CHEMBUDDY CHAPTER 4

4.4 INTERMOLECULAR FORCES



CHOOSE THE CORRECT ANSWER

NO	QUESTION	ANSWER
1	Which one of the following pairs exhibits the same hybrid orbitals of central atom? A. PCl_3 and NH_3 B. PCl_3 and BCl_3 C. NCl_3 and $AlCl_3$ D. $BeCl_2$ and H_2O	A B C D
2	In hybridisation process of ICl_3 molecule, _____ electron/electrons in 5p orbital excited to 5d orbitals before it form ____ hybrid orbital. A. 3, sp^3d C. 1, sp^3d B. 1, sp^3 D. 3, sp^3	A B C D
3	During melting, the intermolecular forces are overcome by heat supplied. Choose the **incorrect** pair.	A B C D

	Substance	Force being overcome
A.	Ice	hydrogen bonds between H_2O molecules
B.	Sulphur	van der Waal's forces between S_8 molecules
C.	Sodium chloride	ionic bond between opposite charged ions
D.	Naphthalene	Van der Waals forces between naphthalene molecules

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4	. Between ethanol, C_2H_5OH, and water, H_2O, which one have higher boiling point? Explain. A. Ethanol has higher boiling point than water because it has greater molar mass. B. Ethanol has lower boiling point than water because it cannot form hydrogen bond between molecules. C. Water has higher boiling point than ethanol because water can from more intermolecular hydrogen bond. D. The boiling point of both are not much different because both molecules can form hydrogen bond.	A B C D
5	Hydrogen fluoride has higher boiling point than ammonia. Choose the most **accurate** statement to explain this. A. Fluorine is less electronegative than nitrogen. Thus, hydrogen bond is stronger. B. Fluorine is more electronegative than nitrogen. Thus, hydrogen bond is stronger. C. Hydrogen fluoride forms more hydrogen bonds per molecule than ammonia can form. D. The fluorine-hydrogen bond is stronger than the nitrogen-hydrogen bond.	A B C D
6	The following statement explain why water is denser than ice **except**: A. Each water molecule in ice is tetrahedrally hydrogen bonded to four other water molecules. B. In ice, water molecules in an open structure. C. At lower temperature, water molecules are far apart. D. There are large spaces within ice.	A B C D

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7	. The conduction of electricity in metallic bonding is due to presence of A. proton. B. lattice. C. delocalised electron. D. nucleus.	A B C D
8	. Because of the mobility of the delocalised valence electrons, metals are A. not able to be deformed without breaking. B. not able to be drawn into wire. C. bad electrical conductor. D. able to transfer heat.	A B C D
9	. Factor(s) that influence(s) the values of boiling points of simple covalent molecule with comparable relative molecular mass is (are). I: molecular geometry II: resultant of dipole moment III: types of intermolecular forces A. I only C. II and III B. I and II D. I,II and III	A B C D
10	Boiling point of halogen increases down a group because A. Atomic size increases down a group. B. Screening effect decreases down a group. C. Number of proton increase, electron closer to nucleus. D. Molecular size increases down a group.	A B C D

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