

**s block**

Valence electronic configuration  
 $ns^{1-2}$

**p block**

Valence electronic configuration:  
 $ns^2 np^{1-6}$

**d block**

Valence electronic configuration  
 $ns^2 (n-1)d^{1-10}$

**Question 1:**

By referring to the electronic configuration of each element below:

**A** :  $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^5$

**B** :  $1s^2 2s^2 2p^6 3s^2 3p^6 3d^3 4s^2$

**C** :  $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2$

**D** :  $1s^2 2s^2 2p^6 3s^2$

**E** :  $1s^2 2s^1$

(a) State the period, group and block for each element.

Elements	Period	Block	Valence electron	Group	Ion
<b>A</b>					<b>A</b>
<b>B</b>					<b>B</b>
<b>C</b>					<b>C</b>
<b>D</b>					<b>D</b>
<b>E</b>					<b>E</b>

(b) State how the elements **A** to **E** are arranged in the periodic table?

**The elements are arranged in the order of**

(c) Why are elements **C** and **D** in the same group?

**Both elements C and D have the same number of**  
\_\_\_\_\_.

(d) Why are elements **A** and **C** in the same period?

**Both elements A and C have the same**  
\_\_\_\_\_.

(e) Between C and D, which one of the elements is more electronegative?

\_\_\_\_\_.

Remember!

Size of atom  $\frac{1}{\propto}$  electronegativity

(f) Between A and C, which one of the elements is more electronegative?

\_\_\_\_\_.

(g) Between C and D, which one of the elements has higher first ionization energy?

\_\_\_\_\_.

Remember!

Size of atom  $\frac{1}{\propto}$  IE<sub>1</sub>

(h) Between A and C, which elements has higher first ionization energy (IE<sub>1</sub>)?

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