I.P.S.Sr.Sec.School

Max Time : 1 hr **Class : 11th Chemistry** **Max Marks : 30**

Monthly Test

Q.1 Draw the structure of the organic compounds given below: [1 x 5 = 5]

(a) Hex-2-en-1-ol (b) Butane (c) Pentanoic acid

(d) Oct-3-en-5-yne (e) Hexan-1-al.

Q.2 Draw the shape and write the hybridization of the following complexex: [1 x 5 = 5]

(a) XeO_3F_2 (b) IF_7 (c) NH_4^+ (d) SO_3 (e) CCl_4

Q.3 Differntiate between Bonding Molecular orbital and Antibonding Molecular Orbitals. [3]

Q.4 Balance the following equations by acidic medium [3 x 2 = 6]

(a) $Cr_2O_7^{2-}$ (aq) + C_2H_4O (g) $\rightarrow$ Cr^{3+} (aq) + $C_2H_4O_2$ (aq).

(b) Cu (aq) + NO_3^- (aq) $\longrightarrow$ Cu^{2+} (aq) + NO_2 (g).

(c) MnO_4^- (aq) + Fe^{2+} (aq) $\rightarrow$ Mn^{2+} (aq) + Fe^{3+} (aq)

Q.5 Convert the following : [3 x 2 = 6]

(a) Benzene to Toluene (b) Benzene to acetophenone (c) Propene to propan-2-ol.

Q.6 Draw the molecular orbital diagram of O_2. Write its molecular electronic configuration and also calculate the bond order of O_2. [5]

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