






Date Planned : __ / __ / __	Daily Tutorial Sheet-5	Expected Duration : 30 Min
Actual Date of Attempt : __ / __ / __	Level-1	Exact Duration : _____

61. Which is correct regarding CO_2 ?
 (A) Involves in photosynthesis
 (B) Cause green house effect
 (C) Dry ice is used as refrigerant for ice cream & frozen food
 (D) All of these
62. Hydrolysis of SiCl_4 gives compound 'X' and HCl. On heating to 1000°C 'X' loses water and forms 'Y'. Identify 'X' and 'Y' respectively. 
 (A) SiO_2 and Si (B) H_4SiO_4 and SiO_2
 (C) SiO_2 and SiC (D) H_4SiO_4 and SiC
63. The correct statement with respect to CO is :
 (A) It combines with H_2O to give carbonic acid
 (B) It reacts with haemoglobin in RBC
 (C) It is a powerful oxidizing agent
 (D) It is used to prepare aerated drinks
64. The correct order for boiling point of IV group hydrides respectively : 
 (A) $\text{CH}_4 < \text{SiH}_4 < \text{GeH}_4 < \text{SnH}_4$ (B) $\text{CH}_4 > \text{SiH}_4 < \text{GeH}_4 < \text{SnH}_4$
 (C) $\text{SnH}_4 < \text{GeH}_4 < \text{SiH}_4 < \text{CH}_4$ (D) $\text{CH}_4 < \text{SiH}_4 > \text{GeH}_4 > \text{SnH}_4$
65. Shape of $\dot{\text{C}}\text{H}_3$ is :
 (A) Linear (B) Pyramidal (C) Tetrahedral (D) Trigonal planar
66. The tetravalent elements A and B form dioxide both react with NaOH to form similar salts $\angle\text{OAO}$ is 180° , $\angle\text{OBO}$ is $109^\circ 28'$. Both are acidic in nature, A and B are respectively : 
 (A) Ge and Si (B) S and Si (C) C and Si (D) Si and C
67. Which of the following compounds is formed by addition of mineral acid to an aqueous solution of borax?
 (A) Boron oxide (B) Orthoboric acid
 (C) Metaboric acid (D) Pyroboric acid
68. Which of the following is not an ionic tri halide : 
 (A) AlF_3 (B) BF_3 (C) InF_3 (D) GaF_3
69. Alumina is insoluble in water because :
 (A) It is covalent compound
 (B) It has a high lattice energy and low heat of hydration
 (C) It has low lattice energy and high heat of hydration
 (D) It is a network solid
70. When oxalic acid is heated with concentrated H_2SO_4 it produces : 
 (A) CO, CO_2 , H_2O (B) SO_2 , CO_2 , H_2O (C) CO, SO_2 , H_2O (D) SO_2 , SO_3 , H_2O

71. Which of the following sublimes on heating ?
(A) Al_2O_3 **(B)** $\text{Al}(\text{OH})_3$ **(C)** $(\text{AlH}_3)_n$ **(D)** $(\text{AlCl}_3)_n$
72. In sheet silicate number of oxygen atoms involved in sharing are :
(A) 2 **(B)** 3 **(C)** 4 **(D)** 0
73. Silicones repel water due to :
(A) the presence of alkyl group pointed towards surface
(B) strong Si – O – Si bonds
(C) low surface area
(D) high vander Waal's forces
74.
$$\begin{array}{c} \text{COOH} \\ | \\ \text{COOH} \end{array} \xrightarrow{\Delta} \text{X(gas)} + \text{Y(gas)} + \text{Z(gas)}$$

Y and Z both are polar and neutral, X is nonpolar and acidic. Z gas is condensed and liquid formed having pH = 7. The hybridisation state of X, Y, Z are respectively :
(A) sp, sp^2 , sp^3 **(B)** sp^2 , sp^2 , sp^2 **(C)** sp, sp, sp^3 **(D)** sp^2 , sp, sp^3
75. The correct order of increasing "C – O" bond length of CO , CO_3^{2-} and CO_2 is :
(A) CO_3^{2-} , CO_2 , CO **(B)** CO_2 , CO_3^{2-} , CO
(C) CO , CO_3^{2-} , CO_2 **(D)** CO , CO_2 , CO_3^{2-}