CHEMISTRY-11	Chapter#06-Second Half (6.4.4 – 6.6) Test-2		
	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:

1) Which of the hydrogen halides has the highest percentage of ionic character?
(a) HCl (b) HBr (c) HF (d) HI

2) 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

3) The bond angle between two H-S bonds in H_2S is:
(a) 180° (b) 104.5° (c) 109.5° (d) 92°

4) The SI unit of dipole moment is:
(a) Joule (b) Debye (c) Cm (d) Nm^{-2}

5) VBT explains:
(a) The shapes of the molecules. (b) The reason for bond formation.
(c) The paramagnetic behavior of oxygen. (d) Both 'a' & 'b'

6) The number of π bonds in CO_2 is equal to that in:
(a) O_2 (b) N_2 (c) C_2H_4 (d) SO_3

7) The anti-bonding molecular orbital formed by s-s overlap has:
(a) One lobe (b) Two lobes (c) Three lobes (d) Four lobes

8) The total number of electrons in the bonding molecular orbitals of N_2 is:
(a) 6 (b) 8 (c) 10 (d) 12

9) Which bond has greater bond energy?
(a) I-I (b) Br-Br (c) Cl-Cl (d) F-F

Maximum Marks: 16 **(SUBJECTIVE TYPE)** Time Allowed: 30 Min.

SECTION-I

Q.2: Give brief answers to the following questions: **(12)**

i. Write two points of valence bond theory.
ii. Why sigma bond is stronger than a pi bond?
iii. What is bond order? How is bond order calculated?
iv. Why is O_2 paramagnetic?
v. How is percentage ionic character of a bond measured from dipole moment?
vi. Isomerism is shown by covalent compounds, not by ionic compounds. Why?

SECTION-II

NOTE: Attempt All Questions: **(04)**

Q.3: Define hybridization and explain the structure of water on its basis.