



# Atomic Structure and the Periodic Table

## Multiple Choice Questions

### Set 1

You may use the periodic table to answer these questions.

Tick **one** box.

1. Which element has an atomic number of 16?

- A. selenium
- B. silicon
- C. sodium
- D. sulfur

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2. Which subatomic particle has a negative charge?

- A. atom
- B. electron
- C. neutron
- D. proton

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3. Which element has a relative atomic mass of 56?

- A. iron
- B. iodine
- C. iridium
- D. tin

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4. How many protons are there in an atom of sodium?

- A. 11
- B. 12
- C. 23
- D. 34

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5. Which model of the atom is described as a ball of positive charge with negative electrons embedded in it?

- A. planetary model
- B. solid sphere model
- C. nuclear model
- D. plum pudding model

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6. What is the balanced symbol equation for the reaction between magnesium and oxygen?

- A.  $\text{Mg} + \text{O} \rightarrow \text{MgO}$
- B.  $\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$
- C.  $\text{Mg} + \text{O}_2 \rightarrow \text{MgO}_2$
- D.  $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$

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7. What is a solvent?

- A. a homogenous mixture formed when a solute dissolves in a solvent
- B. the substance that dissolves in a liquid to make a solution
- C. the substance in which a solute dissolves
- D. a substance that will dissolve in a given liquid

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8. What is the electronic structure of an atom of nitrogen?

- A. 2, 2, 3
- B. 2, 5
- C. 2, 8, 4
- D. 2, 2, 8, 2

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9. Lithium exists naturally as two isotopes,  ${}^6\text{Li}$  and  ${}^7\text{Li}$ . The abundance of  ${}^6\text{Li}$  is 8% and the abundance of  ${}^7\text{Li}$  is 92%.

What is the relative atomic mass of lithium to 3 significant figures?

- A. 6.08
- B. 6.92
- C. 7.00
- D. 7.78

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10. Which statement describes the trend in reactivity of the Group 7 elements?

- A. all the elements are equally reactive
- B. the reactivity of the elements decreases as you move down the group
- C. the elements in this group are all unreactive
- D. the reactivity of the elements increases as you move down the group

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