

TEST NAME: PSc 4.2 Metallic Bonding Spring 2018
TEST ID: 2251294
GRADE: 09 - Ninth Grade - 12 - Twelfth Grade
SUBJECT: Life and Physical Sciences
TEST CATEGORY: School Assessment

Student: _____

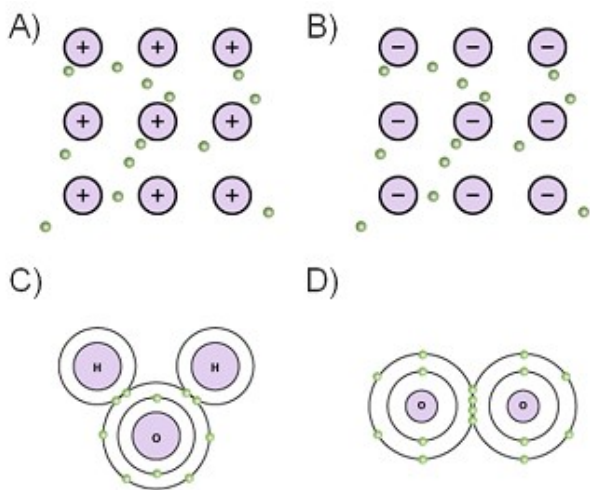
Class: _____

Date: _____

1. A cook is presented with dishes made of copper, clay, plastic, and glass. The cook selects the **copper pot** because she does most of her cooking on the stove.

- A. Copper is ductile and can be stretched to cook the food.
- B. Copper is conductive and will absorb heat to cook the food.
- C. Copper is malleable and can be manipulated to cook food.
- D. Copper is shiny and reflects light, which will cook the food.

2. Which diagram(s) represents the bonding pattern of metals?



- A. A
- B. B
- C. C
- D. D

3. The electrons in the valence shell of many atoms do not leave the atom because the protons in the nucleus attract the electrons. However, in metals,
- A. electrons attract electrons of other elements
 - B. protons attract protons of other atoms.
 - C. protons can flow from one atom to another.
 - D. electrons can flow from one atom to another.
4. The electrons between atoms in metallic bonds
- A. allow for bonding metals to be stable as they are shared between all metal cations.
 - B. allow for bonding metals to be reactive as they are shared between all metal anions.
 - C. are stationary and provide durability to the metal.
 - D. are attracted to the neutrons of the metal.
5. **In metals, the properties of malleability and ductility are explained by the fact that metallic atoms can**
- A. conduct electricity by constantly moving electrons.
 - B. stretch and bend without breaking their bonds.
 - C. bounce light off of their sea of electrons.
 - D. roll past metallic bonds and form new bonds.