

# Quiz #23

## Ionic compound nomenclature and metallic bonding

*Directions:* Choose the letter of the BEST answer and mark it onto your scantron sheet.

- Metals are typically good conductors of electricity. The reason for this is that all the metal atoms in a metallic solid contribute all their valence electrons which can move freely from atom to atom. This model is referred to as:
  - Delocalization model
  - Electron sea model
  - Ocean of electrons model
  - Metallic model
  - Quantum theory model
- Which of the following metals would have a *very, very high melting point* and as such, is used in lightbulb filaments and in airplane and spacecraft parts?
  - Sodium
  - Mercury
  - Tungsten
  - Tin
  - Aluminum
- Metals have some very unique properties. One of the most useful is that it can be *hammered into sheets*. What is this property called?
  - Ductility
  - Malleability
  - Conductivity
  - Durability
  - Hardness
- The special name that is given to a *mixture of metals* is called:
  - Ionic compound
  - Solution
  - Alloy
  - Mixture
  - Tempered
- Which of the following is *NOT* a mixture of metals?
  - 14K gold
  - Stainless steel
  - Brass
  - Bronze
  - All of the above are mixtures of metals

6. Which of the following is the best known example of an *interstitial alloy*?
- A. Brass
  - B. Sterling silver
  - C. Cast iron
  - D. Carbon steel
  - E. All of the above are interstitial alloys

7. Which of the following is written *incorrectly*?
- A. magnesium hydroxide       $\text{MgOH}_2$
  - B. sodium chloride           $\text{NaCl}$
  - C. lithium phosphate         $\text{Li}_3\text{PO}_4$
  - D. copper (II) sulfate         $\text{CuSO}_4$
  - E. aluminum oxide             $\text{Al}_2\text{O}_3$

8. Which of the following is written *correctly*?
- A. Sodium bromide           $\text{SBr}$
  - B. Chromium fluoride         $\text{Cr(II)F}_2$
  - C. Nickel (II) carbonate       $\text{NiCO}_3$
  - D. Beryllium phosphide       $\text{BEPO}_4$
  - E. Copper (I) sulfite          $\text{CuSO}_3$

9. What is the correct name for  $(\text{NH}_4)_3\text{P}$  ?
- A. Sodium hydrogen phosphate
  - B. Aluminum phosphide
  - C. Ammonium phosphate
  - D. Ammonium phosphine
  - E. Ammonium phosphide

10. What is the charge on the *cation* if the formula is  $\text{Mn}(\text{PO}_4)_2$  ?
- A. +1
  - B. +2
  - C. +3
  - D. +4
  - E. +6