

PAYA LEBAR METHODIST GIRLS' SCHOOL (PRIMARY)
SCIENCE WEIGHTED ASSESSMENT 2 2024
PRIMARY 5

Section A	/ 14
Section B	/ 16
Total	/ 30

Name : _____ ()

Class : Primary 5 _____

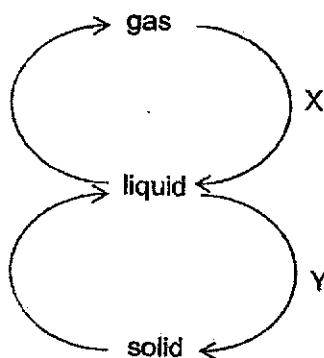
Date : _____

Parent's Signature : _____

Section A: Multiple Choice Questions (14 marks)

For each question from 1 to 7, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write your answer in the brackets provided.

1. The diagram shows the change of state of water.



What are processes X and Y?

	X	Y
(1)	freezing	evaporation
(2)	condensation	melting
(3)	freezing	condensation
(4)	condensation	freezing

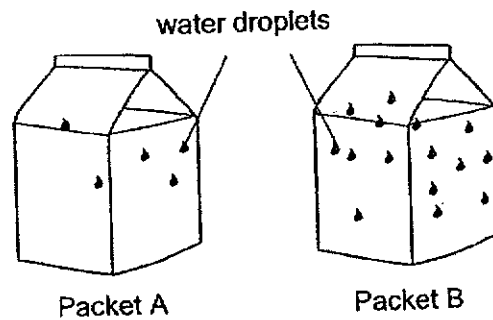
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2. Which of the following is a possible effect on the water cycle when the temperature of the environment decreases?

- (1) There will be less rain as condensation of water vapour increases.
 (2) There will be less rain as the rate of evaporation of water decreases.
 (3) There will be more clouds as condensation of water vapour decreases.
 (4) There will be more water vapour in the air as evaporation of water increases.

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3. Kimmie took two identical packets of orange juice, A and B, from different refrigerators. She left them in the kitchen with a surrounding temperature of 28°C over the same period of time. Droplets of water were observed on the outer surfaces of both packets as shown below.



Which of the following shows the likely temperature of the packets of orange juice, A and B, soon after the packets were taken out from the refrigerators?

	Packet A ($^{\circ}\text{C}$)	Packet B ($^{\circ}\text{C}$)
(1)	28	12
(2)	22	29
(3)	12	4
(4)	4	12

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4. Substance P melts at 30°C and boils at 400°C . Which one of the following shows the correct states of substance P at 10°C and 100°C ?

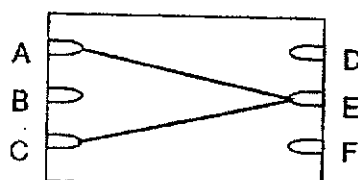
State of Substance P	
At 10°C	At 200°C
(1) solid	liquid
(2) liquid	gas
(3) solid ✓	gas
(4) liquid	liquid

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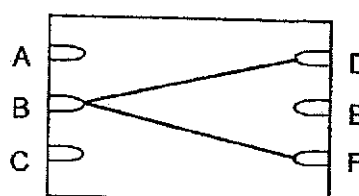
5. Janice used a circuit tester to test a circuit card. She recorded the results in the table below.

Pairs of clips tested	Did the bulbs light up?
A and C	Yes
A and D	No
B and E	No
C and F	Yes

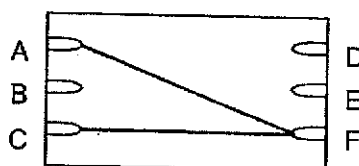
Which of the following circuit cards correctly show(s) the arrangement of wires connected to the clips?



Card P



Card Q



Card R

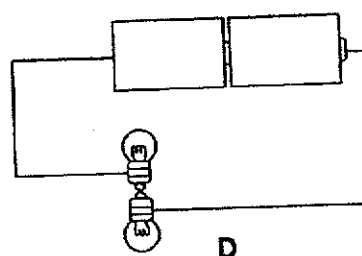
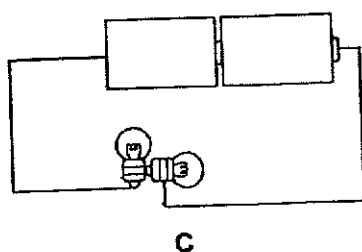
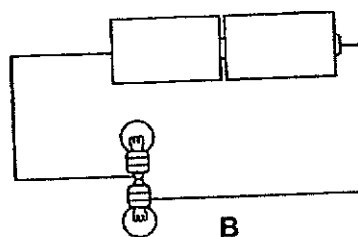
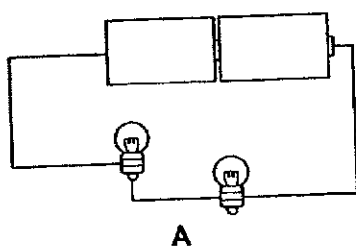
- (1) P only
 (2) R only
 (3) P and R only
 (4) Q and R only
- ()
6. Jessie was given some components to set up a simple circuit to show that there is electric current flowing through.

- A wires
 B buzzer
 C bulb holder
 D battery

Which of the components should she use to set up the circuit?

- (1) A and B only
 (2) B and C only
 (3) A, B and C only
 (4) A, B and D only
- ()

7. Study the circuits shown below.



Which of the following circuit(s) will have **only one** bulb lighting up?

- (1) A only
- (2) A and B only
- (3) B and C only
- (4) B, C and D only

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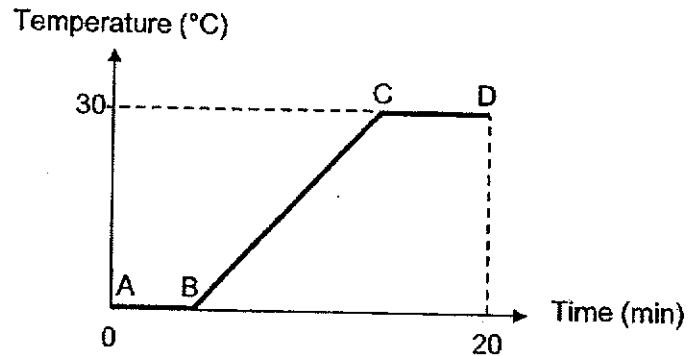
END OF SECTION A

Section B: 16 marks

For questions 8 to 12, write your answers in the spaces provided.

The number of marks available is shown in brackets [] at the end of each question or part question.

8. John drew the following graph to show the changes in the temperature of ice cubes in a beaker. The room temperature is 30°C .



- (a) Which two parts of the graph show heat gain? [2]

(i) From point _____ to point _____

(ii) From point _____ to point _____

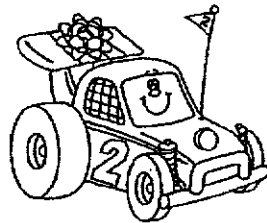
- (b) Name the process at AB and explain why there is no change in temperature from point A to point B. [2]

Process: _____

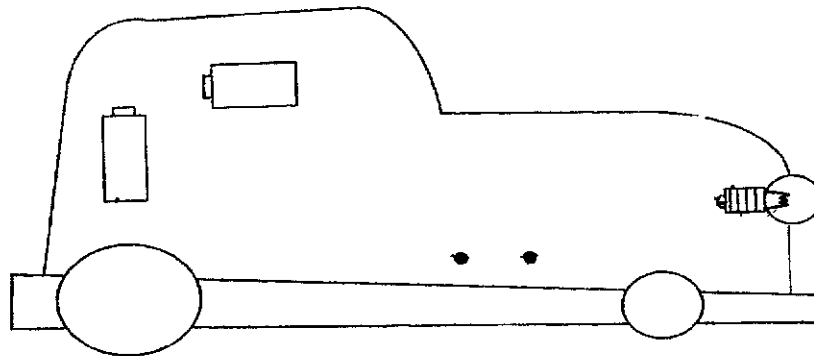
Reason: _____



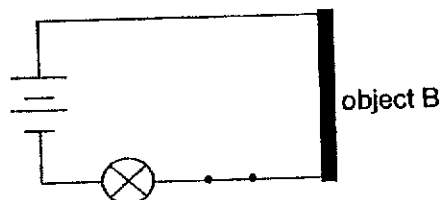
9. Edward built his toy as shown. He used two identical batteries, a bulb and a switch in his toy car. When the switch was closed, the bulb lit up.



- (a) Use a pencil to **draw the wires** in the circuit that Edward has set up in his toy car. [2]



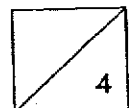
Edward replaced one of the wires in the circuit with object B as shown in the circuit diagram.



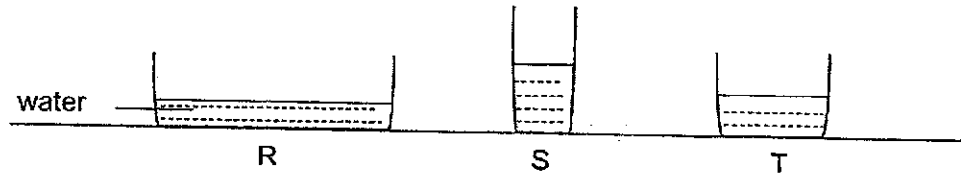
When Edward closed the switch, the bulb lit up.

- (b) What is the material of object B? [1]

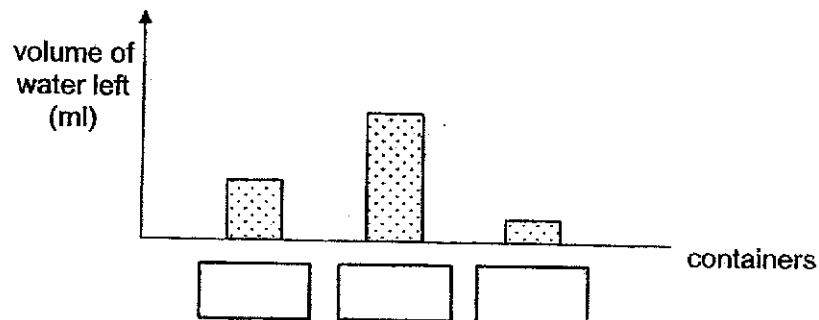
- (c) Explain why the bulb lit up when the wire is replaced with object B. [1]



10. Danielle conducted an experiment using the containers R, S and T, which are same material. She filled the containers with the same volume of water at temperature and placed them next to a window.

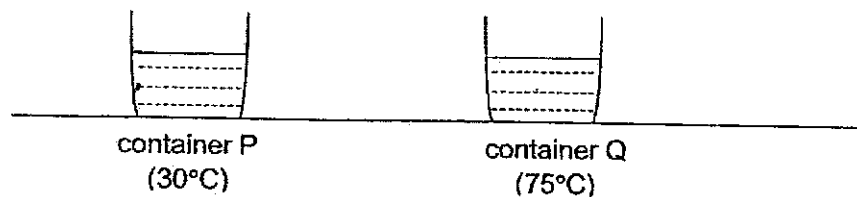


After thirty minutes, she measured the volume of water left in each container and recorded her results in the graph below.

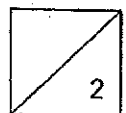


- (a) In the above graph, write the letters **R**, **S** and **T** in the correct boxes showing the volume of water left in each container after the experiment. [1]

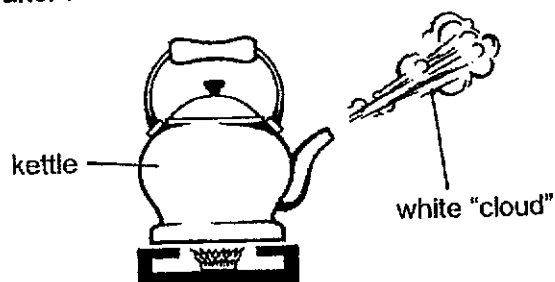
Danielle then carried out another experiment to find out how the temperature of water affected the rate of evaporation of water. She filled two identical containers, P and Q, with the same volume of water but at different temperatures.



- (b) Danielle predicted that the water in container P will decrease faster than in container Q. Do you agree with Danielle? Explain your answer. [1]



11. Helmi boiled some water in a kettle. He observed a white "cloud" forming at the spout of the kettle after a while.

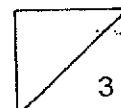


- (a) What is the state of the "white cloud"? [1]

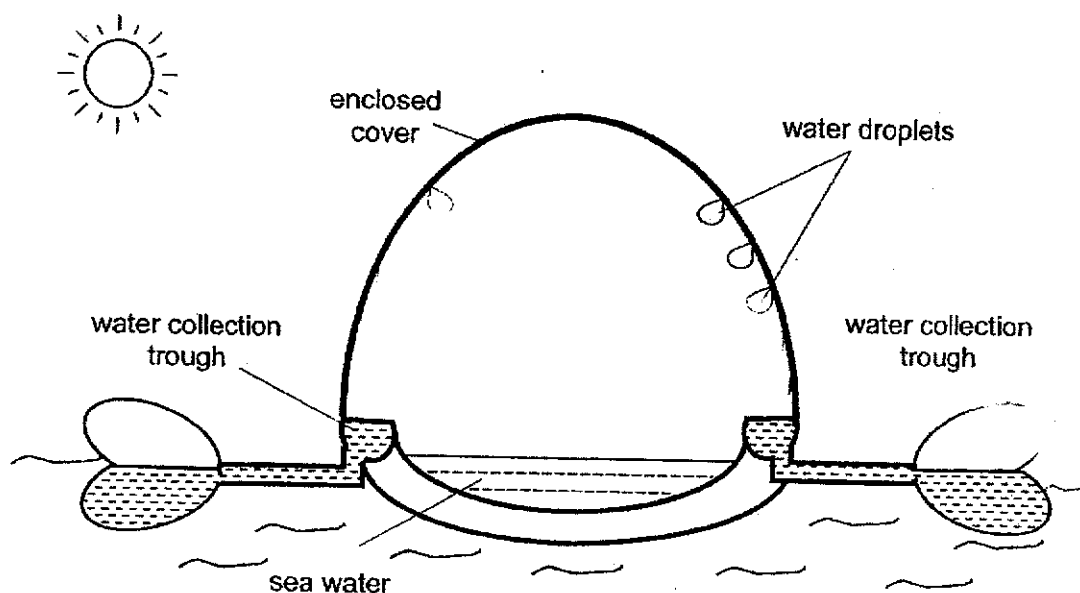
- (b) State a similarity and a difference between evaporation and boiling of water. [2]

Similarity:

Difference:

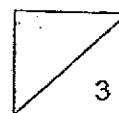


12. Stephany designed a device to collect pure water from sea water in emergency lifeboats out at sea as shown.



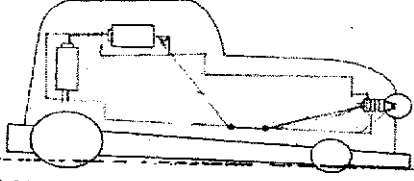
- (a) Identify 2 processes that will take place in the device during water collection. [1]
- (i) _____ (ii) _____
- (b) Explain how the processes listed in part (a) enabled the device to obtain pure water from the sea water. [2]

END OF SECTION B



SCHOOL : MGS PRIMARY SCHOOL
 LEVEL : PRIMARY 5
 SUBJECT : SCIENCE
 TERM : 2024 WA2

Q1	Q2	Q3	Q4	Q5	Q6	Q7
4	2	3	1	2	4	2

Q8	a)i)From point A to point B ii)From point B to point C b)Process: Melting Reason: All the heat is used to change the state from solid to liquid.
Q9	a)  b)copper c)Object B is a conductor of electricity so there will be a closed circuit and electric current can flow, causing the bulb to light up.
Q10	a)T S R b)The water in container Q has a higher temperature than container P. So the water in container Q evaporates faster than container P. c)No. As the higher they temperature of water, the higher rate of evaporation. The water in container Q had a higher temperature than container P. Thus, I do not agree with Danielle.
Q11	a) Liquid b) Similarity :They both gain heat. Difference : Boiling takes place at a fixed temperature while evaporation can take place at any time.
Q12	a)i) Evaporation ii)Condensation b)The water gains heat from the sun and evaporates, forming water vapour. The water vapour rises up and touches the cooler inner surface of the enclosed cover, loses heat and condenses to form water droplets. As the cover is bent, the tiny water droplets will slide down and fall into the water collection tray.

