

CHEMISTRY-11		Chapter#06 (Complete) Test-3		
		Name:		Class:
Date: / /		Marks Total: 30	Marks Obtained:	
Time Allowed: 60 Min.				

Maximum Marks: 06 **(OBJECTIVE TYPE)** Time Allowed: 10 Min.

NOTE: Tick The Correct Option:

- Which compound does not obey octet rule?
 (a) NH_3 (b) BCl_3 (c) H_2O (d) CH_4
- Ionic, covalent and co-ordinate covalent bonds are present in:
 (a) SO_2 (b) NH_4Cl (c) C_2H_2 (d) H_2O
- 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
- The hybridization in ammonia molecule is:
 (a) dsp^2 (b) sp^2 (c) sp^3 (d) sp
- The SI unit of dipole moment is:
 (a) Joule (b) Debye (c) Cm (d) Nm^{-2}
- The enthalpy of atomization of hydrogen is _____ the bond energy of hydrogen.
 (a) Equal to (b) Half of (c) Twice (d) All

Maximum Marks: 24 **(SUBJECTIVE TYPE)** Time Allowed: 50 Min.

SECTION-I

Q.2: Give brief answers to the following questions: (16)

- What is octet rule? Give two examples of the compounds that do not obey this rule.
- Define ionization energy. Discuss its variation along a period in the periodic table.
- The electronegativity difference between the bonded atoms is an index to the polar nature of the covalent bond. Explain.
- The distinction between co-ordinate covalent and normal covalent bonds vanishes after bond formation in H_3O^+ and NH_4^+ . Explain.
- Why sigma bond is stronger than a pi bond?
- Why is MOT superior to VSEPR theory & VBT?
- 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: (08)

Q.3: Define the term electronegativity. Discuss its variation in the periodic table.

Q.4: Calculate the bond order of O_2 molecule by making energy level diagram. Also show that it is paramagnetic.