RAFFLES GIRLS' PRIMARY SCHOOL

WEIGHTED ASSESSMENT (1)

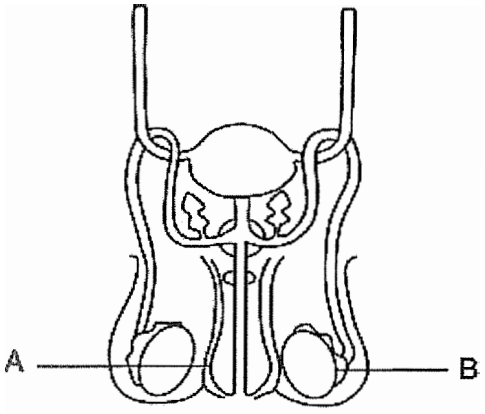
Your Score	/ 25
Parent's signature	

Name : _____ **Index No.:** ____ **Class: P5**___ **Date:**_____

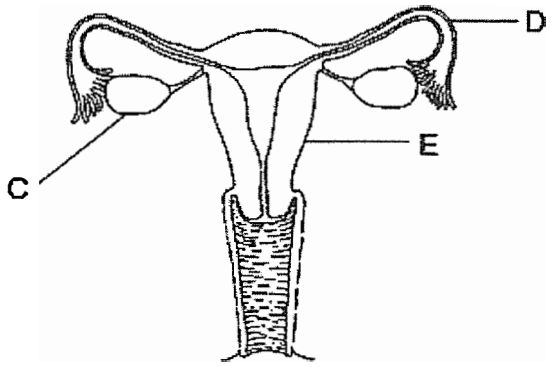
SCIENCE **Duration: 40 minutes**

For questions 1 to 6, write your answers clearly in the spaces provided.
The number of marks is shown in brackets [ ] at the end of each question or part question.

1. The male and female human reproductive systems are shown below.



Male reproductive system



Female reproductive system

(a) Name the parts labelled B and E. [1]

B: _____

E: _____

Score	/ 1

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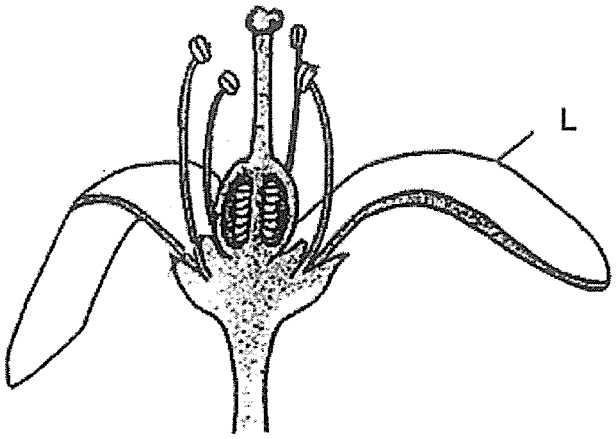
(b) Explain why part B is important in human reproduction. [1]

(c) In which part of the reproductive systems, A, B, C, D or E, does fertilization take place? [1]

Score	/2

2. Study the cross-section of the insect-pollinated flower below.



(a) Draw an arrow (⟶) in the diagram above to show how pollination takes place. [1]

(b) State the function of the part labelled L in the flower. [1]

_____

(c) Based on the diagram above, will the fruit developed from the flower have one or many seeds? Give a reason for your answer. [1]

_____

_____

Score	3

3. Mavis found fruit P and fruit Q which were of the same mass. She wanted to carry out an experiment to investigate if the fruits were dispersed by water.

(a) Identify the following variables: [2]

(i) Independent variable:

_____

(ii) Dependent variable:

_____

(b) The list below shows some of the steps Mavis would take when conducting the experiment.

Put a tick (√) next to the step Mavis should include in her experiment. Leave the box empty if the step is not required in her experiment. [1]

Steps required	Procedure
	Drop fruit from a height of 1.5 m in front of a fan.
	Check if the fruit is edible.
	Cut open fruit to see if it was filled with liquid.
	Put the fruit in a pail of water and observe.

Score	/ 3

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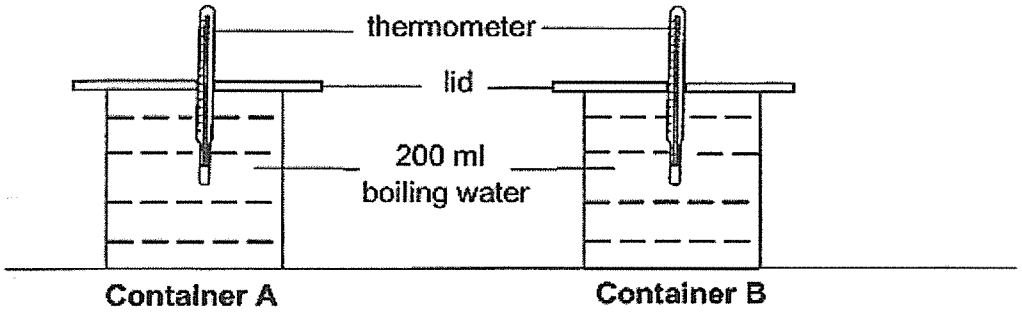
(c) State one other variable in the experiment that Mavis must keep the same to ensure a fair test. [1]

(d) State a physical characteristic that the fruit has to help it dispersed by water. [1]

4. Alexis poured 200 ml of boiling water into two identical containers, A and B, as shown below. Then the containers were left on a table in a room with a constant temperature of 29 °C.



She recorded the time taken for the boiling water to cool to 40 °C in the table shown below.

Container	Time taken for boiling water to cool to 40 °C (mins)
A	50
B	50

(a) Give a reason why the temperature of water in both containers, A and B, decreased. [1]

Score	/3

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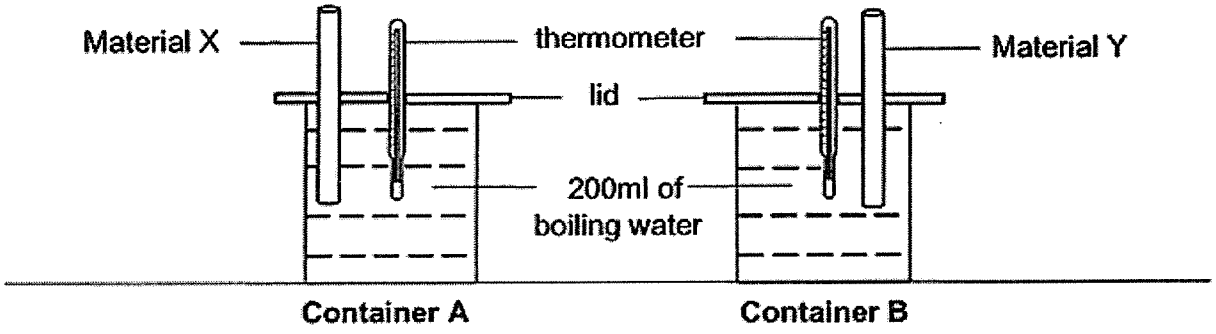
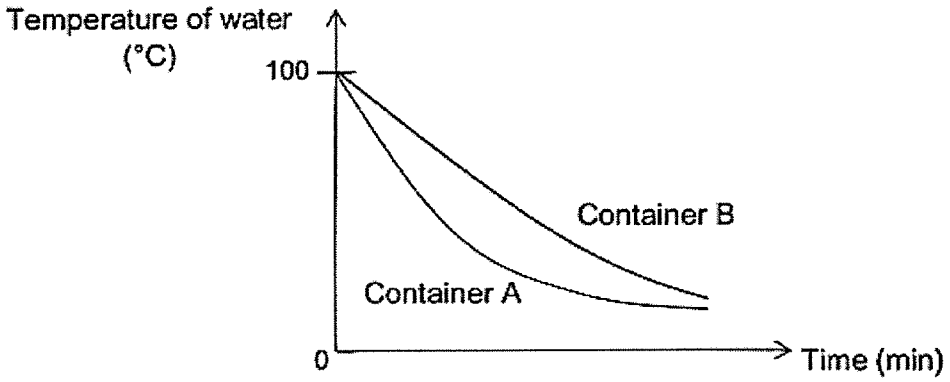
Alexis conducted a second experiment by inserting two rods made of Material X and Y into Container A and B respectively as shown below.



She then plotted the change in the temperature of the boiling water in both containers over time as shown in the graph below.



(b) Which material, X or Y, would be more suitable to be made into a container to keep drinks cold? Explain your answer. [2]

Score	
	2

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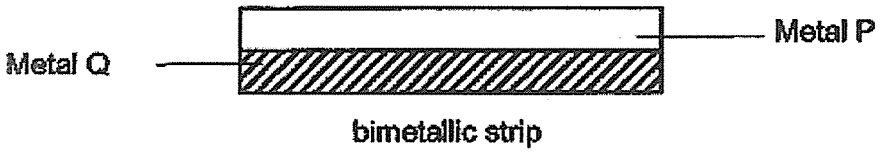
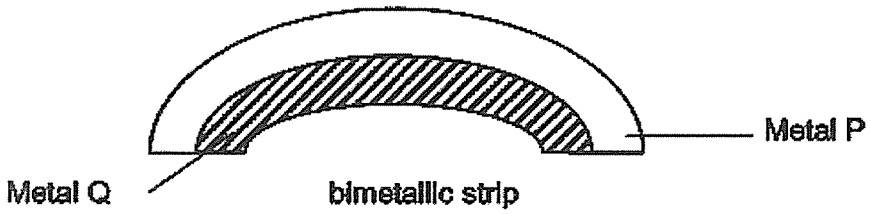
(c) What would be the temperature of the water in the containers A and B after ten hours? Give a reason for your answer. [1]

Alexis had a bimetallic strip made of metals P and Q as shown below.



bimetallic strip

After heating, the strip bends as shown below.

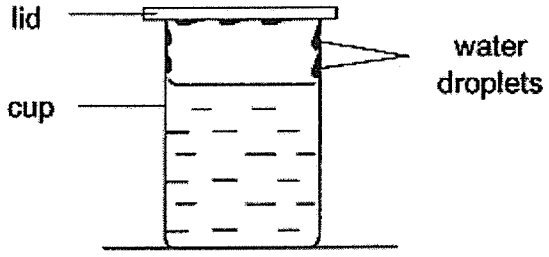


bimetallic strip

(d) Give a reason for the observation above. [1]

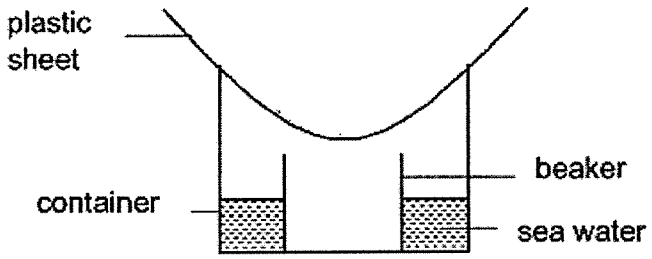
Score	2

5. Andy placed a cup of drink on a table in a room of temperature 25 °C. After two minutes, Andy saw water droplets as shown in the diagram below.



(a) Based on his observation, is the temperature of Andy's drink higher, lower or same as the room temperature? Explain your answer. [2]

The following diagram shows the set-up Andy used to collect fresh water from sea water. He placed the set-ups in the garden on a sunny day for seven hours.



Set-up W

(b) Explain how fresh water could be collected using the set-up above. [2]

Score	
	4

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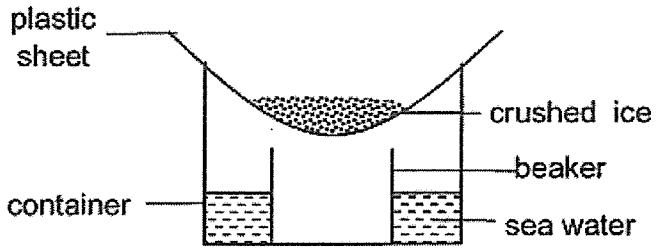
Andy repeated the experiment using a similar set-up, placing crushed ice on the plastic sheet as shown below.

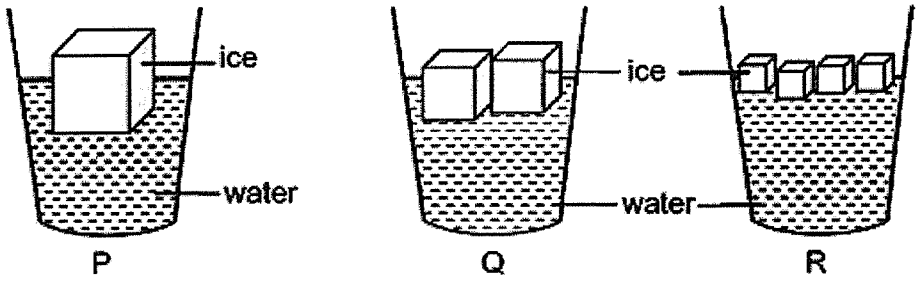


Set-up R

(c) Explain why Andy was able to collect more water using set-up R. [1]

Score	1

6. Jean wanted to find out how the exposed surface area of ice cube(s) would affect the decrease in the temperature of water. She filled identical cups, P, Q and R, with the same volume of water and added the same mass of ice as shown below.



She recorded the temperature of the water at the start of the experiment and after ten minutes as shown in the table below.

Cups	Temperature of water at the start of the experiment (°C)	Temperature of water after 10 mins (°C)
P	35	30
Q	35	(a) _____
R	35	20

(a) Write the temperature of water in cup Q after ten minutes in the box above. [1]

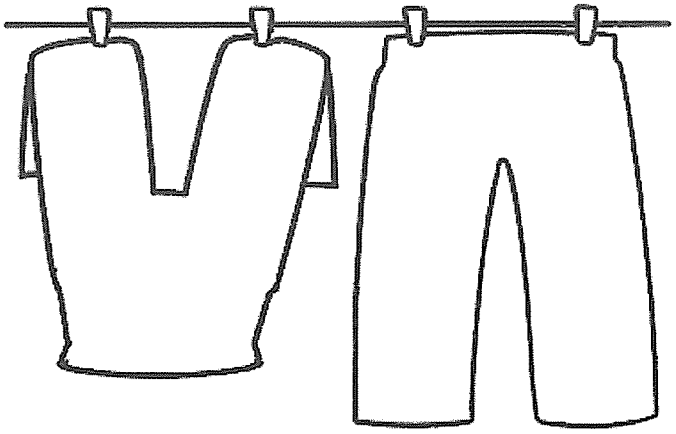
(b) Based on the results above, how does the size of the ice cube affect the decrease in temperature of water? [1]

_____

_____

Score	/2

Jean tried to dry two identical wet trousers, X and Y, as shown in the diagram below. She folded trousers X before hanging it to dry but not trousers Y.



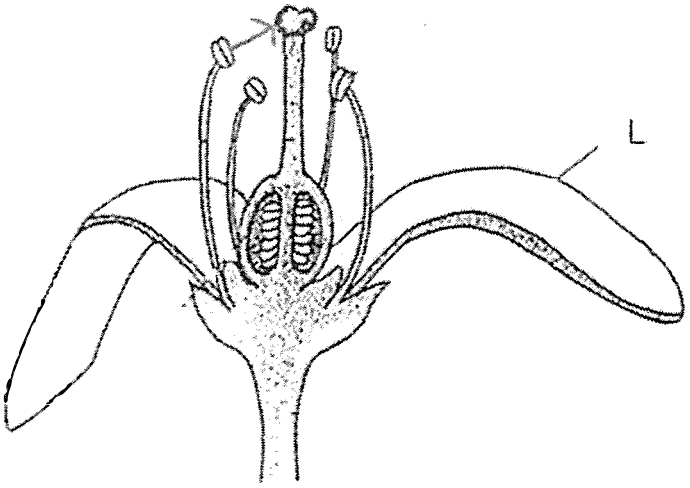
X Y

(c) Which one of the trousers, X or Y, will dry faster? Explain. [2]

Score	/ 2

THE END

SCHOOL : RAFFLES GIRLS' PRIMARY SCHOOL
LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : WEIGHTED ASSESSMENT (1)

Q1)	a) B: testis E: Womb b) Part B produces the male reproductive cell to fertilise the egg cell for reproduction to occur. c) D.
Q2)	 a) b) It attracts pollinators to pollinate the flower. c) Many seeds. There are many ovules in the ovary. Each ovule will develop into one seed after fertilisation.
Q3)	a) i) Type of fruit ii) Ability to float on water b) Only tick option: Put the fruit in a pail of water and observe c) The amount of water in each pail should be the same d) Fibrous husk
Q4)	a) The water lost heat to the surrounding air. b) Material Y. The temperature of water in container B dropped more slowly. Material Y is a poorer conductor of heat. Material Y

	will conduct heat from the surrounding to the drinks at a slower rate. c) 29°C. The water will lose heat to the surrounding air until it reaches room temperature. d) Metal P expanded more than metal Q, as some metals expand more than others.
Q5)	a) Higher. The water droplets are formed on the inner surface of the cup. The warm water vapour in the cup lost heat to the cooler inner surface of the cup and condensed forming water droplets on the inner surface of the cup and lid. b) The sea water gained heat from the surrounding air and evaporated. Warm water vapour lost heat to the cooler inner surface of the plastic sheet and condensed to form water droplets. The water droplets then rolled down and collected in the beaker. c) The plastic sheet is colder than that in set-up W. Hence, rate of condensation is faster.
Q6)	a) 25 b) As the size of the ice cube increases, the decrease in temperature of water decreases. c) Trousers Y. It is not folded so it has a larger exposed surface area. Hence the water on the wet trousers will evaporate faster.