

NAME:		ROLL NO:		TIME:	15: MIN
SUB:	Chemistry	Date:		CLASS:	1 st Year
SYLLABUS	Chp. 3 (Chemical Bonding)	T. MARKS	12	OBT. M	

Q. 1 Choose the Correct Answer. Cutting, Erasing, Double Selection is Strictly Prohibited. (1x12=12)

1. Chemical bond formation takes place when:

- (A) Force of attractive are equal to the force or repulsion
- (B) Force of repulsion is greater than force of attraction
- (C) Force of attraction overcomes force of repulsion
- (D) None of these

2. An ionic compound $A^+ B^-$ is most likely to be formed when:

- (A) Ionization energy of A is high and electron affinity of B is low.
- (B) Ionization energy of A is low and electron affinity of B is high.
- (C) Both the ionization energy of A and electron affinity of B are high.
- (D) Both the ionization energy of A and electron affinity of B are low.

3. Which of the following molecules has zero dipole moment?

- (A) NH_3
- (B) $CHCl_3$
- (C) H_2O
- (D) BF_3

4. The numbers of σ and π bonds in the N_2 molecule are:

- (A) One σ and one π bonds
- (B) One σ and two π bonds
- (C) Three σ bonds only
- (D) Two σ and one π

5. Which of the following species has unpaired electrons in antibonding molecular orbitals?

- (A) O_2^{2+}
- (B) N_2^{2-}
- (C) B
- (D) F_2

6. The shape of ICl_3 according to the VSEPR model is:

- (A) Tetrahedral
- (B) Trigonal planar
- (C) Trigonal bipyramidal
- (D) Square pyramidal

7. Which of the following molecules has a net dipole moment?

- (A) CO_2
- (B) CS_2
- (C) SO_2
- (D) CCl_4

8. How many electrons are present in the valence shell of p in PO_4^{3-} ?

- (A) 8
- (B) 10
- (C) 12
- (D) 14

9. How many extra electrons than a normal octet are there in the valence shell of I in ICl_5 ?

- (A) 2
- (B) 3
- (C) 4
- (D) 5

10. What is the type and shape of $[ICl_4]^-$ according to the VSEPR model?

- (A) AB_4 , tetrahedral
- (B) AB_4 , pyramidal
- (C) AB_5 , trigonal bipyramidal
- (D) AB_6 , square planar

11. Which of the following molecules has a central atom with sp^3 hybridization and a tetrahedral electron pair geometry?

- (A) BF_3
- (B) SO_2
- (C) CCl_4
- (D) PCl_5

12. Which of the following species contains a dative bond?

- (A) CH_4
- (B) NaCl
- (C) NH_4^+
- (D) O_2



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1ST YEAR SOLVED EXERCISE MCQs



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Answer Key

1	C	2	B	3	D	4	B
5	B	6	D	7	C	8	B
9	C	10	D	11	C	12	C