

# DPP

DAILY PRACTICE PROBLEMS

CLASS : XII<sup>th</sup>  
DATE :

SOLUTION

SUBJECT : CHEMISTRY  
DPP NO. : 6

## Topic :-HYDROGEN

1 (c)

$\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  forms insoluble salts with soap.

2 (a)

$\text{H}_2 \rightarrow \text{H} + \text{H}$ ,  $\Delta H = +ve$

The reaction is favoured by low pressure and high temperature

4 (c)

$\text{S}^{2-} \rightarrow \text{S}^0 + 2e$

6 (a)

Dielectric constant of  $\text{H}_2\text{O}_2$  increases with dilution. It is 93.7 for pure  $\text{H}_2\text{O}_2$ , 97 for 90%  $\text{H}_2\text{O}_2$  and 120 for 65%  $\text{H}_2\text{O}_2$ .

7 (c)

It is a fact.

8 (c)

It is a fact (density of  $\text{D}_2\text{O} = 1.1073 \text{ g/mL}$  at 284.6 K).

9 (d)

It is a fact.

11 (a)

Hydrides are binary compounds of hydrogen. These can be classified in four groups *viz* :

(i) Ionic hydrides *e.g.*, NaH,  $\text{CaH}_2$ , LiH etc.

(ii) Covalent hydrides *e.g.*,  $\text{B}_2\text{H}_6$ ,  $\text{NH}_3$ ,  $\text{SbH}_3$  etc.

(iii) Polynuclear hydrides *e.g.*,  $\text{LiAlH}_4$ ,  $\text{NaBH}_4$  etc.

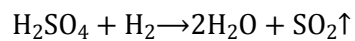
(iv) Interstitial hydrides, in which hydrogen is trapped in the interstitial spaces of transition metals.

14 (c)

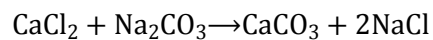
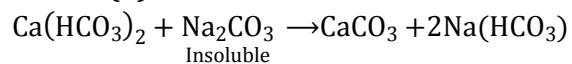
Ionic hydride has  $\text{H}^-$  ion.

15 (c)

Moist hydrogen cannot be dried over concentrated  $\text{H}_2\text{SO}_4$  because it is oxidized by  $\text{H}_2\text{SO}_4$  and catches fire.



16     **(b)**



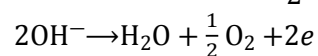
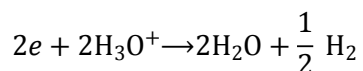
$\text{Ca}^{2+}$  of  $\text{Mg}^{2+}$  ions are removed as insoluble carbonates.

17     **(d)**

20 g  $\text{D}_2\text{O}$  has 4 g deuterium.

18     **(b)**

Hydrogen of high purity is obtained by electrolyzing aqueous barium hydroxide in presence of Ni electrodes.



19     **(c)**

It is a fact.

20     **(a)**

Lighter isotopes are more reactive.

PE

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

PE