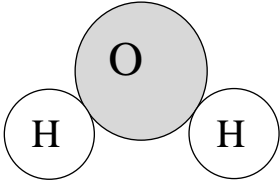
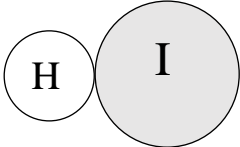
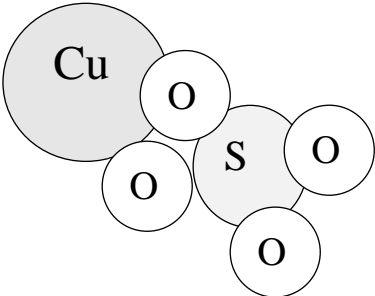
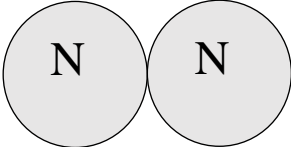


- 1 The correct symbols for the element calcium, carbon, chlorine and copper are respectively:
A C, Ca, Ch, Co
B Ca, C, Cl, Cu
C Ca, C, Cl, Co
D Ca, C, Ch, Cu [1]
- 2 Which of the following substances is a compound?
A sea water
B air
C ethanol
D calcium [1]
- 3 The compound with formula FeO is
A Iron(II) oxide
B Iron(III) oxide
C Iron (I) oxide
D Iron oxygen [1]
- 4 The formula for the hydroxide of a metal **M** is $M(OH)_3$.
The valency of the metal **M** is
A 1
B 2
C 3
D 4 [1]
- 5 For which radical is the formula and valency correct?

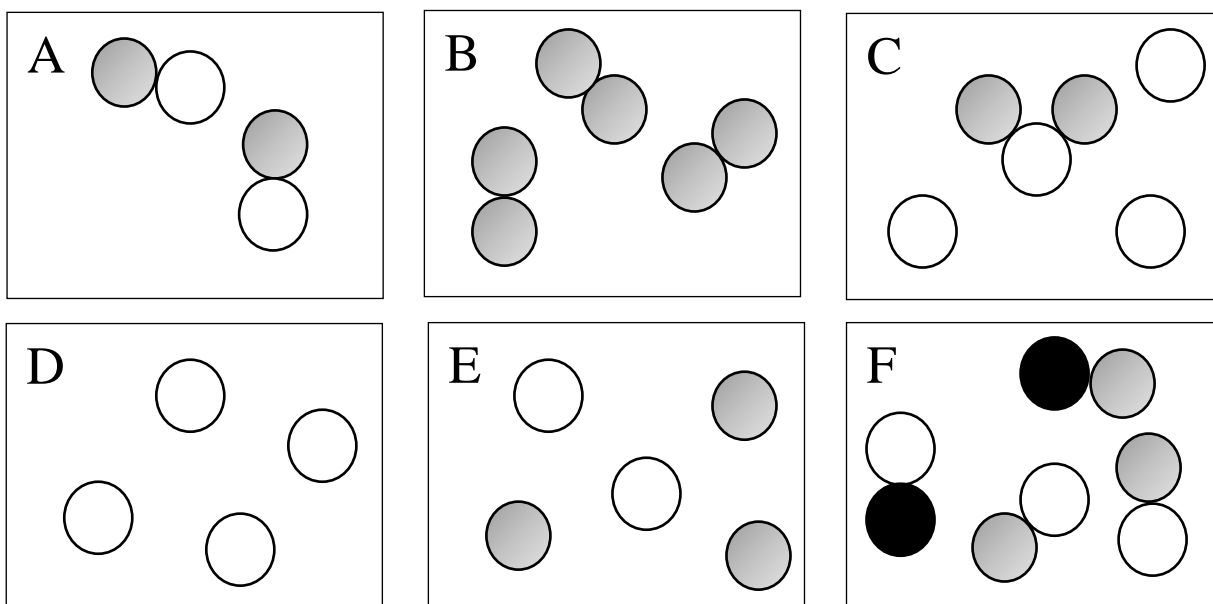
	radical	formula	valency
A	ammonium	NH_4	1
B	sulfate	SO_4	3
C	nitrate	NO_3	2
D	carbonate	CO_3	1

[1]

- 1 Copy and complete the table below.
The first one has been done as an example.

	Number of atoms present	Formula
	Hydrogen: 2 Oxygen: 1	H ₂ O
		
		
		FeCl ₃
	Carbon: 1 Hydrogen: 4	
		

2 The pictures of particles in different substances are shown below.



- Which **two** pictures show element? [2]
- Which picture shows a mixture of element and compound? [1]
- Which picture shows a mixture of elements? [1]
- Which picture shows a compound? [1]
- Which picture shows a mixture of compounds? [1]

2 Match the name of the compounds on the left with its formula on the right.

Aluminium chloride	CaCO_3
Zinc nitrate	Cu_2O
Copper (I) oxide	AlCl_3
Calcium carbonate	KOH
Copper (II) bromide	CuBr_2
Potassium hydroxide	$\text{Zn}(\text{NO}_3)_2$

[6]

4 The table below is an arrangement of **elements** in a special type of table.

																	He
														O			
Na											Al			S	Cl	Ar	
K							Fe			Cu							
	Ca														I		

Use the above table to answer the following question.

- (a) How many non-metals are present in the table? [1]
 - (a) Write the names of **three** metals. [3]
 - (b) Give the names **two** transition elements. [2]
 - (c) Give the names of elements having valency O. [2]
 - (d) Identify the non-metal with valencies 2, 4 and 6. [1]
 - (e) What is the name given to the above table? [1]
- 5 Compounds are formed when elements combine together chemically. They are represented in a shorter way by formulae using the cross multiplication method. Use the above named method to write down the formulae of the following compounds:
- (i) Magnesium oxide [1]
 - (ii) Iron (III) oxide [1]
 - (iii) Calcium chloride [1]
 - (iv) Lead (II) bromide [1]
 - (v) Silver oxide [1]
- 6 Alison and Liz burn a piece of magnesium ribbon over a Bunsen burner. After a while a white powder, magnesium oxide is formed.
- (i) Write down a visible change taking place in the above experiment. [1]
 - (ii) Is the white powder an element or a compound? [1]
 - (iii) Is the change which occurred above a chemical change or a physical change? Justify your answer. [2]
 - (iv) Identify the reactants and product in this reaction. [2]
 - (v) Write a word equation for this reaction. [2]