



**GCSE Chemistry A (Gateway Science)**  
**J248/04** Chemistry A C4-C6 and C7 (Higher Tier)

**Question Set 20**

1 Chemical tests are used to identify gases, anions and cations.

- A student has an unknown solution.
- She thinks that the solution contains copper(II) ions and bromide ions.

Describe the chemical tests she does to confirm the presence of these two ions in the solution.

[4]

Copper (II) ions  $\rightarrow$  addition of NaOH, if  $\text{Cu}^{2+}$  is present a blue precipitate will form.

Bromide ions  $\rightarrow$  addition of nitric acid, then silver nitrate.  
If a cream precipitate forms,  $\text{Br}^-$  is present.

**Total Marks for Question Set 20: 4**