

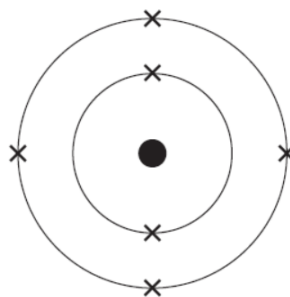
## Atomic Structure

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**2003**

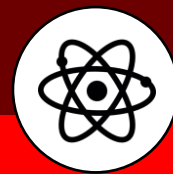
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20 The electronic configuration of an isolated, non-ionised, atom is shown below:



In which group and in which period of the periodic table is this atom situated?

	group	period
<b>A</b>	2	4
<b>B</b>	2	6
<b>C</b>	4	2
<b>D</b>	4	6
<b>E</b>	6	2
<b>F</b>	6	4



## Atomic Structure

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# 2006

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- 5 Listed are the electronic configurations for the atoms of different elements.

Which one represents the most reactive non-metal?

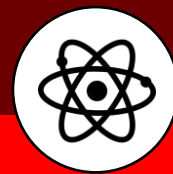
- A 2, 8, 7
- B 2, 4
- C 2, 7
- D 2, 8, 1
- E 2, 6
- F 2, 8, 6

- 17 The element has a mass number of 40 and an atomic number of 20.

Consider the statements and decide which of them are correct.

- 1 The nucleus has a relative mass of 20.
- 2 It is a noble gas.
- 3 It would form a negative ion.
- 4 It is in group 2 of the periodic table.
- 5 It is a non-metallic element.

- A 1, 2 and 3 only
- B 5 only
- C 2, 3 and 5 only
- D 1, 4 and 5 only
- E 4 only
- F 1, 3 and 4 only



## Atomic Structure

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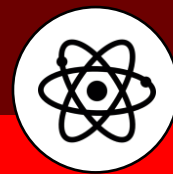
2007

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- 2 Element **x** is in the second period of the Periodic Table. An atom of element **y** has six more protons than an atom of element **x**.

Which statement must be correct?

- A Elements **x** and **y** are in the same period of the table.
- B Elements **x** and **y** have the same number of electrons in the first shell.
- C Element **y** has six more electrons in its outer shell than does element **x**.
- D The nucleon number of element **y** is six more than that of element **x**.

**Atomic Structure**

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**2008**

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- 22 In addition to diamond and graphite, another allotrope of carbon is Buckminster fullerene,  $C_{60}$ , which is in the shape of a sphere.

Which one of the following statements applies to all three allotropes?

- A Weak intermolecular forces hold the structures together.
- B Carbon atoms are bonded to four other carbon atoms.
- C They have similar physical properties.
- D They all react with  $O_2$  to give the same products.
- E They are electrical insulators.