

TEST NAME: **PSc 4.3 Covalent Bonding Spring 2018**  
TEST ID: **2251632**  
GRADE: **09 - Ninth Grade - 12 - Twelfth Grade**  
SUBJECT: **Life and Physical Sciences**  
TEST CATEGORY: **School Assessment**

**03/07/18, PSc 4.3 Covalent Bonding Spring 2018**

Student:

---

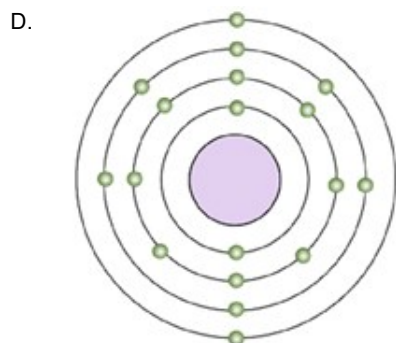
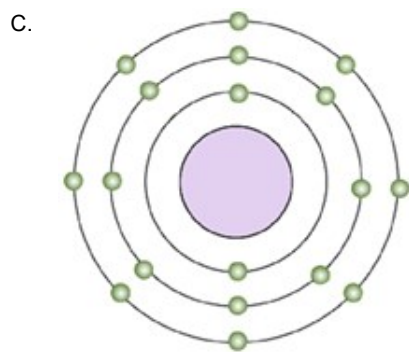
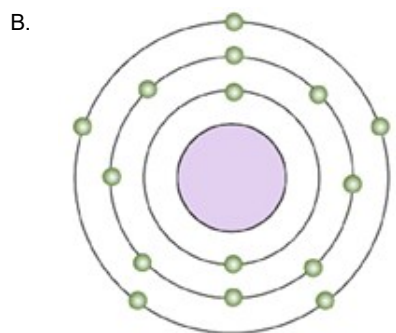
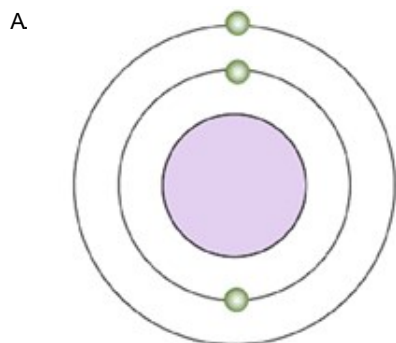
Class:

---

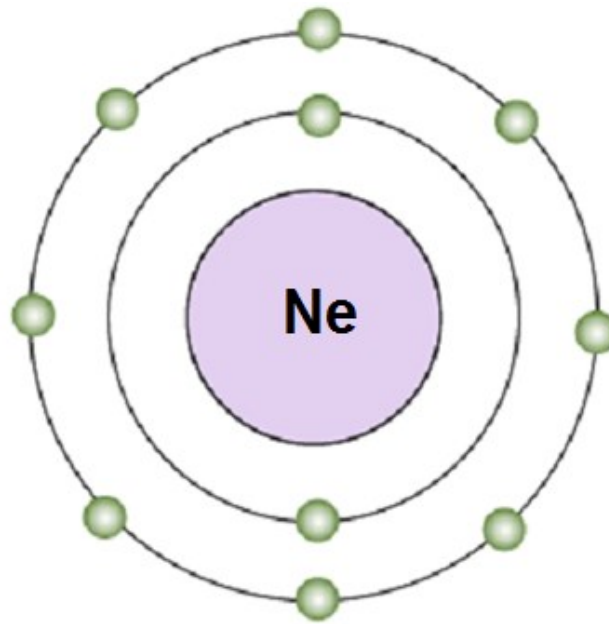
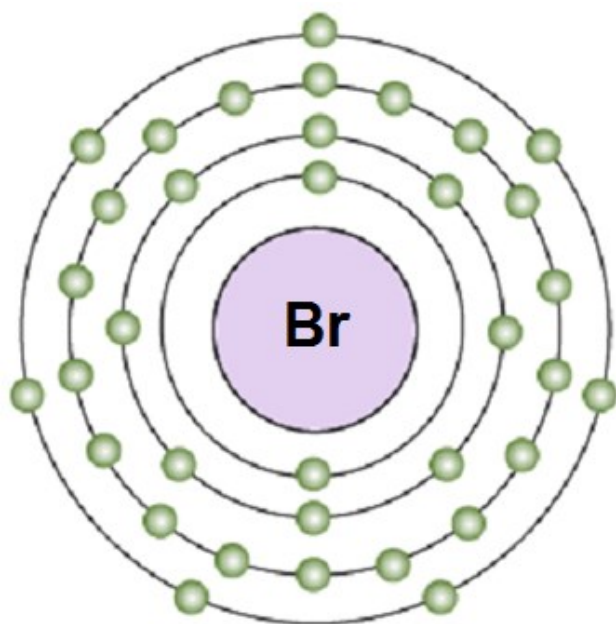
Date:

---

1. Which diagram represents an element that is likely to form **covalent** bonds?



2. What best explains whether bromine (Br) or neon (Ne) is more likely to form a covalent bond?



- A. Bromine forms covalent bonds because it has **seven valence electrons**, but neon has **eight valence electrons** and already fulfills the octet rule (stable atom).
- B. Bromine forms covalent bonds because it has many **electron shells**, but neon has only **two electron shells** and is tightly bound to its electrons.
- C. Neon forms covalent bonds because it can share its **valence electrons**, but bromine has **seven valence electrons** and can **gain** only one more electron.
- D. Neon forms covalent bonds because it has only **two electron shells**, but bromine has **many electron shells** and will lose electrons in order to fulfill the octet rule.

3. What is the formula of the compound Diphosphorus decasulfide?

- A.  $P_2S_{10}$
- B.  $2P_{10}S$
- C.  $S_2P_{10}$
- D.  $2S_{10}P$

4. What is the name of  $C_4N_5$ ?

- A. tetracarbide pentanitride
- B. tetracarbon pentanitride
- C. carbon tetra nitride
- D. Tetracarbon nitrate

5. What is the name of  $\text{CO}_3$ ?

- A. carbide trioxide
- B. carbon trioxide
- C. monocarbide trioxide
- D. trioxide monocarbide