

CHEMISTRY-11	Chapter#06-Second Half (6.4.4 – 6.6) Test-1		
	Name:	Class:	ID:
Date: / /	Marks Total: 25	Marks Obtained:	
Time Allowed: 40 Min.			

Maximum Marks: 09

(OBJECTIVE TYPE)

Time Allowed: 10 Min.

NOTE: Tick The Correct Option:

- The number of bonds in nitrogen molecule is:
 (a) One σ and one π (b) One σ and two π (c) Three σ only (d) Two σ and one π
- Which of the following molecules has zero dipole moment?
 (a) NH_3 (b) CHCl_3 (c) H_2O (d) BF_3
- Carbon atom in CH_4 is hybridized:
 (a) sp^3 (b) sp^2 (c) sp (d) dsp^2
- The paramagnetic behavior of oxygen is well explained on the basis of:
 (a) M.O. theory (b) V.B. theory (c) VSEPR theory (d) CF theory
- Which of the followings has highest bond energy?
 (a) HI (b) HBr (c) HCl (d) HF
- Dipole Moment of H_2O is:
 (a) 1.61 D (b) 1.85 D (c) 0.95 D (d) 1.49 D
- The energy difference between 2s and 2p orbitals for F_2 is:
 (a) 2078 kJmol^{-1} (b) 1595 kJmol^{-1} (c) 1195 kJmol^{-1} (d) 846 kJmol^{-1}
- The bond length is _____ proportional to the bond energy.
 (a) Directly (b) Inversely (c) Both 'a' & 'b' (d) None
- $\text{C}_2\text{H}_6\text{O}$ has two isomeric forms of:
 (a) An aldehyde and a ketone (b) An aldehyde and an alcohol
 (c) An alcohol and an ether (d) An ether and an aldehyde

Maximum Marks: 16

(SUBJECTIVE TYPE)

Time Allowed: 30 Min.

SECTION-I

Q.2: Give brief answers to the following questions:

(12)

- Pi bonds are more diffused than sigma bonds. Explain.
- Why is MOT superior to VSEPR theory & VBT?
- Differentiate between bonding and anti-bonding molecular orbitals.
- Prove that bond order of He_2 is zero. Or Why He_2 molecule is not possible?
- Define dipole moment. Give its various units.
- The dipole moment of CO_2 and CS_2 is zero but that of SO_2 is 1.61 D. Explain.

SECTION-II

NOTE: Attempt All Questions:

(04)

Q.3: Explain valence bond theory VBT with examples showing the overlapping of orbitals.