



RAFFLES GIRLS' PRIMARY SCHOOL

MID YEAR EXAMINATION 2022

Section A	56
Section B	44
Your score out of 100	
Parent's signature	

Name : _____

Index No.: _____

Class: P6 _____

11 May 2022

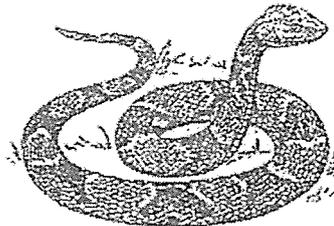
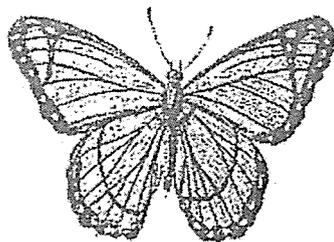
SCIENCE

Duration: 1 h 45 min

SECTION A (28 x 2 marks)

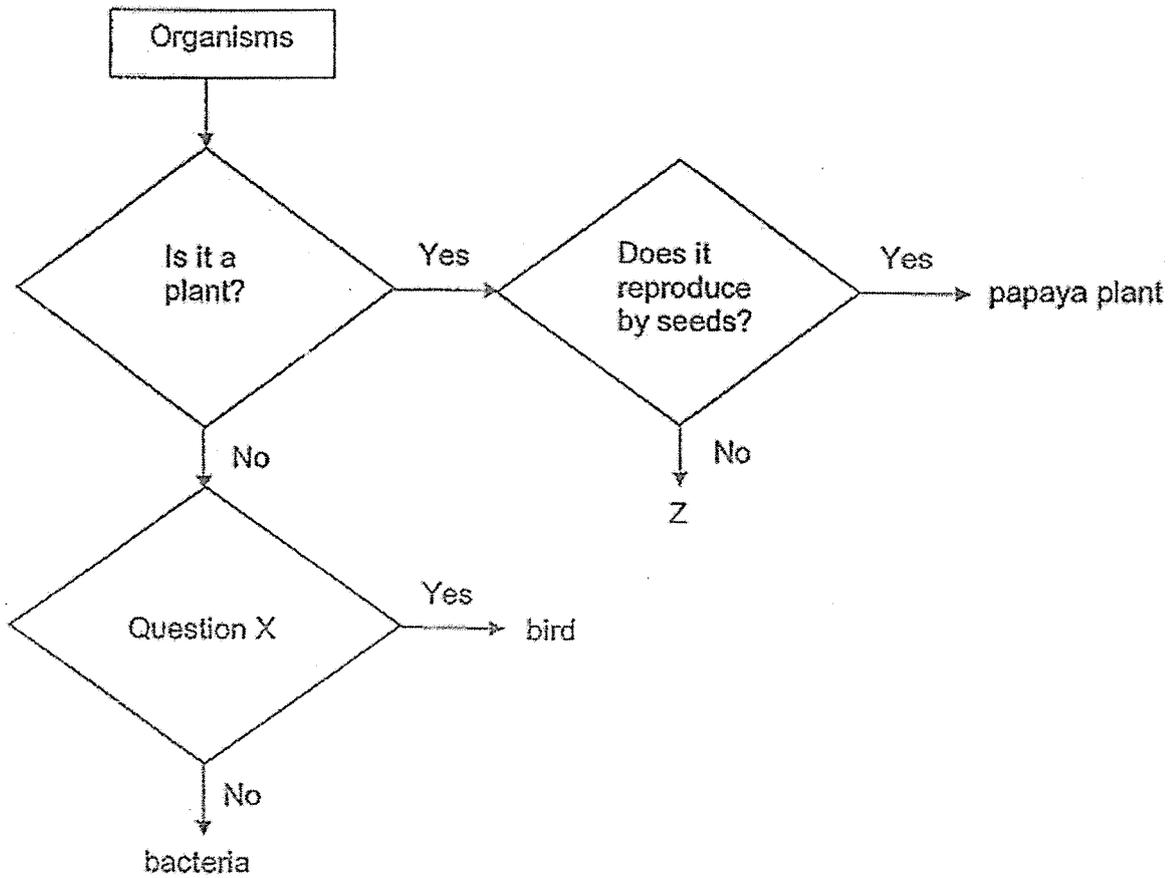
For each question from 1 to 28, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet (OAS) provided.

1. Which one of the following is a similarity between a butterfly and a snake?



- (1) Both have three body parts.
- (2) Both reproduce by laying eggs.
- (3) Both their young look like the adults.
- (4) Both have the same type of body covering.

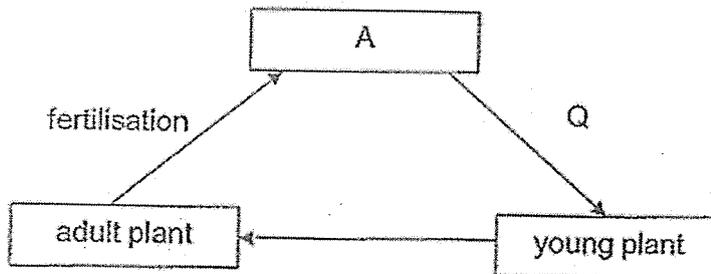
2. Study the diagram below.



Which of the following represents question X and organism Z?

	question X	organism Z
(1)	Does it have legs?	fungi
(2)	Does it lay eggs?	fern
(3)	Does it have feathers?	coconut
(4)	Is it made up of a single-cell?	mushroom

3. The diagram below shows the stages of development of a flowering plant.



Which of the following represents stage A and process Q correctly?

	stage A	process Q
(1)	flower	dispersal
(2)	fruit	pollination
(3)	seed	germination
(4)	seed	pollination

4. George placed an egg of animal X into each of the four identical containers, A, B, C and D, and exposed them to different temperatures as shown in the table below.

container	A	B	C	D
temperature in the containers (°C)	20	23	26	30

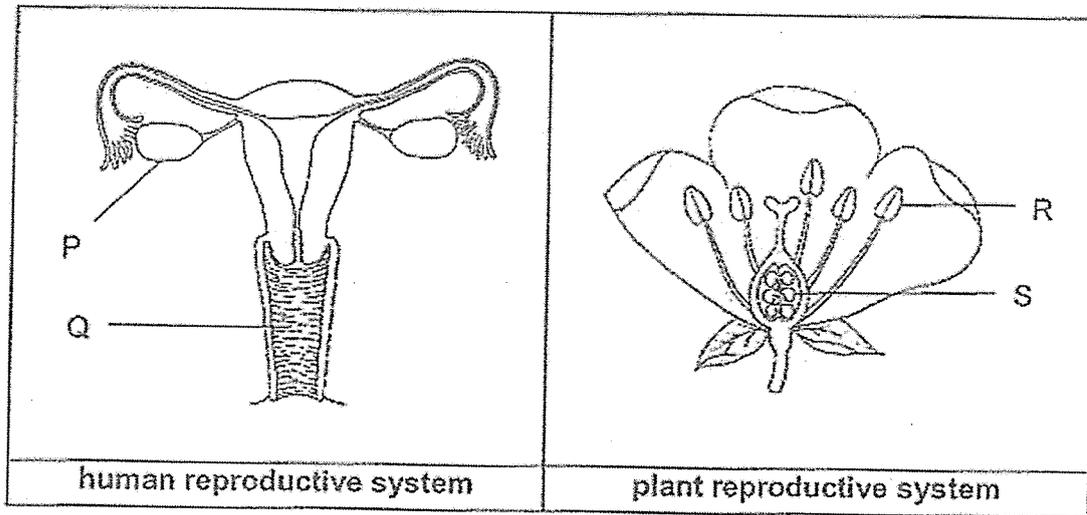
He observed the number of days animal X took for each stage in different parts of its life cycle. The results are shown in the table below.

stage	number of days			
	A	B	C	D
egg	3	3	3	3
larva	7	8	6	8
pupa	4	3	4	3

Which of the following statements can be concluded from his experimental results?

- (1) The young of animal X resemble the adult.
- (2) Animal X has only three stages in its life cycle.
- (3) Temperature has no effect on the egg stage of animal X.
- (4) The lower the temperature, the faster animal X becomes an adult.

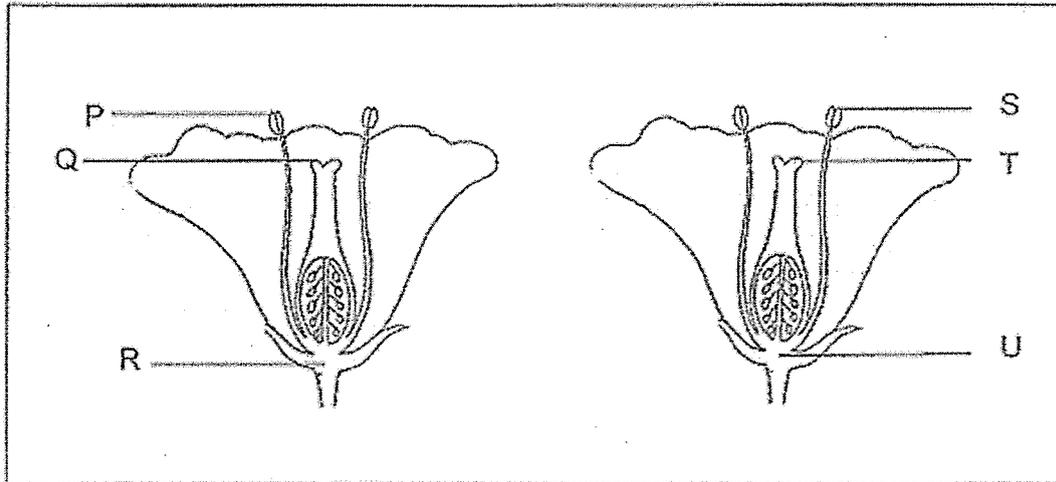
5. The diagrams below show the parts of human and plant reproductive systems.



Which part(s) of the human and plant reproductive systems contain the female reproductive cells?

- (1) P and Q
- (2) P and S
- (3) Q and R
- (4) R and S

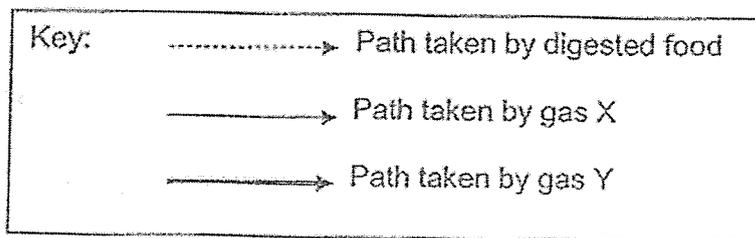
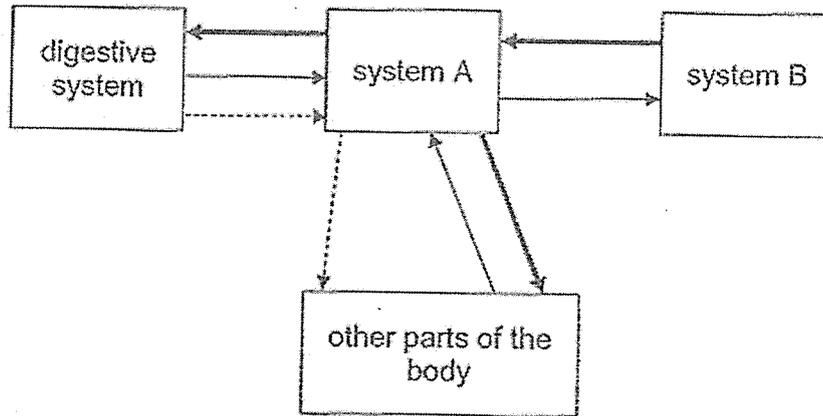
6. The diagram below shows two identical flowers.



Which of the following correctly shows how pollen grains are transferred between these two flowers during pollination?

- (1) from P to U
- (2) from Q to R
- (3) from S to Q
- (4) from T to P

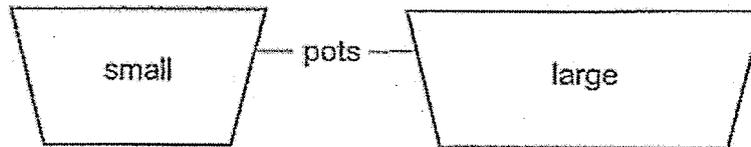
7. The diagram below shows how the human body systems, A and B, work together to transport digested food and gases around the body.



Which of the following identifies systems A and B and gases X and Y correctly?

	system A	system B	gas X	gas Y
(1)	circulatory	respiratory	carbon dioxide	oxygen
(2)	circulatory	respiratory	oxygen	carbon dioxide
(3)	respiratory	circulatory	carbon dioxide	oxygen
(4)	respiratory	circulatory	oxygen	carbon dioxide

8. Sarah wanted to find out if overcrowding will affect plant growth. She planted some identical seedlings in pots, P, Q, R, S and T. She placed them in the garden and watered them daily. The pots used were either small or large as shown below.



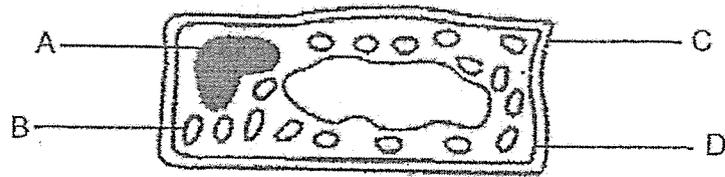
The table below shows the number of seedlings planted in each pot, amounts of water given per day and the size of pots used for each set-up.

	Pots				
	P	Q	R	S	T
number of seedlings	5	5	20	20	20
amounts of water given per day (ml)	35	35	35	50	50
size of pot	small	small	small	large	large

Which pots should Sarah use to ensure a fair test?

- (1) P and Q only
- (2) Q and R only
- (3) R and S only
- (4) S and T only

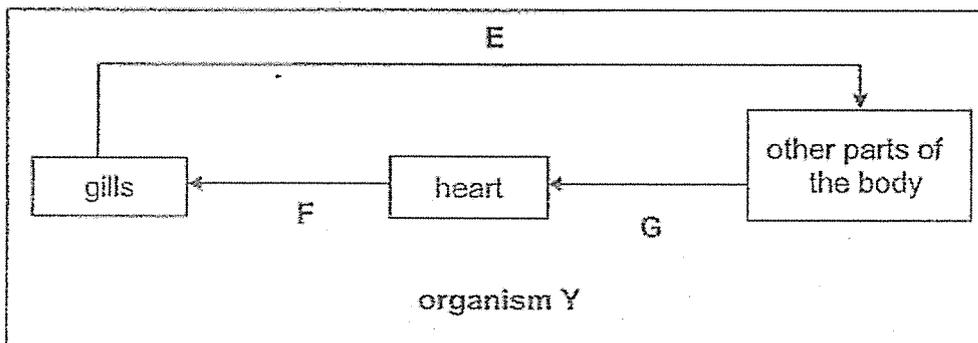
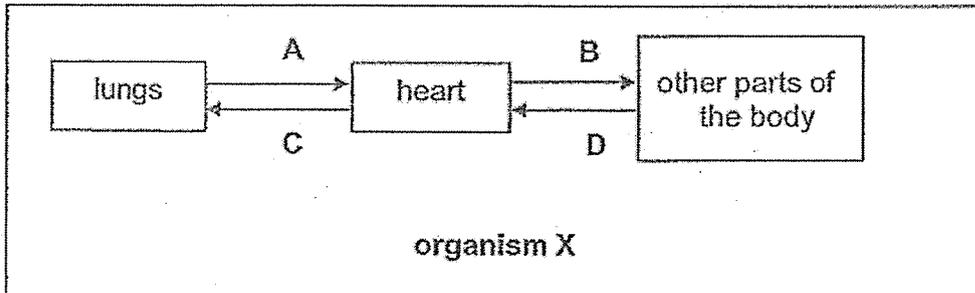
9. The diagram below shows a leaf cell with part labelled A, B, C and D.



Which part of the cell controls the substances moving in and out?

- (1) A
- (2) B
- (3) C
- (4) D

10. The diagrams below show the flow of blood in two organisms X and Y. The arrows represent the blood vessels that carry blood from the lungs or gills to the other parts of the body.



Based on the above diagrams, which of the following statement(s) made by Ben, Peter and Sam is/are correct?

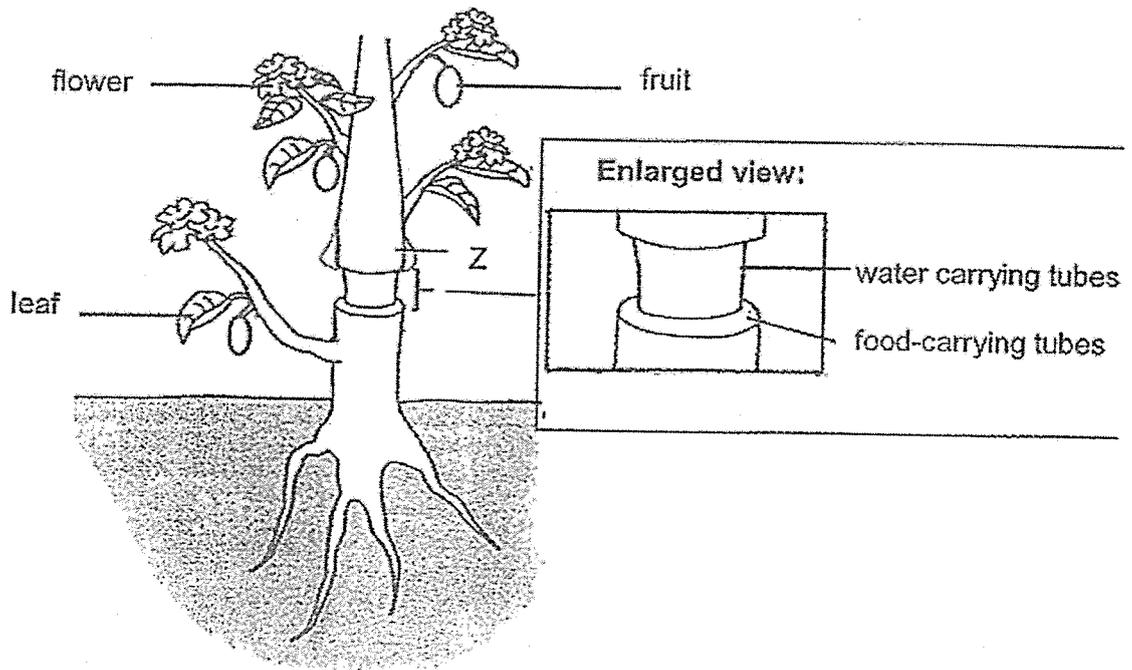
Ben : Arrows A, B and E carry blood rich in oxygen.

Peter : Arrows C, D, F and G carry blood rich in carbon dioxide.

Sam : Arrow E carries blood rich in both oxygen and waste materials.

- (1) Ben only
- (2) Peter only
- (3) Ben and Peter only
- (4) Ben, Peter and Sam

11. Mrs Lee removed the outer ring of the stem of a plant which contains the food-carrying tubes as shown below.

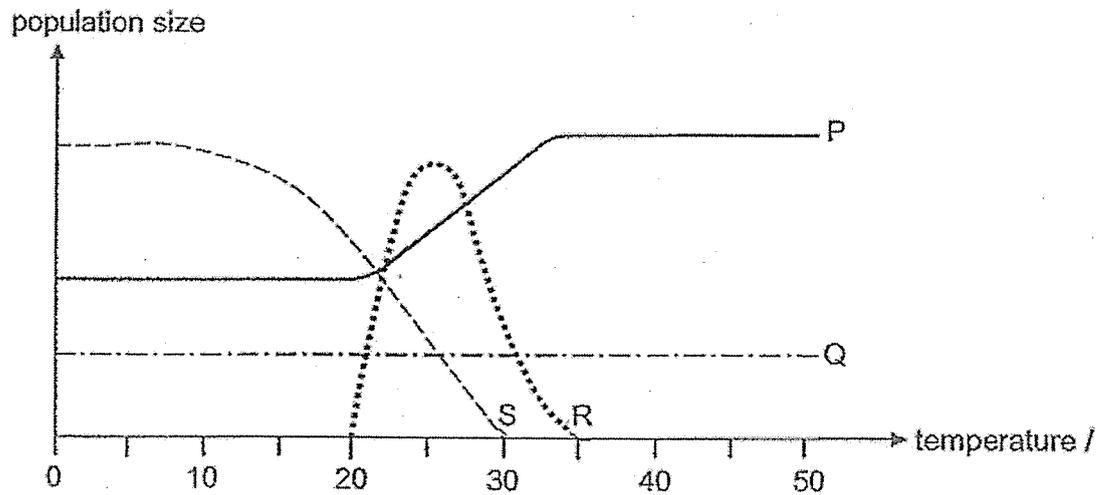


Which of the following is/are correct?

- A Leaf below the cut stem remained green as it can still make its own food.
- B The fruit above the cut stem became sweeter as more glucose was transported there from the leaves.
- C Part Z was slightly swollen as water could not be transported from the stem to the roots.

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

The graph below shows the effect of temperature on the populations of four different organisms, P, Q, R and S.



Based on the information above, answer questions 12 and 13.

12. Which of these populations, P, Q, R and/or S, cannot survive at temperatures above 35°C?
- (1) R only
 - (2) P and Q only
 - (3) R and S only
 - (4) Q, R and S only
13. Which of the following statement(s) is/are correct?
- A Organism S is not affected by temperature change.
 - B Organisms R is the most sensitive to temperature change.
 - C Both organisms P and Q can continue to survive between at temperatures between 35°C and 50°C.
- (1) A only
 - (2) B only
 - (3) C only
 - (4) B and C only

14. The table below provides the physical factors in four different habitats.

physical factor	habitat			
	P	Q	R	S
moisture	high	high	low	low
temperature (°C)	30	25	18	23
intensity of light	high	low	high	low

Organism Z was observed to have the following characteristics:

- very sensitive to light
- lives in a damp environment
- survives well in temperatures ranging from 20°C to 30°C

In which habitat(s) can you find the most number of organism Z?

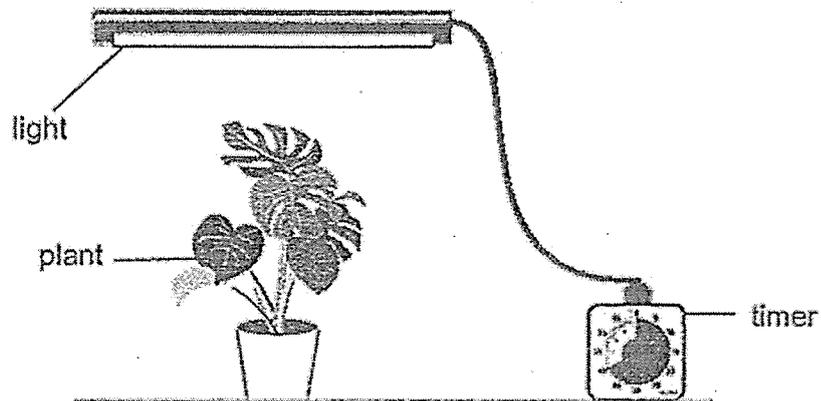
- (1) S only
 (2) Q only
 (3) P and Q only
 (4) R and S only
15. The following relationships were observed among four living things A, B, C and D.

B feeds on D.
 A gets its food from C.
 D feeds on both A and C.

Which of the following is correct?

	producer	prey	prey and predator	predator
(1)	A	D	C	B
(2)	B	D	C	A
(3)	B	C	D	A
(4)	C	A	D	B

16. Joe prepared four similar set-ups, A, B, C and D, as shown below. In each set-up, the number of hours which the plant was exposed to light was controlled by a timer.



set-up	number of hours plant was exposed to light (hours)
A	3
B	6
C	9
D	12

He measured the height of the plants. The plants were considered to have grown well if there was an increase of 15cm in height at the end of fifteen days.

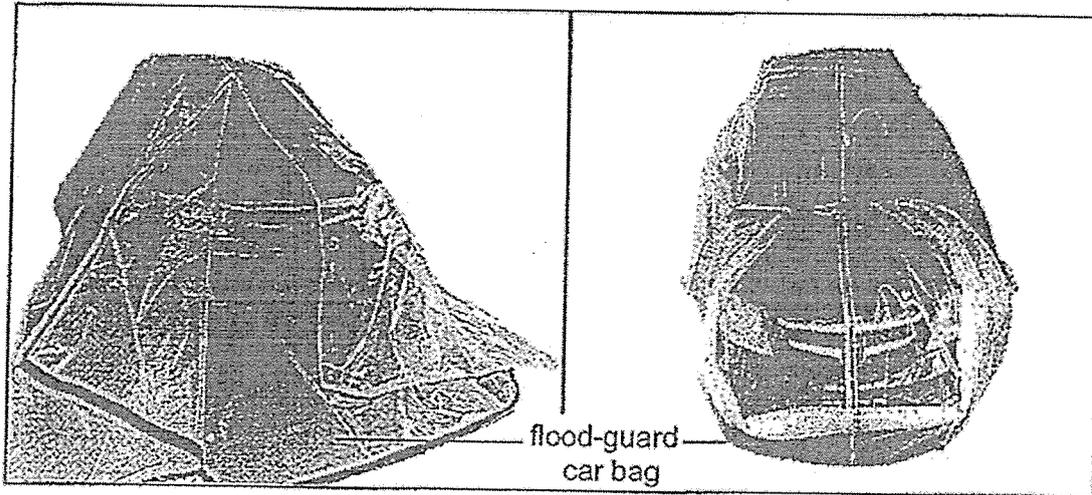
day	average height of plant (cm)			
	set-up A	set-up B	set-up C	set-up D
0	6	6	6	6
5	8	9	9	10
10	10	11	14	18
15	16	18	25	31

Based on the results above, which of the statement(s) is/are likely to be correct?

- A The plant needs at least six hours of light to grow well.
- B The greater the intensity of light, the greater the plant growth.
- C The longer the number of hours exposed to light, the greater the plant growth.

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

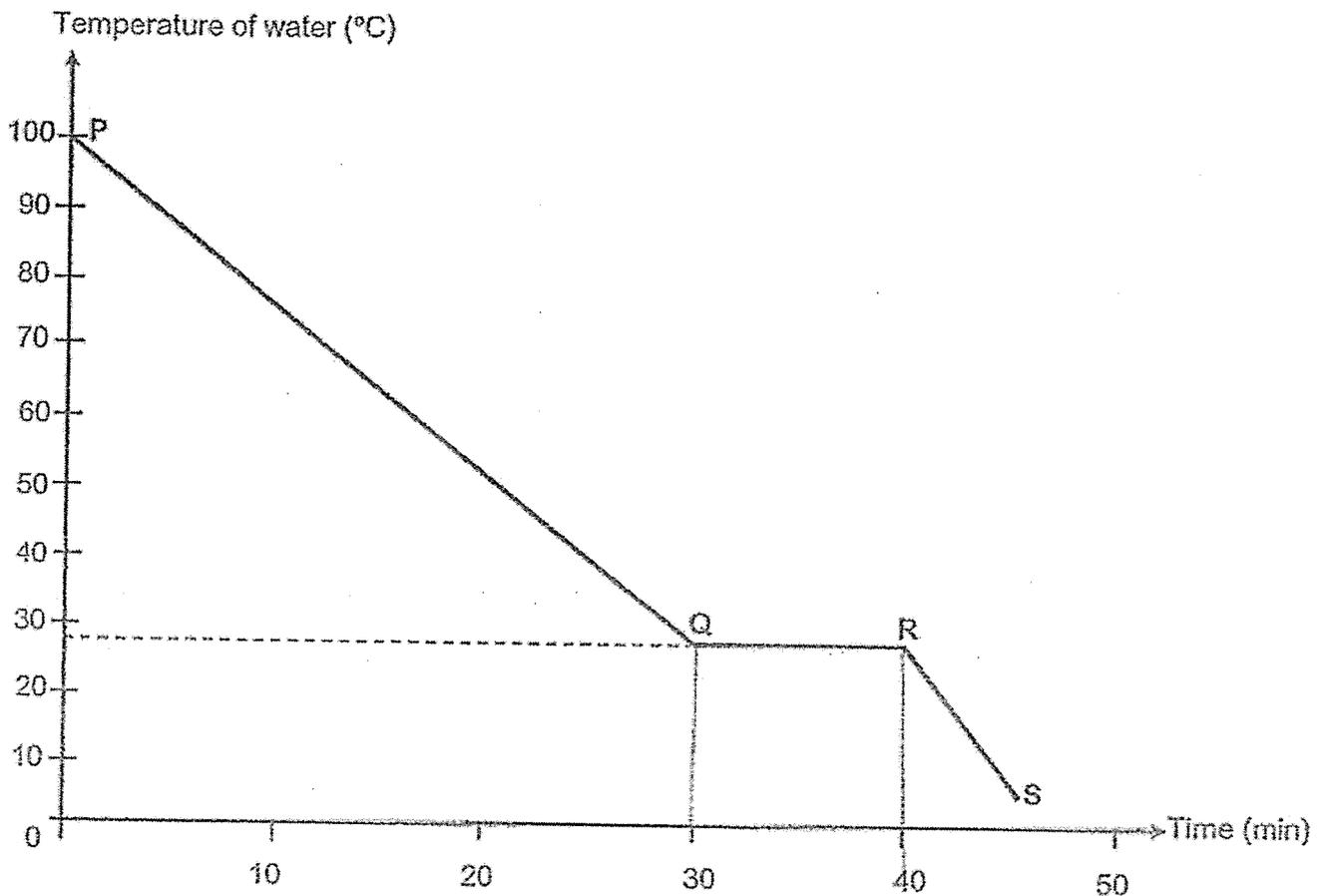
17. People living in flood-prone areas use flood-guard car bags to protect their cars from damages due to the heavy rain, as shown below.



Based on the properties shown below, which material is most suitable for making the flood-guard car bag?

	material	property			
		flexible	strong	waterproof	able to sink
(1)	P	✓	✓	✓	
(2)	Q			✓	
(3)	R		✓		
(4)	S	✓	✓		✓

18. A beaker of boiling water was placed on a table to cool down. After a while, the water reached the room temperature of 28°C . Mary then added some ice cubes to the water in the beaker. She measured the temperature changes for the first forty-five minutes and plotted the results in the graph as shown below.

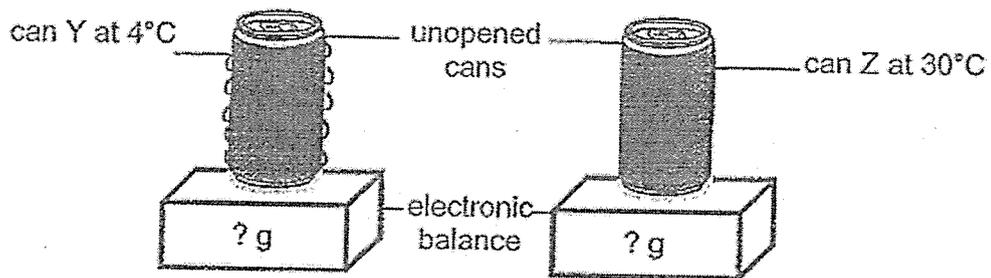


Based on the graph above, which of the statements below are correct?

- A Evaporation took place between PQ only.
- B Ice cubes were added into the beaker at point R.
- C The water in the beaker started turning to ice at point S.
- D The water in the beaker remained at room temperature for ten minutes.

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

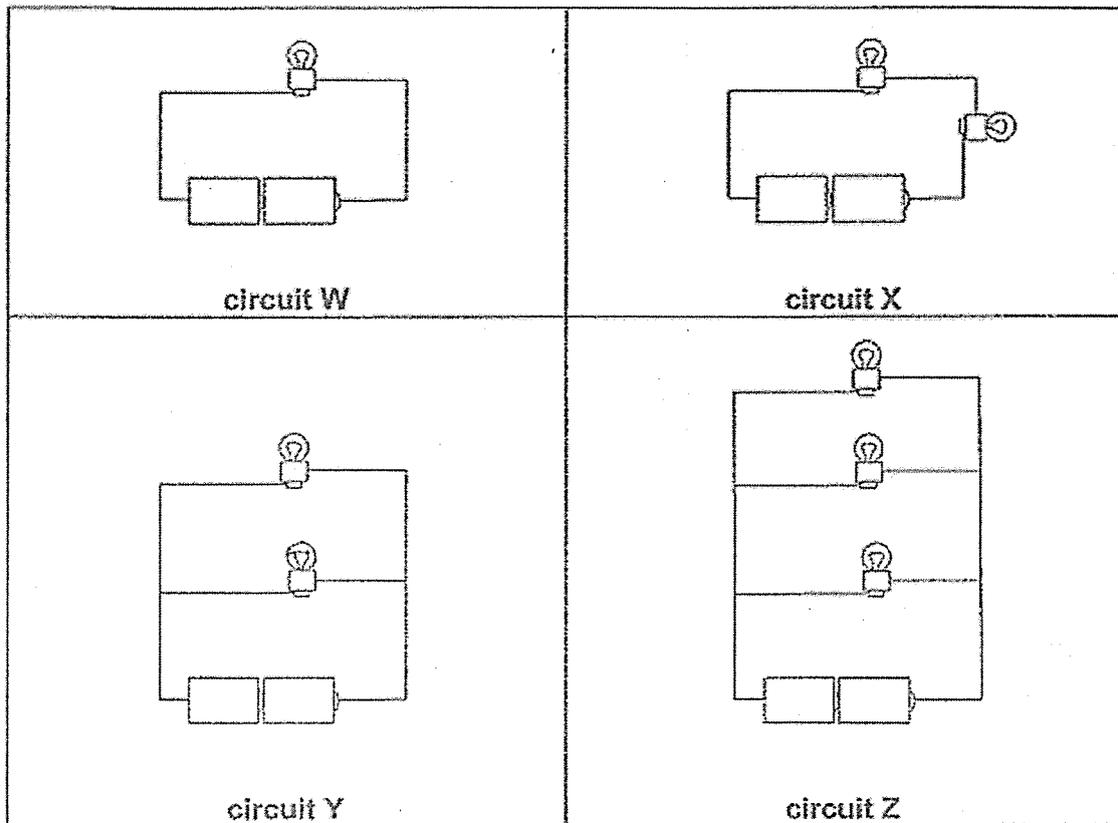
19. Keith had two identical drink cans, Y and Z, with a mass of 400g each. He placed can Y in the freezer and can Z on the kitchen counter at a room temperature of 30°C. After one hour, he put the drink cans, Y and Z, on an electronic balance at the kitchen counter as shown in diagram below.



Which of the following shows the possible changes in the reading shown on the electronic balance after ten minutes?

Reading on the electronic balance (g)		
	Y	Z
(1)	more than 400	more than 400
(2)	400	less than 400
(3)	more than 400	400
(4)	400	400

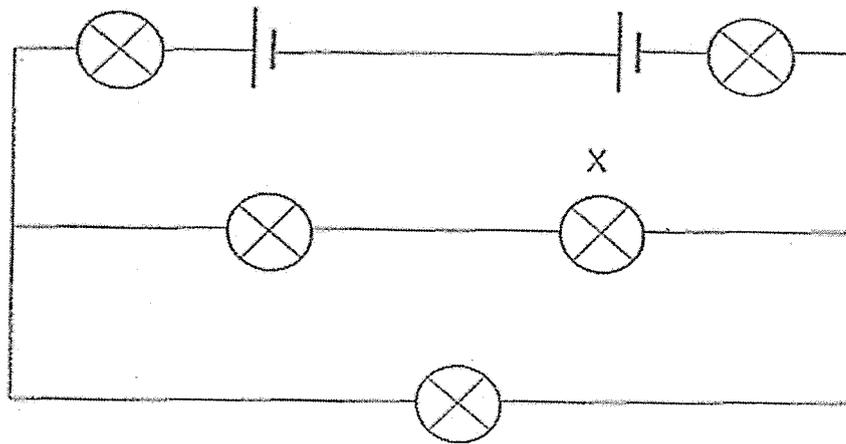
20. The four electrical circuits, W, X, Y and Z, shown below are set up using identical batteries and bulbs.



Which of the following statements about the brightness of bulbs is correct?

- (1) The bulb in circuit W is brighter than each bulb in circuit Z.
- (2) Each bulb in circuit X is brighter than the bulb in circuit W.
- (3) Each bulb in circuit X is brighter than each bulb in circuit Y.
- (4) Each bulb in circuits Y and Z has the same brightness as the bulb in circuit W.

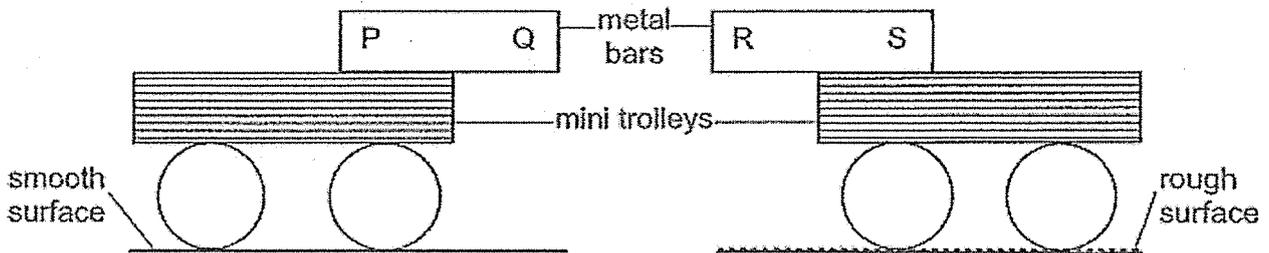
21. The diagram below shows a circuit consists of identical bulbs and batteries.



If only bulb X is faulty, what is the maximum number of bulbs that will remain lit.

- (1) 1
- (2) 2
- (3) 3
- (4) 4

22. Bob glued two identical metal bars on identical mini trolleys as shown below. The trolley carrying metal bars PQ is sitting on a smooth surface, while the trolley carrying metal bar RS is sitting on a rough surface.

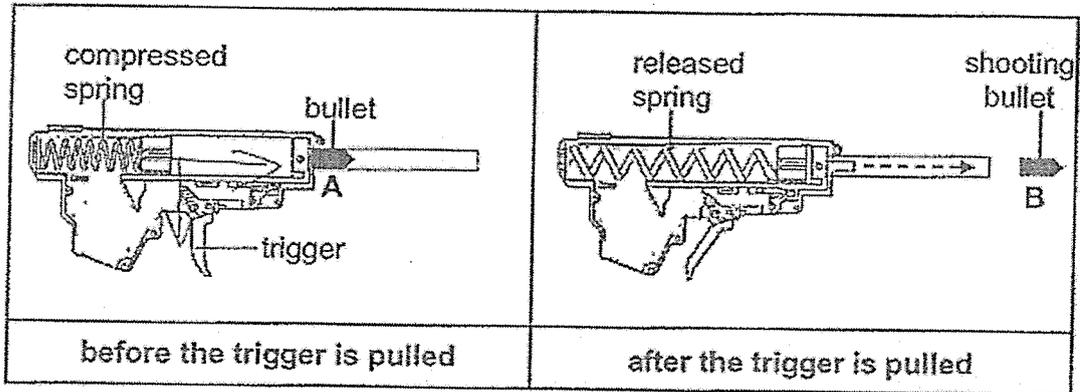


He noticed that when ends Q and R are brought near to each other, both the trolleys moved away from each other.

Based on his observation, which of the following is/are definitely correct?

- A Both metal bars are magnets.
 - B Metal bar PQ is a magnet but not metal bar RS.
 - C Metal bar RS is a magnet but not metal bar PQ.
 - D The trolley on the rough surface will move more slowly than the one on the smooth surface.
- (1) A only
(2) A and D only
(3) B and C only
(4) B, C and D only

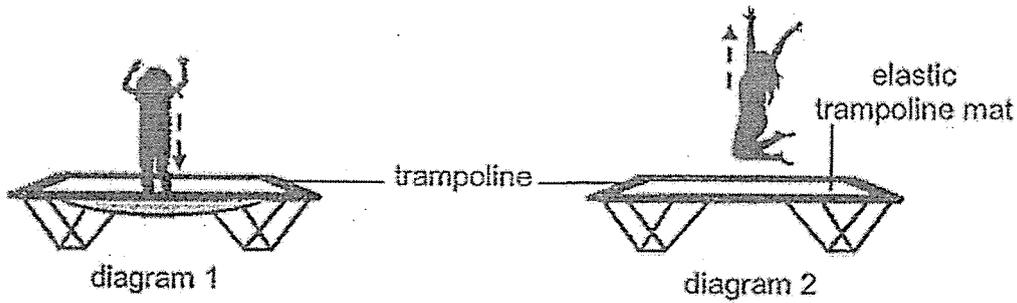
23. The diagram below shows a plastic toy gun before and after the trigger was pulled.



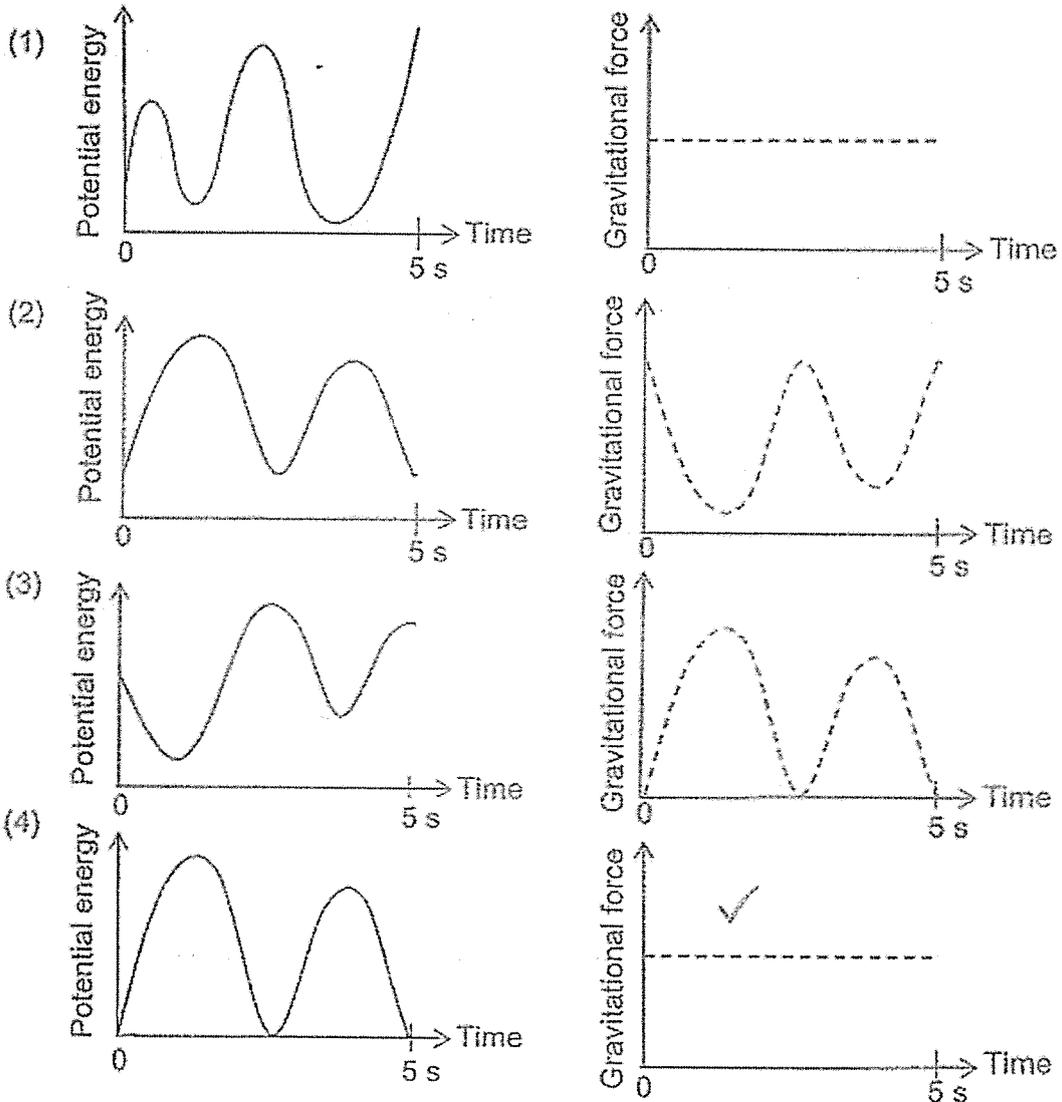
Which of the following statements about the above toy gun is correct?

- (1) Elastic spring force is acting on the bullet at B.
- (2) More gravitational force is acting on the bullet at B than A.
- (3) Frictional force is acting on the bullet as it shoots from A to B.
- (4) Elastic spring force is pulling the toy gun in the opposite direction of its weight.

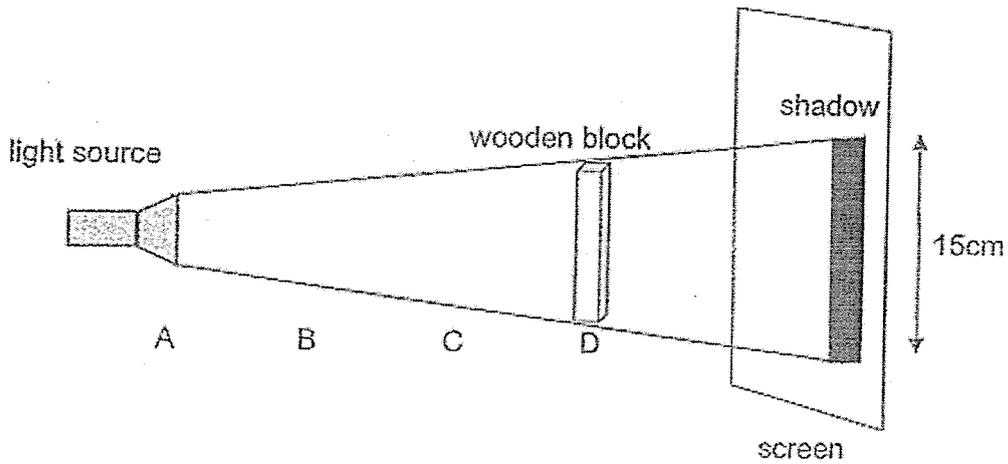
24. The diagram below shows a girl jumping on an elastic trampoline mat for a period of five seconds. When the girl jumped on it, the mat stretched down due to her weight and then launched her into the air as shown below.



Which of the following pairs of graphs correctly shows the potential energy possessed by the girl and the gravitational force acting on her for the five seconds.



25. Sandy wanted to find out how the distance between a light source and a wooden block would affect the length of the shadow cast by the block. She placed the object at position D shown in the diagram below and observed a shadow with a height of 15cm cast on the screen.



She then moved the light source and the wooden block to other positions and measured the lengths of the shadows formed.

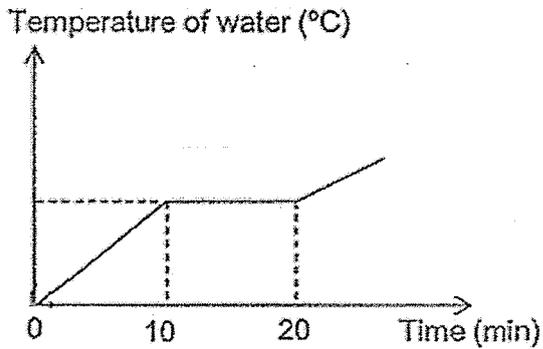
What would be the likely length of the shadow based on the following positions of the light source and the wooden block?

	position of light source	position of wooden block	length of shadow (cm)
(1)	A	B	15
(2)	A	C	less than 15
(3)	B	D	more than 15
(4)	C	D	less than 15

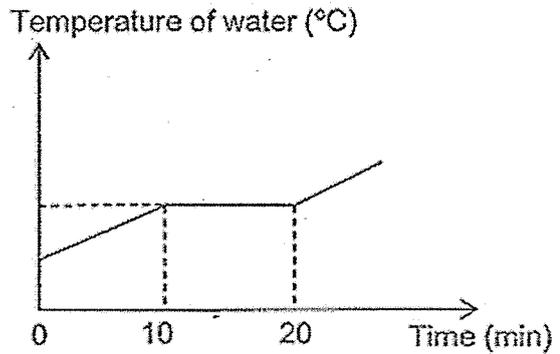
26. Alice filled a pot with some tap water and heated it for ten minutes until it started to boil. She continued boiling it for another ten minutes before adding some frozen slices of fish into the boiling water.

Which of the following graphs shows the changes in the temperature of water correctly?

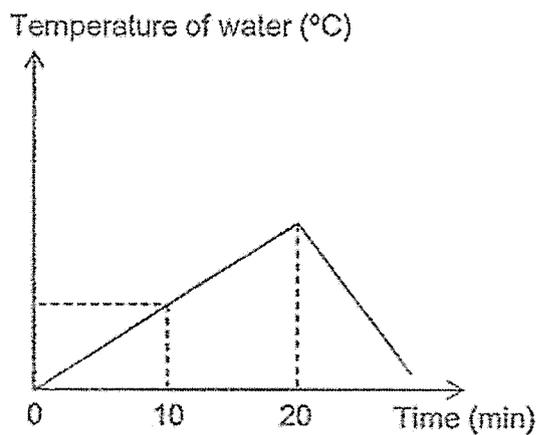
(1)



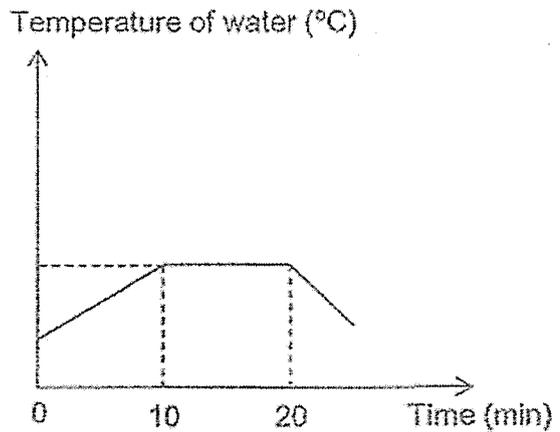
(2)



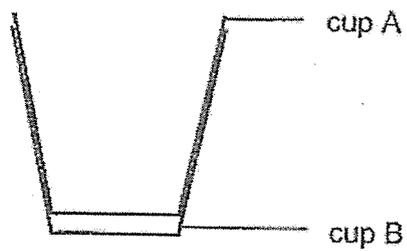
(3)



(4)



27. John has difficulty separating two metal cups, A and B, which are stacked together as shown in the diagram below.

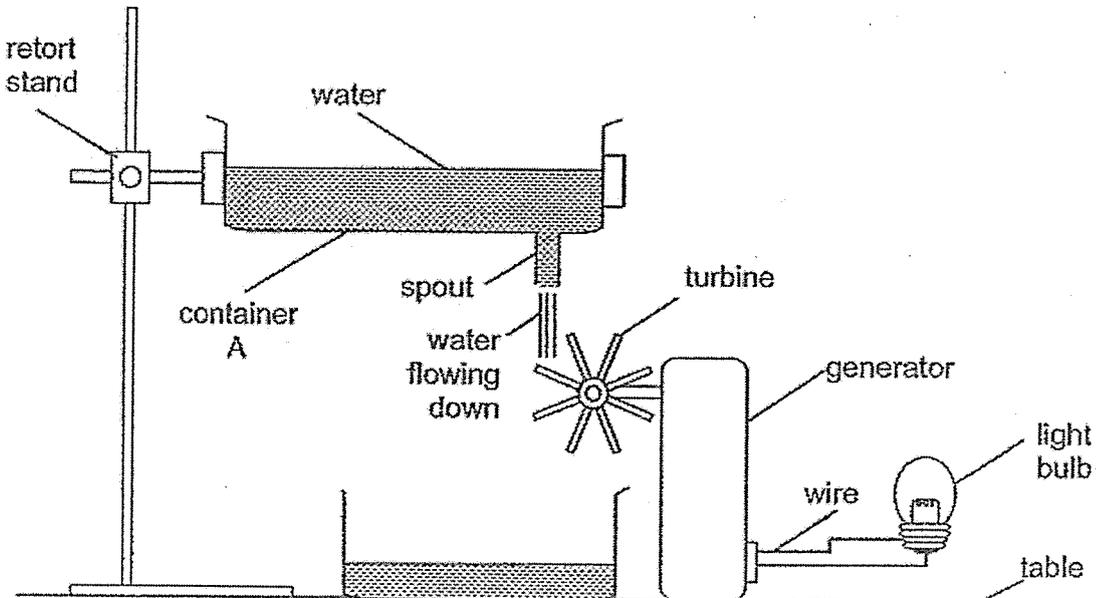


Which of the following step(s) is/are most effective in separating the two cups?

- A Pour ice into cup A.
- B Pour boiling water into cup A.
- C Place cup B in a tub of ice water.
- D Place cup B in a tub of boiling water.

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

28. Jack prepared a set-up as shown below.



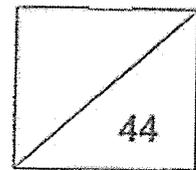
As water from container A flowed through the spout, it turned the turbine which was connected to a generator and a light bulb. He observed that the bulb lit up after some time.

Which of the following action(s) would allow the bulb to light up brighter?

- A Increase the mass of the turbine
- B Make the opening of the spout bigger
- C Raise container A higher from the turbine
- D Lower the turbine to be further from the spout

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

Name: _____ Index No: _____ Class: P6 _____



SECTION B (44 marks)

For questions 29 to 41, 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.

29. Allen conducted an experiment to find out if the temperature of the water will affect the hatching rate of the eggs of organism X.

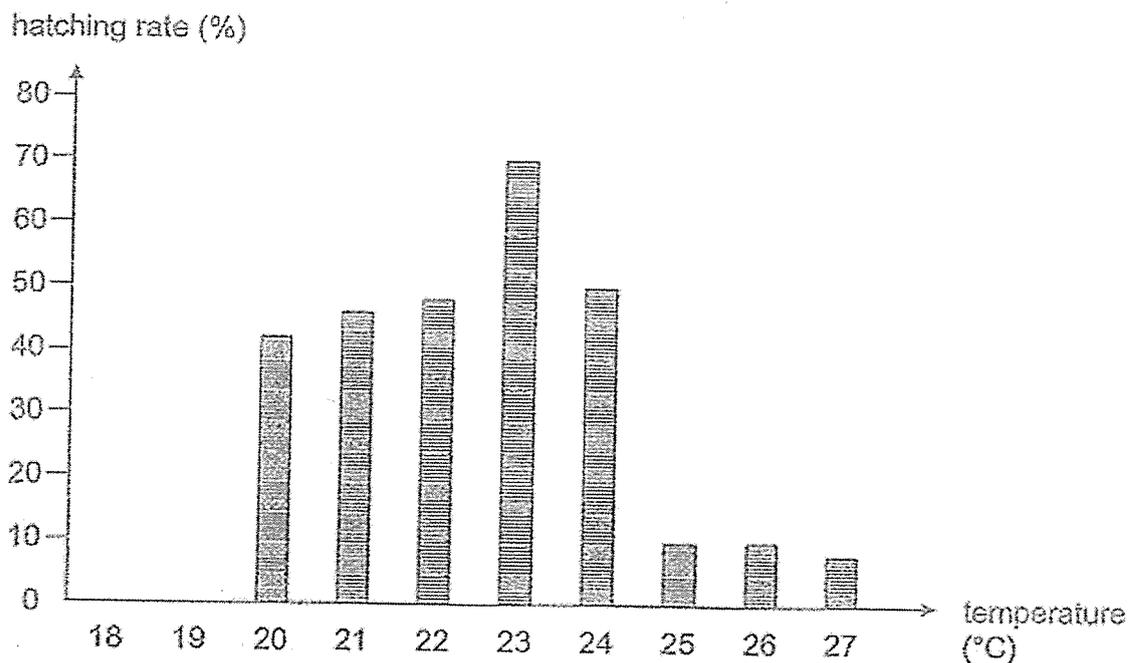
The fertilised eggs of organism X were placed in identical tanks filled with water of different temperatures. The tanks were kept in the same room.

- (a) To ensure a fair test, list two other variables Allen should keep constant. [1]

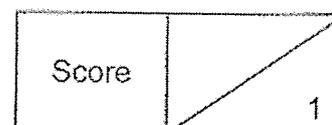
(i) _____

(ii) _____

The graph below shows the hatching rate of the eggs at different temperatures.



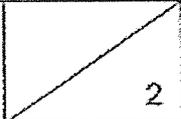
Continue on next page



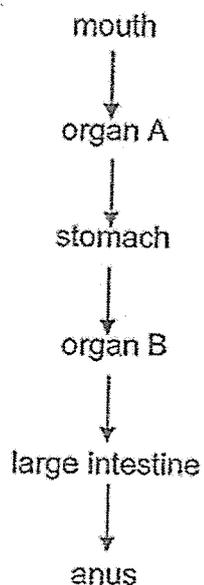
Continued from previous page

- (b) Based on the results shown on the graph, state the most suitable temperature for the egg of organism X to hatch. Give a reason for your answer. [1]

- (c) Allen repeated his experiment using another batch of fresh eggs of organism X. However, none of the eggs hatched. Give a possible reason for his observation. [1]

Score	
-------	---------------------------------------------------------------------------------------

30. The diagram below shows the direction of food in the human digestive system.



(a) Identify organs A and B. [1]

(i) A: _____

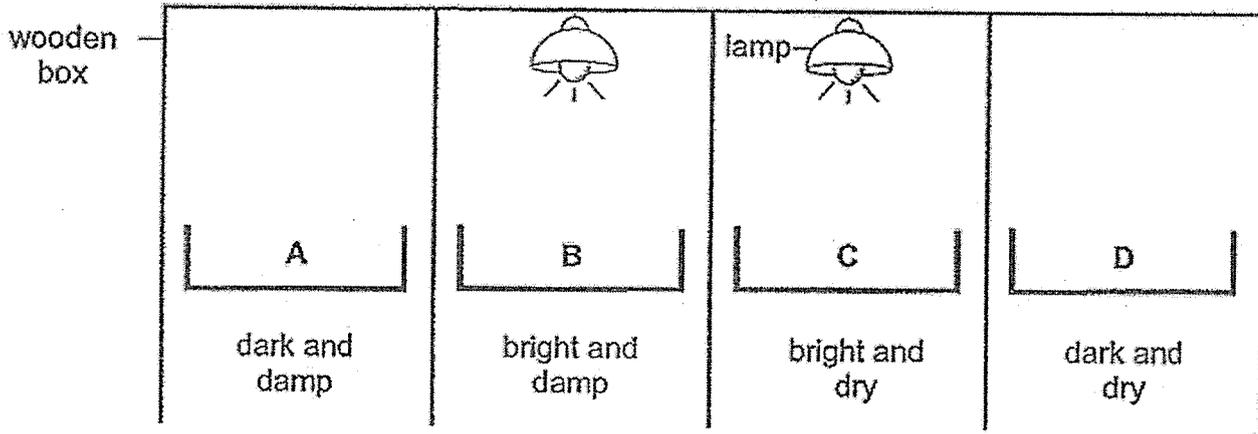
(ii) B: _____

(b) In the table below write down one difference and similarity between the mouth and organ B in terms of digestion of food. [2]

	mouth	organ B
(i) similarity		
(ii) differences		

Score	3
-------	---

31. Ali set up an experiment to find out the preferred living conditions of three types of organisms, P, Q and R. He divided a wooden box into four equal sections, A, B, C and D, as shown below. He poured an equal amount of soil into each section.



X

Ali then released twenty of each type of organism, P, Q and R, at point X as shown above. After one hour, he counted the number of organisms found in each section and recorded his results in the table as shown below.

organism	number of organisms in each section			
	A	B	C	D
P	1	0	10	9
Q	9	1	0	10
R	18	2	0	0

- (a) Based on the results in the table, what conditions do organisms R prefer most? Give a reason for your answer.

[1]

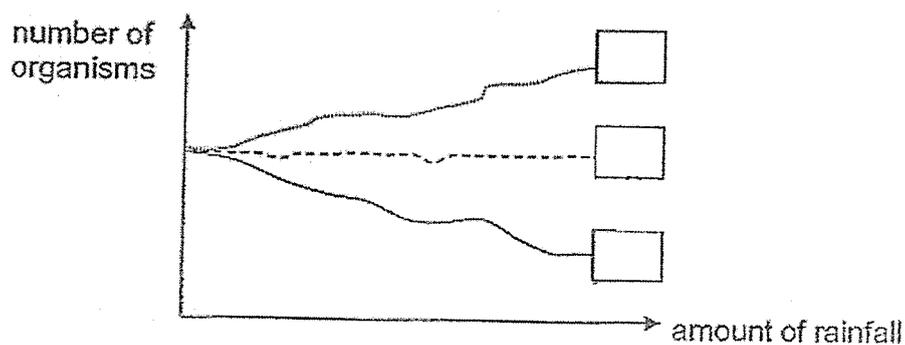
Continue on next page

Score	1
-------	---

Continued from previous page

- (b) Why did Ali only start counting the number of organisms after an hour? [1]

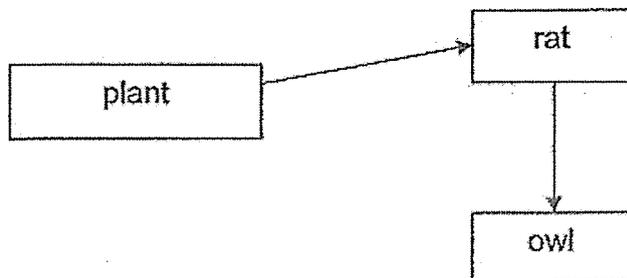
Organisms P, Q and R were then returned to their natural environment. Ali continued to study their numbers and monitored how the amount of rainfall affected organisms P, Q and R in their natural environment over a period of time. He drew a graph to show his findings.



- (c) Based on the results of Ali's experiment, write the letters P, Q and R into the correct boxes in the graph above to represent the three types of organisms. [2]

Score	3
-------	---

32. The diagram below shows a food relationship in a habitat.



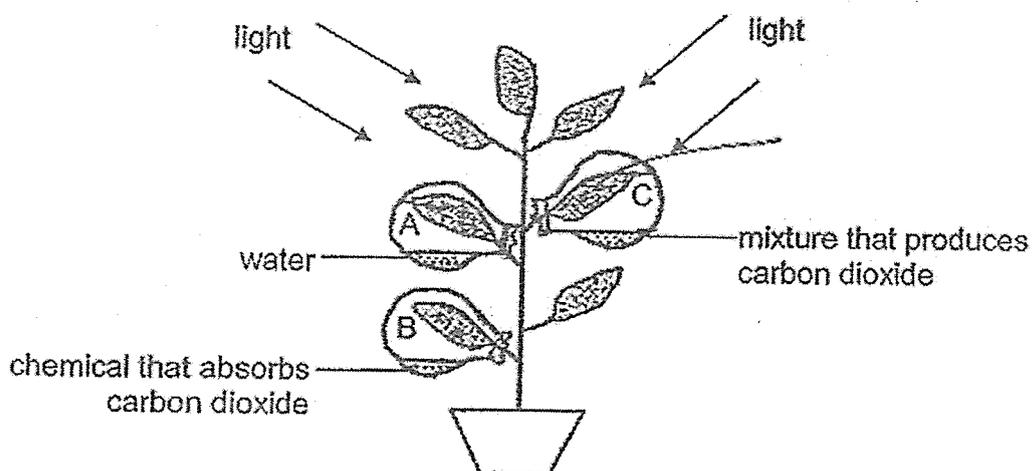
- (a) If all the owls were killed, what would be the immediate effect on the population of the plant? Explain why. [1]

An organism P was introduced to the habitat. As a result, the population of rat decreased.

- (b) In the diagram above, draw organism P to show the correct food relationship amongst the organisms. [1]
- (c) Name two physical characteristics of the environment that would affect the population of the plant. [2]

Score	4
-------	---

33. Tim placed a potted plant in the dark for forty-eight hours. He then wrapped three leaves, A, B and C, using clear plastic bags filled with different substances as shown below. Then he placed the potted plant under the sun.



- (a) In which leaf, A, B or C, will the rate of photosynthesis be the greatest? Explain why. [1]

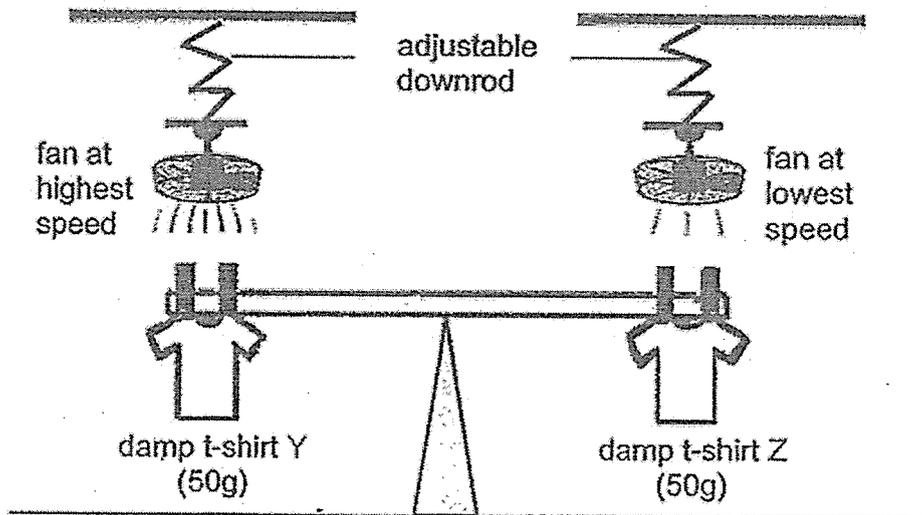
Tim conducted a starch test on the leaves A, B and C, after a certain period of time, using iodine. The iodine is yellowish-brown in colour and it will turn dark-blue after interacting with starch.

- (b) In the table below, put a tick (✓) in the correct boxes to indicate the colour of iodine observed on leaves A, B and C. [3]

leaf	colour of iodine	
	yellowish-brown	dark-blue
A		
B		
C		

Score	4
-------	---

34. Arif balanced two identical damp t-shirts, with a mass of 50g each, on a balance. A fan was placed above each t-shirt, blowing at different speeds, as shown in the diagram below.



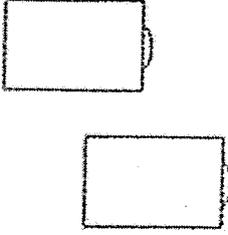
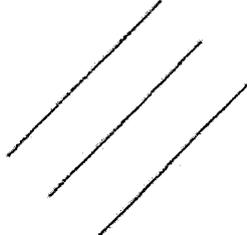
- (a) What is the hypothesis of Arif's experiment? [1]

- (b) Will the balance tilt downwards toward t-shirt Y or Z? Explain your answer. [2]

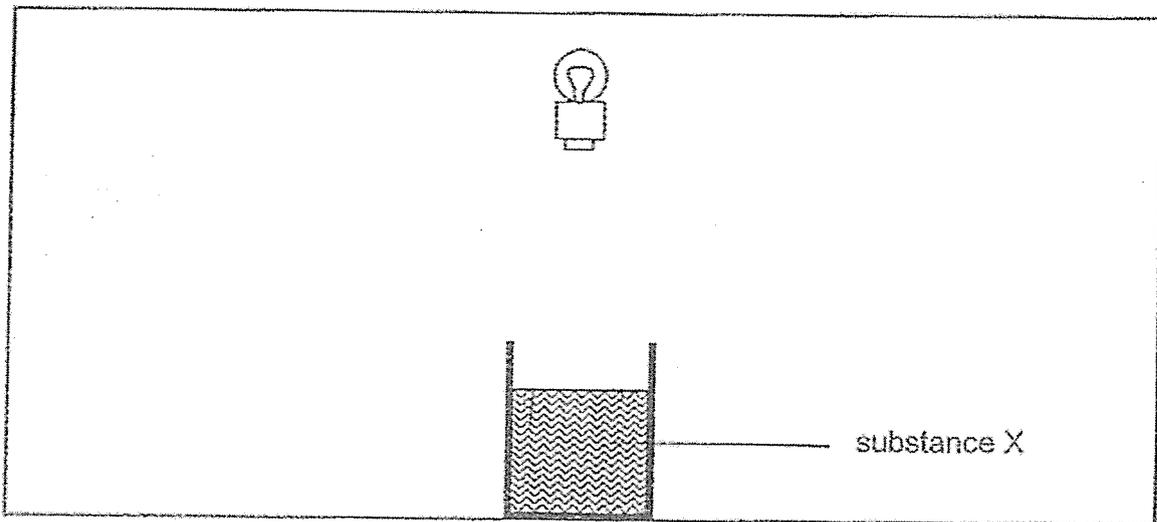
- (c) Without changing the fan speed, position of t-shirt Z on the balance or adding another equipment, suggest how Arif could dry t-shirt Z faster than before? [1]

Score	4
-------	---

35. Gina wanted to find out if substance X is a conductor of electricity. She used the materials as shown below to prepare the experimental setup.

			
two batteries	bulb	glass beaker with substance X	three wires

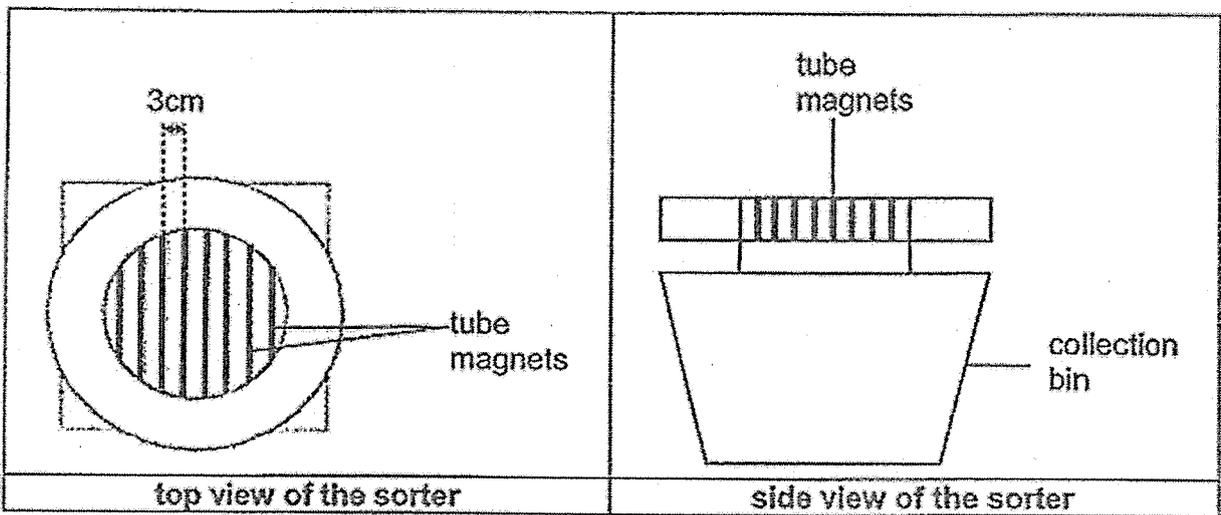
(a) In the box below, draw the circuit of her experimental set-up using all the materials provided above. [2]



(b) What would Gina observe to conclude that substance X is a conductor of electricity? [1]

Score	 3
-------	--------------------------------------------------------------------------------------------

36. Ken built a sorting device to separate magnetic materials and non-magnetic materials. It had an opening on top lined with tube magnets which were placed 3cm apart.



(a) Explain how the non-magnetic materials were collected in the collection bin. [2]

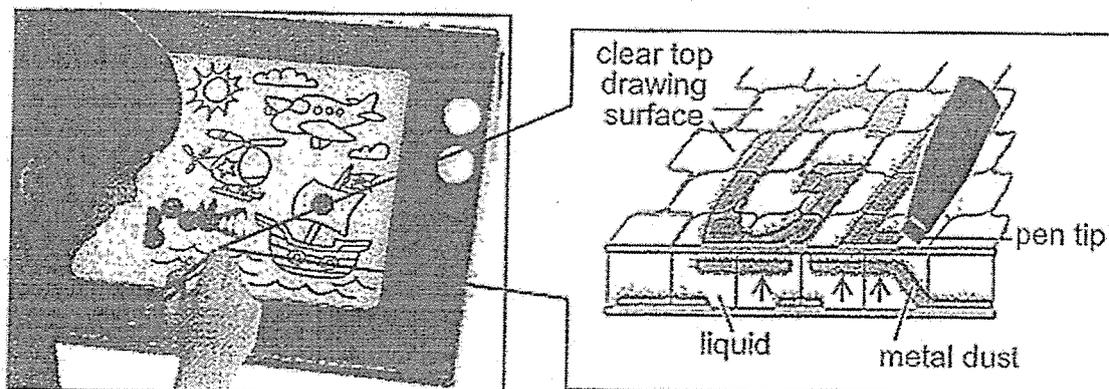
(b) Ken noticed that some magnetic materials were still collected in the collection bin.

He wanted to ensure that none of the magnetic materials fell into the collection bin. Suggest one change he could make to the device without replacing any parts of the device.

You may draw the diagram in the box below or write down your answer in the space provided. [1]

Score	3
-------	---

37. Barry used his doodle board to draw pictures with an inkless pen. When he glided the pen tip on the top surface of the doodle board, the metal dust would be lifted up to create his drawing as shown in the diagram below.



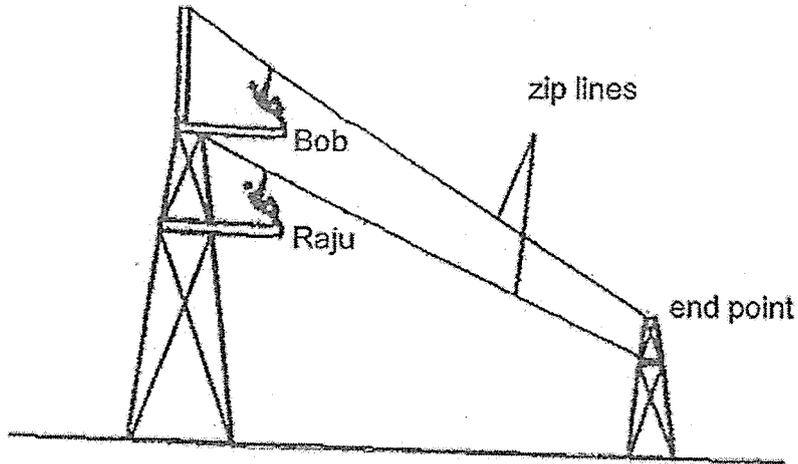
- (a) Based on the information given above, what could the tip of the pen be? [1]

- (b) State the main force involved while Barry was drawing on his doodle board. [1]

- (c) Suggest a material used for the metal dust used in the doodle board. [1]

Score	3
-------	---

38. Bob and Raju had a mass of 45kg and 60kg respectively. Their hands were not gripping on the zip lines while they were sliding down until they approached the end point.



Based on the information above, put a tick (\checkmark) in the correct box beside the statement to indicate whether it is true, not true or not possible to tell. [2]

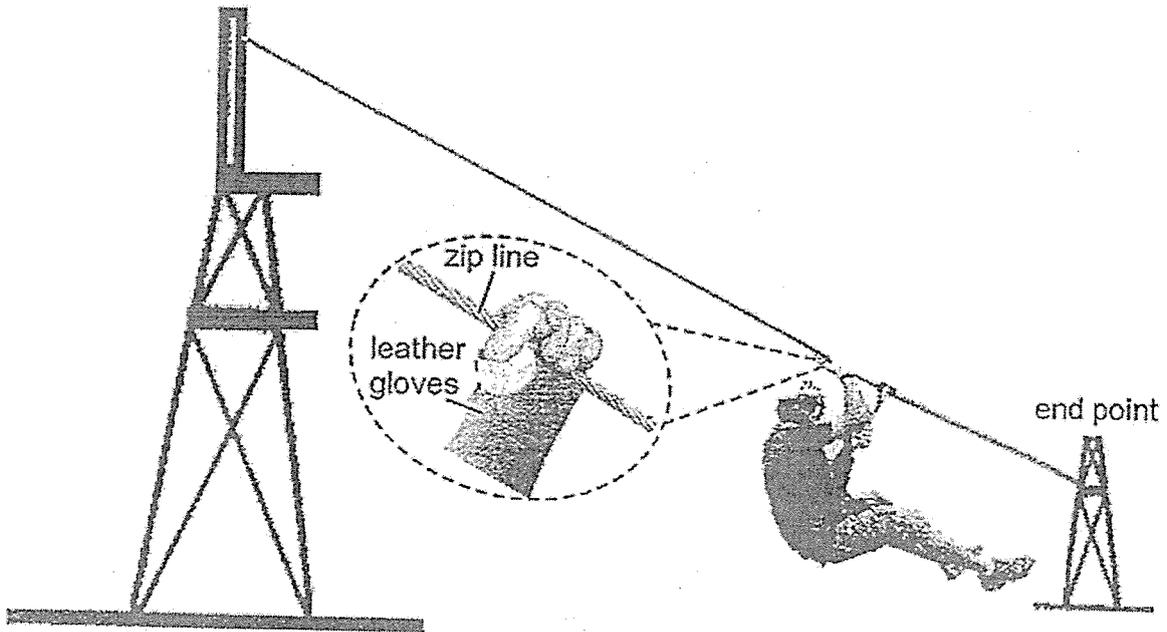
	statement	true	not true	not possible to tell
(a)	There was frictional force between Raju and the surrounding air as he slid down the zip line.			
(b)	There was greater amount of gravitational force acting on Bob than Raju when they slid down the zip line.			

Continue on next page

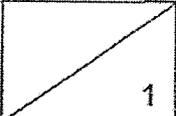
Score	2
-------	---

Continued from previous page

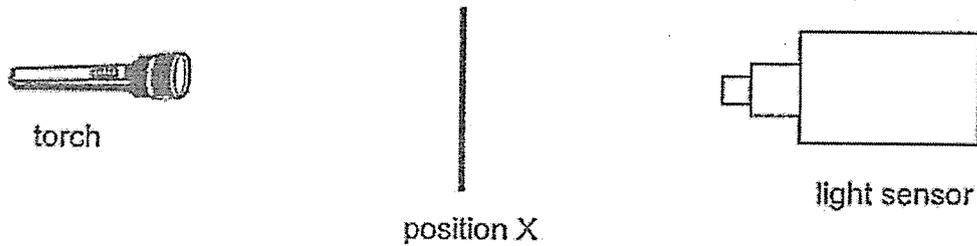
Both Bob and Raju had to reach up to grip the zip line loosely with their leather gloved hands as they were approaching the end point in order to stop in time, as shown in the diagram (not drawn to scale) below.



- (c) Explain, in terms of forces, why the boys had to grip the zip line with their leather gloved hands when they were approaching the end point. [1]

Score	
-------	---------------------------------------------------------------------------------------

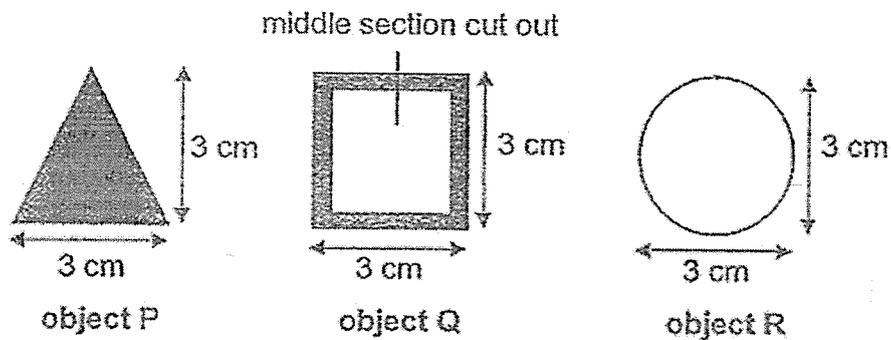
39. Alex placed three different materials, A, B, and C, of the same size and thickness at position X and shone a torch through it.



He recorded the average amount of light detected by the light sensor when it passed through each material in the table below. The amount of light detected, without any material at position X, was 50 units.

material at position X	average amount of light detected (units)
A	0
B	48
C	35

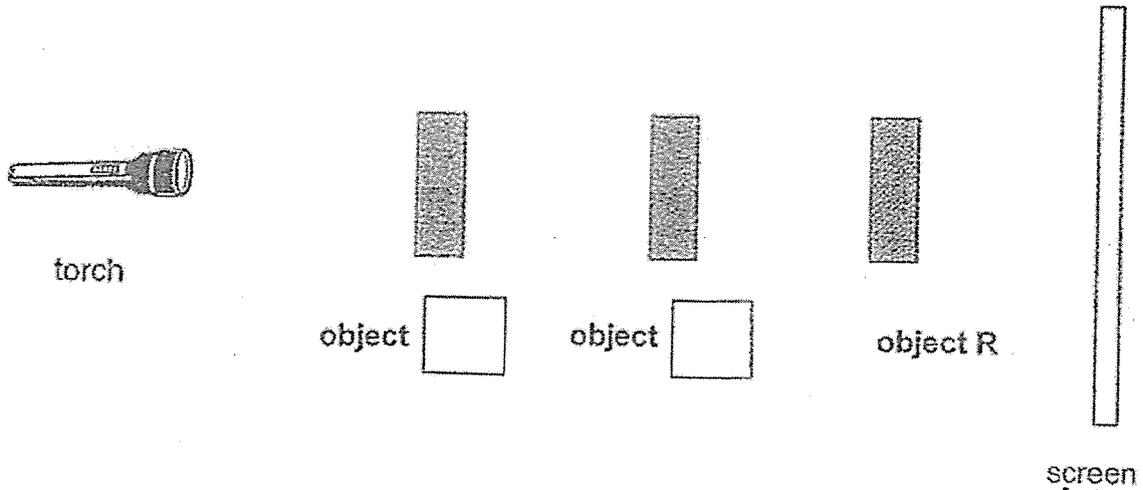
He used only two of these materials to create cut-outs of three different shapes; a triangle, a square with the middle section being cut out and a circle as shown in the diagram below.



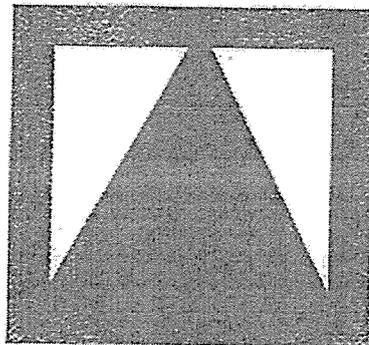
Continue on next page

Continued from previous page

He arranged the objects, P, Q and R, as shown in the diagram below.



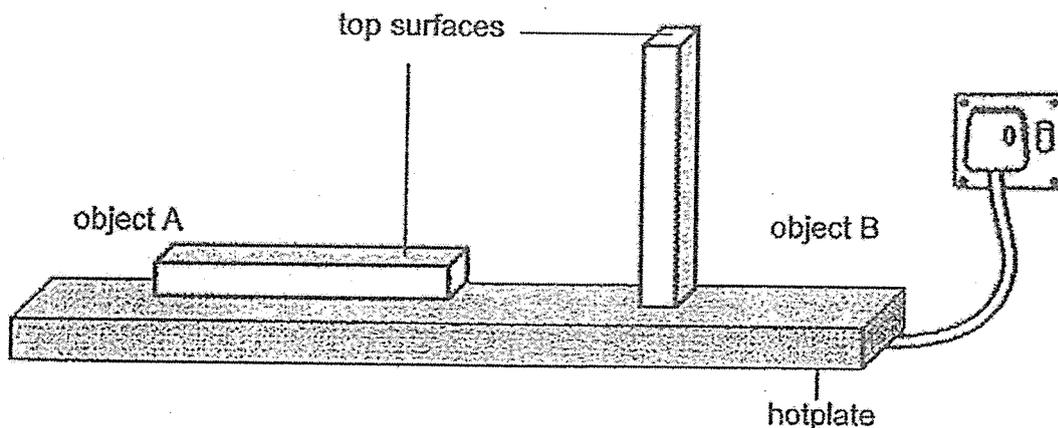
The following diagram shows the shadow that was cast on the screen.



- (a) Write in the boxes in the first diagram above to indicate the correct position of objects P and Q in order to obtain the shadow cast on the screen. [1]
- (b) Which material, A, B or C, was used to cut into object R? Explain why. [2]
-
-

Score	3
-------	---

40. Jerry carried out an experiment by placing two identical objects, A and B, on an electrical hotplate which was heated evenly. He measured the temperature of the top surfaces of both objects over a period of time and recorded his results in the table below.



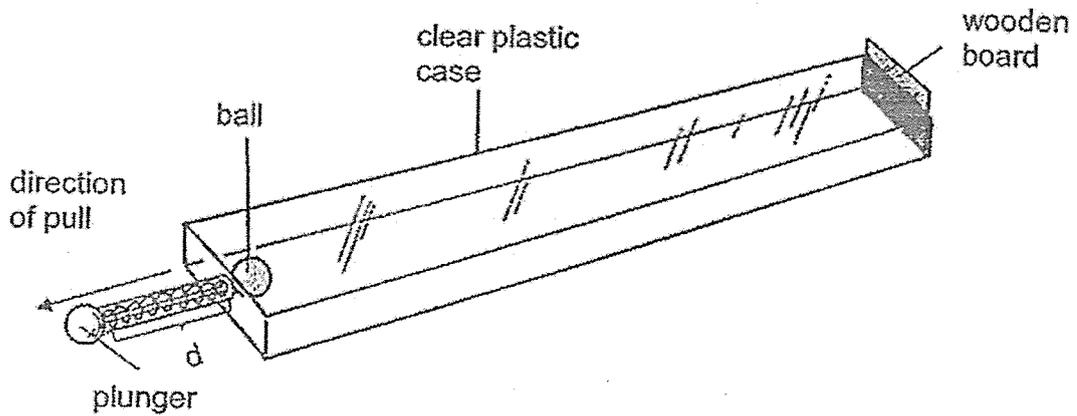
time (s)	temperature of the top surface (°C)	
	object A	object B
0	22	22
5	26	23
10	30	24
15	32	26
20	36	28
25	40	?

- (a) Predict the temperature of the top surfaces of object B at the 25th second. [1]

- (b) Explain why there was a difference in temperature between the top surfaces of objects A and B after some time. [2]

Score	3
-------	---

41. James pulled the plunger of a toy as shown below. The ball would travel forward and hit the wooden board.



He recorded the time taken for a 50g ball to hit the wooden board as he increased the distance the plunger was pulled back.

His results were shown in the table below.

length of pulled plunger, d , (cm)	time taken to hit wooden board (s)
4	10
5	8
6	5
7	3

- (a) Based on the information in the table above, describe how the length of plunger pulled affect the speed of the ball travelled to hit the wooden board. [1]

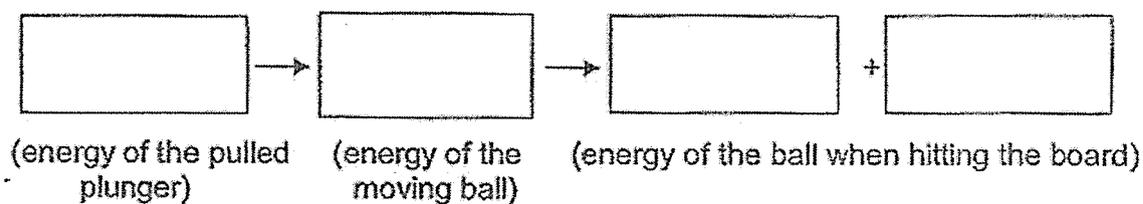
Continued on next page

Score	1
-------	---

Continued from previous page

- (b) Predict the time taken for a ball of 35g to hit the wooden board when the length of the pulled plunger is 7cm. [1]

- (c) Fill in the boxes below to show the conversion of energy of the ball from the plunger to when it hit the wooden board. [1]



- (d) How does pulling the plunger further backwards make the ball travel faster? Explain your answer in terms of energy conversion. [1]

End of Paper

Score	
-------	---------------------------------------------------------------------------------------

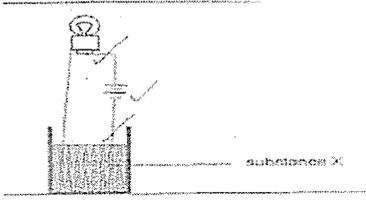
SCHOOL : RAFFLES GIRL'S PRIMARY SCHOOL
 LEVEL : PRIMARY 6
 SUBJECT : SCIENCE
 TERM : 2022 SA1

SECTION A

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
2	2	3	3	2	3	1	2	4	3
Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
3	3	4	2	4	3	1	2	3	4
Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28		
3	2	3	1	3	4	3	3		

SECTION B

Q29)	<p>a)i)the amount of water in the tanks. ii)Number of eggs in the tank.</p> <p>b)23°. Based on the results, the hatching rate at 23°c was the highest. The most suitable temperature for egg to hatch is at 23°c.</p> <p>c)The batch of fresh eggs were not fertilised by male organism X yet.</p>
Q30)	<p>a)i)A: gullet ii)B: small intestine</p> <p>b)i)Both organs produces digestive juices and break down undigested food into simpler substances. ii)Digested food is not absorbed into the bloodstream. Digested food is absorbed into the bloodstream.</p>
Q31)	<p>a) Dark and damp. Based on the results, most organism R was found in section A. The conditions of section A was dark and damp.</p> <p>b) It is to allow them time to move to their preferred condition.</p> <p>c) R , Q , p</p>
Q32)	<p>a) The population of plant will decrease. Since all owls were killed,</p>

	<p>there will be no owls to eat the rats so there will be more rats to feed on plants.</p> <p>b) Rat → P</p> <pre> ↓ owl </pre> <p>c)1) The amount of light present. 2)The amount of water present.</p>									
Q33)	<p>a) Leaf C. Leaf C is placed in a plastic bag with a mixture that produces carbon dioxide. Leaf C will have the most carbon dioxide, so leaf C could take in the most carbon dioxide so Leaf C photosynthesized faster. Hence, the rate of photosynthesis in Leaf C will be the greatest.</p> <p>b)</p> <table border="1" data-bbox="427 976 887 1137"> <tr> <td>A</td> <td></td> <td>√</td> </tr> <tr> <td>B</td> <td>√</td> <td></td> </tr> <tr> <td>C</td> <td></td> <td>√</td> </tr> </table>	A		√	B	√		C		√
A		√								
B	√									
C		√								
Q34)	<p>a) As the fan speed increases, the damp t-shirt will dry faster, having lesser mass.</p> <p>b) The balance will tilt downwards towards t-shirt Z.</p> <p>The fan on top of t-shirt Z was at the lowest speed but the fan on top of t-shirt Y was at the highest speed.</p> <p>The rate of evaporation in t-shirt Z was slower, so t-shirt Z dried the slower, having more mass</p> <p>c) Arif could bring the fan on top of t-shirt Z nearer to the t-shirt Z.</p>									
Q35)	<p>a)</p>  <p>b)The bulb would light up/</p>									

Q36)	<p>a)The non-magnetic materials would not be attracted the tube magnets, falling through the gap into the collection bin, magnetic materials will be attracted the tube magnetic.</p> <p>b)Add another layer of magnet tubes.</p>
Q37)	<p>a) magnet</p> <p>b) magnetic force</p> <p>c) iron</p>
Q38)	<p>a) true</p> <p>b) not true</p> <p>c) To stop in time, the boys gripped the zip line so there was frictional force between his leather gloved hands and the zip line to stop them in time.</p>
Q39)	<p>a)object Q / object P</p> <p>b)Material B. Based on the results, material B allowed the most light to pass through. B was the most transparent. The shadow of object R could not be seen as the least light was blocked by object R.</p>
Q40)	<p>a)30°c</p> <p>b)Object B has a smaller surface area in contact with the hotplate, so it gains heat from the hotplate slower compared to object A.</p>
Q41)	<p>a) As the length of the pulled plunger increase, the speed of the ball travelled to hit the wooden board increases.</p> <p>b) 1.5s</p> <p>c) Elastic potential → kinetic → sound + heat</p> <p>d) When the plunger was pulled further backwards there would be more elastic potential energy of the plunger, which will be converted to more kinetic energy of the ball, making the ball travel faster.</p>

