{4}
$$

A. $\mathrm{MnO}_{4}^{-}($aq. $)+\mathrm{Mn}^{2+}$ (aq.) $\rightarrow$
warm
B. $\mathrm{S}+$ conc. $\mathrm{H}_{2} \mathrm{SO}_{4}$ (excess) $\rightarrow$
C. $\mathrm{PH}_{3}+\mathrm{H}_{3} \mathrm{PO}_{4} \rightarrow$
cool
D. $\mathrm{NO}(\mathrm{g})+\mathrm{NO}_{2}(\mathrm{~g}) \rightarrow$

## Answer: A::D

## - View Text Solution

# Coltumn-I <br> (Ionic Compounds) 

## Colump - II

(Posslble observitions of thermal decomposition]
(A) $\mathrm{HgCO}_{3}$
(P) Acidic gas evolves
(B) $\mathrm{FeSO}_{4}$
(C) $\mathrm{BeC}, \mathrm{O}_{4}$
(D) AgNO ,
(Q) Metallic residue is obramed as final product
(R) Metal cation of salt undergoes redox reaction
(5) Metallic oxide can be obtanned
(T) Neutral gas is evolved

## View Text Solution

## the 1)Column-I" e- in tal

(A) $\mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}+$ dil. HCl
(B) $1 \mathrm{Cl}_{3}+\mathrm{H}_{2} \mathrm{O}$
(C) $\mathrm{FeCl}_{3}+\mathrm{H}_{2} \mathrm{~S} / \mathrm{H}^{+}$
(D) $\mathrm{H}_{2} \mathrm{SO}_{3} \xrightarrow{\Delta}$
2.

View Text Solution

## Column-I

(Flalide compound)
(A) $\mathrm{PCl}_{3}$
(B) $\mathrm{NF}_{3}$
(C) $\mathrm{SbCl}_{3}$
(D) $\mathrm{BF}_{3}$

## Column-II (Characteristies)

(P) Can act as $\pi$-acid ligand
(Q) Final hydrolysed product is a proton donor oxyacid
(R) Can act as classical/normal ligand
(S) Undergoes partial hydrolysis
(T) Final hydrolysed product has ( $\mathrm{pr} \cdot \mathrm{p} \mathrm{\pi}$ ) bond
3.

(A) $\mathrm{SO}_{3}^{2-}$
(B) $\mathrm{CO}_{3}^{2-}$
(C) $\mathrm{Cl}^{-}$
(D) $\mathrm{NO}_{2}^{-}$
4.
(P) Colourless volatile product is formed
(Q) Coloured volatile product is formed
(R) Volatile product forms precipitate with $\mathrm{Ba}(\mathrm{OH})_{2}$ solution
(s) Volatile product forms precipitate with $\mathrm{AgNO}_{3}$ solution
( T ) Formed volatile product decolourizes $\mathrm{MnO}_{4} / \mathrm{H}^{+}$solution

## View Text Solution

## Coblumn 1

(Reaction with Salt/Radheal)
(A) $\mathrm{Zn}+$ dill $\mathrm{H}_{2} \mathrm{SO}_{4}$
(B) dil. HCl
(C) NaOH (excess)
(D) KI
5.
Column-II
(Salt/Radical)
(P) $\mathrm{Pb}\left(\mathrm{NO}_{2}\right)_{2}$
(Q) $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}$
(R) $\mathrm{MnO}_{4}(a q$.)
(S) $\mathrm{Hg}_{2}^{\mathrm{H}}(\mathrm{aq}$ )
(T) $\mathrm{Bi}^{3+}(\mathrm{aq})$

## Column-I

## (Acidic Radicals)

(A) $\mathrm{S}^{2-}(a q$.)
(B) $\mathrm{SO}_{3}^{2}(a q$.)
(C) $\mathrm{NO}_{2}$ (aq.)
(D) $\mathrm{S}_{2} \mathrm{O}_{3}^{2-}(a q)$

## Column-II (Observations)

(P) Redox reaction with alkaline $\mathrm{Br}_{2}$
(Q) Evolution of diamagnetic gas with dil. HCl on warming
(R) White ppt. with $\mathrm{Pb}\left(\mathrm{CH}_{3} \mathrm{COO}\right)_{2}$ and ppt . remains white even after boiling
(S) Evolution of gas with ( $\mathrm{Al}+\mathrm{NaOH}$ solution).
(T) Evolution of same gas with dil. HCl as well as with conc. $\mathrm{H}_{2} \mathrm{SO}_{4}$ on warming
6.

7.

- View Text Solution


## Coltumn-1 (Ionic Compounds)

(A) $\mathrm{HeCO}{ }_{3}$
(B) FeSO ,
(C) $\mathrm{BeC}, \mathrm{O}_{4}$
(D) AgNO ,
8.

## - View Text Solution


(A) $\mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}+$ dil. HCl
(B) $\mathrm{ICl}_{3}+\mathrm{H}_{2} \mathrm{O}$
(P) Disproportionation reaction
(C) $\mathrm{FeCl}_{3}+\mathrm{H}_{2} \mathrm{~S} / \mathrm{H}^{-}$
(Q) Yellow ppt.
(D) $\mathrm{H}_{2} \mathrm{SO}_{3} \xrightarrow{\square}$
9.
(R) Redox reaction
(S) One of the product gives white fumes with $\mathrm{NH}_{3}$
(P) Acidic gas evolves
(Q) Metalluc residue is obtamed as final
(S) Metallic oxnde can be obtained
(T) Neutral gas is evolved
product
(R) Metal cation of salt undergoes redox reaction

## Colump - II

## (Possilble observertions of thermal

 (decomposition)
## View Text Solution


(A) $\mathrm{PCl}_{3}$
(B) $\mathrm{NF}_{3}$
(C) $\mathrm{SbCl}_{3}$
(D) $\mathrm{BF}_{3}$

(A) $\mathrm{SO}_{3}^{2-}$
(B) $\mathrm{CO}_{3}^{2-}$
(C) Cl
(D) $\mathrm{NO}_{2}^{-}$
11.

## Column-I <br> (Reactions)

(A) $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{Cr}_{2} \mathrm{O}_{7} \xrightarrow{\Delta}$
(B) $\mathrm{FeSO}_{4} \xrightarrow{\Delta}$
(C) $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2} \xrightarrow{\Delta}$
(D) $\mathrm{P}_{4} \xrightarrow[\Delta]{\mathrm{NaOH}}$
12.

## Column-II

[Reaction of anion(s) with dil. $\mathrm{HCl} /$ cone. $\mathrm{H}_{2} \mathrm{SO}_{4}$ ]
(P) Colourless volatile product is formed
(Q) Coloured volatile product is formed
(R) Volatile product forms precipitate with $\mathrm{Ba}(\mathrm{OH})_{2}$ solution
(S) Volatile product forms precipitate with $\mathrm{AgNO}_{3}$ solution
(T) Formed volatile product decolourizes $\mathrm{MnO}_{4} / \mathrm{H}^{+}$solution

## - View Text Solution

## 

## Column-II <br> (Characteristics of any one product)

(P) Amphoteric species
(Q) Basic species
(R) Non-polar gas
(S) Polar acidic gas
(T) Coloured residue

Column-I
(Complete hydrolysis)

## Column-II

(Characteristics of any hydrolysed product/hydrolysis)
(P) Dibasic acid
(Q) Can act as flexidentate ligand
(R) Can act as both oxidising and reducing agent
(S) Can act as monodentate ligand
(T) Non-redox hydrolysis
13.

View Text Solution

Coturnn. 1
(Reaction with Salt/Radical ।

## Column-II

## (Salt/Radical)

(A) $\mathrm{Zn}+$ dil. $\mathrm{H}_{2} \mathrm{SO}_{4}$
(P) $\mathrm{Pb}\left(\mathrm{NO}_{2}\right)_{2}$
(B) dil. HCl
(Q) $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}$
(C) NaOH (excess)
(R) $\mathrm{MnO}_{4}(a q$.)
(D) KI
(S) $\mathrm{Hg}_{2}^{{ }_{2}^{+}}(\mathrm{aq})$
(T) $\mathrm{Bi}^{3+}(\mathrm{aq}$.
(A) Disproportionation in alkaline medium
(P) $\mathrm{Cl}_{2}$
(B) Oxidizing agent
(Q) $\mathrm{NO}_{2}$
(C) Reacts with water
(R) $\mathrm{XeF}_{6}$
(D) Basic gas evolves on heating
(S) $\mathrm{NaH}_{2} \mathrm{PO}_{3}$
(T) $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}$
15.

1

## Column-1

(A) $\mathrm{NO}_{2}$
(B) $\mathrm{SOF}_{2}$
(C) $\mathrm{XeF}_{4}$
(D) $\mathrm{ClF}_{5}$
16.

## - View Text Solution

## Column-I

## (Acidic Radicals)

(A) $\mathrm{S}^{2-}(a q$.
(B) $\mathrm{SO}_{3}^{2}$ (aq.)
(C) $\mathrm{NO}_{2}$ (aq.)
(D) $\mathrm{S}_{2} \mathrm{O}_{3}^{2-}(a q)$

## Column-II

(P) Hydrolysis occurs through redox reaction
(Q) Hydrolysed product can undergo tauto meric change
(R) All hydrolysed products are acids
(S) Hytridization of central atom remains same in final hydrolysed product
(T) One of the hydrolysed product reacts with glass
$\begin{array}{llll}\text { (A) Undergoes } & \text { hydrolysis via. } S_{N^{2}} & \text { (P) } \mathrm{BCl}_{3}\end{array}$ mechanism
$\begin{array}{llll}\text { (B) Undergoes hydrolysis via. } S_{N} & \text { (Q) } \mathrm{NCl}_{3}\end{array}$ mechanism
(C) Hybridisation of central atom in transi- (R) $\mathrm{SOF}_{2}$ tion state changes during hydrolysis
(D) Proton donor oxy acid is formed as final hydrolysed product
(S) $\mathrm{POCl}_{3}$
(T) $\mathrm{ClF}_{3}$
18.

## - View Text Solution

## SUBJECTIVE PROBLEMS

1. Find total number of reagnets which cann produce $I_{2}$ from KI solution.

Conc. $\mathrm{H}_{2} \mathrm{SO}_{4}, \quad \mathrm{Hg}\left(\mathrm{NO}_{3}\right)_{2}$ solution, $\mathrm{CuSO}_{4}$ solution, Conc. $\mathrm{H}_{3} \mathrm{PO}_{4}$,
$\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7} / \mathrm{H}^{+}, \quad \mathrm{Cl}_{2}$ Water, $\mathrm{Pb}\left(\mathrm{CH}_{3} \mathrm{COO}\right)_{2}$ solution, $\mathrm{Ca}(\mathrm{OCl}) \mathrm{Cl} / \mathrm{H}^{+}$, NaNO

## - Watch Video Solution

2. Find total number of metal cations which are ppted as metal sulphide on passing $\mathrm{H}_{2} \mathrm{~S}$ gas through metal salt solution.
$\mathrm{Pb}^{2+}($ aq. $), \quad \mathrm{Mn}^{2+}($ aq. $), \quad \mathrm{Sn}^{2+}($ aq. $), \quad \mathrm{Cr}^{3+}($ aq. $), \quad \mathrm{Mg}^{2+}(a q),. \quad \mathrm{Hg}^{2+}($ aq. $)$

## - Watch Video Solution

3. Consider the following reaction $\mathrm{P}_{4}+\mathrm{KOH} \rightarrow \mathrm{PH}_{3}+\mathrm{X}$ How many P-H bonds are present in species X ?

## - Watch Video Solution

4. Which of the following species/reagent can reduce $\mathrm{Fe}^{3+}$ (aq. )into $\mathrm{Fe}^{2+}$ (aq.) at normal conditions?
$\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}, \quad \mathrm{Hi}, \quad \mathrm{Sn}^{2+}$ (aq.),$\quad \mathrm{CN}^{-}$(aq.) $) \quad \mathrm{NaNO}_{2}, \quad \mathrm{SO}_{2}, \quad \mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}, \quad \mathrm{SCN}$

## - Watch Video Solution

5. Find out number ionic compound(sO which is/are water insoluble at room temperature
$\mathrm{BaSO}_{4}, \quad \mathrm{AgNO}_{3}, \quad \mathrm{PbCO}_{3}, \mathrm{CaCl}_{2}, \mathrm{Mg}(\mathrm{OH})_{2}, \quad \mathrm{KMnO}_{4}, \quad \mathrm{CH}_{3} \mathrm{COOAg}$,
6. Find the value of expression $|x-|$ for following compounds. where,
$\mathrm{x}=$ total number of water insoluble salts.
$y=t o t a l$ number of salts, which can liberate non-olar acidic gas during their complete thermal decomposition.
$\mathrm{BaCO}_{3}, \quad \mathrm{PbSO}_{4}, \mathrm{AgNO}_{3}, \mathrm{CaC}_{2} \mathrm{O}_{4}, \quad \mathrm{CsHCO} \mathrm{S}_{3}, \mathrm{Na}_{3} \mathrm{PO}_{4}, \mathrm{CH}_{3} \mathrm{COOAg}$,

## - View Text Solution

7. Find out total number of coloured compound(s) from following:
$\mathrm{BaCO}_{3}, \mathrm{HgO}, \mathrm{PbSO}_{4}, \mathrm{Ag}_{2} \mathrm{~S}, \mathrm{HgI}_{2}, \mathrm{PbO}, \mathrm{CdS}, \mathrm{AgNO}_{2}, \mathrm{PbCrO}_{4}$

## - Watch Video Solution

8. Find out total number of cation(s) that produce precipitate with aqueous solution of $\mathrm{Na}_{2} \mathrm{CO}_{3}$.
$\mathrm{Cu}^{2+}$ (aq. ), $\mathrm{Mg}^{2+}$ (aq. ), $\mathrm{Fe}^{3+}$ (aq. ), $\mathrm{Pb}^{2+}$ (aq. ), $\mathrm{Al}^{3+}$ (aq.), $\mathrm{Hg}^{2+}$ (aq. ), $\mathrm{Zn}^{2+}$ (aq.

## - Watch Video Solution

$\Delta$
9. $\mathrm{P}_{4}+\mathrm{SOCl}_{2} \rightarrow$ Products

Find out total number of non-planar and polar molecules of products in balanced equation for one mole of $P_{4}$.

## D Watch Video Solution

10. What is average oxidation state state of sulphur in product formed in given reaction?
$\mathrm{Na}_{2} \mathrm{SO}_{3}+\mathrm{Na}_{2} \mathrm{~S}+\mathrm{I}_{2} \rightarrow \ldots+\mathrm{NaI}$

## - Watch Video Solution

11. find out total number of coloured/black water insoluble compound(s) from following substances:
$\mathrm{Ag}_{2} \mathrm{O}, \mathrm{HgI}_{2}, \mathrm{FeS}, \mathrm{Ag}_{3} \mathrm{PO}_{4}, \mathrm{Ba}\left(\mathrm{MnO}_{4}\right)_{2}, \mathrm{Na}_{2} \mathrm{CrO}_{4}, \mathrm{PbI}_{2}, \mathrm{AgNO}_{2}, \mathrm{Ag}_{2} \mathrm{C}_{2} \mathrm{O}_{4}$

## - Watch Video Solution

12. Find out total number of compounds which on heating undergo redox reactions.
$\mathrm{PbCl}_{4}, \mathrm{Mg}\left(\mathrm{NO}_{3}\right)_{2}, \mathrm{HgC}_{2} \mathrm{O}_{4}, \mathrm{Ag}_{2} \mathrm{CO}_{3}, \mathrm{~Pb}(\mathrm{CN})_{4}, \mathrm{Al}(\mathrm{OH})_{3}, \mathrm{Cu}(\mathrm{CN})_{2}$

## - Watch Video Solution

13. How many following Ammonium salts will evolve $N_{2}$ gas on heating?
$\left(\mathrm{NH}_{4}\right)_{2} \mathrm{CO}_{3},\left(\mathrm{NH}_{4}\right)_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}, \mathrm{NH}_{4} \mathrm{NO}_{2}, \mathrm{NH}_{4} \mathrm{ClO}_{4}, \mathrm{NH}_{4} \mathrm{Cl},\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S},\left(\mathrm{NH}_{4}\right)_{2} \mathrm{C}_{2} \mathrm{l}$

## - Watch Video Solution

14. How many following metals evolve NO (Nitric oxide) gas with dil. $\mathrm{HNO}_{3}$ (20\%)?
$\mathrm{Hg}, \mathrm{Cu}, \mathrm{Pb}, \mathrm{Zn}, \mathrm{Fe}, \mathrm{Al}, \mathrm{Ag}, \mathrm{Au}, \mathrm{Mn}$
15. Find number of basic radicals among the following cations, which can form soluble complex on adding excess of $\mathrm{NH}_{4}$ solution. $\mathrm{Cd}^{2+}($ aq. $), \mathrm{Pb}^{2+}($ aq. $), \mathrm{Ni}^{2+}($ aq. $), \mathrm{Mn}^{2+}(a q),. \mathrm{Zn}^{2+}(a q),. \mathrm{Ag}^{+}(a q),. \mathrm{Hg}^{2+}(a q$.

## - Watch Video Solution

16. Calculate difference between oxidation state of chromium ( Cr ) in blue and green coloured chromium species formed during the following given transformation.

## - Watch Video Solution

17. If hydrolysis of interhalogen compound can be represented by following general reaction:

$$
X Y_{n_{1}} \stackrel{\text { water }}{\rightarrow} n_{1} H Y+H X O{ }_{n_{2}}
$$

If given interhalogen compound is polarr and non-planar, then calculate value of $n_{1}+n_{2}$.

## - Watch Video Solution

18. Total number of species that can be oxidzed by acidic permanganate ion $\left(\mathrm{MnO}_{4}^{-} / \mathrm{H}^{+}\right)$.
$\mathrm{I}^{-}, \mathrm{Fe}^{2+}, \mathrm{CO}_{2}, \mathrm{C}_{2} \mathrm{O}_{4}^{2-}, \mathrm{S}^{2-}, \mathrm{SO}_{3}^{2-}, \mathrm{NO}_{2}^{-}, \mathrm{PO}_{4}^{3-}, \mathrm{SO}_{4}^{2-}$

## - Watch Video Solution

19. How many following metals evolve $\mathrm{N}_{2} \mathrm{O}$ gas with dil. $\mathrm{HNO}_{3}$ (20\%) $\mathrm{Cr}, \mathrm{Cu}, \mathrm{Pb}, \mathrm{Zn}, \mathrm{Fe}, \mathrm{Al}, \mathrm{Ag}, \mathrm{Au}, \mathrm{Mn}$.

## - Watch Video Solution

20. How many following ammonium salts will evolve $\mathrm{NH}_{3}$ gas on heating?
$\left(\mathrm{NH}_{4}\right)_{2} \mathrm{CO}_{3},\left(\mathrm{NH}_{4}\right)_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}, \mathrm{CH}_{3} \mathrm{COONH}_{4}, \mathrm{NH}_{4} \mathrm{ClO}_{4}, \mathrm{NH}_{4} \mathrm{Cl},\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S},\left(\mathrm{NH}_{4}\right.$
21. Find out the number of cation (s) which form(s) black ppt. (soluble in hot and dilute $\mathrm{HNO}_{3}$ ) on passing $\mathrm{H}_{2} \mathrm{~S}$ gas into their salt solution? $\mathrm{Mg}^{2+}(a q.) \mathrm{Cu}^{2+}($ aq. $), \mathrm{Ba}^{2+}($ aq. $), \mathrm{Fe}^{3+}($ aq. $), \mathrm{Ag}^{+}($aq. $), \mathrm{Al}^{3+}($ aq. $), \mathrm{Hg}^{2+}(a q$.$) ,$

## - Watch Video Solution

22. Find total number of reagnets which cann produce $I_{2}$ from KI solution.

Conc. $\mathrm{H}_{2} \mathrm{SO}_{4}, \mathrm{Hg}\left(\mathrm{NO}_{3}\right)_{2}$ solution, $\mathrm{CuSO}_{4}$ solution, Conc. $\mathrm{H}_{3} \mathrm{PO}_{4}$, $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7} / \mathrm{H}^{+}, \quad \mathrm{Cl}_{2}$ Water, $\mathrm{Pb}\left(\mathrm{CH}_{3} \mathrm{COO}\right)_{2}$ solution, $\mathrm{Ca}(\mathrm{OCl}) \mathrm{Cl} / \mathrm{H}^{+}, \quad \mathrm{NaNO}$

## - Watch Video Solution

23. Find total number of metal cations which are ppted as metal sulphide on passing $\mathrm{H}_{2} \mathrm{~S}$ gas through metal salt solution.

$$
\mathrm{Pb}^{2+}(\text { aq. }), \quad \mathrm{Mn}^{2+}(\text { aq. }), \quad \mathrm{Sn}^{2+}(\text { aq. }), \quad \mathrm{Cr}^{3+}(a q .), \quad \mathrm{Mg}^{2+}(a q .), \quad \mathrm{Hg}^{2+}(a q .)
$$

24. Consider the following reaction $\mathrm{P}_{4}+\mathrm{KOH} \rightarrow \mathrm{PH}_{3}+X$ How many P-H bonds are present in species X ?

## - Watch Video Solution

25. Which of the following species/reagent can reduce $\mathrm{Fe}^{3+}$ (aq.) into $\mathrm{Fe}^{2+}(a q$.$) at normal condiitions?$
$\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S}, \quad \mathrm{Hi}, \quad \mathrm{Sn}^{2+}$ (aq.) $) \quad \mathrm{CN}^{-}($aq. $), \quad \mathrm{NaNO}_{2}, \quad \mathrm{SO}_{2}, \quad \mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}, \quad \mathrm{SCN}$

## - Watch Video Solution

26. Find out number ionic compound(sO which is/are water insoluble at room temperature
$\mathrm{BaSO}_{4}, \quad \mathrm{AgNO}_{3}, \quad \mathrm{PbCO}_{3}, \mathrm{CaCl}_{2}, \mathrm{Mg}(\mathrm{OH})_{2}, \quad \mathrm{KMnO}_{4}, \quad \mathrm{CH}_{3} \mathrm{COOAg}$,
27. Find the value of expression $|x-|$ for following compounds. where,
$\mathrm{x}=$ total number of water insoluble salts.
$\mathrm{y}=$ total number of salts, which can liberate non-olar acidic gas during their complete thermal decomposition.
$\mathrm{BaCO}_{3}, \quad \mathrm{PbSO}_{4}, \quad \mathrm{AgNO}_{3}, \quad \mathrm{CaC}_{2} \mathrm{O}_{4}, \quad \mathrm{CsHCO}_{3}, \quad \mathrm{Na}_{3} \mathrm{PO}_{4}, \quad \mathrm{CH}_{3} \mathrm{COOAg}$,

## - View Text Solution

28. Find out total number of coloured compound(s) from following: $\mathrm{BaCO}_{3}, \mathrm{HgO}, \mathrm{PbSO}_{4}, \mathrm{Ag}_{2} \mathrm{~S}, \mathrm{HgI}_{2}, \mathrm{PbO}, \mathrm{CdS}, \mathrm{AgNO}_{2}, \mathrm{PbCrO}_{4}$

## - Watch Video Solution

29. Find out total number of cation(s) that produce precipitate with aqueous solution of $\mathrm{Na}_{2} \mathrm{CO}_{3}$.

30. $\mathrm{P}_{4}+\mathrm{SOCl}_{2} \stackrel{\Delta}{\rightarrow}$ Products

Find out total number of non-planar and polar molecules of products in balanced equation for one mole of $P_{4}$.

## - Watch Video Solution

31. What is average oxidation state state of sulphur in product formed in given reaction?
$\mathrm{Na}_{2} \mathrm{SO}_{3}+\mathrm{Na}_{2} \mathrm{~S}+\mathrm{I}_{2} \rightarrow \ldots+\mathrm{NaI}$

## - Watch Video Solution

32. find out total number of coloured/black water insoluble compound(s)
from following substances:
$\mathrm{Ag}_{2} \mathrm{O}, \mathrm{HgI}_{2}, \mathrm{FeS}, \mathrm{Ag}_{3} \mathrm{PO}_{4}, \mathrm{Ba}\left(\mathrm{MnO}_{4}\right)_{2}, \mathrm{Na}_{2} \mathrm{CrO}_{4}, \mathrm{PbI}_{2}, \mathrm{AgNO}_{2}, \mathrm{Ag}_{2} \mathrm{C}_{2} \mathrm{O}_{4}$
33. Find out total number of compounds which on heating undergo redox reactions.
$\mathrm{PbCl}_{4}, \mathrm{Mg}\left(\mathrm{NO}_{3}\right)_{2}, \mathrm{HgC}_{2} \mathrm{O}_{4}, \mathrm{Ag}_{2} \mathrm{CO}_{3}, \mathrm{~Pb}(\mathrm{CN})_{4}, \mathrm{Al}(\mathrm{OH})_{3}, \mathrm{Cu}(\mathrm{CN})_{2}$

## - Watch Video Solution

34. How many following Ammonium salts will evolve $N_{2}$ gas on heating?
$\left(\mathrm{NH}_{4}\right)_{2} \mathrm{CO}_{3},\left(\mathrm{NH}_{4}\right)_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}, \mathrm{NH}_{4} \mathrm{NO}_{2}, \mathrm{NH}_{4} \mathrm{ClO}_{4}, \mathrm{NH}_{4} \mathrm{Cl},\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S},\left(\mathrm{NH}_{4}\right)_{2} \mathrm{C}_{2} \mathrm{C}$

## - Watch Video Solution

35. How many following metals evolve NO (Nitric oxide) gas with dil.
$\mathrm{HNO}_{3}(20 \%)$ ?
$\mathrm{Hg}, \mathrm{Cu}, \mathrm{Pb}, \mathrm{Zn}, \mathrm{Fe}, \mathrm{Al}, \mathrm{Ag}, \mathrm{Au}, \mathrm{Mn}$

## - Watch Video Solution

36. Find number of basic radicals among the following cations, which can form soluble complex on adding excess of $\mathrm{NH}_{4}$ solution.

$$
\mathrm{Cd}^{2+}(\text { aq. }), \mathrm{Pb}^{2+}(\text { aq. }), \mathrm{Ni}^{2+}(\text { aq. }), \mathrm{Mn}^{2+}(\text { aq. }), \mathrm{Zn}^{2+}(\text { aq. }), \mathrm{Ag}^{+}(\text {aq. }), \mathrm{Hg}^{2+}(\text { aq. })
$$

## - Watch Video Solution

37. Calculate difference between oxidation state of chromium (Cr) in blue and green coloured chromium species formed during the following given transformation.

## - Watch Video Solution

38. If hydrolysis of interhalogen compound can be represented by following general reaction:

$$
\stackrel{\text { water }}{X Y_{n_{1}} \rightarrow} n_{1} \mathrm{HY}+\mathrm{HXO}_{n_{2}}
$$

If given interhalogen compound is polarr and non-planar, then calculate value of $n_{1}+n_{2}$.
39. Total number of species that can be oxidzed by acidic permanganate ion $\left(\mathrm{MnO}_{4}^{-} / \mathrm{H}^{+}\right)$.
$\mathrm{I}^{-}, \mathrm{Fe}^{2+}, \mathrm{CO}_{2}, \mathrm{C}_{2} \mathrm{O}_{4}^{2-}, \mathrm{S}^{2-}, \mathrm{SO}_{3}^{2-}, \mathrm{NO}_{2}^{-}, \mathrm{PO}_{4}^{3-}, \mathrm{SO}_{4}^{2-}$

## D Watch Video Solution

40. How many following metals evolve $\mathrm{N}_{2} \mathrm{O}$ gas with dil. $\mathrm{HNO}_{3}$ (20\%) $\mathrm{Cr}, \mathrm{Cu}, \mathrm{Pb}, \mathrm{Zn}, \mathrm{Fe}, \mathrm{Al}, \mathrm{Ag}, \mathrm{Au}, \mathrm{Mn}$.

## ( Watch Video Solution

41. How many following ammonium salts will evolve $\mathrm{NH}_{3}$ gas on heating? $\left(\mathrm{NH}_{4}\right)_{2} \mathrm{CO}_{3},\left(\mathrm{NH}_{4}\right)_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}, \mathrm{CH}_{3} \mathrm{COONH}_{4}, \mathrm{NH}_{4} \mathrm{ClO}_{4}, \mathrm{NH}_{4} \mathrm{Cl},\left(\mathrm{NH}_{4}\right)_{2} \mathrm{~S},\left(\mathrm{NH}_{4}\right.$

## ( Watch Video Solution

42. Find out the number of cation (s) which form(s) black ppt. (soluble in hot and dilute $\mathrm{HNO}_{3}$ ) on passing $\mathrm{H}_{2} \mathrm{~S}$ gas into their salt solution?
$\mathrm{Mg}^{2+}(a q.) \mathrm{Cu}^{2+}($ aq. $), \mathrm{Ba}^{2+}($ aq. $), \mathrm{Fe}^{3+}($ aq. $), \mathrm{Ag}^{+}($aq. $), \mathrm{Al}^{3+}($ aq. $), \mathrm{Hg}^{2+}(a q$.$) ,$

- Watch Video Solution


[^0]:    A. $\mathrm{BaS}_{2} \mathrm{O}_{3}$

