

CHEMISTRY-11	Chapter#06 (Complete) Test-4		
	Name:	Class:	ID:
Date: / /	Marks Total: 40	Marks Obtained:	
Time Allowed: 75 Min.			

Maximum Marks: 08

(OBJECTIVE TYPE)

Time Allowed: 10 Min.

NOTE: Tick The Correct Option:

- Which of the following species has unpaired electrons in antibonding molecular orbital?
 (a) O_2^{2+} (b) N_2^{2-} (c) B_2 (d) F_2
- The value of third ionization energy of Mg is:
 (a) 1450 kJmol^{-1} (b) 7730 kJmol^{-1} (c) 7850 kJmol^{-1} (d) 1890 kJmol^{-1}
- The molecular shape of SO_3 is:
 (a) Triangular planar (b) Tetrahedral (c) Pyramidal (d) Linear
- The number of bonds in oxygen molecule is:
 (a) One sigma and one pi (b) One sigma and two pi
 (c) Three sigma only (d) Two sigma only
- Dipole moment of CO_2 is:
 (a) 1.25 D (b) 1.85 D (c) 3.1 D (d) 0 D
- The elements with low I.E. values are:
 (a) Metals (b) Metalloids (c) Non-metals (d) All
- Paramagnetic behavior of O_2 is explained by:
 (a) VSEPR theory (b) VBT (c) MOT (d) All of the above
- Covalent compounds show isomerism because covalent bonds are:
 (a) Rigid and directional (b) Rigid and non-directional
 (c) Non-rigid and non-directional (d) Non-rigid and directional

Maximum Marks: 32

(SUBJECTIVE TYPE)

Time Allowed: 65 Min.

SECTION-I

- Q.2: Give brief answers to the following questions:** (20)
- Define chemical bond. Give the cause of chemical bond formation.
 - Why cationic radius is smaller than the parent atom?
 - Ionization energy is an index to the metallic character. Why?
 - Define electronegativity. How does it vary along the period and down the group?
 - Why NH_3 and PH_3 give co-ordinate covalent bonds with H^+ ?
 - The bond angle in NF_3 is smaller than in NH_3 . Justify.
 - Pi bonds are more diffused than sigma bonds. Explain.
 - What is bond order? How is bond order calculated?
 - How is percentage ionic character of a bond measured from dipole moment?
 - The dipole moment of CO_2 is zero but that of CO is 0.12 Debye. Give reason.

SECTION-II

NOTE: Attempt All Questions:

(12)

Q.3: Write main postulates of VSEPR theory.

Q.4: Define hybridization and explain the structure of water on its basis.

Q.5: Draw the molecular orbital diagram of N_2 molecule. Give its electronic configuration and calculate the bond order.