



# Atomic Structure and the Periodic Table

## Multiple Choice Questions

### Set 5

You may use the periodic table to answer these questions.

Tick **one** box.

1. Which of the following elements is a transition metal?

- A. lead
- B. phosphorus
- C. palladium
- D. potassium

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2. Which subatomic particle has no charge?

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

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3. Which of the following elements is the least reactive?

- A. argon
- B. helium
- C. neon
- D. they are all unreactive

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4. How many electrons are there in an atom of boron?

- A. 5
- B. 6
- C. 11
- D. 16

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5. What is the electronic structure of an atom of aluminium?

- A. 2, 3
- B. 2, 8, 3
- C. 2, 8, 4
- D. 2, 2, 7

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6. Which statement about the elements in Group 1 is **not** correct?

- A. they are all very reactive
- B. they all have one electron in their outer shell
- C. their atomic mass increases as you go down the group
- D. they form diatomic molecules

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7. What does a compound contain?
- A. atoms of the same element with different numbers of neutrons ☐
  - B. only one type of atom ☐
  - C. two or more elements chemically combined together ☐
  - D. two or more substances not chemically combined together ☐
8. Chlorine exists naturally as two isotopes,  $^{35}\text{Cl}$  and  $^{37}\text{Cl}$ . The abundance of  $^{35}\text{Cl}$  is 76% and the abundance of  $^{37}\text{Cl}$  is 24%.  
What is the relative atomic mass of chlorine to 3 significant figures?
- A. 35.2 ☐
  - B. 35.5 ☐
  - C. 36.2 ☐
  - D. 36.5 ☐
9. Which separation method would be used to separate a mixture of dyes in coloured ink?
- A. chromatography ☐
  - B. filtration ☐
  - C. fractional distillation ☐
  - D. simple distillation ☐
10. Which of the following elements would produce positive ions when it reacts?
- A. carbon ☐
  - B. hydrogen ☐
  - C. magnesium ☐
  - D. nitrogen ☐