16.(A) $2H_2O_2 \longrightarrow 2H_2O + O_2$

$O_2^{2-} \longrightarrow O_2 + 2e^-$

$O_2^{2-} + 2e^- \longrightarrow 2O^{2-}$

So H_2O_2 can act as both reducing as well as oxidizing agent

17.(C) Thermal stability $\propto \dfrac{1}{\text{covalent character}}$

18.(D) Mole of 1g resin $= \dfrac{1}{206}$

Mol of Ca^{2+} uptake $= \dfrac{1}{206} \times \dfrac{1}{2} = \dfrac{1}{412}$ mol of Ca^{2+} per g of resin

19.(D) The commercial name for calcium oxide is quick lime.

20.(D) $LiH + B_2H_6 \longrightarrow LiBH_4$

21.(C) There is intermolecular Hydrogen bonding in water.

22.(D) $Li + O_2 \longrightarrow Li_2O$

$Na + O_2 \longrightarrow Na_2O_2$

$K + O_2 \longrightarrow KO_2$

23.(B) Heavy water is used as a moderator in nuclear reactors.

24.(D) Solubility of sulphate of Alkaline Earth metals decreases down the group.

25.(C) is incorrect because only Mg can form Basic carbonate as $MgCO_3 \cdot Mg(OH)_2$

26.(C)

KO_2	:	Superoxide
BaO_2	:	Peroxide
SiO_2	:	Oxide
CsO_2	:	Superoxide

27.(D) Here H_2O_2 act as an oxidizing agent as it oxidises PbS to $PbSO_4$.

28.(A)

$$\underset{(M)}{Li} + N_2 \longrightarrow Li_3N \xrightarrow{\Delta} Li + N_2$$

$$Li_3N \xrightarrow{H_2O} Li(OH) + 3NH_3$$

(B)

$$\underset{(B)}{NH_3} + CuSO_4 \longrightarrow [Cu(NH_3)_4]SO_4$$

29.(A) During reduction $H_2O_2 \longrightarrow H_2O$

During oxidation $H_2O_2 \longrightarrow O_2$

30.(A) The three isotopes of hydrogen are $\underset{\text{Protium}}{{}_1^1H}$, $\underset{\text{Deuterium}}{{}_1^2H}$, $\underset{\text{Tritium}}{{}_1^3H}$