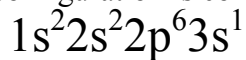


Quiz #19

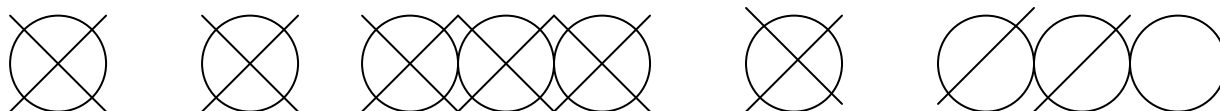
Electron configurations, etc.

1. This electron configuration is correct for which neutral atom?



- A. lithium
- B. boron
- C. magnesium
- D. sodium
- E. argon

2. This orbital notation is correct for which neutral atom?



- A. aluminum
- B. calcium
- C. magnesium
- D. phosphorus
- E. silicon

3. Which of the following rules is being broken here?



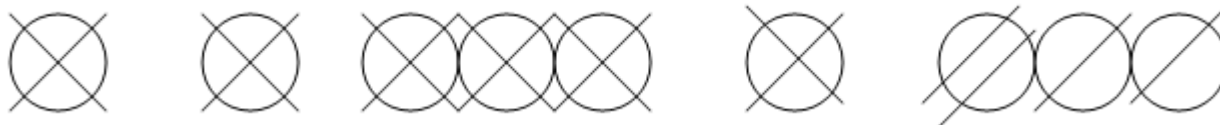
- A. Hund's rule
- B. Aufbau principle
- C. Pauli exclusion principle
- D. Heisenberg's uncertainty principle
- E. No rule is being broken

4. Which of the following rules is being broken here?



- A. Hund's rule
- B. Aufbau principle
- C. Pauli exclusion principle
- D. Heisenberg's uncertainty principle
- E. No rule is being broken

5. Which of the following rules is being broken here?



- A. Hund's rule
- B. Aufbau principle
- C. Pauli exclusion principle
- D. Heisenberg's uncertainty principle
- E. No rule is being broken

6. The *lanthanide* series elements are found in which block?

- A. s
- B. p
- C. d
- D. f
- E. They are all synthesized so they really do not exist.

7. Which of the following is the correct electron configuration for *titanium*?

- A. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 4p^2$
- B. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^2$
- C. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3p^4$
- D. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^4 4p^2$
- E. $1s^2 2s^2 2p^6 3s^2 3p^6$

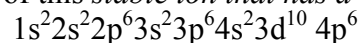
8. What is the name of the *neutral atom* with this noble gas electron configuration? $[\text{Ar}] 4s^2$

- A. calcium
- B. magnesium
- C. germanium
- D. potassium
- E. chlorine

9. What is the name of the *neutral atom* with this noble gas electron configuration? $[\text{Ne}] 3s^2 3p^4$

- A. phosphorus
- B. sulfur
- C. aluminum
- D. sodium
- E. magnesium

10. What is the name of this *stable ion that has a +1 charge* and has this electron configuration?



- A. Mg^{+1}
- B. Li^{+1}
- C. Rb^{+1}
- D. Br^{+1}
- E. O^{+1}