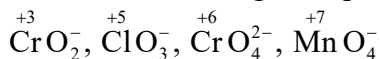


CHEMISTRY**Redox Reactions**

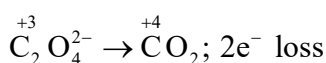
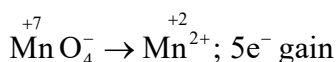
31. (1)

Calculating the oxidation number of central atom in the given species.

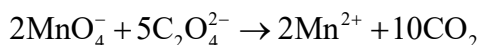


32. (2)

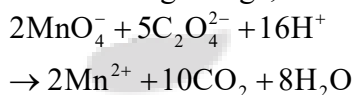
Reaction balance by oxidation number method



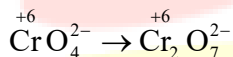
Multiplying (i) by 2 and (ii) by 5 to balance electrons



On balancing charge;



33. (3)



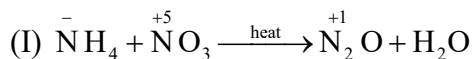
Since, oxidation state of Cr in both reactant and product is same.

34. (3)

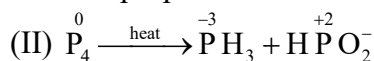
SO_4^- cannot be oxidised since the oxidation stat (+6) of S is highest.

35. (2)

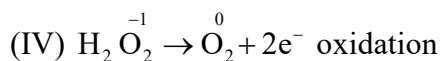
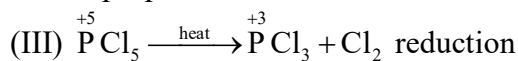
Reaction II is disproportionation, while I, III and IV are not



Comproportionation

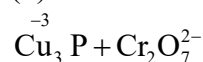


Disproportionation

**Redox Reactions and Electrode Processes**

36. (2)

37. (4)



$$\text{Equivalent weight} = \frac{\text{Molar mass}}{\text{Valency}} = \frac{M}{8}$$

38. (1)

Hydrogen is present as hydride ion in these molecule i.e., oxidation state is -1.

39. (2)



$$W = \frac{E}{96,500} \times t$$

$$0.1 \times 71 = \frac{35.5}{96500} \times 3 = 6433.33 \text{ sec}$$

$$= 107.22 \text{ min} = 110 \text{ min}$$

40. (2)