

DPP

DAILY PRACTICE PROBLEMS

CLASS : XIIth
DATE :

SOLUTION

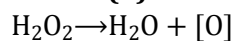
SUBJECT : CHEMISTRY
DPP NO. : 2

Topic :-HYDROGEN

1 (b)

Hydrogen forms maximum number of compounds in chemistry (not carbon).

2 (b)



3 (d)

Amphoteric solvent dissolves both acids and bases.

∴ H_2O_2 is amphoteric solvent because it dissolves both acids and bases.

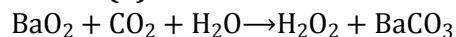
5 (b)

$$\text{Meq. of } \text{H}_2\text{O}_2 = 1000 \times 1.5$$

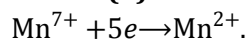
$$\therefore \frac{w}{34/2} \times 1000 = 1000 \times 1.5 (E_{\text{H}_2\text{O}_2} = M/2)$$

$$\therefore w = 25.5 \text{ g}$$

6 (b)



7 (b)



8 (b)

Its pH is 7.

9 (c)

A characteristic of hydrogen.

10 (b)

Deuterium (${}_1\text{H}^2$) has stable nuclei, because the ratio of $\frac{n}{p} = 1$.

11 (d)

Bicarbonates of Ca and Mg are responsible for temporary hardness.

14 (a)

It does not have impaired electrons.

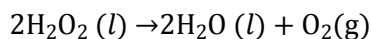
15 (a)

1 mL H_2O_2 solution gives 11.2 mL O_2 at NTP

∴ 100 mL H_2O_2 solution gives $\text{O}_2 = 100 \times 11.2$

$$= 1120.0 \text{ mL O}_2 \text{ at NTP}$$

H₂O₂ decomposes as



∴ 22400 mL O₂ at NTP is obtained from 68g H₂O₂

∴ 1 mL O₂ at NTP is obtained from

$$= \frac{68}{22400} \text{ g H}_2\text{O}_2$$

∴ 1120 mL O₂ at NTP is obtained from

$$= \frac{68}{22400} \times 1120$$

$$= 34 \text{ g}$$

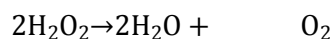
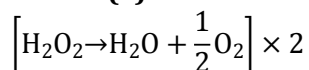
$$w = \frac{M \times m \times V}{1000}$$

$$M = 1.0$$

16 (b)

It is a fact.

17 (a)



68 g

22.4 L at NTP

∴ 22.4 L O₂ at NTP is obtained by 68 g of H₂O₂

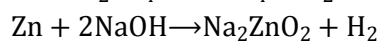
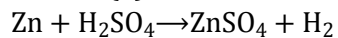
∴ 20 L O₂ at NTP will be obtained by H₂O₂

$$= \frac{68}{22.4} \times 20 = 60.7 \text{ g/L}$$

∴ 1000 mL O₂ at NTP is obtained by H₂O₂ = 60.7 g

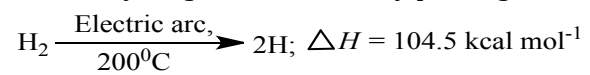
$$\therefore \text{Percentage strength} = \frac{60.7 \times 100}{1000} = 6.07 \text{ g}$$

18 (a)



19 (d)

Atomic hydrogen is obtained by passing ordinary hydrogen through an electric arc.



20 (c)

CO₂ escapes out slowly.

PE

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

PE