End-of-unit 2 test

20 marks

1 The table shows the temperatures at which different substances melt.

Substance	Temperature at which substance melts
Margarine	36 °C
Peanut oil	3 °C
Candle wax	60 °C
Coconut oil	24 °C

a What is the term for the temperature at which a substance melts?

_____

b Which substance in the table melts at the lowest temperature?

_____

c Which substance needs the most heat to melt it?

_____

d Explain why the temperature at which a substance melts is a property of the substance.

_____

2 Choose the correct answer to each of the following questions.

Draw a circle around the letter of the correct answer.

a An irreversible change happens when . . .

A: a substance changes into a new substance

B: a substance changes, but can be changed back again

C: a substance is heated.

b If you burn a candle, which change is reversible?

A: The wick of the candle burns.

B: The flame gives off heat.

C: The candle wax melts.

c Which statement about conductors is true?

A: Substances that are good conductors of electricity are not good conductors of heat.

B: Metals are good conductors of heat and electricity.

C: Conductors slow down the transfer of heat or electricity.

3 Zara investigates the effect of temperature on the rate of dissolving.

She set up four beakers each containing 100 ml of water and 5 ml of sugar.

The water in each beaker was at a different temperature as follows:

- Beaker 1: 10 °C
- Beaker 2: 20 °C
- Beaker 3: 30 °C
- Beaker 4: 40 °C

Zara records the time taken for the sugar to dissolve.

a Predict in which beaker the sugar will dissolve fastest.

_____

b Explain your prediction from part a.

_____

c Name the dependent variable in Zara's investigation.

_____

d Name the independent variable in Zara's investigation.

_____

e _____ and _____ are two control variables in the investigation.

f Was Zara's test a fair test? Explain your answer.

_____

_____

g Why is dissolving not a chemical reaction?

_____

_____

4 Complete the following sentences.

a The metal iron rusts when it is exposed to air and water. Rusting is a chemical reaction.

The reactants in the chemical reaction are _____, _____ and

_____.

b The product is _____

c The evidence for the chemical reaction is a _____.