

Paper 3

Questions are applicable for both core and extended candidates

- 1 Table 2.1 shows the masses of some of the ions in a 1000 cm³ sample of river water.

Table 2.1

name of ion	formula of ion	mass of ion in 1000 cm ³ of river water / mg
	NH ₄ ⁺	0.4
calcium	Ca ²⁺	1.4
chloride	Cl ⁻	0.1
hydrogencarbonate	HCO ₃ ⁻	1.2
magnesium	Mg ²⁺	0.6
nitrate	NO ₃ ⁻	0.8
phosphate	PO ₄ ³⁻	1.3
sodium	Na ⁺	0.5
	SO ₄ ²⁻	0.4

- (a) Answer these questions using the information in Table 2.1.

(ii) Name the compound that contains NH₄⁺ and SO₄²⁻ ions only.

..... [1]

- 2 Sulfur is an element in Group VI of the Periodic Table.

(a) State the meaning of the term element.

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 [1]

- 3 (c) Sulfuric acid is a compound.

(i) Define the term compound.

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 [1]