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| Level - 2 | DTS-10 |
|-----------|--------|

116.(B) Thermal stability  $\propto$  bond strength.

117.(C)  $\text{SiH}_3 - \text{O} - \text{SiH}_3$  is weaker Lewis base due to presence of back bonding.

118.(AD)  $\text{Al(OH)}_3 \xrightarrow{\text{OH}^-} \text{Al(OH)}_4^-$ ;  $\text{SiF}_4 \xrightarrow{\text{HF}} \text{H}_2\text{SiF}_6$ ;  $\text{SiCl}_4 \xrightarrow{\text{H}_2\text{O}} \text{H}_4\text{SiO}_4$   
 $\text{sp}^2$   $\text{sp}^3$   $\text{sp}^3$   $\text{sp}^3\text{d}^2$   $\text{sp}^3$   $\text{sp}^3$

119.(A) Zeolites are used as ion exchange material and remove hardness of water.

120.(ABD)

Carbogen is a mixture of 5%  $\text{CO}_2$  and 95%  $\text{O}_2$

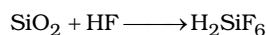
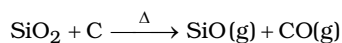
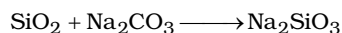
121.(BD) Anhydride of malonic acid is  $\text{C}_3\text{H}_2\text{O}_3$  or  $\text{CH}_2(\text{CO})_2\text{O}$  and second anhydride is  $\text{C}_3\text{O}_2$

$\text{CaC}_2$  exist in form of  $\text{Ca}^{2+}$  and  $\text{C}_2^{2-}$

$\text{C}_2^{2-}$  has  $2\pi$  bond and  $1\sigma$  bond

Trisilylamine is planar due to back Bonding.

122.(ABC)



123-125. 123.(A), 124.(A), 125.(A)

