

RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT (1) 2014

Section A	60
Section B	40
Your score out of 100 marks	
Parent's signature	

Name : _____ Index No: _____ Class: P6 _____

6 May 2014 **SCIENCE** Attn: 1h 45min

SECTION A (30 X 2 marks)

For each question from 1 to 30, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval on the Optical Answer Sheet.

1. The table below provides some information on organisms X, Y and Z. A tick (✓) in the box indicates the presence of the characteristics.

Organisms	Can make its own food	Can reproduce from spores
X	✓	
Y		✓
Z	✓	✓

Which one of the following statement(s) is/are correct?

- A X, Y and Z are plants.
- B X and Z contain chlorophyll.
- C Y and Z are non-flowering plants.

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

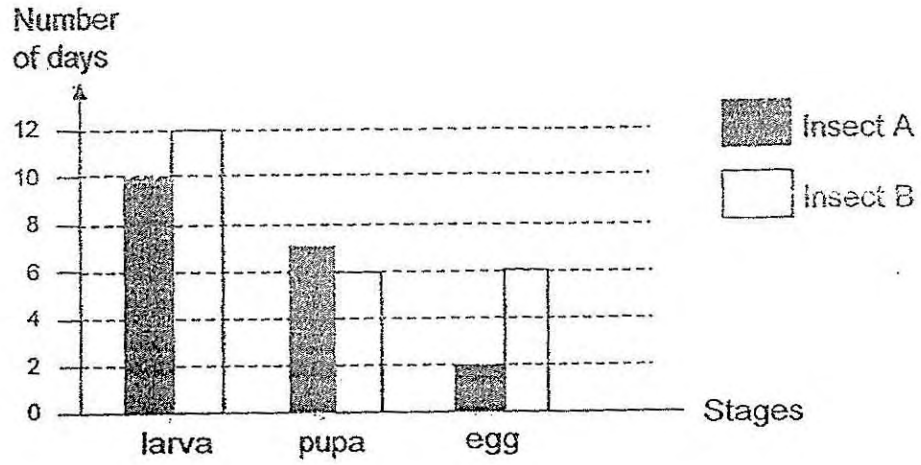
2. Tom caught organism P in the garden.

Which of the following method(s) could he use to determine if organism P is an insect?

- A Observe if organism P has 3 pairs of legs.
- B Measure the length of the body of organism P.
- C Examine organism P to find out if it has 3 body parts.

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

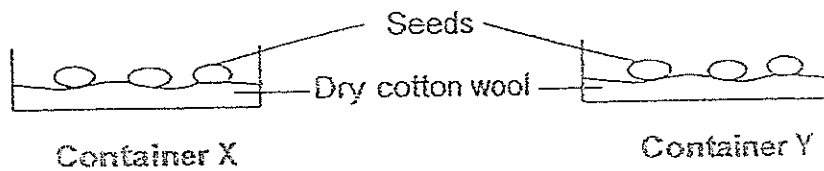
3. The graph below shows the number of days for each stage of the life cycles of insects A and B.



Which one of the following shows the stages that insects A and B would be on the 11th day after the eggs have hatched?

	Insect A	Insect B
(1)	Pupa	Pupa
(2)	Larva	Larva
(3)	Larva	Pupa
(4)	Pupa	Larva

4. Joelle placed an equal number of the same type of seeds in containers X and Y as shown below.

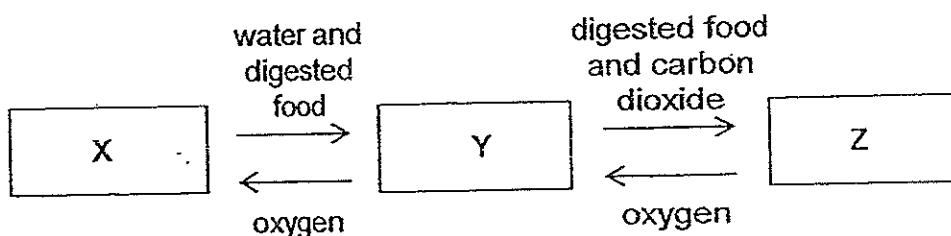


He exposed Container X and Y to different conditions. After one week, she observed that only the seeds in Container Y germinated.

Which one of the following best describes the conditions which the seeds were exposed to in each container?

	Container X	Container Y
(1)	<ul style="list-style-type: none"> placed in the garden watered daily 	<ul style="list-style-type: none"> placed in a dark cupboard no water given
(2)	<ul style="list-style-type: none"> placed under the sun watered daily 	<ul style="list-style-type: none"> placed in the refrigerator watered daily
(3)	<ul style="list-style-type: none"> placed in the refrigerator watered daily 	<ul style="list-style-type: none"> placed in a dark room watered daily
(4)	<ul style="list-style-type: none"> placed in a dark room no water given 	<ul style="list-style-type: none"> placed in an air-tight container no water given

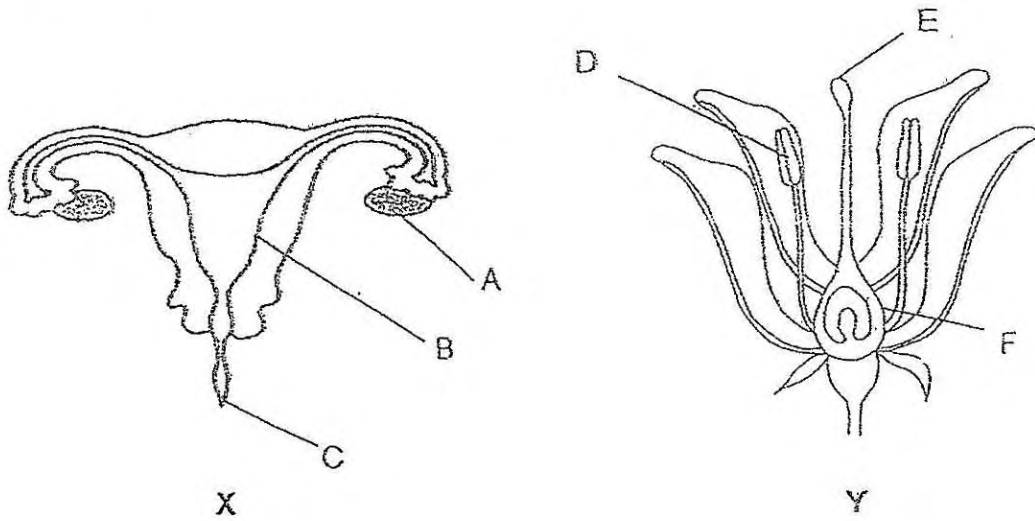
5. The diagram below shows how some substances are transported in the human body.



Which one of the following shows the body systems represented by X, Y and Z?

	X	Y	Z
(1)	respiratory system	circulatory system	digestive system
(2)	circulatory system	digestive system	respiratory system
(3)	digestive system	respiratory system	circulatory system
(4)	digestive system	circulatory system	respiratory system

6. The diagram below shows the cross sections of a human female reproductive system, X, and a flower, Y.



Which one of the following shows where the female sex cells are found and produced in both X and Y?

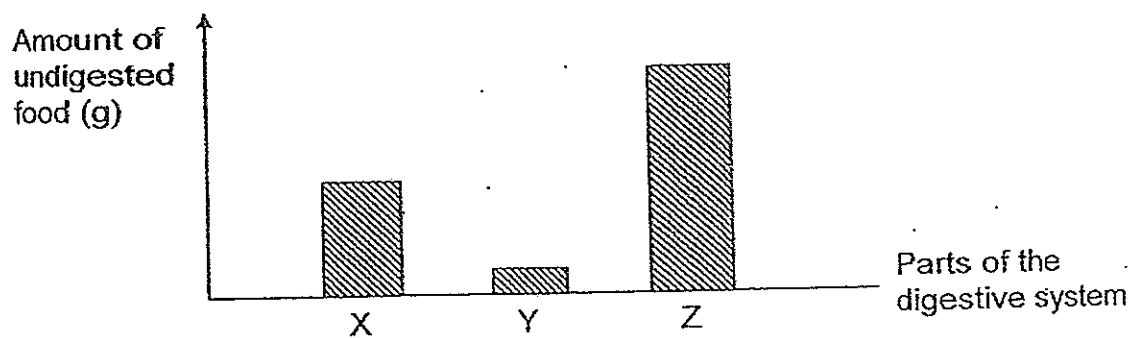
	X	Y
(1)	A	D
(2)	B	F
(3)	C	E
(4)	A	F

7. Joan carried out an experiment on five fruits, A, B, C, D and E which were obtained from the same parent plant. She exposed the fruits to different temperatures and observed the fruits for 12 hours. She recorded her observations in the table below.

Fruit	Temperature at which fruit was subjected to (°C)	Observations on fruit	Average distance of scattered seeds from each fruit (m)
A	20	did not split	—
B	25	split after 10 hours	1
C	30	split after 3 hours	1.5
D	35	split after 2 hours	2.5
E	40	split after 0.5 hours	4

Based on the information above, which one of the following statements is correct?

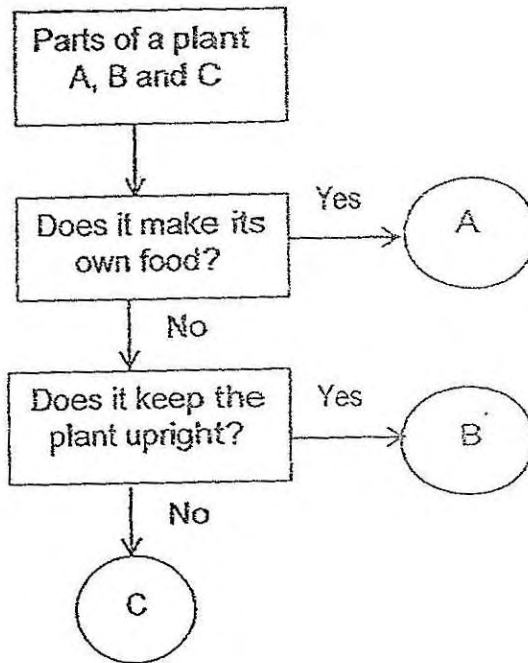
- (1) Fruit A split open with the least force.
 - (2) The minimum temperature needed for the fruit to split is 20°C.
 - (3) The greatest distance that seeds of fruit E can be scattered is 4m.
 - (4) The higher the temperature at which the fruit was exposed to, the shorter the time taken for it to split.
8. The graph below shows the amount of undigested food in different parts of the human digestive system just before it travels to the next part of the system.



Which one of the following correctly identifies organs X, Y and Z?

	X	Y	Z
(1)	gullet	stomach	small intestine
(2)	stomach	large intestine	gullet
(3)	small intestine	mouth	large intestine
(4)	large intestine	stomach	mouth

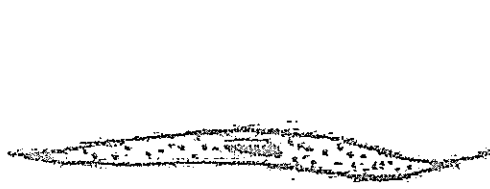
9. The diagram below shows a flow chart.



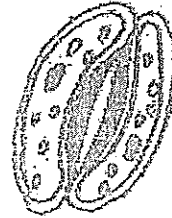
Based on the flowchart, which one of the following correctly identifies A, B and C?

	A	B	C
(1)	flower	stem	leaves
(2)	leaves	flower	stem
(3)	flower	roots	stem
(4)	leaves	stem	roots

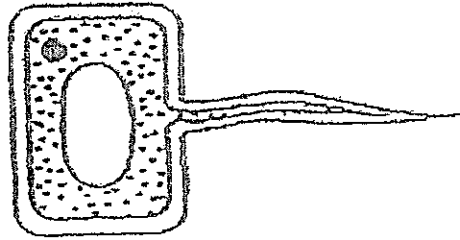
10. The diagrams below show four different types of cells.



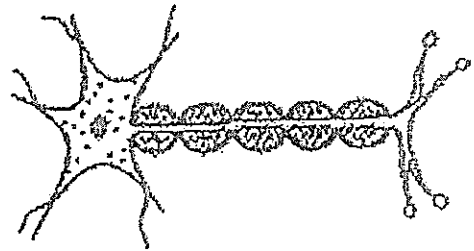
A



B



C

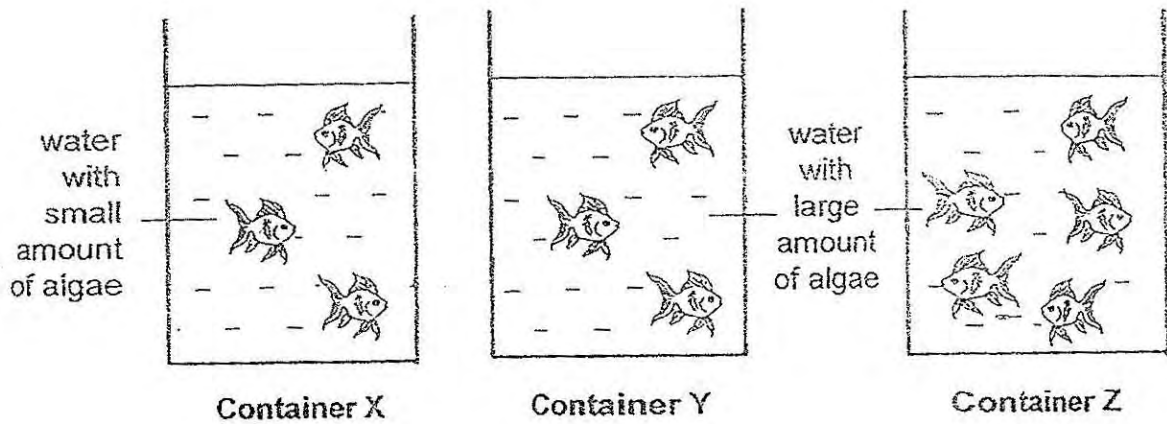


D

Which one of the following correctly identifies the cells?

	Animal Cells	Plant cells
(1)	A, C and D	B
(2)	A and D	B and C
(3)	B and C	A and D
(4)	A	B, C and D

11. Tony filled three identical containers with an equal amount of water and placed different amount of algae and fishes into each container as shown below. All the containers were placed in a dark room.



He recorded the amount of dissolved oxygen in the water in container Y from 9 p.m. to 3 a.m. at every three hour interval in the table below.

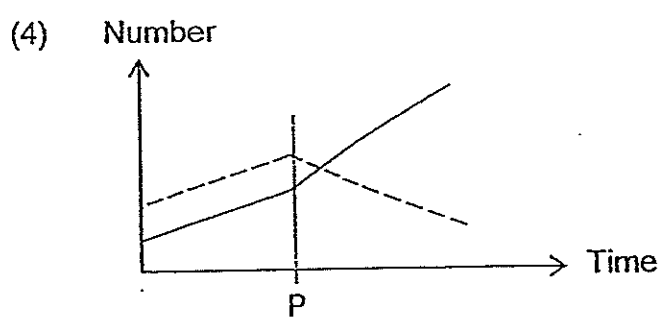
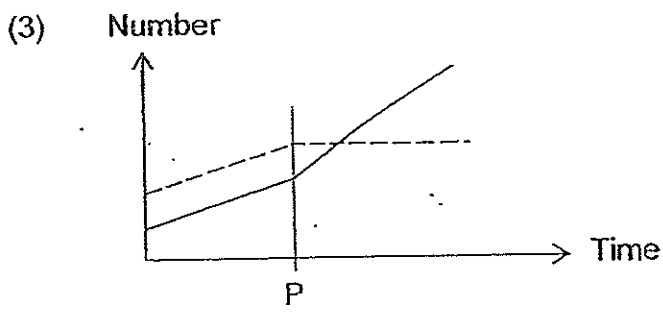
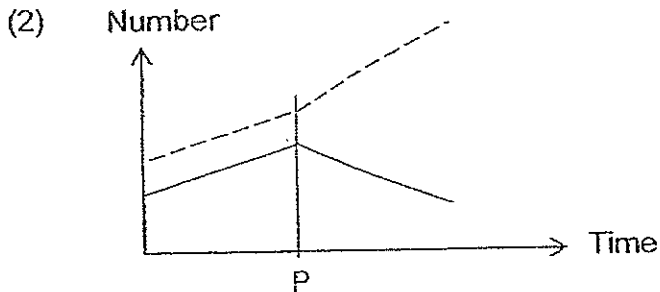
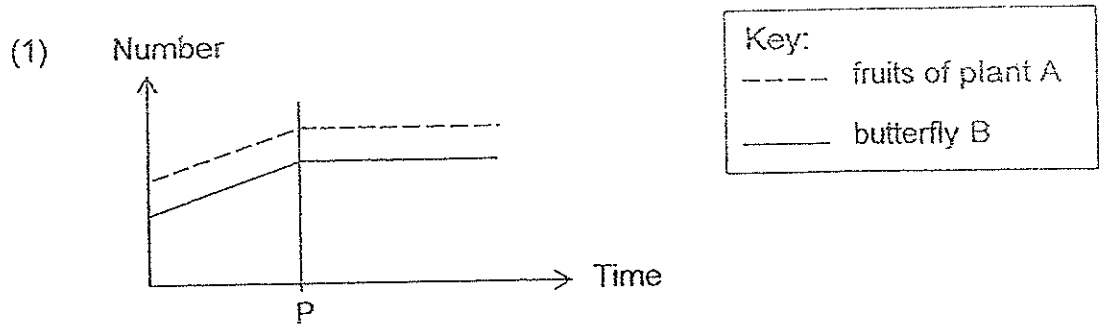
Time	9 p.m.	12 a.m.	3 a.m.
Amount of dissolved oxygen (unit per litre)	8.0	7.5	7.0

Which one of the following shows the correct amount of dissolved oxygen in the water in container X and Z at 3 a.m.?

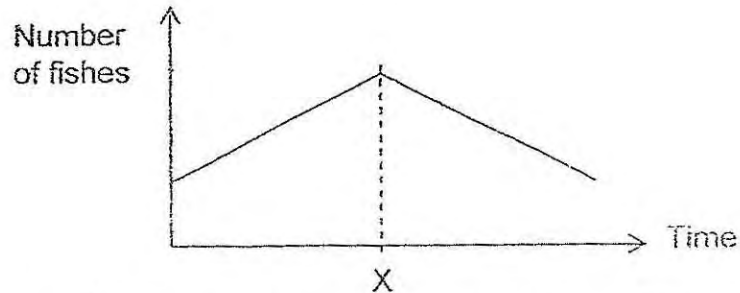
	Amount of dissolved oxygen in container (unit per litre)	
	X	Z
(1)	6.0	6.5
(2)	6.0	7.5
(3)	8.0	6.5
(4)	8.0	7.5

12. The adults of butterfly B feed on the nectar of flowers of plant A in a garden. When a certain type of pesticide was sprayed in the garden, all the caterpillars of butterfly B were killed immediately. The pesticide did not harm or kill the adults of butterfly B and plant A.

Which one of the following graphs correctly shows how the numbers of butterfly B and the fruits of plant A are affected before and immediately after the pesticide was sprayed at point P?



13. The graph below shows the number of fishes in a pond over a period of time. Some organisms P were added into the pond at point X as shown in the graph.



Which one of the following is/are true about Organisms P?

- A They are aquatic plants.
- B They are prey for the fishes.
- C They are predators of the fishes.
- D They are infected with a disease.

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

14. Some pupils counted the organisms found in their school garden. They recorded the findings in the table below. There were altogether 100 organisms in that habitat.

Types of organisms	Number of organisms
fungi	5
animals with 4 legs	10
animals with 6 legs	30
animals with more than 6 legs	10
flowering plants	20
non-flowering plants	25

Four pupils made the following statements in their Science journal :

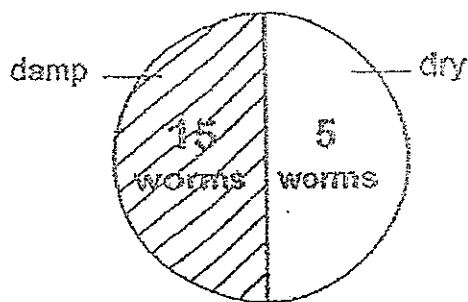
- Ashley : There are at least 6 populations of organisms.
 Bernice : There are more plants than animals in this community.
 Peter : This garden community is made up of plants and animals only.

Which of the following pupils' statement(s) is/are correct?

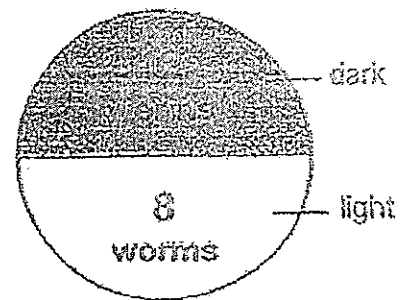
- (1) Ashley only
- (2) Bernice only
- (3) Ashley and Bernice only
- (4) Bernice and Peter only

15. Lily conducted an experiment to study the conditions that worms prefer to live in. She placed 20 worms in each of two dishes, A and B.

After 15 minutes, she counted the number of worms in each section of each dish and recorded her observations as shown below.

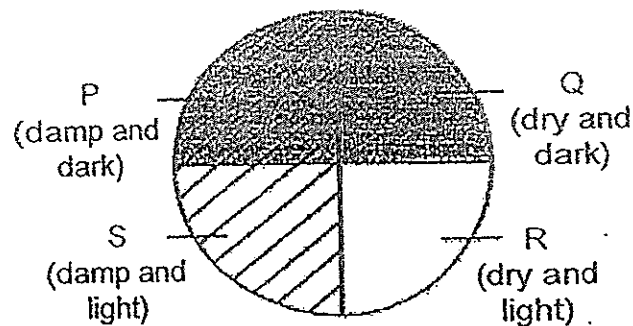


Dish A



Dish B

Next, Lily placed 20 worms in another dish, C as shown below.

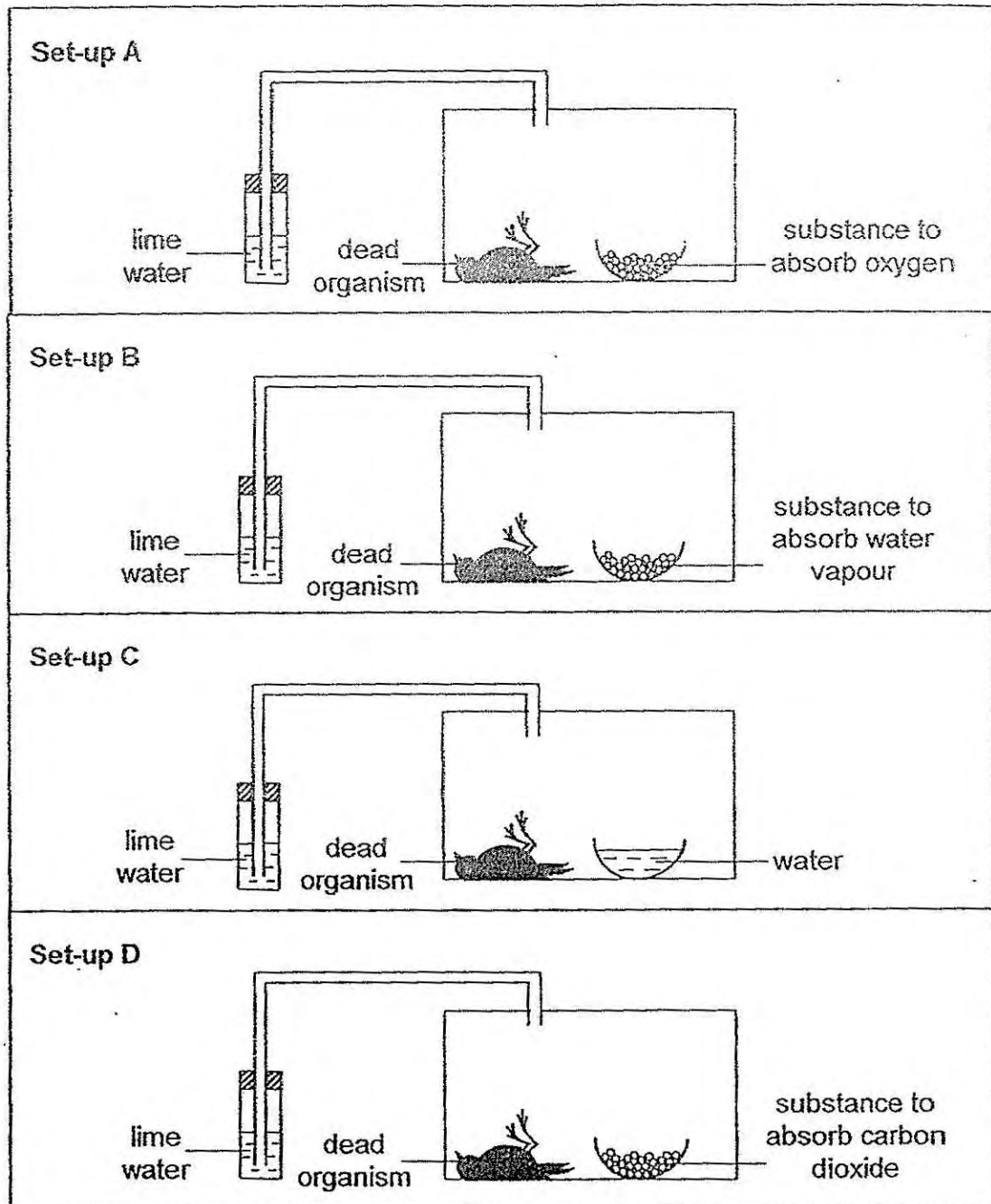


Dish C

Which one of the following section of dish C would Lily observe the most worms after 15 minutes?

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

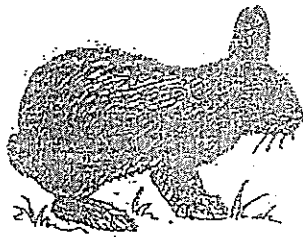
16. Wallace wanted to find out whether the presence of moisture affects the rate of decomposition. He prepared four set-ups as shown below.



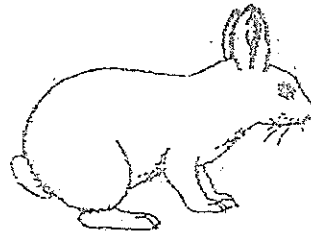
Which set-ups should he use for his investigation to ensure a fair test?

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

17. The diagrams below shows a type of hare found in a certain habitat during summer and during winter. The habitat consists of mainly green grass and rocks during summer and mainly snow during winter.



In summer, fur of hare turns brown



In winter, fur of hare turns white

Which of the following is/are reason(s) for the change in the colour of the fur of the hare?

- A To keep itself warm in the cold weather.
- B To blend in with the surrounding to catch its prey more easily.
- C To blend in with the surrounding to avoid being spotted by its predators.

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

18. Which of the following actions are harmful to the environment?

- A Burning of forest to clear land for housing.
- B Oil spill during extraction of oil from seabed.
- C Recycling of used aluminium cans and plastic bottles.
- D Use of solar panels to provide electricity for lightings in a building.

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

19. Sarah used a swimming board at a swimming pool as shown below. The swimming board was made of material X.

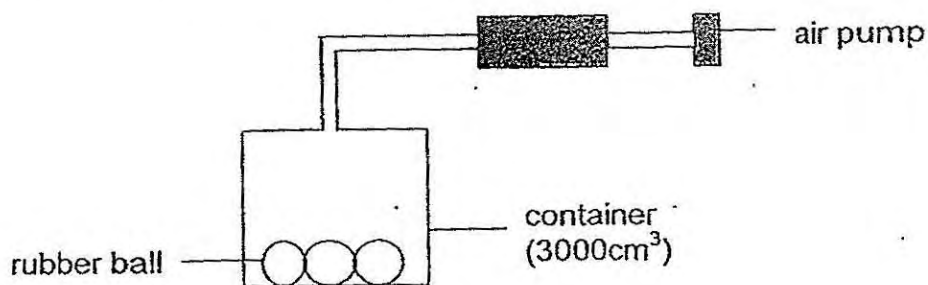


Which of the following properties are important for consideration when choosing material X to make the swimming board?

- A Flexible
- B Waterproof
- C Easy to break
- D Float in water

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

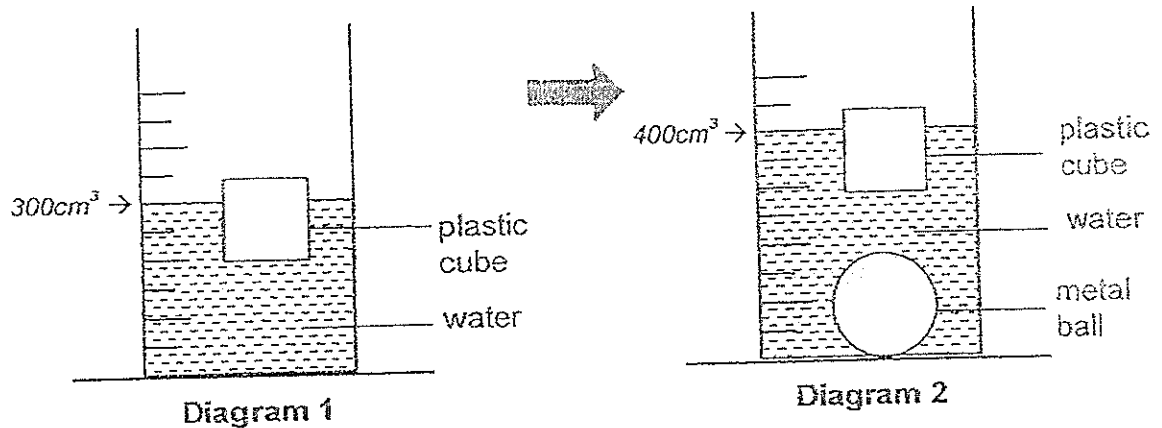
20. The diagram below shows a container which has a capacity of 3000cm^3 . Three rubber balls, each of a volume of 200cm^3 , were placed in it.



What is the volume of air in the container after 500cm^3 of air was pumped into the container?

- (1) 2400 cm^3
- (2) 2900 cm^3
- (3) 3300 cm^3
- (4) 3500 cm^3

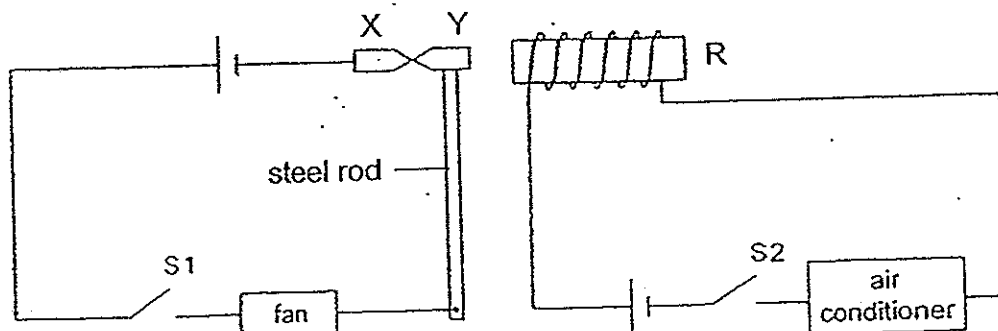
21. A plastic cube was placed in a beaker of water as shown in Diagram 1 below. Next, a metal ball was added to the same beaker, as shown in Diagram 2 below.



Which one of the following statements is true?

- (1) The volume of water is 300cm^3 .
 - (2) The volume of the metal ball is 150cm^3 .
 - (3) The volume of the metal ball is the same as the volume of plastic cube.
 - (4) The total volume of the water and plastic cube is greater than the volume of metal ball.
22. Shania installed an electrical system in her room as shown below.

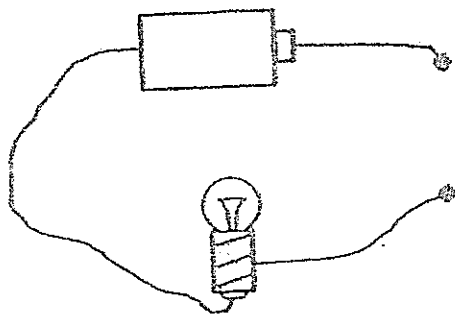
R is an aluminium bar placed inside a coil of wire.
 X and Y are made of iron and are in contact with each other.
 X is fixed. Y is attached to a steel rod and can move sideways.



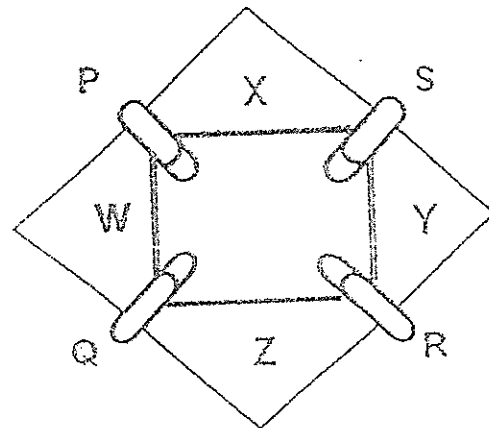
When Shania closed switches S1 and S2 at the same time, which one of the following observations would she make?

- (1) Only the fan will be switched on.
- (2) Only the air conditioner will be switched on.
- (3) Both the fan and the air conditioner will not work.
- (4) Both the fan and the air conditioner will be switched on.

23. Claire set up a circuit card and a circuit tester as shown below. Paper clips P, Q, R and S are connected by 4 strips, W, X, Y and Z which are made of different materials.



Circuit tester



Underside of a circuit card

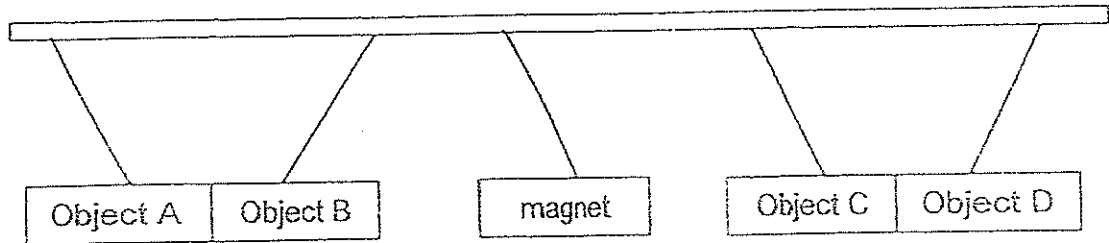
Claire connected the circuit tester to the various paper clips and recorded the results in the table below.

Paper clips connected to circuit tester				Did the bulb light up?
P	Q	R	S	
	✓		✓	Yes
✓		✓		No
	✓	✓		No

Based on the results above, which one of the following correctly matches W, X, Y and Z to their properties?

	Conductor of electricity	Non-conductor of electricity
(1)	X	W, Y, Z
(2)	W, X	Y, Z
(3)	W, Z	X, Y
(4)	Y, Z	W, X

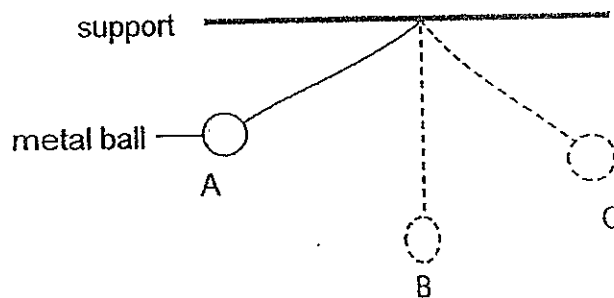
24. Tom hung a magnet and four other objects, A, B, C and D on a rod, as shown below.



Which one of the following best describes the four objects?

	Object A	Object B	Object C	Object D
(1)	Magnet	Non-magnetic material	Non-magnetic material	Magnetic material
(2)	Magnetic material	Magnet	Magnetic material	Non-magnetic material
(3)	Magnetic material	Magnet	Magnet	Magnetic material
(4)	Non-magnetic material	Magnetic material	Magnetic material	Non-magnetic material

25. The diagram below shows a metal ball which is hung from a support with a string.



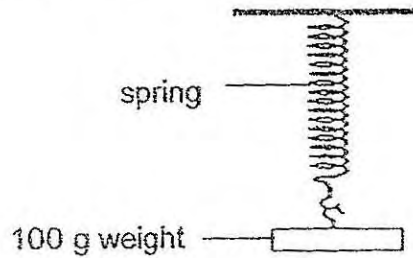
When the metal ball is released from point A, it swings to point B and then to point C.

Which of the following statement(s) is/are true?

- A There is no force acting on the metal ball at B.
- B Gravitational force acted on the metal ball from A to C.
- C More gravitational force acted on the metal at A than at B.

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

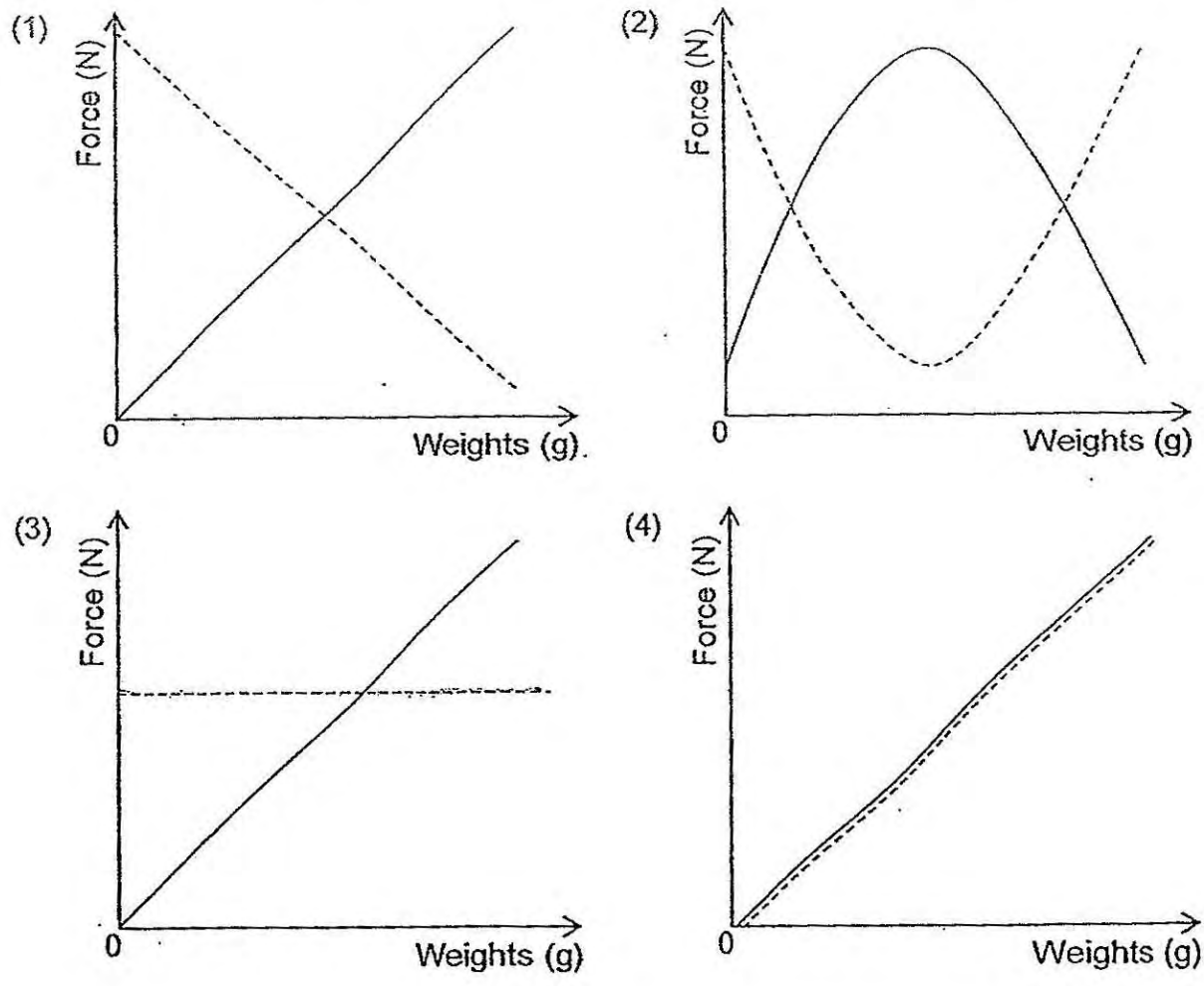
26. Kate hung a 100 g weight on a spring as shown in the diagram below.



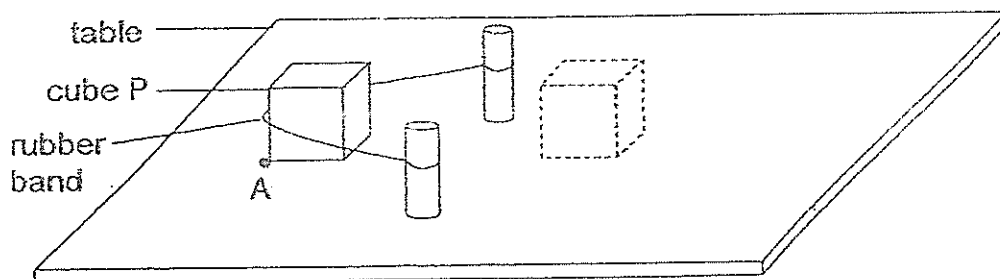
She added three more identical 100 g weights on the spring, one at a time, until four identical 100 g weights were hanging on the spring. The spring returned to its original length when all the weights were removed.

Which one of the following graphs shows how the amount of weight attached to the spring affects the elastic spring force exerted by the spring and the gravitational force acting on the spring only?

Key:	-----	gravitational force
	—————	elastic spring force



27. John conducted an experiment on cube P using the set-up shown below. John pulled the rubber band backwards, together with the cube to position A. When he released the cube, it moved across the table.



John repeated the experiment with cube Q instead of cube P. The mass of cubes P and Q were 1kg and 2kg, respectively. Both cubes were wrapped with the same type of material and are identical in size.

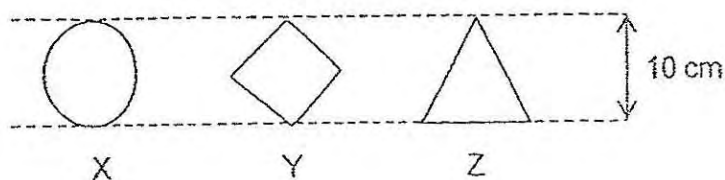
He observed that cube P travelled a greater distance than cube Q.

Which of the following statement(s) is/are true?

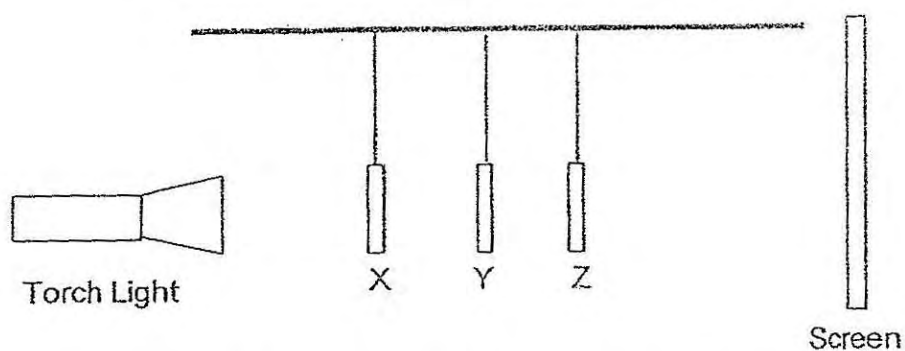
- A The surface of cube P is smoother than the surface of cube Q.
- B Less force is needed to move cube P than cube Q over the same distance.
- C The rubber band and cube P must be stretched further away than position A to reach the same distance as cube Q.

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

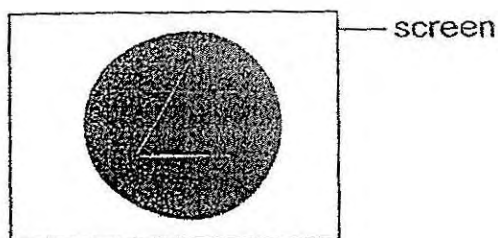
28. Fatimah cut out different shapes, X, Y and Z, made of different materials, as shown below.



Next, Fatimah shone light on the three shapes using the set-up below. The three shapes are placed at different distances from the torch.



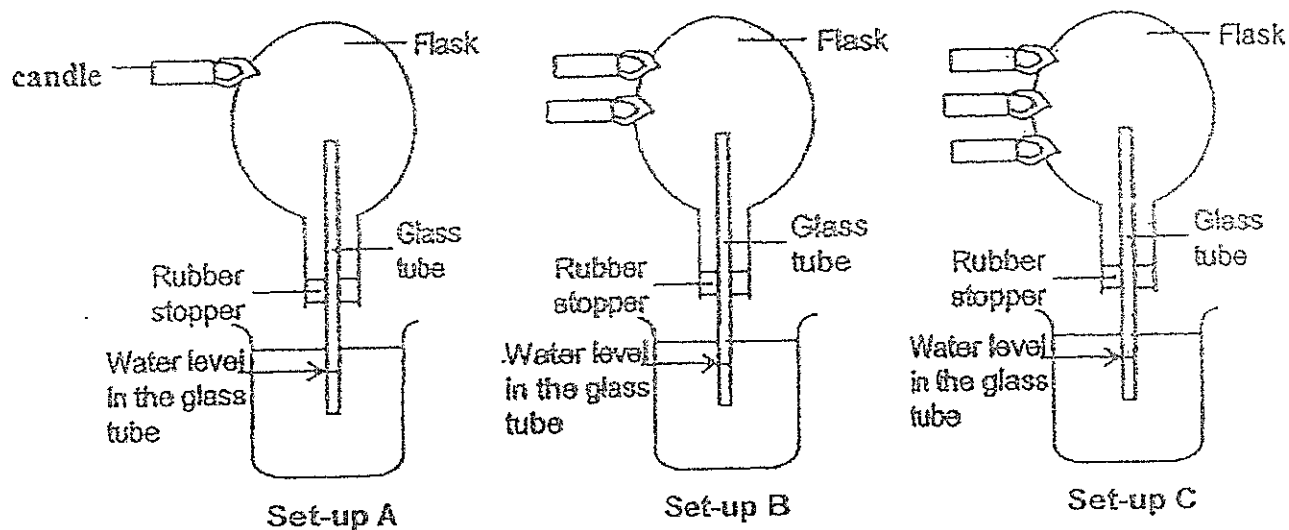
The diagram below shows what was seen on the screen.



Which of the following statement(s) is/are true?

- A X allows some light to pass through it.
 - B Y does not allow light to pass through it.
 - C The further the shape is from the screen, the bigger the shadow cast.
- (1) A only
 - (2) B only
 - (3) A and C only
 - (4) B and C only

29. Lauren carried out an experiment using set-ups A, B and C as shown below.



The water levels in the 3 glass tubes in the 3 set-ups were the same at the start of the experiment.

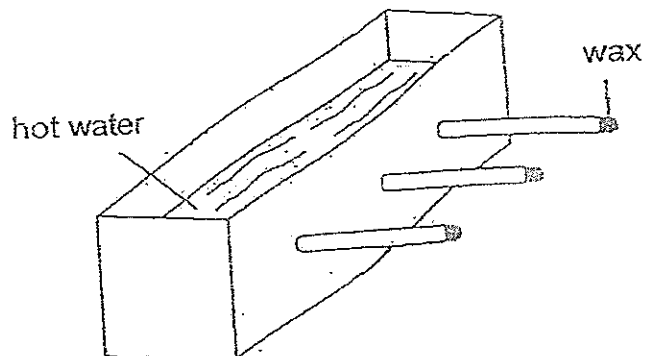
After Lauren heated each flask with different number of candles for one minute, she left the set-ups in the room for 10 minutes.

Which of the following observations would she make as the flasks were left to cool?

- A Bubbles would escape through all the glass tubes.
- B The water level in all the glass tubes would increase.
- C The water level in the glass tube in set-up A would be the highest after 10 minutes.

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

30. Izumi carried out an experiment using the set-up below to find out how the thickness of a rod of material X affects the conduction of heat through it.

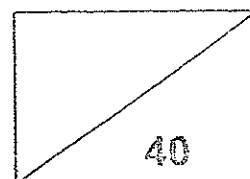


Which of the following variables Izumi must keep constant to ensure a fair test?

- A length of the rods
- B material of the rods
- C thickness of the rods
- D time taken for the wax to melt

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

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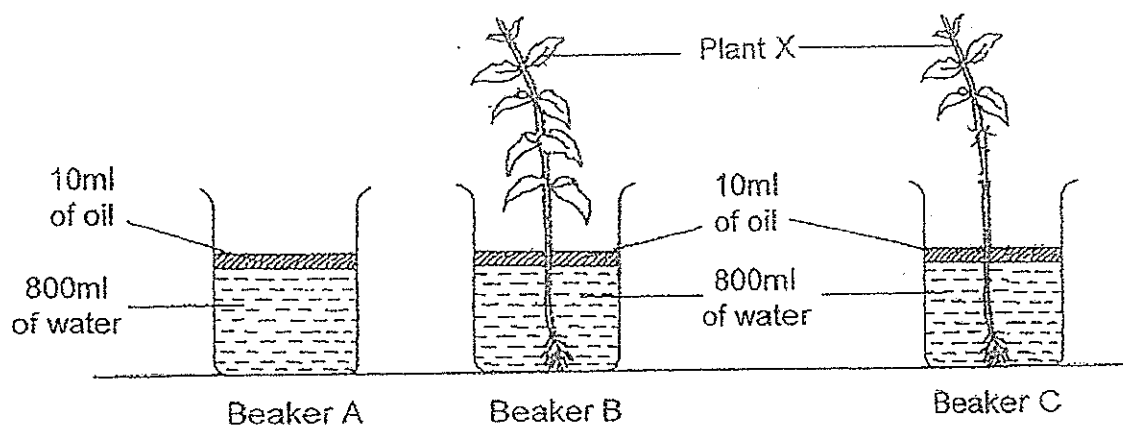


SECTION B (40 marks)

For questions 31 to 44, write your answers clearly in the spaces provided.

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

31. Rachel carried out an experiment as shown below. Both beakers were left near the window for a week.



Rachel recorded the volume of water in each beaker on Day 1 and Day 7 in the table below.

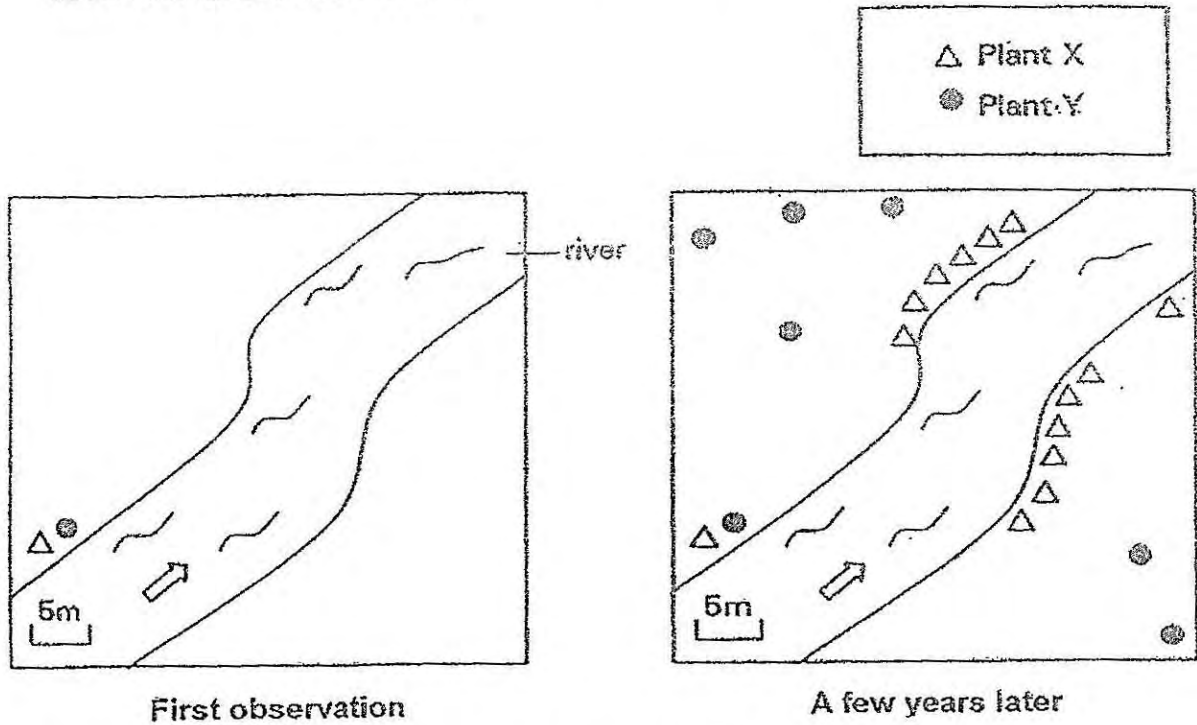
Beaker	Volume of water (ml)	
	Day 1	Day 7
A	800	800
B	800	550
C	800	650

- (a) Compare the change in the volume of water between beaker B and C over the seven days and explain the difference in the results. [2]

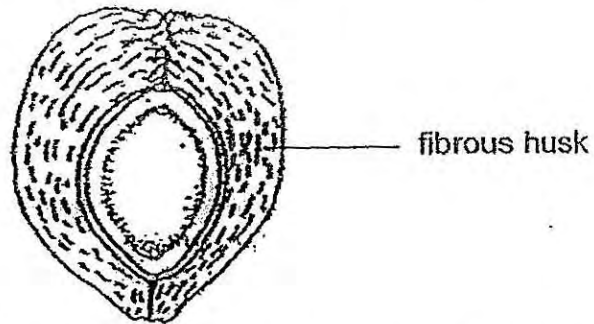
- (b) What is the purpose of setting up beaker A? [1]

Score	3
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32. Reina observed and recorded the number of plants, X and Y, on a piece of land. After a few years, she examined the same piece of land again. Her observations are shown below.



Reina picked up a fruit on the same piece of land as shown below.

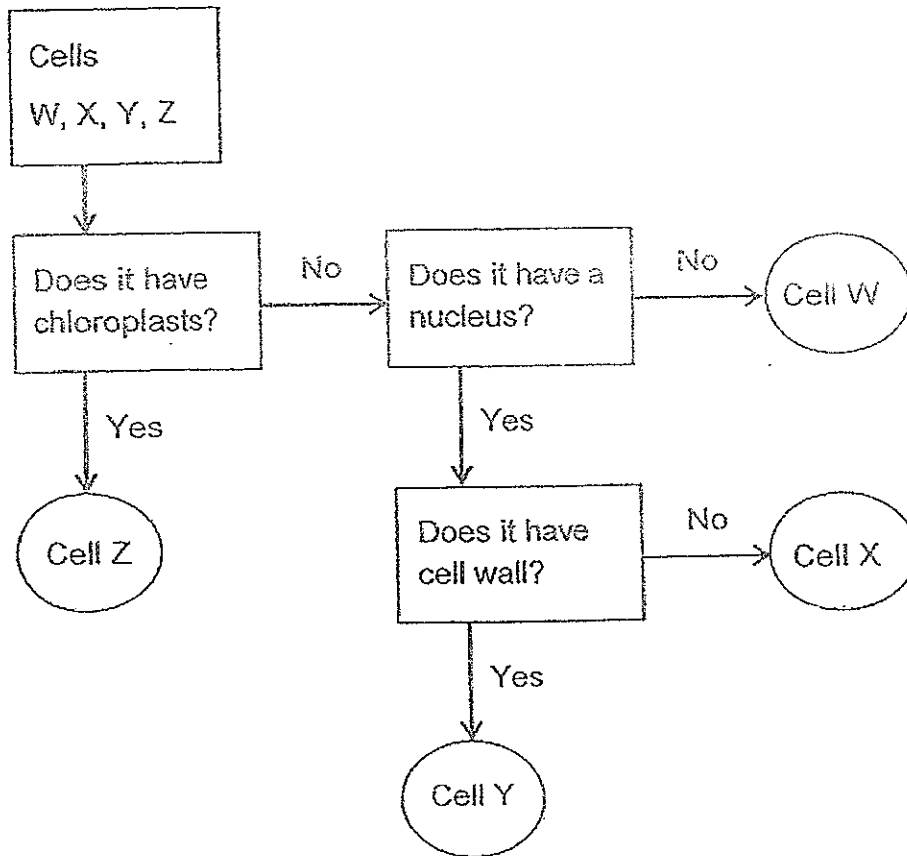


- (a) Which plant, X or Y, does the above fruit most likely belong to? [1]

- (b) What is the most likely method of dispersal for the above fruit? Besides observing the outer covering of the fruit, suggest what Reina could do with the fruit to confirm its method of dispersal. [1]

Score	2
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33. The following chart classifies four cells, W, X, Y and Z.

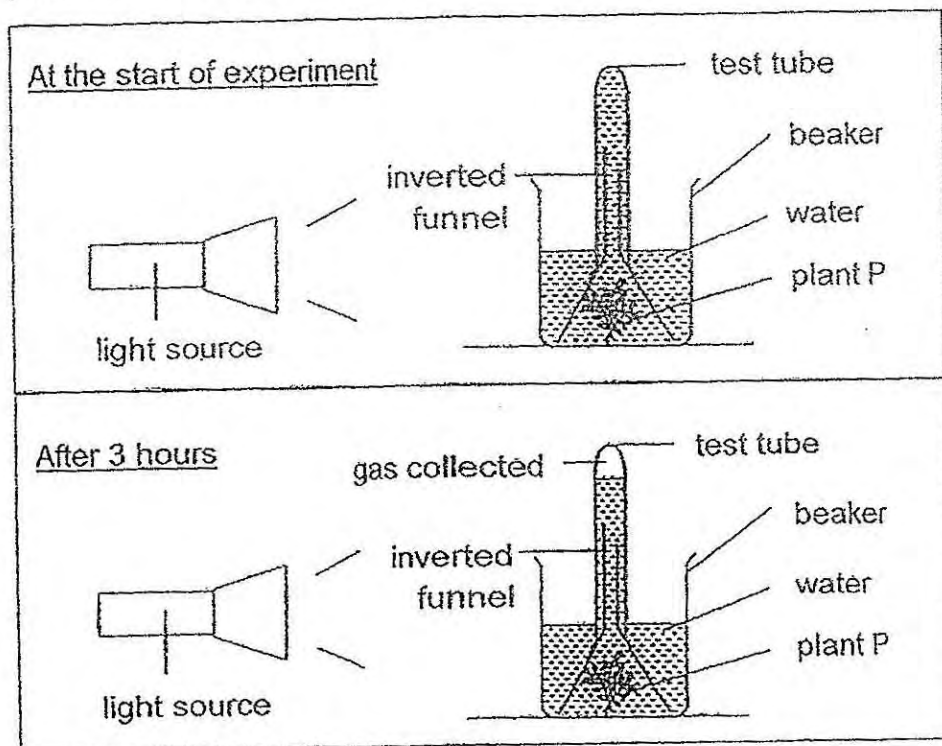


(a) Based on the information above, state one similarity and one difference between cell W and cell X. [1]

(b) Which cell, W, X, Y or Z is most likely taken from a pollen grain of a flowering plant? Explain your answer. [1]

Score	2
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34. Ian carried out the experiment shown below in a dark room. He measured the amount of gas collected in the test tube after shining different coloured light at plant P for 3 hours.



He repeated the experiment with blue light and then green light. His results were recorded in the table below.

Colour of the light	Amount of gas collected in 3 hours (cm ³)
White	3
Blue	7
Green	2

- (a) Name the gas collected in the test tube. [1]

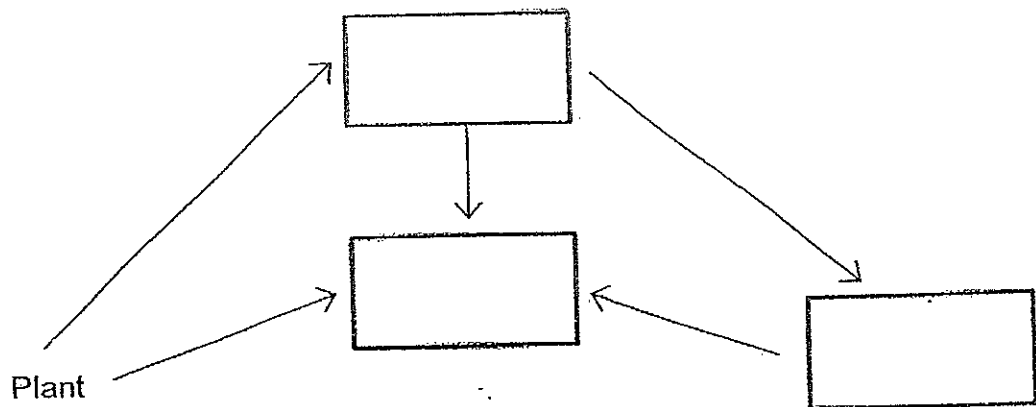
- (b) Ian has an aquarium containing some plant P and some fishes. There is no air pump in his aquarium. Which colour of light (white, blue or green) should he use to shine on his aquarium, in order to allow his fish to survive the longest period of time? Explain your answer. [2]

35. Danielle wanted to study the food relationships among the organisms found in habitat X. The organisms in habitat X consists of a plant and three other organisms A, B and C.

Danielle prepared two set-ups. In each set-up, different organisms and/or parts of plants were placed in an enclosed tank for a period of three days. She recorded her results in the table below.

Set-up	Observations	
	Day 1	Day 3
1	<ul style="list-style-type: none"> • five freshly-plucked leaves from the same plant • one living organism B 	<ul style="list-style-type: none"> • broken pieces of leaves • one living organism B
2	<ul style="list-style-type: none"> • one living organism A • one living organism B • one living organism C 	<ul style="list-style-type: none"> • one living organism C

- (a) Based on the above observations, complete the food web below by writing A, B and C in the correct boxes. [2]

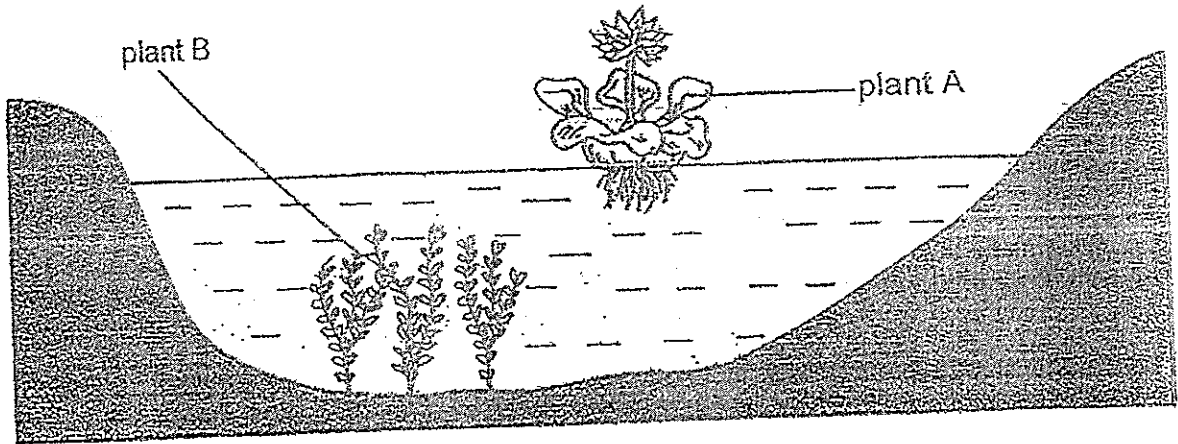


- (b) Which organism(s) A, B or/and C, is/are both a prey and predator? [1]

- (c) Which organism(s), A, B or/and C, depend(s) only on plants for food? [1]

Score	3
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36. The diagram below shows a pond with two types of aquatic plant, A and B.



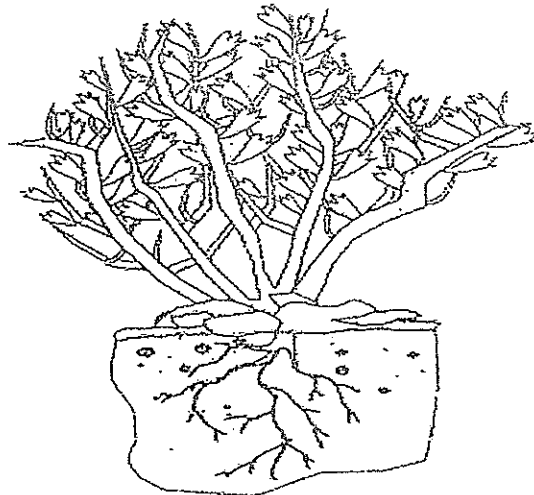
- (a) Explain how would an increase in the population size of plant A affects the survival of plant B. [2]

- (b) When a lot of plant B die, the level of carbon dioxide in the pond water increases. Give a reason why the dead plants cause an increase in the level of carbon dioxide in the pond water. [1]

Score	3
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37. The diagram below shows plant X which is able to survive in areas with little rainfall. Water in these areas can be found deep underground.

Plant X has two sets of roots. One set of roots grows deep downwards into the soil while the other set of roots grows widespread near the surface of the soil.



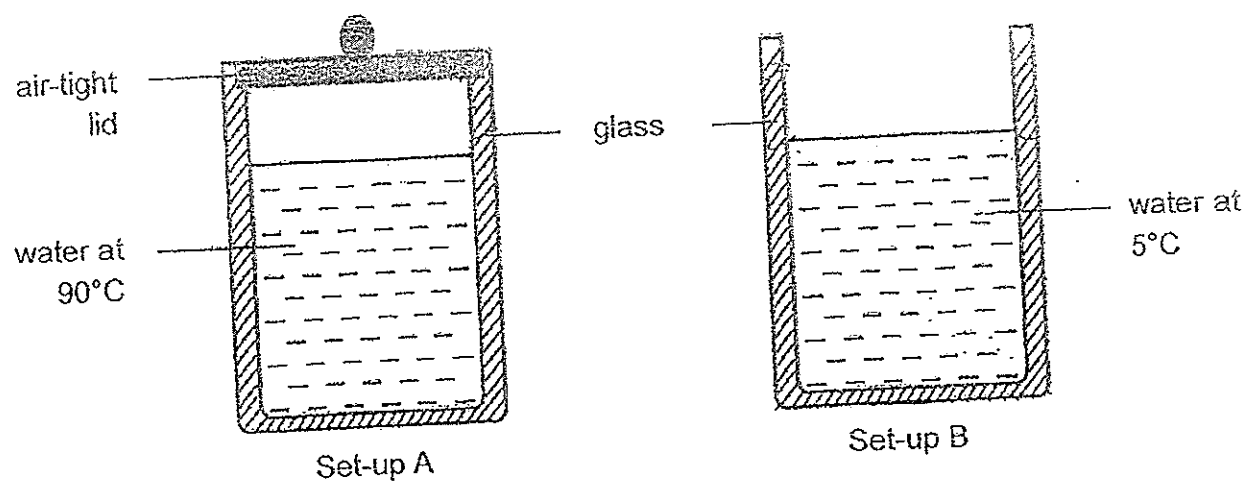
Plant X

- (a) Give one reason why plant X is able to survive long periods of little rainfall. [1]

- (b) It was observed that many of the larger leaves of plant X dropped off during hot and dry seasons, leaving only the smaller leaves on the plant. Explain how this helps the plant to survive in the hot and dry condition. [2]

Score	3
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38. Mary poured 300ml of hot water at 90°C into one glass and 300ml of cold water at 5°C into another identical glass, as shown in the diagrams below. She covered the glass in set-up A with an air-tight lid.

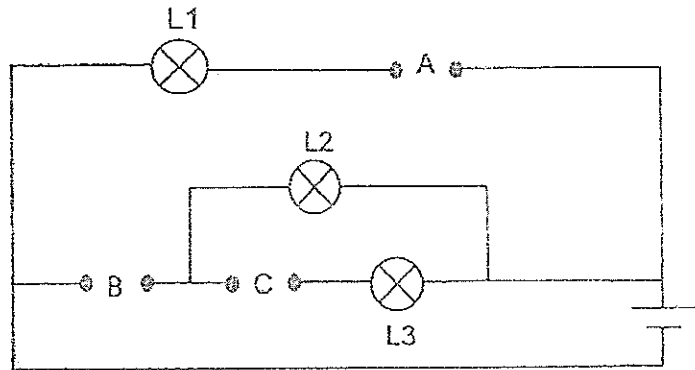


Two minutes later, she observed that water droplets were formed in the two set-ups.

- (a) Draw in the diagrams above to show where the water droplets will be formed after two minutes. [1]
- (b) Explain how the water droplets were formed in set-up A. [2]

Score	3
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39. Jazlyn was given three different materials, iron, steel and plastic. She was asked to connect them in positions A, B and C in the circuit shown below.



- (a) Jazlyn placed the 3 materials at positions A, B and C to light up bulbs L1 and L2 only. Complete the table below by writing "iron", "steel" and "plastic" in the correct blanks such that only bulbs L1 and L2 light up. [1]

Positions	A	B	C
Materials			

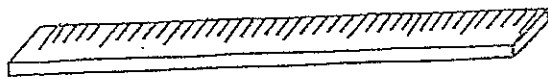
Next, Jazlyn was given another 3 objects - a magnet, a bulb and a battery. All three objects are in working condition.

When she connected one of the three objects at position A in the same circuit above while leaving B and C open, she observed that none of the bulbs lighted up.

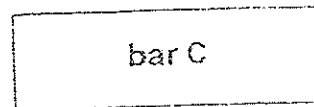
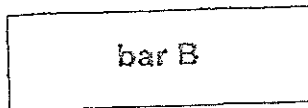
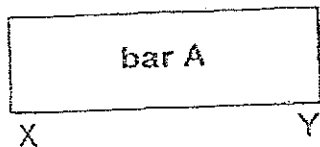
However, when she connected the same object at position C while leaving A and B open, bulbs L2 and L3 lighted up.

- (b) Which one of the objects, magnet, bulb or battery, did she use in order for her to make the above observations? Explain your answer. [2]

40. Ali has three iron bars, A, B and C. Two of the iron bars are magnets.



metre ruler



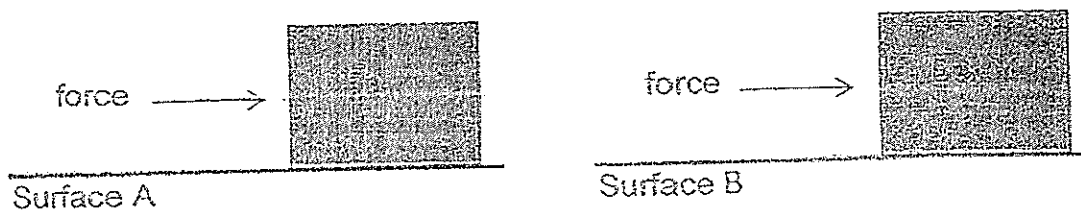
(a) Ali wants to find out which bar is not a magnet. Describe how he can carry out his experiment by adding two more steps to complete the procedure. [2]

Step	Procedure
1.	Place bar A and bar B 10cm apart such that end X of bar A is facing one end of bar B.
2.	
3.	
4.	Repeat step 1 to 3, replacing bar B with bar C.

(b) What observation would Ali make on the bar that is not a magnet? [1]

Score	3
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41. Tom exerted an equal amount of force on two identical metal blocks over an equal distance across two types of surfaces, A and B.

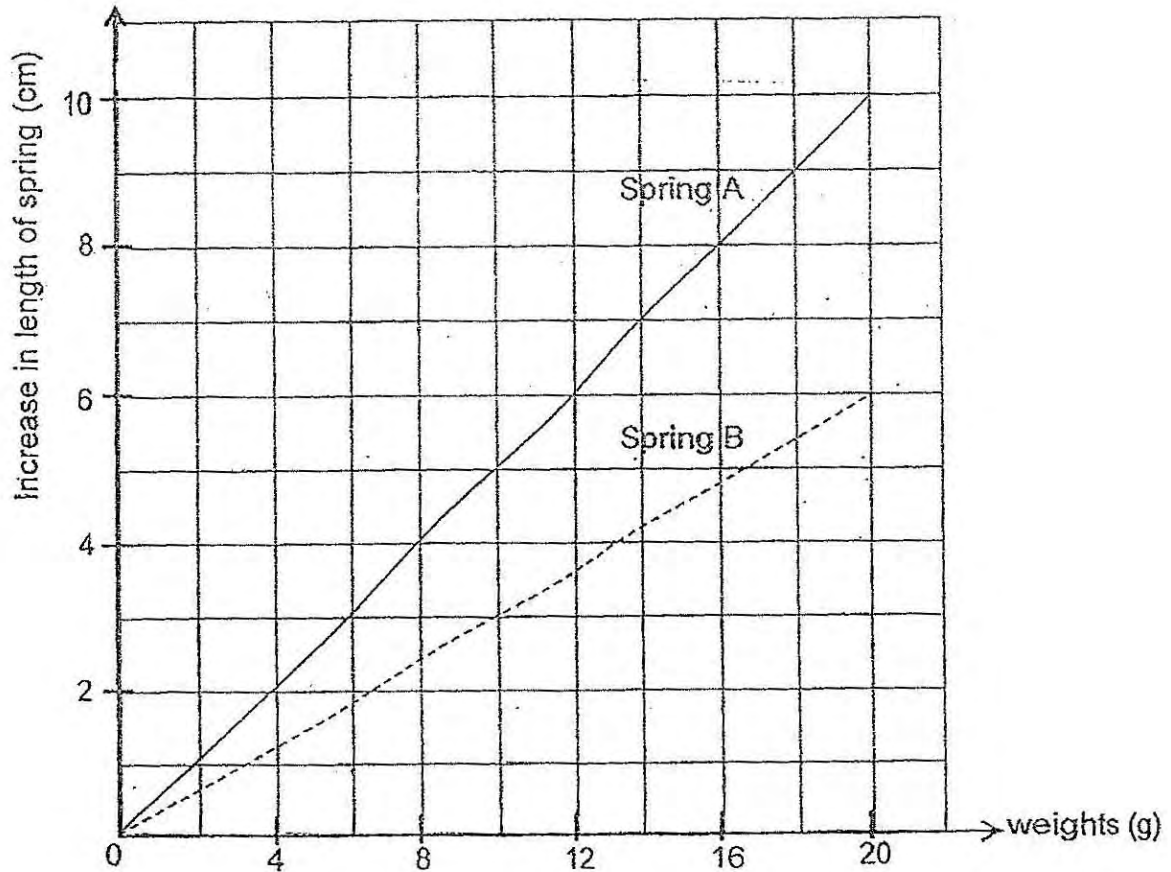


- (a) After the metal blocks had been moved, Tom felt that the base of Box Y felt warmer than the base of Box X. Explain why this is so. [2]

- (b) Suggest what Tom could do to reduce the amount of force needed to push each box over the same distance without lifting it above the ground. [1]

Score	3
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42. Jimmy hung different weights on two springs, A and B. The graph below shows the increase in length of the springs when different weights were hung on them. The original length of each spring was 10cm.

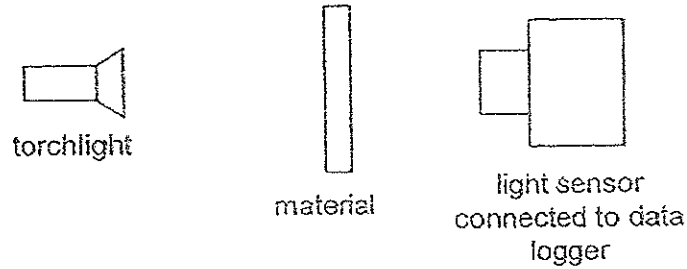


- (a) What was the length of spring A when 16g of weights were hung on it? [1]

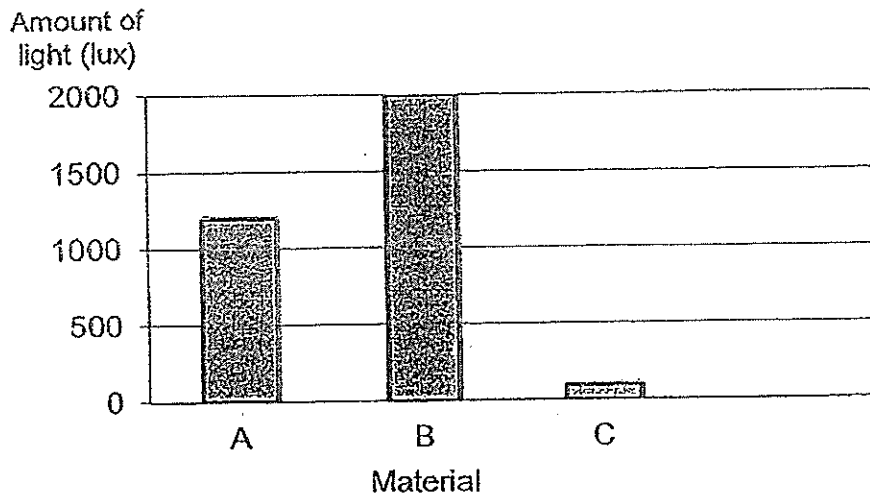
- (b) When Jimmy hung an equal amount of weights on each spring, the difference in their length was 2cm. What was the amount of weight hung on each spring? [1]

- (c) Which spring, A or B, can be stretched more easily? Give a reason for your answer. [1]

43. Peter used the set-up below to measure the amount of light that passed through three different materials, A, B and C which are of the same thickness.



The amount of light detected by the light sensor for each material was represented in the graph below.



- (a) Peter wanted to make a shadow puppet. Based on the results above, which material, A, B or C, should he use for his shadow puppet such that it can cast the darkest shadow on the screen? Explain your answer. [2]

- (b) During his shadow puppet performance, suggest one way for Peter to increase the size of the shadow cast on the screen without moving the screen and the light source. [1]

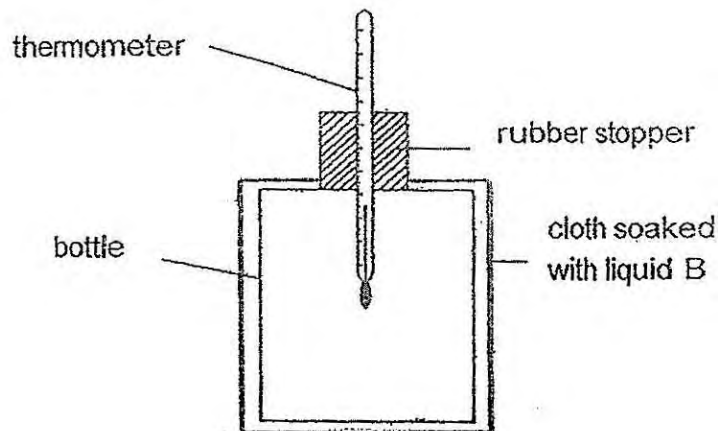
Score	3
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44. Amber filled two identical beakers with liquid A and liquid B, respectively. She left the two beakers near the window on a hot day for two hours. She recorded the results of her experiment in the table below.

Liquid	Volume of liquid before the start of the experiment (ml)	Volume of liquid at the end of the experiment (ml)
A	10	7
B	10	2

- (a) Explain the difference in the results between A and B. [2]

Amber carried out another experiment using the set-up below.



She placed the set-up near the window for 30 minutes. She recorded her results as shown below.

Temperature of air in the bottle (°C)	
At the start of the experiment	At the end of the experiment
30	20

- (b) Give a reason for the decrease in the temperature of the air at the end of the experiment. [1]

- END OF PAPER -

Score	3
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ANSWER SHEET

EXAM PAPER 2014

SCHOOL : RAFFLES GIRL'S

SUBJECT : PRIMARY 6 SCIENCE

TERM : SA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17
1	3	4	3	4	4	4	2	4	2	3	1	3	1	1	3	2

Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30
1	2	1	4	4	2	3	1	3	2	3	2	1



31a)	There is a greater drop in the volume of water in beaker B than beaker C. The plant in beaker B has more leaves, hence it will take in more water through the roots and lost more water through the stomata on the leaves than the plant in beaker C.
31b)	It is to serve as a control to show that the water loss is due to the plants taking in water.
32a)	X
32b)	It is dispersed by water. Place the fruit in a pail of water. If it floats, then it is dispersed by water.
33a)	Similarity : Both cell W and X does not have chloroplasts . Difference : Cell W does not have a nucleus but cell X has.
33b)	Cell Y. It does not have chloroplast as it cannot make food but has a cell wall as it is a plant cell.
34a)	Oxygen
34b)	Blue light. It allowed the aquatic plant to have the highest rate of photosynthesis, producing greatest amount of oxygen so that the fish can respire.
35a)	<pre> graph TD Plant --> B Plant --> C B --> C B --> A C --> A </pre>
35b)	A
35c)	B
36a)	Plant B decreases in population. More plant A would block most sunlight from reaching plant B so plant B would photosynthesize slower.
36b)	The decomposers release carbon dioxide in the pond water during decomposition of plant B.
37a)	The roots that grow deep downwards absorb water deep underground.
37b)	Leaving only the smaller leaves behind reduce total exposed surface area of the leaves. Hence, the plant will lose less water as water vapour through the stomata of the leaves.

38a)	Set-up A : Underside of lid Set-up B : On the outer glass
38b)	The water in the glass evaporated to form water vapour which loses heat to the cooler lid and condenses to form water droplets.
39a)	A/B : iron/steel C : plastic
39b)	Battery At position A, the positive terminal of the battery was facing the positive terminal of the battery in the circuit, so L1 did not light up. At position C, the battery and the two bulbs, L2 and L3 formed a closed circuit, hence lighting up L2 and L3.
40a)	Step 2: Observe if A repels/attracts B. Step 3: Flip bar A such that end Y is facing the same end of bar B and observe if A repels/attracts B.
40b)	The bar that is not a magnet would have both of its ends attracted to another bar.
41a)	Surface B is rougher than surface A. Hence, there was more friction between Box Y and surface B which produced more heat as compared to the friction between Box X and surface A.
41b)	Apply lubricant on the floor.
42a)	18 cm
42b)	10 g
42c)	A. The increase in length is greater for spring A when the same amount of weight was hung on both springs.
43a)	C The amount of light detected by the light sensor was the least for C. C will block most light, hence casting the darkest shadow.
43b)	Move the puppet further away from the screen.
44a)	The decrease in volume for B is greater than A as B evaporates faster than A.
44b)	Air in the bottle lost heat to liquid B as liquid B evaporates.