

71. In which of the following hydrogen bond is present?  
(1)  $H_2$  (2) Ice (3) Sulphur (4) Hydrocarbon
72. Which contains a coordinate and covalent bond?  
(1)  $BaCl_2$  (2)  $NH_4Cl$  (3)  $HCl$  (4)  $H_2O$
73. Which of the following does not contain coordinate bond?  
(1)  $BH_4^-$  (2)  $NH_4^+$  (3)  $CO_3^{2-}$  (4)  $H_3O^+$
74. C - C bond order in benzene is  
(1) 1 (2) 2 (3) Between (1) and (2) (4) 3
75. The increase in bond order results in:  
(1) Decrease in bond length and increase in bond energy  
(2) Decrease in bond length and bond energy  
(3) Increase in bond length and bond energy  
(4) None of the above
76. In the molecule  $CH \equiv C - CH = CH_2$ , the hybridisation of C - C bond is  
(1)  $sp^2 - sp$  (2)  $sp^3 - sp^3$  (3)  $sp^2 - sp^2$  (4)  $sp^3 - sp$
77. The sequence that correctly describes the relative bond strength pertaining to oxygen molecule and its cation or anion is  
(1)  $O_2^{2-} > O_2^- > O_2 > O_2^+$  (2)  $O_2^+ > O_2 > O_2^{2-} > O_2^-$  (3)  $O_2 > O_2^+ > O_2^- > O_2^{2-}$  (4)  $O_2^+ > O_2 > O_2^- > O_2^{2-}$
78. Which species has the maximum number of lone pair of electrons on the central atom?  
(1)  $[ClO_3^-]$  (2)  $XeF_4$  (3)  $SF_4$  (4)  $[I_3^-]$
79. Which one of the following compounds has bond angle as nearly  $90^\circ$ ?  
(1)  $NH_3$  (2)  $H_2S$  (3)  $H_2O$  (4)  $CH_4$
80.  $CO_2$  has the same geometry as:  
(A)  $BeCl_2$  (B)  $NO_2$  (C)  $SnCl_4$  (D)  $C_2H_2$   
(1) A and C (2) B and D (3) A and D (4) C and D