

1

Which of these decreases down Group 2?

- A First ionisation energy
- B Atomic radius
- C Number of protons
- D Reactivity with water

(Total 1 mark)

2

Sulfur dioxide (SO<sub>2</sub>) is produced when some fossil fuels are burned.

Which of the following statements is true?

- A Sulfur dioxide can be removed from waste gases in a power station by an acid-base reaction with calcium oxide.
- B Sulfur dioxide is insoluble in water.
- C Sulfur dioxide is a basic oxide.
- D Sulfur dioxide is an ionic compound.

(Total 1 mark)

3

An aqueous solution of a sodium salt gave no precipitate when treated with either silver nitrate solution or barium chloride solution. Which one of the following could be the formula of the sodium salt?

- A NaI
- B Na<sub>2</sub>SO<sub>4</sub>
- C NaBr
- D NaF

(Total 1 mark)

4

Which one of the following is a correct procedure for isolating a sample of hydrated copper(II) sulphate from a mixture of hydrated copper(II) sulphate and barium sulphate?

- A filter, crystallise filtrate, dry the crystals
- B filter, dry the solid on the filter paper
- C add water, filter, dry the solid left on the filter paper
- D add water, filter, crystallise filtrate, dry the crystals

**(Total 1 mark)**

**5** Which one of the following solutions would **not** give a white precipitate when added to barium chloride solution?

- A silver nitrate solution
- B dilute sulphuric acid
- C sodium sulphate solution
- D sodium nitrate solution

**(Total 1 mark)**

## Mark schemes

**1** A

[1]

**2** A

[1]

**3** D

[1]

**4** D

[1]

**5** D

[1]