## Paper 1

## Questions are applicable for both core and extended candidates

- 1 Which list contains **only** chemical changes?
  - A melting, evaporating, dissolving
  - B rusting, freezing, cracking
  - **C** neutralisation, polymerisation, combustion
  - **D** boiling, condensing, distillation
- 2 Which row describes a chemical change?

	new substances are made	there is a change of state
Α	always	always
В	always	sometimes
С	never	always
D	never	sometimes

- **3** Which process involves a chemical change?
  - A adding sodium to water
  - **B** boiling water
  - **C** dissolving sodium chloride in water
  - **D** producing water from aqueous sodium chloride

- 4 Which changes are physical changes?
  - 1 melting ice to form water
  - 2 burning hydrogen to form water
  - 3 adding sodium to water
  - 4 boiling water to form steam
  - **A** 1 and 2 **B** 1 and 4 **C** 2 and 3 **D** 3 and 4
- 5 Which row identifies a chemical change and a physical change?

	chemical change	physical change
Α	boiling ethanol	burning ethanol
В	burning ethanol	evaporating ethanol
С	dissolving ethanol in water	burning ethanol
D	evaporating ethanol	dissolving ethanol in water

- 6 Which process is a physical change?
  - A burning wood
  - B cooking an egg
  - **C** melting an ice cube
  - **D** rusting iron
- **7** A sequence of changes involving sulfur is shown.

$$\begin{array}{ccc} S & \xrightarrow{\text{change 1}} & S & \xrightarrow{\text{change 2}} & SO_2 \\ \text{solid} & & \text{liquid} & & \text{gas} \end{array}$$

Which row describes the changes?

	change 1	change 2
Α	chemical	chemical
В	chemical	physical
С	physical	chemical
D	physical	physical