

- Complete the following table by filling in the compound name or formula as required.

Marks
4

Name	Formula
	CuSO ₄
	NaNO ₃
magnesium chloride	
iron(III) oxide	

- Complete the following table by filling in the compound name or formula as required.

Marks
2

Name	Formula
lead(II) chloride	
dinitrogen trioxide	
	Na_2SO_4
	SF_6

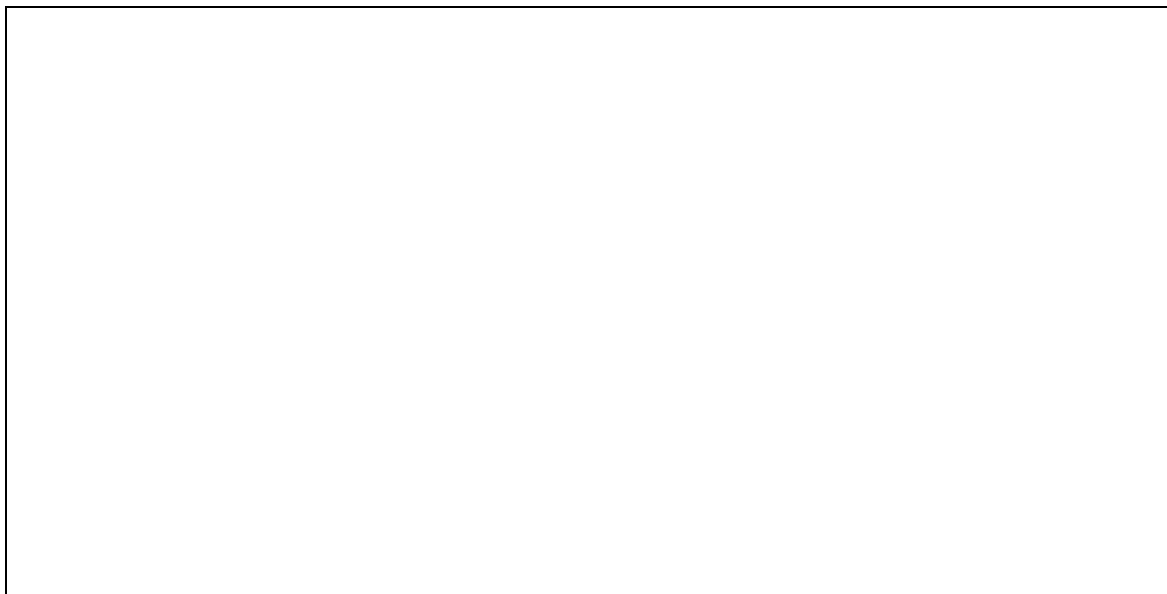
- Complete the following table.

Name	Formula
calcium nitride	
carbon tetrabromide	
	Fe_2O_3
sulfuric acid	

Marks
2

-
- Depict the arrangement of water molecules around an ion. Explain why many ionic compounds are soluble in water.

Marks
3



- Complete the following table.

Name	Formula
	NH ₃
phosphorus trichloride	
	KHCO ₃
calcium phosphate	

Marks
2

- Complete the following table.

Formula	Systematic name
CaBr_2	
	potassium hydrogencarbonate
KMnO_4	
$\text{Fe}(\text{NO}_3)_3$	

Marks**4**

- Account for why solid metals can conduct an electric current, but solid ionic compounds cannot.

Marks
3

- Give the formula and name of the binary compound formed from the following elements.

	Formula	Name
lithium and oxygen		
calcium and hydrogen		

<ul style="list-style-type: none">• Ionising radiation is defined as radiation that has energy greater than 1.93×10^{-18} J per photon. Using this criterion, determine whether UV light of $\nu = 1.00 \times 10^{16}$ Hz would be ionising.	Marks 2
<ul style="list-style-type: none">• The atoms in both iodine and diamond are joined by covalent bonds. However, iodine is a soft, low-melting point solid while diamond is very hard and has an extremely high melting point. Account for these differences in properties.	2

