

O Level Pure Chemistry MCQs

Periodic Table Test 4.0

Q1

Which statement is correct for the group of halogens?

- A Halide ions are all reducing agents, with iodide ions being the weakest.
- B Halogens are all oxidising agents with chlorine being the strongest.
- C Chloride ions can be oxidised to chlorine by bromine.
- D Iodide ions can be oxidised to iodine by chlorine.

Q2

Chromium is an element between Group II and III in the Periodic Table.

Which of the following about chromium are true?

1. It has high melting point.
2. It forms an oxide with formula Cr_2O_3 and CrO .
3. Its chloride solution is coloured.

- A 1 and 2 B 1 and 3 C 2 and 3 D 1, 2 and 3

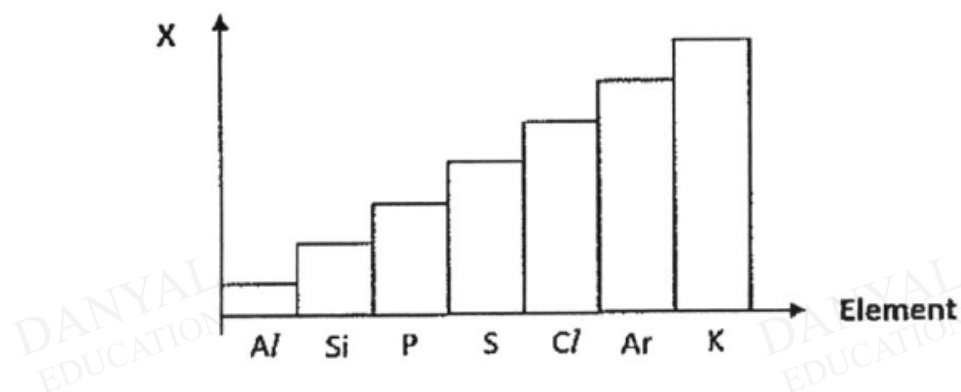
Q3

Which statement about the elements in the Periodic Table is correct?

- A All the elements in the same group in the Periodic Table have the same reactivity.
- B All elements with four valence electrons are metals.
- C Elements in Group II of the periodic table forms an ion with a change of -2 .
- D Elements in the same period have the same number of electron shells.

Q4

The graph shows how a factor **X** changes from aluminium to potassium in the Periodic Table.



What could **X** be?

- A atomic size
- B proton number
- C relative atomic mass
- D number of valence electrons

Q5

Element **R** has the following properties.

- It has a high melting point.
- Its presence can lower the activation energy of a reaction.

What type of element is **R**?

- A alkali metal
- B halogen
- C noble gas
- D transition metal

Q6

Excess bromine is shaken with a mixture of sodium chloride and sodium iodide solutions. Aside from bromine, what will the final solution contain?

- A chlorine, iodine, sodium bromide
- B iodine, sodium bromide, sodium chloride
- C iodine, sodium bromide, sodium iodide
- D sodium bromide, sodium chloride, sodium iodide

Q7

Which element in the table is most likely to be a transition metal?

element	melting point /°C	density (g/cm ³)	number of chlorides known
A	-7	3.1	2
B	113	2.07	1
C	1083	8.92	2
D	1521	1.12	1

Q8

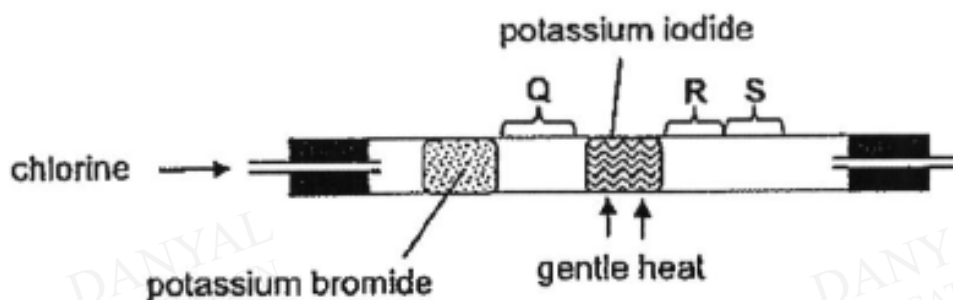
Elements X and Y are in Group VII of the Periodic Table. X is a liquid at room temperature. Y is a solid at room temperature. Which statement(s) is/are correct?

- I Atoms of Y have more protons than atoms of X.
- II Molecules of Y have more atoms than molecules of X.
- III Y displaces X from aqueous solution of X⁻ ions.

- A I only
- B III only
- C II only
- D I, II and III

Q9

Using the apparatus shown, chlorine was passed through the tube. After a short time, coloured substances were seen at Q, R and S.



What was seen at Q, R and S?

- | | <u>at Q</u> | <u>at R</u> | <u>at S</u> |
|---|------------------|------------------|------------------|
| A | green gas | violet vapour | black solid |
| B | green gas | red-brown vapour | violet vapour |
| C | red-brown vapour | violet vapour | black solid |
| D | red-brown vapour | violet vapour | red-brown vapour |

Q10

Some physical properties of elements **E**, **F** and **G** are given in the table below.

Element	E	F	G
Melting point/ °C	-7	63	-189
Boiling point/ °C	58	766	-186
Colour	Dark red	Silvery	colourless
Density/ gcm ⁻³	3.1	0.86	1.7 x 10 ⁻³

Which group of the Periodic Table does **E**, **F** and **G** belong to?

	E	F	G
A	Group I	Group 0	Group VII
B	Group VII	Group I	Group 0
C	Group VII	Group 0	Group I
D	Group 0	Group I	Group VII

Answers

Periodic Table Test 4.0

Q1 D

Q2 D

Q3 D

Q4 B

Q5 D

Q6 B

Q7 C

Q8 A

Q9 C

Q10 B

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