

**TEST NAME: PSc 3.4 Isotopes Spring 2018**  
**TEST ID: 2225512**  
**GRADE: 09 - Ninth Grade - 12 - Twelfth Grade**  
**SUBJECT: Life and Physical Sciences**  
**TEST CATEGORY: School Assessment**

**03/02/18, PSc 3.4 Isotopes Spring 2018**

Student: \_\_\_\_\_

Class: \_\_\_\_\_

Date: \_\_\_\_\_

1. **An isotope of manganese has an atomic number of 25 and an atomic mass of 56 amu. How many neutrons are found in its nucleus?**
  - A. 25
  - B. 31
  - C. 56
  - D. 81
  
2. **The isotope  $^{60}_{27}\text{Co}$  contains**
  - A. 60 protons and 27 neutrons.
  - B. 60 neutrons and 27 protons.
  - C. 33 neutrons and 27 protons.
  - D. 33 protons and 27 neutrons.
  
3. **Two isotopes of the same element must have the same**
  - A. atomic mass and number of neutrons.
  - B. atomic mass and number of protons.
  - C. atomic symbol and number of neutrons.
  - D. atomic symbol and number of protons.
  
4. **How do the three isotopes Sn-116, Sn-118, and Sn-119 differ?**
  - A. Sn-116 has 166 neutrons, Sn-118 has 168 neutrons, and Sn-119 has 169 neutrons.
  - B. Sn-116 has 116 neutrons, Sn-118 has 118 neutrons, and Sn-119 has 119 neutrons.
  - C. Sn-116 has 66 neutrons, Sn-118 has 68 neutrons, and Sn-119 has 69 neutrons.
  - D. Sn-116 has 50 neutrons, Sn-118 has 52 neutrons, and Sn-119 has 53 neutrons.

5. Which of the following distinguishes the isotope uranium-238 from the isotope uranium-235?

- A. number of neutrons in the nucleus
- B. location on the periodic table
- C. amount of negative charge
- D. ability to form ions