Level - 1	**DTS-2**

16.(A) Here H_2O_2 reduces PbO_2 to PbO. Thus it acts as a reducing agent.

17.(B) High purity dihydrogen is obtained by electrolysis of warm aqueous Barium hydroxide.

18.(B) Coal gasification is : $C + H_2O \xrightarrow[\text{catalyst}]{673K} CO + H_2$

19.(D) Refer NCERT

20.(C) $MgCl_2 \cdot 6H_2O \xrightarrow{SOCl_2} MgCl_2 + SO_2 + HCl$

21.(D) Li has high hydration energy so, E°_{ox} of Li is high and for rest of elements I.E is the deciding factor.

22.(A) Alkali metals are good conductors of heat and electricity. They are good reducing agents and have low ionisation energy.

23.(ABD) $CaOCl_2$, Na_2O_2, KO_2 are bleaching agent. They bleach by oxidation.

24.(C) $CaH_2 + H_2O \longrightarrow Ca(OH)_2 + H_2$

25.(D) Reactivity of Alkali metals is a function of E°-value and E°-value is dependent on I.E for alkali metals.

26.(A) Formation of $Li^+(M^+)$ ion is the property of first group elements, i.e. alkali metals, not that of second group elements

27.(B) Alkali metals are highly reactive and form strongly alkaline hydroxide.

28.(C) Discharge potential of $Cl^-_{(conc.)} < H_2O < Cl^-_{(dil.)}$ so conc. Cl^- get discharged and Cl_2 get evolved instead of O_2.

29.(A) General electronic configuration of group-1 elements is ns^1.

30.(B) $K + O_2 \longrightarrow KO_2$