

Daily Tutorial Sheet 6 Level - 2

76.(A) Among Group 16 hydride, H₂O show extensive hydrogen bonding thus increasing in its boiling point.

77.(D) Aqueous solution of SO_2 acts as a reducing agent

$${\rm SO_2} + 2{\rm H_2O} \longrightarrow {\rm H_2SO_4} + \mathop{\rm 2H}_{\rm nascent\; hydrogen}$$

Thus, SO_2 in presence of moisture is used as bleaching agent. This is due to reducing nature of SO_2 . For delicate articles

Coloured matter + H ------ Colourless matter

- **78.(A)** $Na_2S_2O_3 + I_2 \longrightarrow Na_2S_4O_6 + 2NaI$
- **79.(C)** XeO_6^{4-} is octahedral and non polar.
- **80.(D)** In SF_6 , S sterically hindered by six fluorine atoms hence, attack of H_2O molecule will not occur. NF_3 is not hydrolysed due to absence of vacant orbital either on N of F atom. TeF_6 is hydrolysed due to large size of Te.
- **81.(B)** SiO_2 is acidic oxide.
- **82.(B)** $O_2(g)$, $H_2O(g)$, $H_2S(g)$, $SO_2(g)$ Colourless

F₂(g) light yellow

 $ClO_2(g)$ yellow (liquid form is red)

 $NO_2(g)$ brown $O_3(g)$ sky blue

- **83.(A)** Conversion of SO_2 to SO_3 is catalyzed by V_2O_5 .
- **84.(A)** $Ca + C \xrightarrow{\Lambda} CaC_2 \xrightarrow{N_2} CaCN_2 + C$
- **85.(D)** ICl₃ does not exist. The dimer is a bright yellow solid.