

DPP

DAILY PRACTICE PROBLEMS

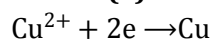
CLASS : XIIth
DATE :

SOLUTION

SUBJECT : CHEMISTRY
DPP NO. : 9

Topic :-REDOX REACTIONS

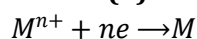
1 (a)



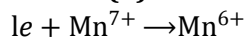
2 (a)

It is definition of iodimetric titrations.

3 (b)



4 (b)



$$\therefore E = M/1$$

5 (a)

$$1 + a + 3 \times (-2) = 0$$

$$\therefore a = +5$$

6 (d)

\therefore 3 ions of F^- from 1 molecule of AlF_3

$\therefore 3 \times 10^{23}$ ions of F^- from 10^{23} molecules of AlF_3

7 (a)

Calculate ox.no. by taking NO^+ in NOCl

8 (d)

Cl has +7 ox.no. in Cl_2O_7 .

9 (c)

$$\text{Meq. of } \text{KMnO}_4 = 4000 \times 0.05$$

$$\therefore \frac{w}{31.6} \times 1000 = 4000 \times 0.05$$

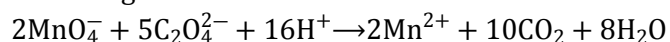
$$w = 6.32 \text{ g}$$

10 (c)

H_2O_2 oxidises S^{2-} to S^0 .

11 (a)

Following is balanced redox reaction.



So, coefficients of MnO_4^- , $\text{C}_2\text{O}_4^{2-}$ and H^+ are 2, 5, and 16 respectively.

12 (c)

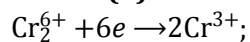
$$2 \times a + 1 \times (-2) = 0$$

$$\therefore a = +1$$

13 (d)

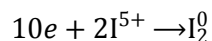
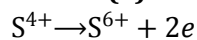
Oxidation-reduction takes place simultaneously.

14 (b)



$$\therefore \text{Eq.wt.} = \frac{\text{mol.wt.}}{6}$$

15 (a)

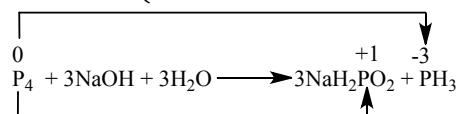


16 (b)

F₂ shows only -1 ox.no.

17 (a)

Reduction (oxidation number decreases)



Oxidation (oxidation number is increases)

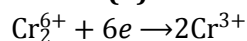
The reactions in which the same substance undergoes oxidation as well as reduction, are called disproportionation reactions.

So, the above reaction is an example of disproportionation reaction.

18 (b)

It is definition of iodimetric titrations.

19 (d)



20 (b)

+2 oxidation state due to $1s^2, 2s^2, 2p^2$ configuration having 2 unpaired electrons in 2p – subshell.

+4 oxidation state due to $1s^2, 2s^1 2p^3$ configuration in excited state having four unpaired electrons.

ANSWER-KEY

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

PE