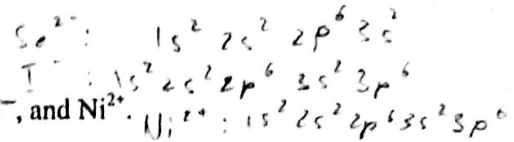


Quiz #1-MA, MB

Name:

Student ID:

Question 1

Give the electron configurations for the following ions: Se^{2-} , I^- , and Ni^{2+} .

Question 2

Write the unabbreviated electron configurations of the following elements: iron, barium and neptunium

Question 3

Predict the electron configurations of S, K, Ti, Sn.

Question 4

Explain why hydrogen fluoride (HF) has a higher boiling temperature than hydrogen chloride (HCl) (19.4 vs. -85°C), even though HF has a lower molecular weight. *F is more electronegative than Cl so the attraction force of HF is higher than HCl*

Question 5

What type(s) of bonding would be expected for bronze (a copper-tin alloy)?

- (A) Ionic bonding
 (B) Metallic bonding
 (C) Covalent bonding with some van der Waals bonding
 (D) van der Waals bonding

Question 6

Match the noble gas with its electron configuration:

- Argon *a. $1s^2$*
 --- Helium *b. $1s^2 2s^2 2p^6$*
 --- Neon *c. $1s^2 2s^2 2p^6 3s^2 3p^6$*
 --- Krypton *d. $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^6$*

Question 7

What type(s) of bonding would be expected for rubber?

- (A) Ionic bonding

(B) Metallic bonding

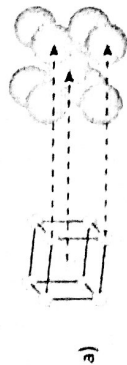
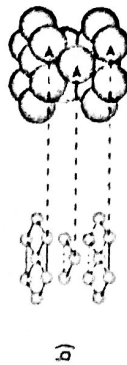
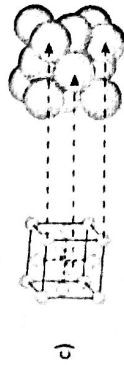
(C) Covalent bonding with some van der Waals bonding

 (D) van der Waals bonding**Question 8**

Compute the %IC of the interatomic bond for each of the following compounds: CdS, and FeO.

Question 9

Label each of the following arrangements of atoms with the correct name.

BCC (Body centered cubic)HCP (Hexagonal close packed)FCC (Face centered cubic)**Question 10**

Circle the letter of each metal whose atoms form a face-centered cubic pattern.

a. zinc c. iron b. copper d. aluminum