On your answer sheet, write in or circle the correct letter for each question.

7Ea

1 Filtering separates:

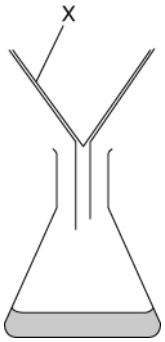
A a liquid from a solution

B two solids in a mixture

C a solid from a liquid

D two liquids in a mixture.

2 In the apparatus diagram, what is part 'X'?



A filter funnel **B** filter paper

C conical flask **D** a mistake in the drawing.

3 What does 'insoluble' mean?

A a solid substance that won't dissolve in a liquid

B a liquid that doesn't dissolve any solids

C a solid substance that dissolves in a liquid

D any substance that does not dissolve

4 Whipped cream is a mixture of air bubbles dispersed in solid butterfat. What kind of mixture is this?

A a solution

B a suspension

C a colloid

D none of these

7Eb

1 What do you see when a solid dissolves in a liquid?

A the solid disappears

B the solid sinks to the bottom of the liquid

C the liquid evaporates

D the liquid changes colour

2 What is a solute?

A a liquid that dissolves a solid

B a mixture of a solid dissolved in a liquid

C a substance that dissolves in a liquid

D two liquids that don't mix together

3 A solution is saturated with a solid solute. What happens when more solute is stirred into it?

A The added solute dissolves.

B The added solute disappears.

C The added solute evaporates.

D The added solute sinks to the bottom.

4 Sodium chloride has a solubility of 36 g per 100 g of water at 20 °C. Predict its solubility in 100 g of water at 30 °C.

A less than 36 g

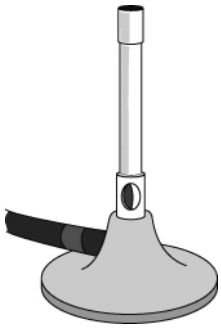
B more than 36 g

C 36 g

D not possible to predict

7Ec

1 If this Bunsen burner was lit, what kind of flame would it have?



A a quiet yellow flame

B a medium blue flame

C a noisy blue flame

D not possible to tell

2 When heating to dryness, why do you stop heating a solution before all the liquid has gone?

A to make a concentrated solution

B to stop the solution getting too hot

C to stop the evaporating basin breaking

D to stop the solution spitting

3 When a solution of copper sulfate in water is heated to dryness, what is left?

A water

B blue copper sulfate crystals

C white copper sulfate powder

D nothing

4 Water has a boiling point of 100 °C. At what temperature does water evaporate?

A 100 °C

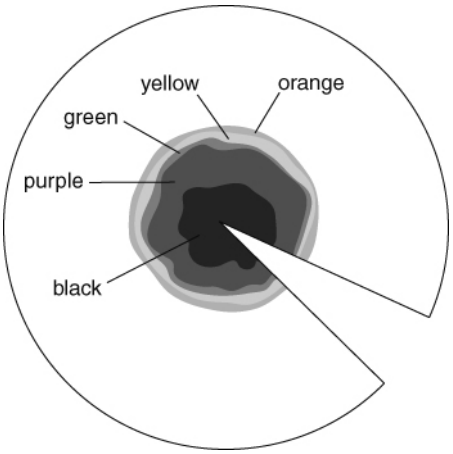
B temperatures above 100 °C only

C temperatures above 0 °C only

D water doesn't evaporate

7Ed

1 This chromatogram was made using black ink. How many different coloured inks were in the mixture?



A 4 **B** 6

C 5 **D** 7

2 What is chromatography used for?

A to separate a solid from a liquid

B to separate out dissolved solids

C to separate a liquid from a solution

D to separate a mixture of liquids

3 Why do the substances separate in a chromatogram?

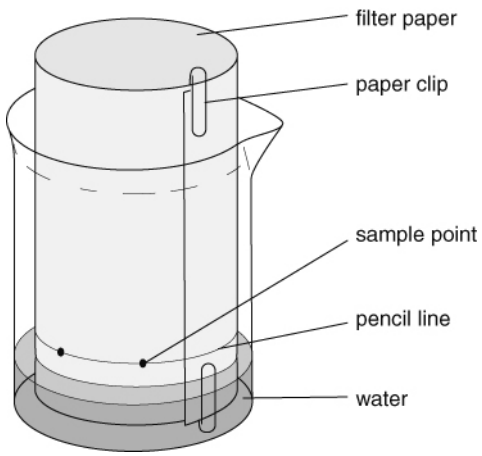
A The solvent dissolves the substances and carries them up the paper.

B Some of the substances evaporate before the others.

C The solvent carries the substances at different speeds.

D The solvent evaporates at different points up the chromatogram.

4 In this chromatography experiment, why are the sample points placed above the water line?



A so that the samples don't dissolve in the water at the bottom

B so that the pencil line dissolves as the water moves up the paper

C so that the samples evaporate

D so that the samples mix together

7Ee

1 What is distillation?

A evaporating the liquid from a mixture to collect the solid

B the separation of a liquid from a mixture using evaporation then condensation

C the separation of solutes for analysis

D the removal of salt from water

2 What does a solar still use to evaporate water?

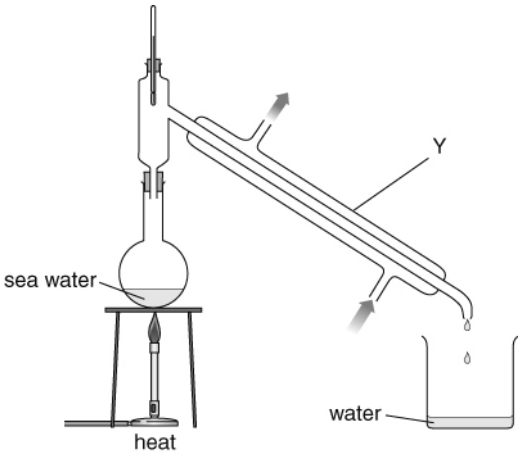
A energy from the warm ground

B energy from the Sun transferred by light

C energy from the Sun transferred by heat

D energy from electricity

3 In this distilling apparatus, what is 'Y' called?



A sausage-shaped tube

B conductor

C condenser

D flask

4 How does distillation work?

A The liquid from a solution is evaporated, and then condensed to collect it.

B The liquid from a mixture is condensed, and then evaporated to collect it.

C The mixture is heated and then cooled to collect the liquid.

D Water is evaporated to steam and then condensed back to water.