

DPP

DAILY PRACTICE PROBLEMS

CLASS : XIIth
DATE :

SOLUTION

SUBJECT : CHEMISTRY
DPP NO. : 2

Topic :-REDOX REACTIONS

1 (b)

S has +6 ox. no. in SO_3

2 (c)

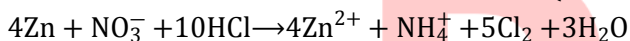
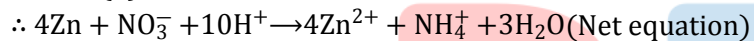
$$3 \times a + 1 \times 1 = 0$$

$$\therefore a = -1/3$$

3 (a)

Tendency to lose more electron for cation decreases.

4 (a)



\therefore 1 mole of NO_3^- (Or NaNO_3) is reduced by

=10 moles of HCl

$\therefore \frac{1}{2}$ mole of NO_3^- will be reduced by

= $10 \times \frac{1}{2}$ moles of HCl

= 5 moles of HCl

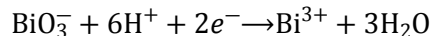
5 (a)

Meq. of FeSO_4 = Meq. of KMnO_4

$$\frac{w}{152/1} \times 1000 = 200 \times 1$$

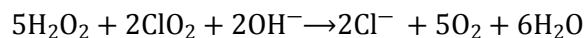
$$\therefore w = 30.4 \text{ g}$$

6 (b)



$$x = 2$$

7 (b)



8 (b)

Meq. of $\text{Na}_2\text{S}_2\text{O}_3$ = Meq. of CuSO_4

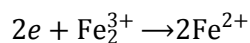
$$\therefore V \times 0.4 \times 1 = 50 \times 0.2 \times 1$$

$$\therefore V = 25 \text{ mL}$$

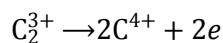
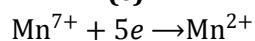
9 (a)

$$N = \frac{47.5}{189.7/2 \times 2.25} = 0.222 \text{ N}$$

10 (b)



11 (c)



12 (b)

Oxidation no. of N in NO^+ is

$$(1 \times x) + 1 \times (-2) = +1$$

$$\therefore x = +3$$

Oxidation no. of Cl in ClO_4^- is

$$(1 \times x) + 4 \times (-2) = -1$$

$$x = +7$$

13 (c)

1. Sulphurous acid H_2SO_3

$$2 + x + (-2 \times 3) = 0$$

$$x - 4 = 0$$

$$\therefore x = 4$$

2. Pyrosulphuric acid ($\text{H}_2\text{S}_2\text{O}_7$)

$$2 + 2x + (-2 \times 7) = 0$$

$$\text{or } 2x = 12$$

$$\therefore x = 6$$

3. Thiosulphuric acid ($\text{H}_2\text{S}_2\text{O}_3$)

$$2 + 2x + (-2 \times 3) = 0$$

$$\text{or } 2x = 4$$

$$x = 2$$

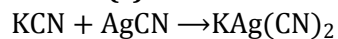
4. Dithionous acid ($\text{H}_2\text{S}_2\text{O}_4$)

$$2 + 2x + (-2 \times 4) = 0$$

$$2x = 6$$

$$\therefore x = 3$$

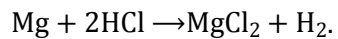
14 (c)



(Complex formation)

CN^- also acts as reducing agent.

15 (a)



16 (a)

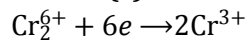
Meq. of oxalic acid = Meq. of KMnO_4

$$V \times 0.1 \frac{250 \times 8}{100 \times 31.6} \times 1000 = 6.3 \text{ litre}$$

17 (d)

H_3PO_3 is phosphorous acid.

18 (c)



19 (c)

$$\text{H}_4\text{P}_2\text{O}_5 : 4 \times 1 + 2 \times a - 5 \times 2 = 0$$

$$a = +3$$

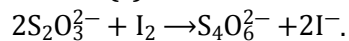
$$\text{H}_4\text{P}_2\text{O}_6 : 4 \times 1 + 2 \times a - 6 \times 2 = 0$$

$$a = +4$$

$$\text{H}_4\text{P}_2\text{O}_7 : 4 \times 1 + 2 \times a - 7 \times 2 = 0$$

$$a = +5$$

20 (c)



PE

ANSWER-KEY

Q.	1	2	3	4	5	6	7	8	9	10
A.	B	C	A	A	A	B	B	B	A	B
Q.	11	12	13	14	15	16	17	18	19	20
A.	C	B	C	C	A	A	D	C	C	C

PE