CHEMISTRY ONLINE
TUITION

Phone: +442081445350

www.chemistryonlinetuition.com

Email:asherrana@chemistryonlinetuition.com

CHEMISTRY

MULTIPLE CHOICE - 4

CHEMICAL BONDING

ChemistryOnlineTuition Ltd reserves the right to take legal action against any individual/ company/organization involved in copyright abuse.

Chemical Bonding - 4

1. Which feature is present in the ions carbonate, ethanoate, nitrate and phenoxide (phenate)?

(A) all bond angles are 120'

(B) dative covalent bonds

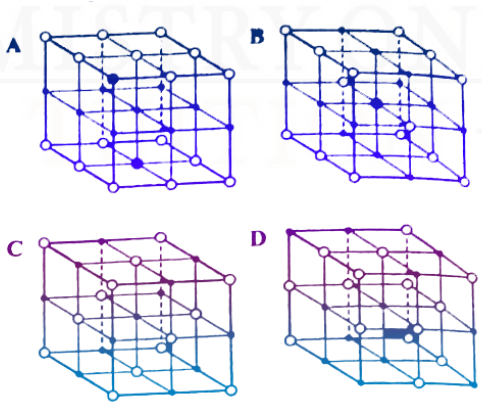
(C) delocalised electrons

(D) hydrogen bonds

2. Which set of properties could apply to a non-ionic compound which has a giant lattice?

	Physical state at room temp.	Electrical conductivity of the molten compound	m.p/°C
A	Liquid	Does not conduct	-114
B	Liquid	Does not conduct	Melts over a temp. range
C	Solid	Conduct well	808
D	Solid	Does not conduct	1610

3. Which diagram best represents the structure of solid magnesium oxide?



4. Which of the following molecules will not form a hydrogen bond with another of its own molecules?

(A) CH_3CHO (B) CH_3NH_2 (C) CH_3OH (D) NH_3

Copyright © ChemistryOnlineTuition Ltd - All rights reserved

5. Why is the boiling point of methane greater than that of neon? [Ar: H, I; C, 12; Ne, 20]

(A) A molecule of methane has a greater mass than a molecule of neon.

(B) A molecule of methane has more electrons than a molecule of neon.

(C) Molecules of methane have stronger inter molecular forces than those of neon.

(D) Molecules of methane from hydrogen bonds, but those of neon do not.

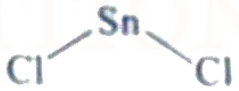
6. The Valence Shell Electron Pair Repulsion theory (VSEPR) is used to predict the shapes of molecules. Which shape is correctly predicted by VSEPR?

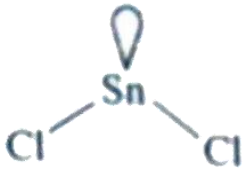
	Nu of bonded electron pairs around central atom	Number of ione pairs around central atom	Shape
A	2	2	Non-linear
B	2	2	Tetrahedral
C	3	1	Trigonal
D	3	1	planar linear

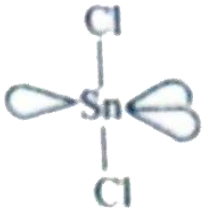
7. Which of the following structures represents the gaseous $SnCl_2$ molecule?

(represents an unsharedn ione pair of electrons.)

A Cl–Sn–Cl

B 

C 

D 

 Copyright © ChemistryOnlineTuition Ltd - All rights reserved

8. When heated, solid iodine readily forms iodine vapour.

What does this information suggest about the nature of the particles in these two physical states of iodine?

	Solid	vapour
A	Ionic	atomic
B	Ionic	molecular
C	Molecular	atomic
D	Molecular	molecular

9. Which one of the following is not planar?

(A) boron trichloride (B) methanol (C) the phenoxide (phenate) ion (D) propene

10. Why is the molecule of BCl_3 planar, whereas the molecule of PH_3 is pyramidal?

(A) The boron atom has no d orbitals available for bonding.

(B) The boron atom in BCl_3 has six electrons in its valency shell, whereas the phosphorus atom in PH_3 has eight.

(C) The repulsion between chlorine atoms is greater than that between hydrogen atoms.

(D) The covalent radius of phosphorus is greater than that of boron.

CHEMISTRY ONLINE TUITION

I am Sorry !!!!!

 Copyright © ChemistryOnlineTuition Ltd - All rights reserved

DR. ASHAR RANA

M.B.B.S / MS. CHEMISTRY

CHEMISTRY ONLINE TUITION

Phone: +442081445350
www.chemistryonlinetuition.com
Email: asherrana@chemistryonlinetuition.com

- Founder & CEO of Chemistry Online Tuition Ltd.
- Completed Medicine (M.B.B.S) in 2007
- Tutoring students in UK and worldwide since 2008
- CIE & EDEXCEL Examiner since 2015
- Chemistry, Physics, Math's and Biology Tutor

CONTACT INFORMATION FOR **CHEMISTRY ONLINE TUITION**

- UK Contact: 02081445350
- International Phone/WhatsApp: 00442081445350
- Website: www.chemistryonlinetuition.com
- Email: asherrana@chemistryonlinetuition.com

Address: 210-Old Brompton Road, London SW5 OBS, UK