St. Hilda's Primary School
Primary 4
Science
Term 3 Weighted Assessment, 2025

Section A	24
Section B	11
Total Score	35

Name: _____ ( )

Class: P4 / _____
Duration: 45 minutes
Total no. of pages: 13

Date: _____

Section A: 24 Marks

Parent's Signature: _____

For questions 1 to 12, write your answer (1, 2, 3 or 4) in the bracket provided.
[2 marks each]

1 Which of the following is a source of light?

(1) Star
(2) Bag
(3) Moon
(4) Straw

( )

2 A person is standing in front of a mirror.

Which of the following is correct about the mirror?

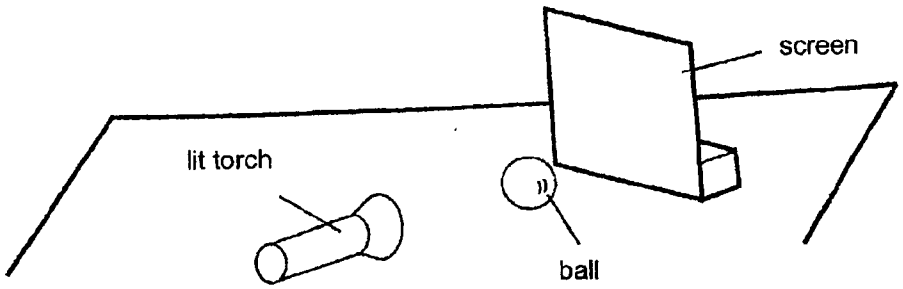
	Does it reflect light?	Does it give off light?
(1)	Yes	No
(2)	No	No
(3)	Yes	Yes
(4)	No	Yes

( )

SCORE	4

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3 The diagram below shows a ball placed between a torch and a screen. When the torch is turned on, a shadow appears on the screen.



What will happen to the shadow if the lit torch was moved closer to the screen?

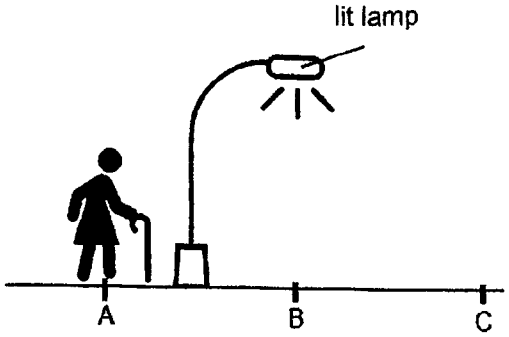
(1) The shadow will disappear.
(2) The shadow will become larger.
(3) The shadow will become smaller.
(4) The shadow will remain the same size.

( )

SCORE	2

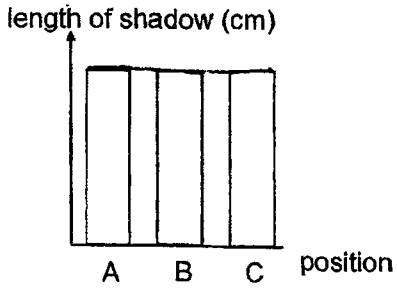
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4 An old lady was walking home at night. She walked from position A to position B, and then to position C in a straight line under the lit lamp.

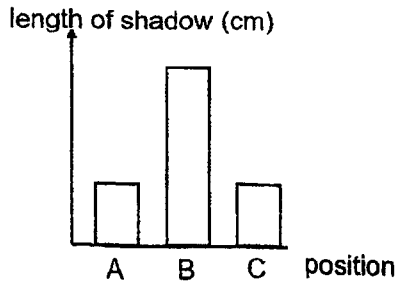


Which graph best shows how the length of the old lady's shadow changed over time as she walked from positions A to C?

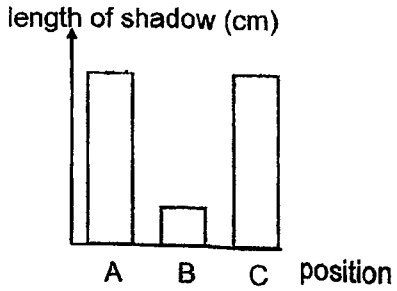
(1)



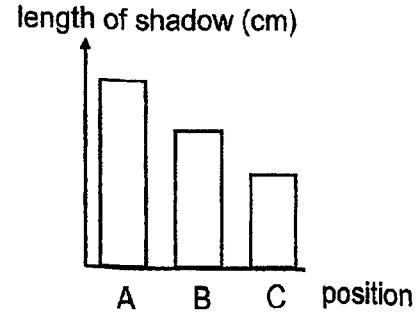
(2)



(3)



(4)

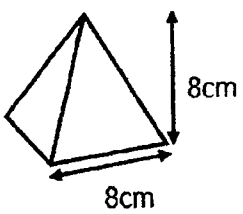


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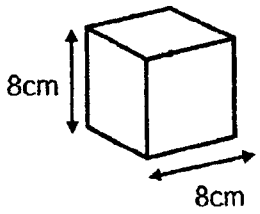
SCORE	2

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5 Ali has two objects, T and U, made of different materials as shown below.

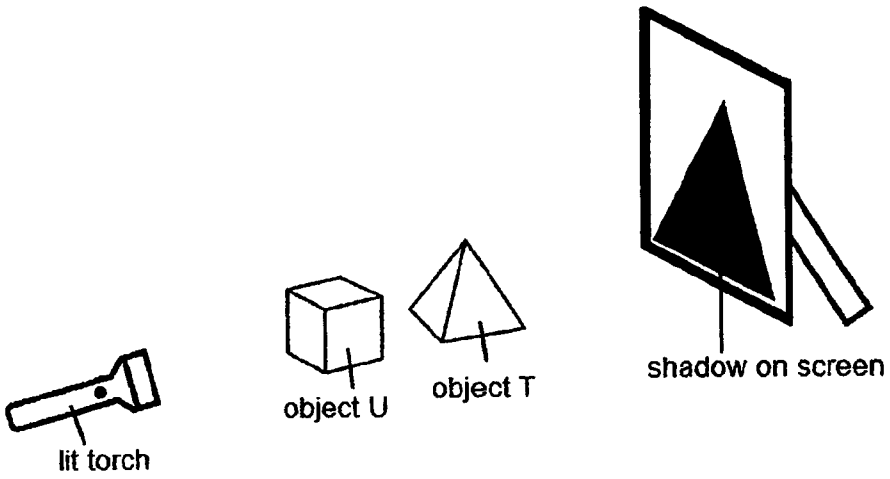


object T



object U

Ali then placed objects T and U between a lit torch and a screen as shown below.



What can Ali conclude about objects T and U?

(1) Objects T and U allow no light to pass through.

(2) Objects T and U allow most light to pass through.

(3) Object U does not allow light to pass through but object T allows light to pass through.

(4) Object T does not allow light to pass through but object U allows light to pass through.

( )

SCORE	2

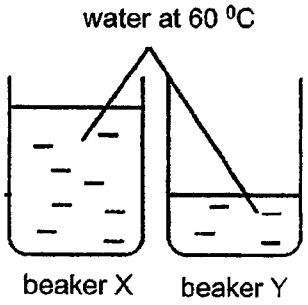
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6 Which of the following is **not** a poor conductor of heat?

(1) Air
(2) Wool
(3) Plastic
(4) Aluminum

( )

7 The diagram below shows beakers X and Y. Each beaker is filled with different volumes of water at 60 ^{0}C.



Which of the following statements is true about the water in beakers X and Y?

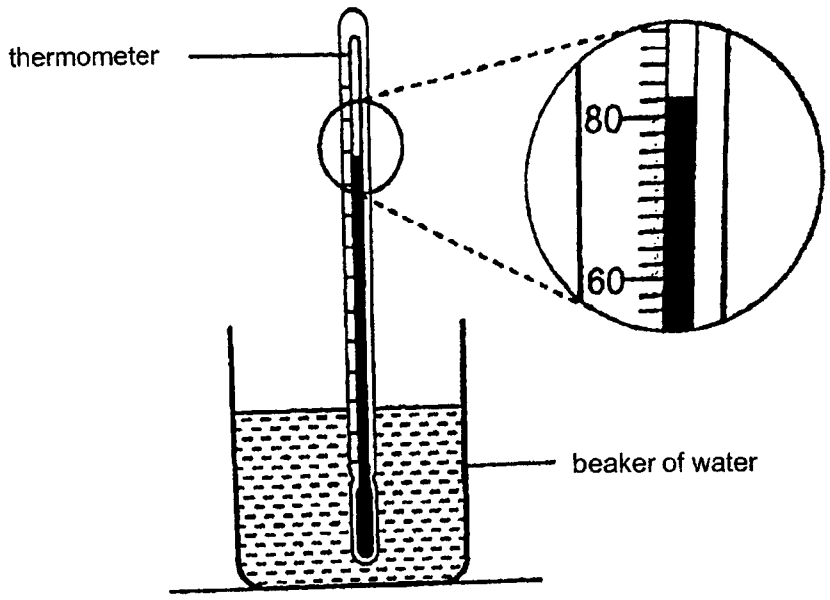
(1) The water in beaker Y has more heat than beaker X.
(2) The water in beaker X has more heat than beaker Y.
(3) The water in both beakers have different temperatures.
(4) The water in both beakers have the same amount of heat.

( )

SCORE	/ 4

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8 A thermometer was placed in a beaker of water as shown below.



According to the thermometer, what is the temperature of the water in the beaker?

(1) 79 ^{0}C
(2) 80 ^{0}C
(3) 81 ^{0}C
(4) 82 ^{0}C

( )

SCORE	/ 2

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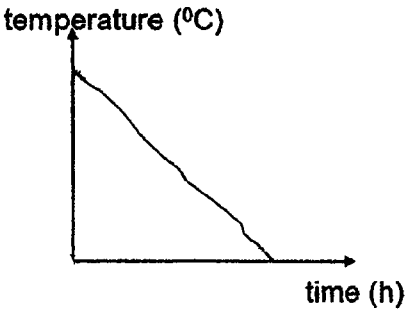
9 Jeremiah took out a cup of water from the refrigerator and placed it on the table for some time. Then he placed the cup of water back into the refrigerator for another few hours.



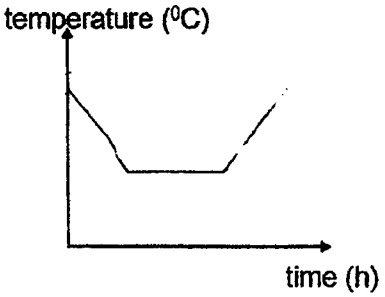
cup of water

Based on the above, which of the following graphs best represents the change in temperature of the water in the cup?

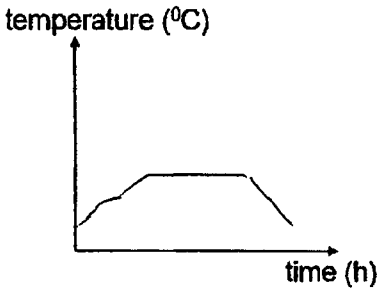
(1)



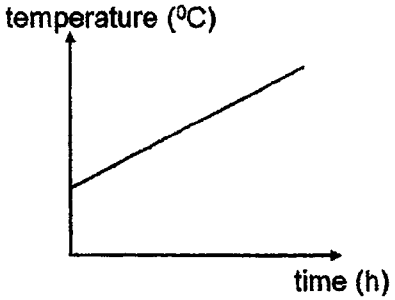
(2)



(3)



(4)

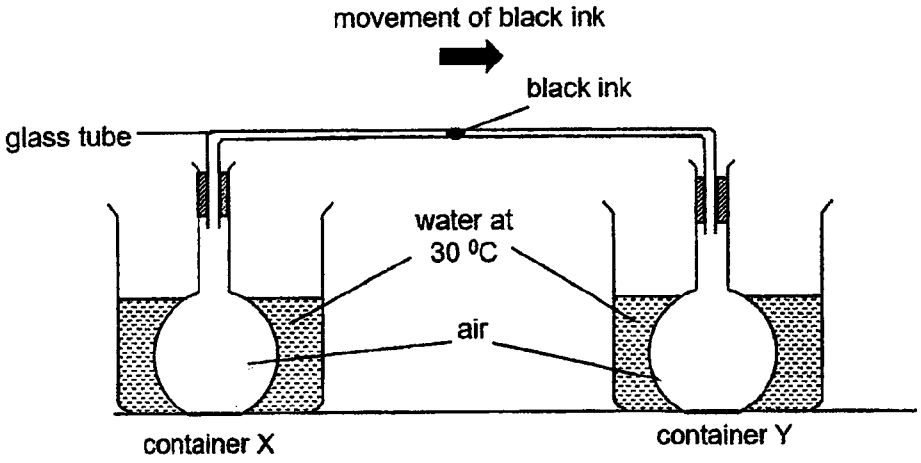


( )

SCORE	/ 2

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10 Gaby set up the following experiment.



What should Gaby do to make the black ink move towards container Y?

(1) Heat up only the water in container Y.
(2) Heat up the water in containers X and Y.
(3) Put ice cubes into the water of container X.
(4) Put ice cubes into the water of container Y.

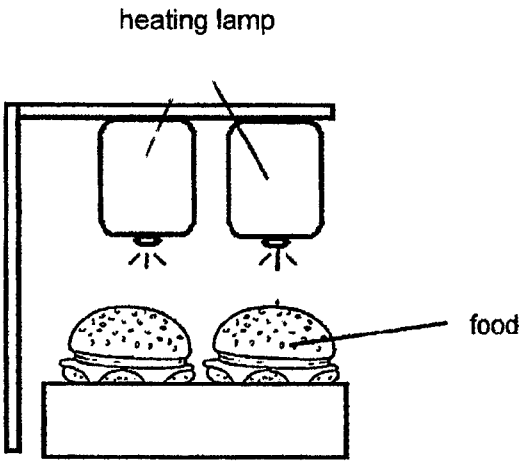
( )

SCORE	/ 2

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Use the information below to answer questions **11 and 12.**

Tom went to a restaurant and noticed that a heating lamp was used to keep food warm. The heating lamp was producing both heat and light.



11 Tom can see the food because light is reflected from _____.

(1) the food to his eyes.

(2) the lamp to his eyes.

(3) his eyes to the food.

(4) the food to the lamp.

( )

12 Tom placed the cold food under the heating lamp and returned to it an hour later. He noticed that the food had become warm. Which of the following best explains why the food became warm?

(1) The food lost heat to the heating lamp.

(2) The food lost coldness to the heating lamp.

(3) The food gained heat from the heating lamp.

(4) The food gained coldness from the heating lamp.

( )

SCORE	/4

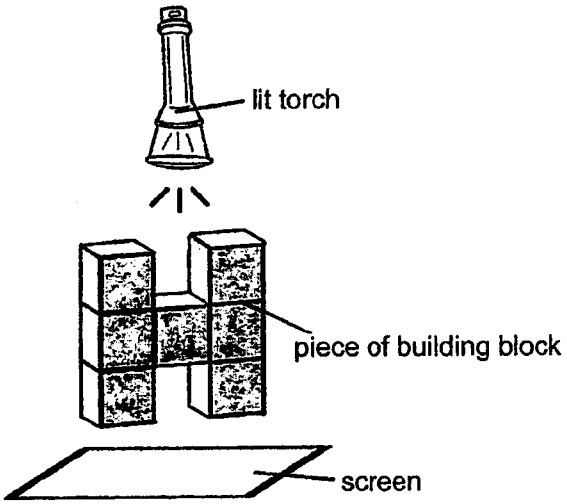
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Section B: 11 marks

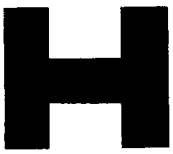
For questions 13 to 15, write your answers in this booklet.

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

13 Raj placed a piece of building block between a lit torch and the screen as shown below.



(a) Which of the following best shows the shadow of the block that Raj will observe on the screen? Tick (✓) the correct answer. [1]

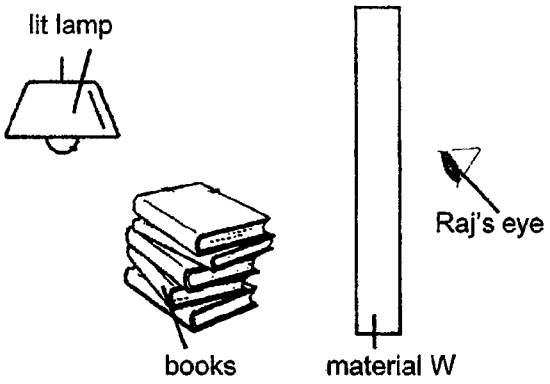
Shadow formed on the screen	Tick (✓)
	
	
	

(continued on next page)

SCORE	/ 1

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Raj then moved to a room with a stack of books and a lit lamp. He placed material W between the stack of books and himself as shown below. Raj was still able to see the books.



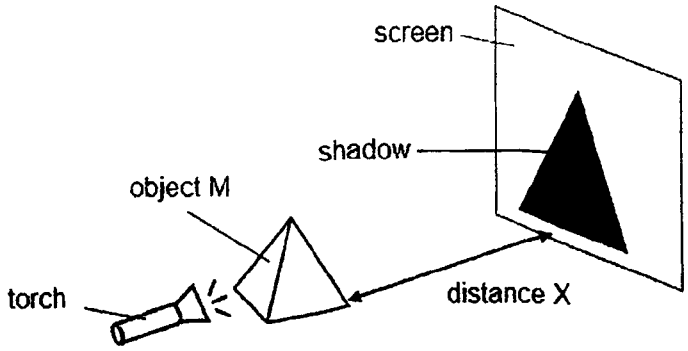
(b) Explain why Raj was still able to see the books even after material W was placed. [1]

(c) Raj was unable to see the books when material W was replaced by a wooden board. Explain why. [1]

SCORE	/ 2

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14 Ruby set up the following experiment.



(a)(i) The torch is a _____ of light. [1]

(a)(ii) A shadow is formed when light is completely or partially _____ by object M. [1]

Ruby wanted to find out how distance X affected the size of the shadow formed on the screen. She moved object M and recorded her observations in the table below.

Distance X (cm)	Size of the shadow (cm)
14	18
12	16
10	14

(b) State the relationship between distance X and the size of the shadow. [1]

_____

_____

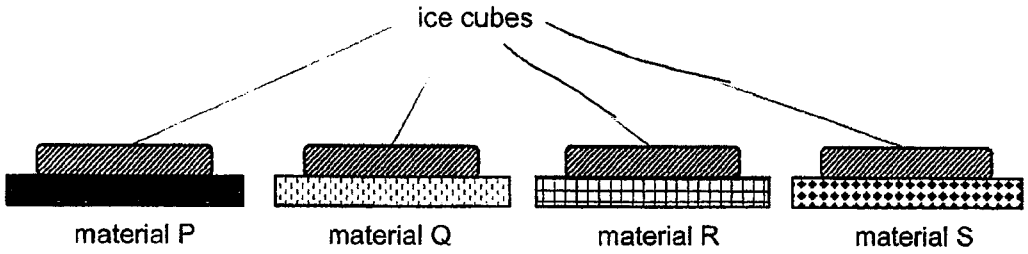
(c) Without moving object M, suggest another way to decrease the size of the shadow formed on the screen. [1]

_____

SCORE	/ 4

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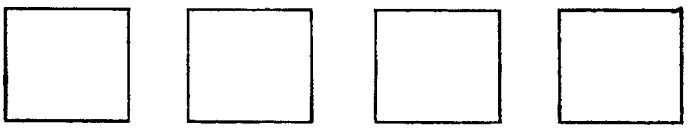
15 Jack wanted to find out how different materials would affect the rate of melting of the ice cubes. He set up the following experiment and recorded how long it took for each piece of ice cube of similar size to melt completely.



Material	Time taken for ice cubes to melt completely (min)
P	5
Q	10
R	15
S	12

E

(a) Arrange the materials, P, Q, R and S in order from the best conductor of heat to the poorest conductor of heat. [2]



best conductor of heat ⟶ **poorest conductor of heat**

(b) Jack wanted to make a bottle that could keep his cold drink cold for the longest time. Which material, P, Q, R or S, should he use to make a bottle to keep his drink cold for the longest time? Explain your answer. [2]

END OF PAPER

SCORE	/ 4

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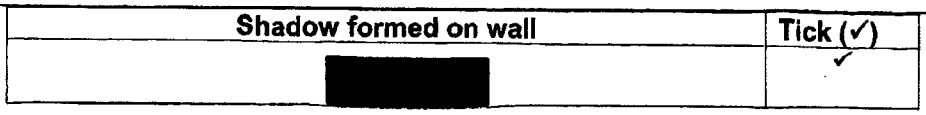
ST. HILDA'S PRIMARY SCHOOL
PRIMARY 4 SCIENCE
TERM 3 WEIGHTED ASSESSMENT, 2025
Simplified Answer Key

Section A

1.	**1**	6.	**4**	11.	**1**
2.	**1**	7.	**2**	12.	**3**
3.	**2**	8.	**4**		
4.	**3**	9.	**3**		
5.	**4**	10.	**4**		

Section B

This simplified answer key only provides a reference and the key concepts have been bolded.
Variation of students' answers have been accepted if they have shown conceptual understanding.

13 (a)	
(b)	Material W allowed **most light / some to pass through.**
(c)	The wooden board **does not allow any light to pass through.**
14 (a)(i)	The torch is a **source** of light.
(ii)	A shadow is formed when light is completely or partially **blocked** by object M.
(b)	As **distance X decreases**, the **size of the shadow decreases**.
(c)	Move the **torch further from** the **object / screen**. Or Move the **screen closer to** the **object/ torch.**
15 (a)	**P, Q, S, R**
(b)	C: R E: The **time taken for the ice to melt completely was the longest**. R: This shows that material R is the **poorest conductor of heat.** U: The cold drink in the bottle made of material R will **gain heat the slowest from the surroundings**. So, his drink will stay cold for the longest time.

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