

PAYA LEBAR METHODIST GIRLS' SCHOOL (PRIMARY)

PRIMARY SIX
PRELIMINARY EXAMINATION 2006

SCIENCE
BOOKLET A

NAME : _____ ()

CLASS : P6 _____

DATE : 24 AUGUST 2006

Booklet A : 30 Questions (60 marks)

TOTAL TIME FOR ALL SECTIONS: 1 h 45 min

TOTAL MARKS FOR <u>ALL SECTIONS</u>	/ 100
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Parent's Signature: _____

INSTRUCTIONS TO PUPILS

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Answer all questions.

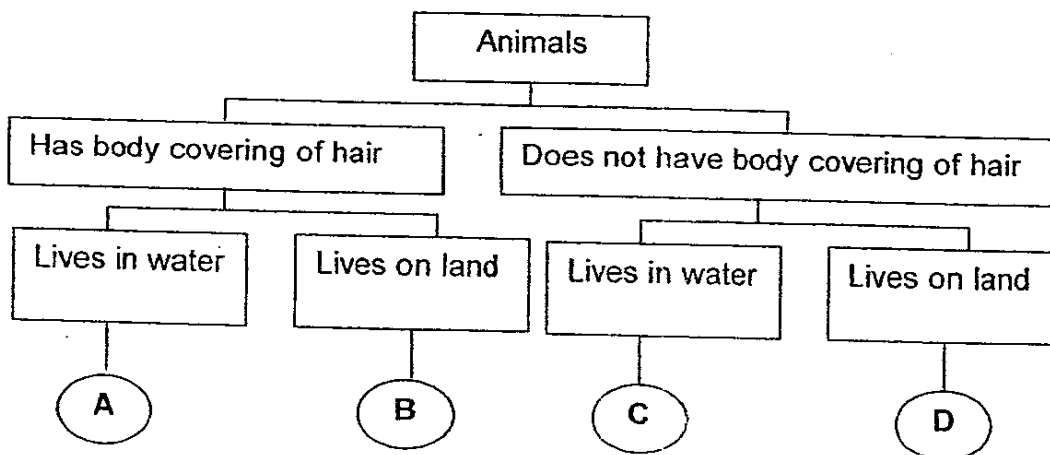
Section A (30 x 2 = 60 marks)

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 (1, 2, 3 or 4) on the Optical Answer Sheet.

1. The following table gives information on four animals W, X, Y and Z based on two characteristics. A tick (✓) shows that the animal has the characteristics.

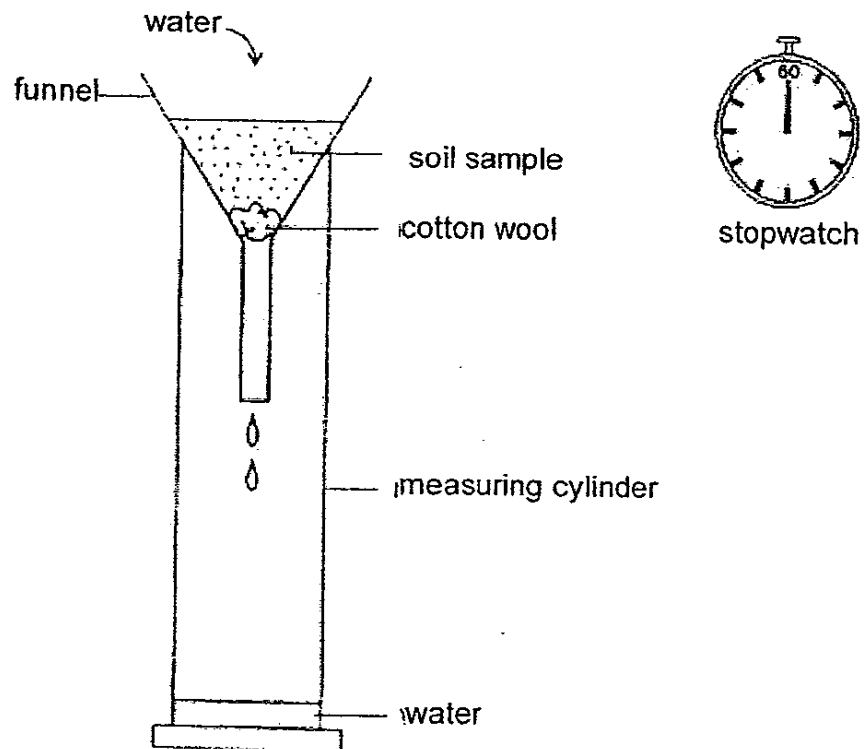
Characteristics	W	X	Y	Z
The young feeds on the mother's milk		✓		✓
Lives in the sea	✓	✓		

From the information above, where do X and Y belong in the following classification table?



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

2. Dawn wants to find out how fast water can pass through four different types of soil. She sets up the experiment as shown in the diagram below. She measures the time taken for the same amount of water to pass through each type of soil.



She records the results in the table below.

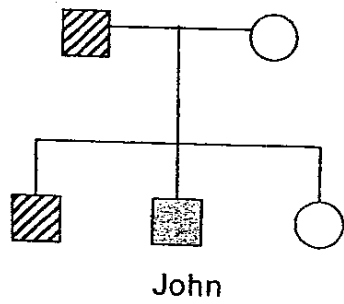
Type of soil	P	Q	R	S
Time Taken (seconds)	41	22	34	16

Which soil is most suitable for a plant which grows well in a dry and sandy habitat?

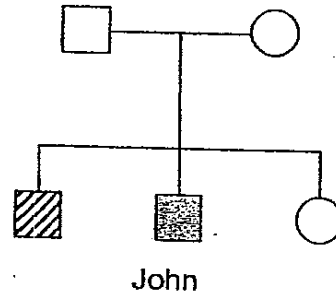
- (1) P
 (2) Q
 (3) R
 (4) S

3. John suffers from a rare bone disease. His parents and siblings do not suffer from this disease. However, his father and brother carry the bone disease gene in their chromosomes. Which one of the four family trees shown below correctly represents the above information?

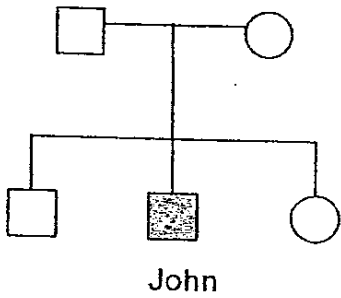
(1)



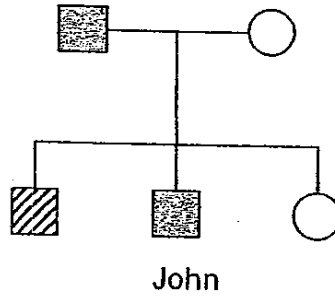
(2)



(3)



(4)



Key:



Normal male



Male with disease gene



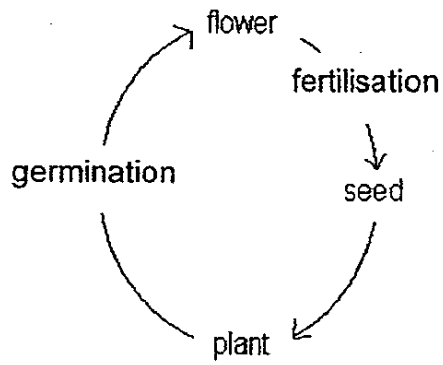
Normal female



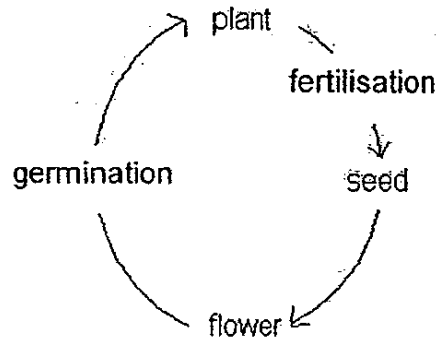
Male suffering from the disease

4. Which one of the following diagrams shows the development of a flowering plant correctly?

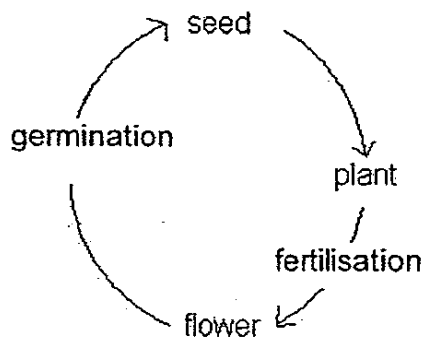
(1)



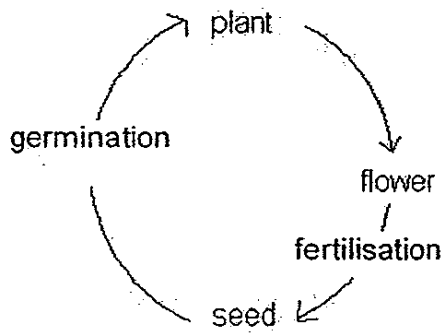
(2)



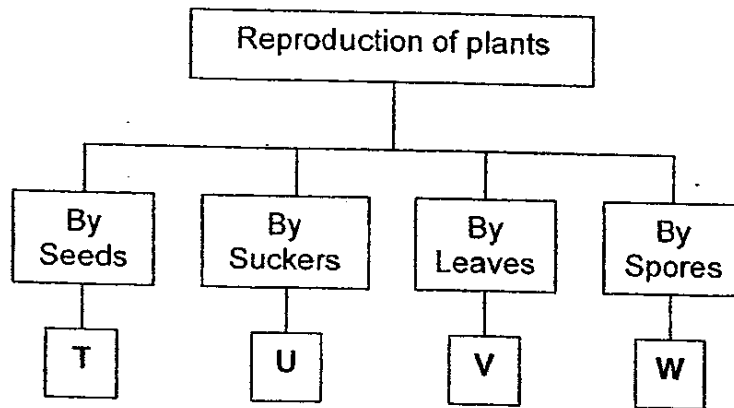
(3)



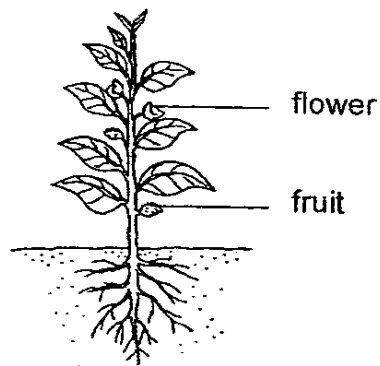
(4)



5. Study the classification chart below carefully.



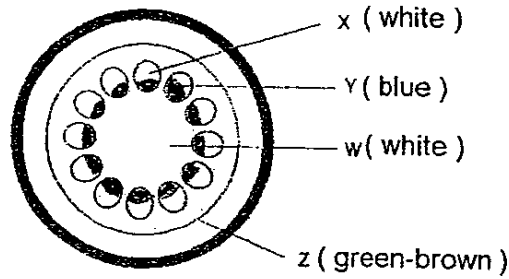
Where would you place Plant A in the Chart?



Plant A

- (1) T
- (2) U
- (3) V
- (4) W

6. The diagram below shows the cross-section of a plant stem. The stem was placed in a beaker of blue-coloured water for three hours before it was cut.

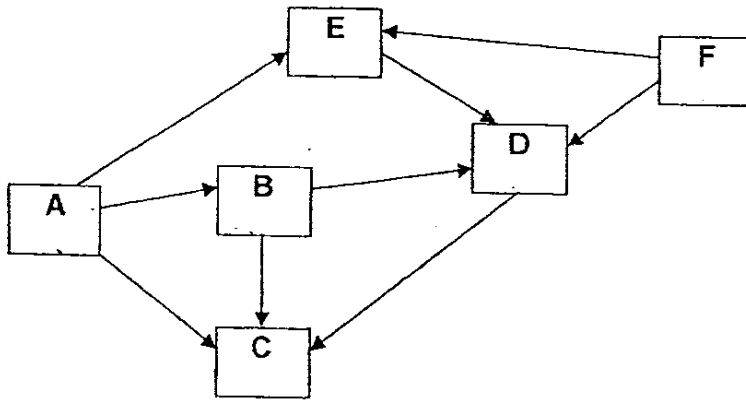


Cross section of a plant stem

Which part W, X, Y or Z transports food in the plant?

- (1) W
- (2) X
- (3) Y
- (4) Z

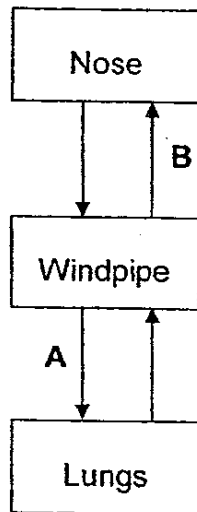
7. The food web below consists of producer(s) and consumer(s).



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

- (1) There is only one producer in the food web.
- (2) There are five consumers in the food web.
- (3) There are four plant-eaters in the food web.
- (4) There are two plant and animal eaters in the food web.

8. Study the diagram below.
The arrows represent the flow of air in the human respiratory system..

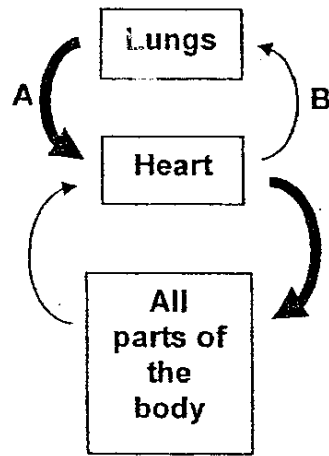


Which of the following correctly represents the composition of air samples taken from A and B?

[↑ - contains **higher** amount, ↓ - contains **lower** amount]

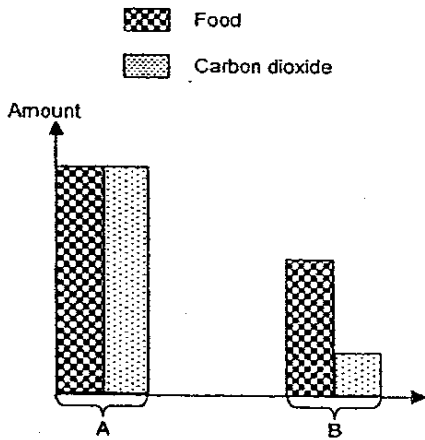
	A	B
(1)	↑ carbon dioxide ↓ water vapour ↑ oxygen	↓ carbon dioxide ↑ water vapour ↓ oxygen
(2)	↓ carbon dioxide ↑ water vapour ↓ oxygen	↑ carbon dioxide ↓ water vapour ↑ oxygen
(3)	↓ carbon dioxide ↓ water vapour ↑ oxygen	↑ carbon dioxide ↑ water vapour ↓ oxygen
(4)	↑ carbon dioxide ↑ water vapour ↑ oxygen	↓ carbon dioxide ↓ water vapour ↓ oxygen

9. The diagram below represents the human circulatory system. The arrows represent the blood vessels.

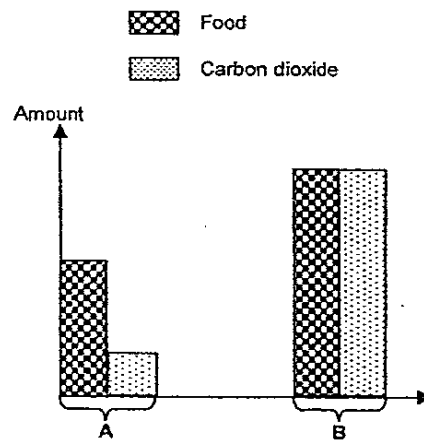


Which one of the following graphs correctly represents the composition of blood samples taken from A and B?

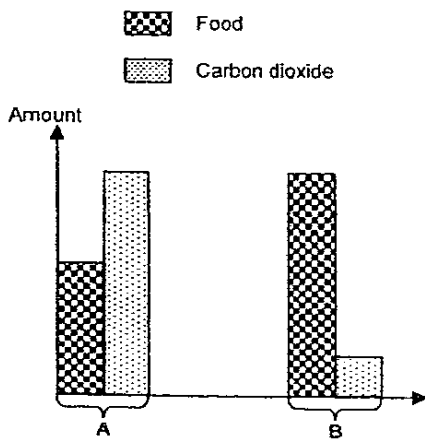
(1)



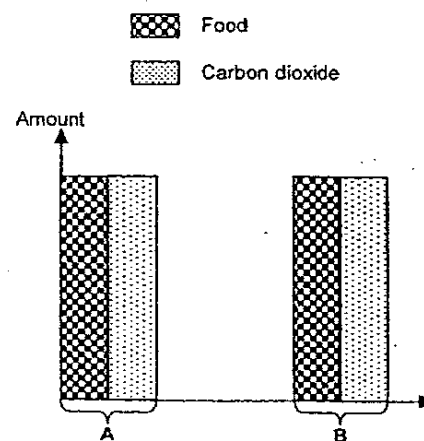
(2)



(3)

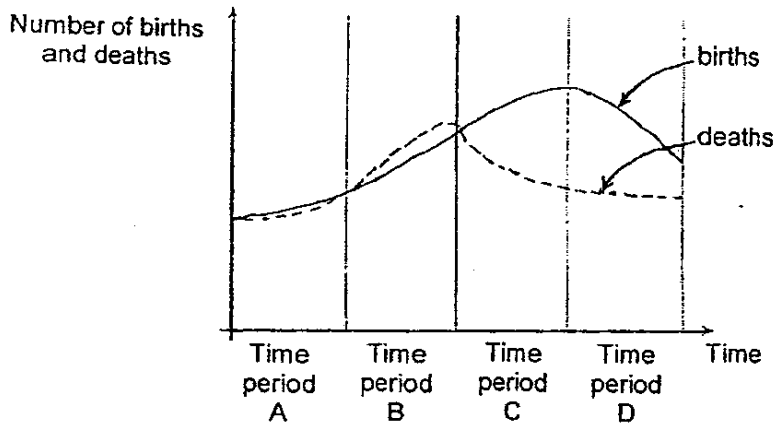


(4)



9

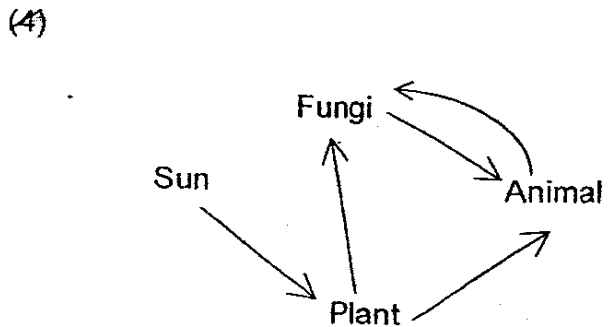
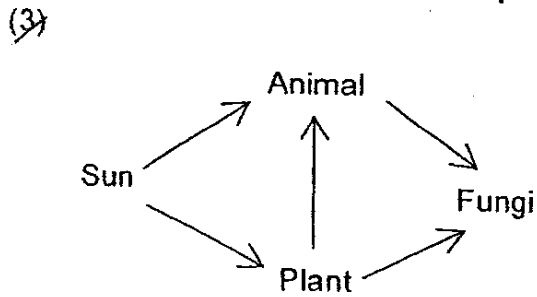
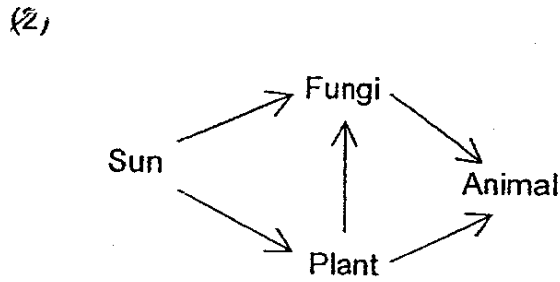
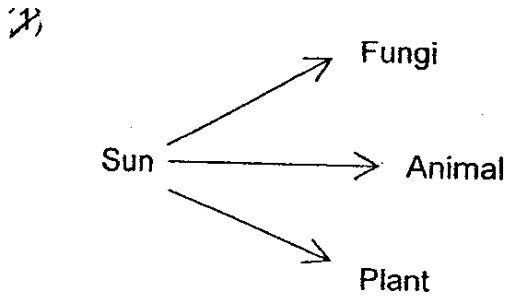
10. The graphs below show the changes in the birth and death rates of a population of mammal M.



Which time period shows a decrease in the population size of mammal M?

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

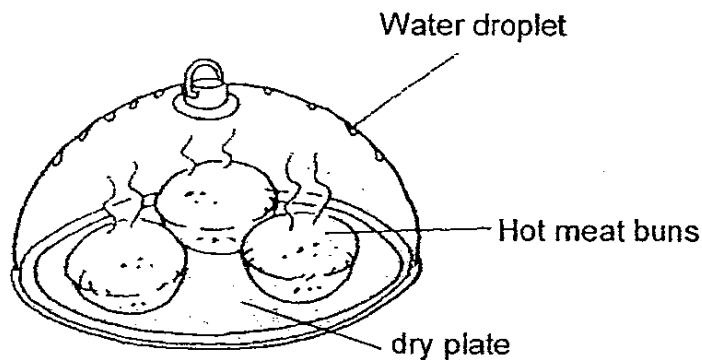
11. The arrows in the diagrams below represent the flow of energy in habitat W. Which one of the diagrams correctly shows how living things get energy to stay alive?



12. Which of the following correctly states the advantage and disadvantage of genetic engineering?

	Advantage	Disadvantage
(1)	Produces pest-resistant crops	Bacteria is used to make the food product
(2)	Produces high yield crops	The food product may not be clean and hygienic
(3)	Produces fermented products	Fungi is used to make the food product
(4)	Produces drought-resistant crops	The food product may not be safe to eat

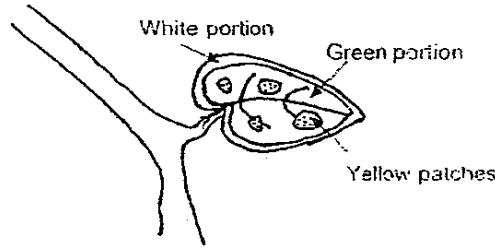
13. The canteen vendor placed some hot meat buns on a dry plate and covered it with a plastic cover. After a few minutes, he observed that tiny water droplets have formed on the underside of the plastic cover.



Where do you think the water droplets came from?

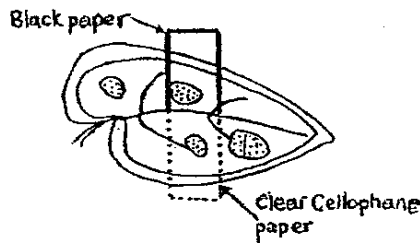
- (1) The hot water from the meat buns rose up to the plastic cover and remained on it.
- (2) Water from the plate rose up to the plastic cover and remained on it.
- (3) Water vapour from the air inside the plastic cover condensed on the underside of the plastic cover.
- (4) Water vapour from the air outside the plastic cover condensed on the underside of the plastic cover.

14. The diagram below shows the different portions of a leaf taken from a plant.



The plant was de-starched before the following was done.

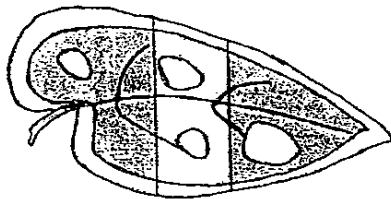
A piece of clear cellophane paper and black paper was placed on both sides of a leaf as shown below. The plant was then placed under direct sunlight for four hours. At the end of the four hours, the leaf was plucked out and the iodine test was carried out on the whole leaf.



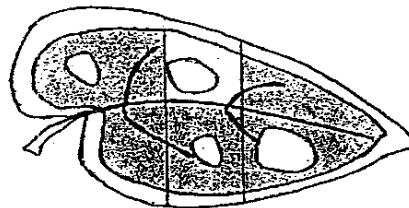
The dark coloured parts in the diagrams below show that the iodine had turned dark blue.

Which one of the following diagrams shows the likely results?

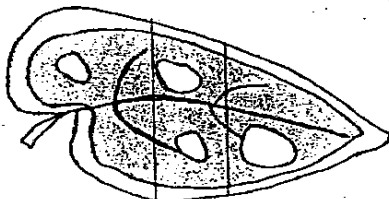
(1)



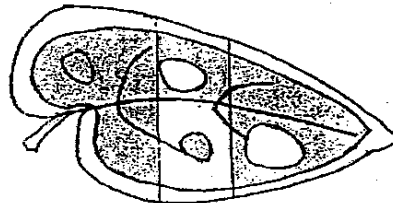
(2)



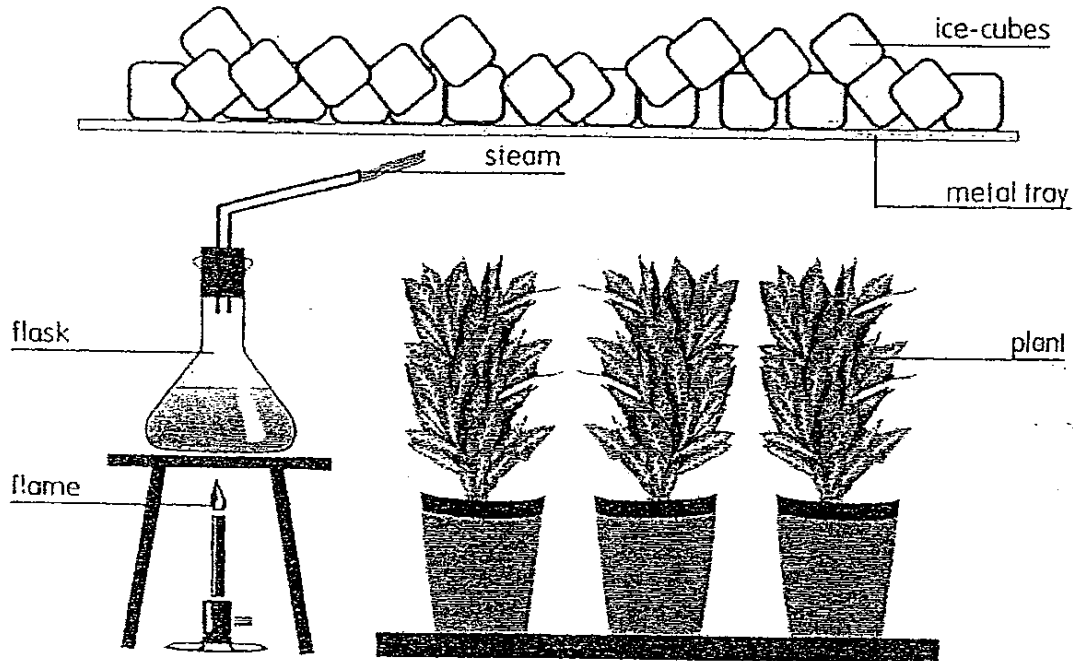
(3)



(4)



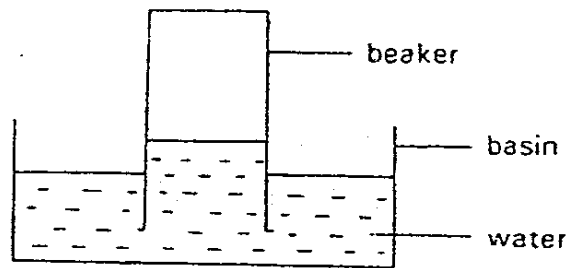
15. The setup below can be used to show how the water cycle works on Earth.



Which of the following correctly explains the purpose of the flame and ice cubes in the set-up demonstrating the water cycle?

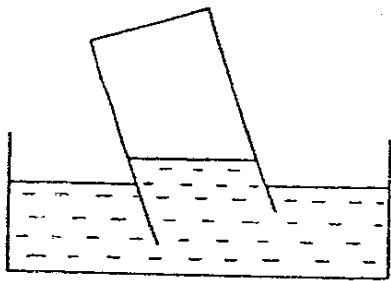
	Flame	Ice cubes
(1)	To represent a volcano on Earth	To represent snow formation in the sky
(2)	To bring about the boiling process	To bring about the melting process
(3)	To bring about the evaporation process	To bring about the condensation process
(4)	To bring about the boiling process	To bring about the condensation process

16. A beaker was placed into a basin of water. The water level in the beaker is shown in the diagram.

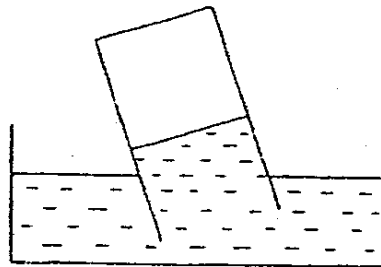


The beaker was tilted to one side. Which one of the following drawings shows correctly the water level in the beaker?

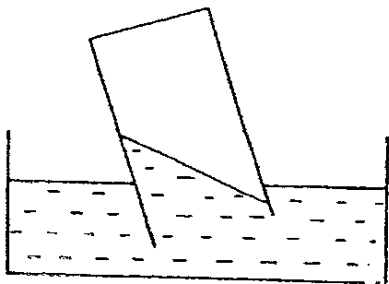
(1)



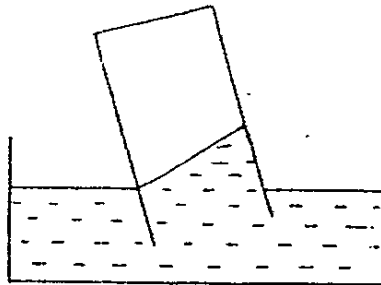
(2)



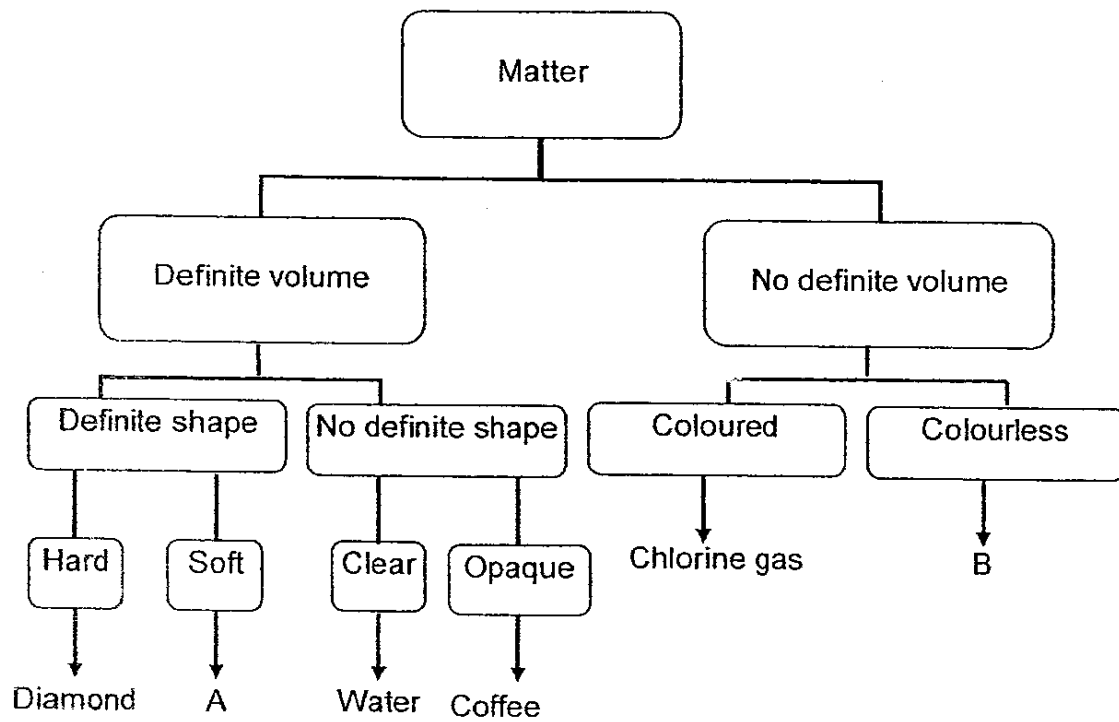
(3)



(4)



17. The classification chart below shows how matter can be classified.



What could A and B be?

	A	B
(1)	Eraser	Ice
(2)	Ceramic pot	Ice
(3)	Eraser	Oxygen
(4)	Ceramic pot	Oxygen

15

18. Gopal wanted to compare the strength of Materials A, B, C and D.

He used four similar strips made of Materials A, B, C and D and tested the strength by hanging weights at one end of each strip until a tear appears on it.

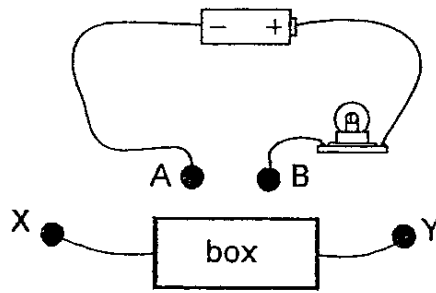
He recorded his observation in the table below, using a tick (✓) to indicate the presence of a tear on the strips.

Strip	Presence of a tear caused by			
	100g	200g	350g	600g
A		✓	✓	✓
B				✓
C			✓	✓
D	✓	✓	✓	✓

Based on the results of the tests, which one of the following correctly shows the four materials arranged in decreasing order of strength.

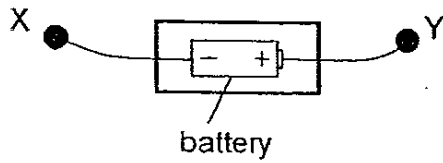
(1)	A	B	C	D
(2)	B	C	A	D
(3)	D	A	C	B
(4)	B	D	A	C

19. Study the circuit below carefully.

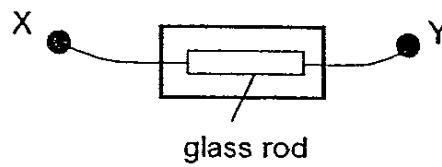


When the wires X and Y of a box are connected to A and B of the circuit respectively the bulb lights up.
Which one of the following boxes is used?

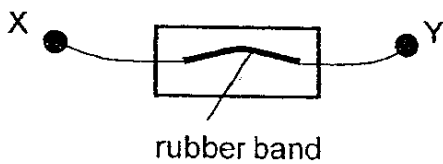
(1)



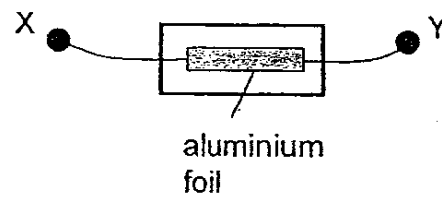
(2)



(3)

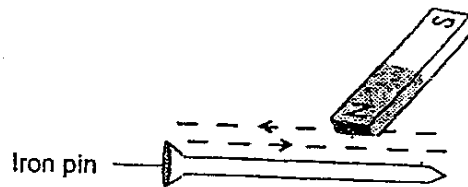


(4)

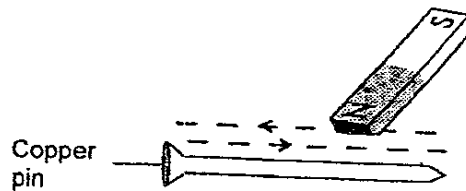


20. Five pupils were given a bar magnet and some pins each to make a temporary magnet using the stroking method.

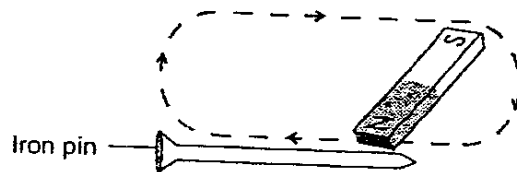
Vanda took an iron pin and stroked it 20 times with a magnet, moving to the left and then to the right along its entire length.



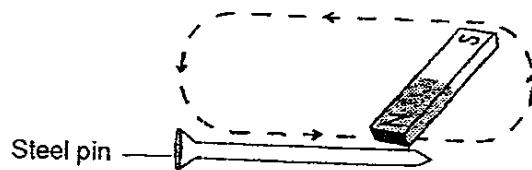
Willis took a copper pin and stroked it 20 times with a magnet, moving to the left and then to the right along its entire length.



Xinxin took an iron pin and stroked it 20 times with a magnet along its entire length in one direction.



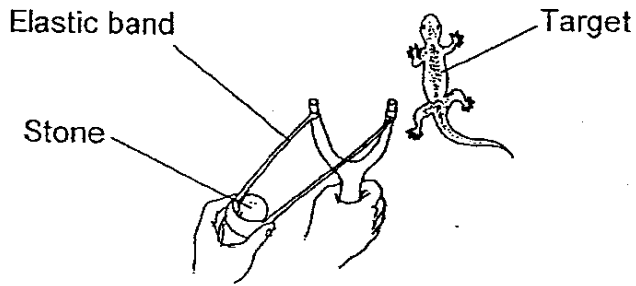
Yani took a steel pin and stroked it 20 times with a magnet along its entire length in one direction.



Which pupils are likely to succeed in making a temporary magnet?

- (1) Vanda and Willis only
- (2) Vanda and Xinxin only
- (3) Xinxin and Yani only
- (4) Vanda, Xinxin and Yani only

21. The diagram below shows a stone about to be shot from a catapult to a target.



Which of the following are factors that will affect the amount of force made by the stone on the target?

- (A) The size of the stone.
 - (B) The size of the target.
 - (C) The distance between the target and the stone before it is released.
 - (D) The extension of the elastic band just before the stone is released.
- (1) A and C only
(2) B and D only
(3) A, B and C only
(4) A, C and D only

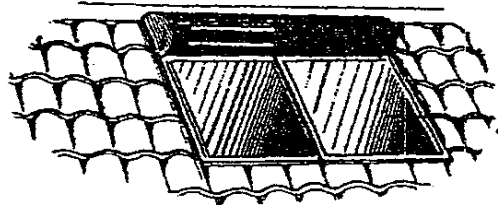
22. Which of the following activities show that electricity is being conserved?

- (A) Mr Wee is watching a World Cup match in his bedroom while his children are watching it in the living room.
 - (B) Mrs Tan using an electric iron that turns off automatically.
 - (C) Aunt Dolly leaving the door of the refrigerator open as she waits for little Andora to decide on what item to take from the refrigerator.
 - (D) Uncle Vincent using the fan instead of the air-conditioner on a cool night.
 - (E) Weijen using the computer in the study room instead of the one in his bedroom.
- (1) A and C only
(2) B and D only
(3) A, C and E only
(4) B, D and E only

23. Which of the following actions would have a **positive impact** on the environment?
- A: Increase the use of objects that are made from biodegradable materials instead of non-biodegradable materials.
 - B: Increase the use of CFC products.
 - C: Prohibit illegal dumping and discharge of harmful waste.
 - D: Reduce the use of pesticides in farming.
 - E: Increase the rate of reforestation

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

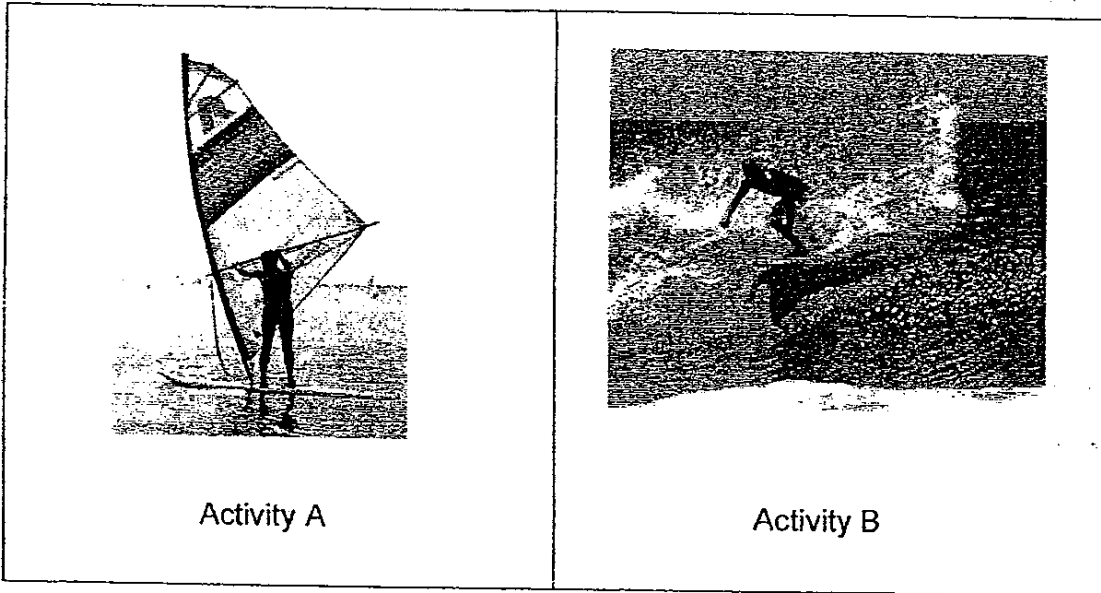
24. The picture below shows a solar panel which is found on the roof of a house. The solar panel is connected to the water heater in the bathroom.



Which one of the following shows the correct energy conversion taking place from the solar panel to the water heater?

- (1) potential energy → kinetic energy → heat energy
- (2) Light energy → chemical energy → heat energy
- (3) Light energy → electrical energy → heat energy
- (4) Heat energy → electrical energy → heat energy

25. Look at the two pictures carefully.

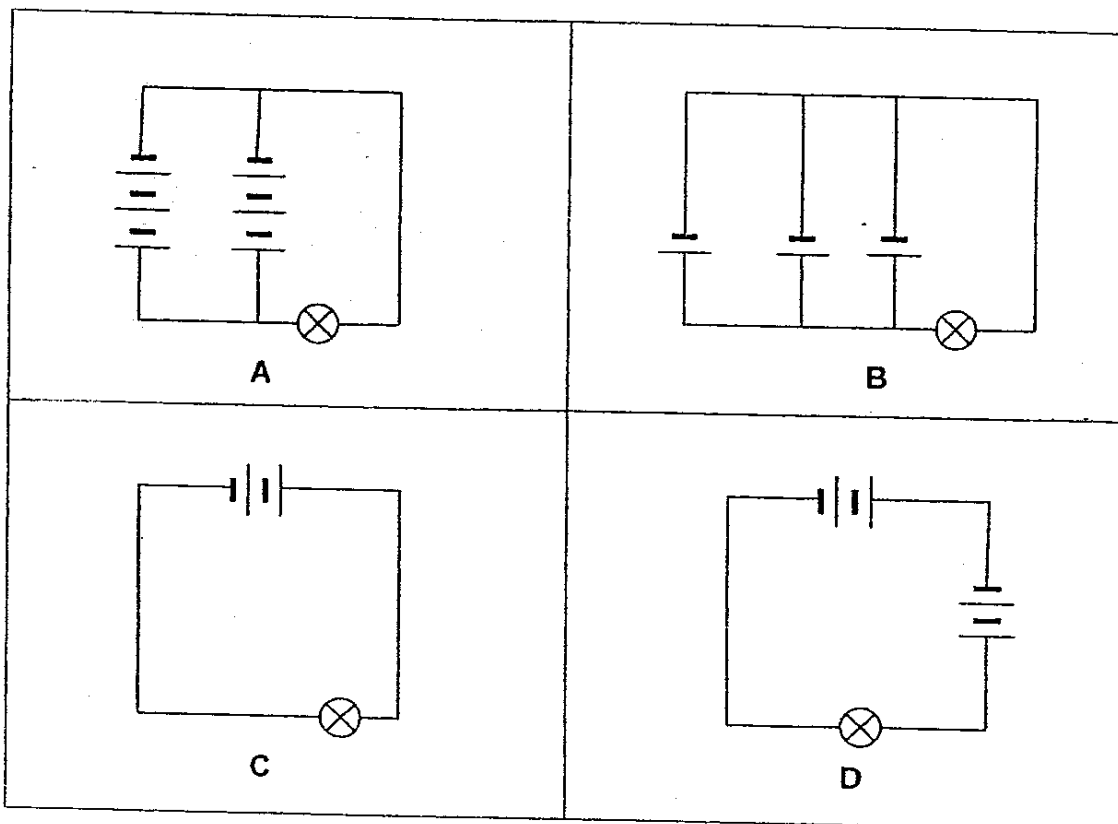


Which one of the following correctly matches the main source of energy for the activities shown in the above pictures?

	Activity A	Activity B
(1)	Wind	Moving water
(2)	Moving water	Wind
(3)	Kinetic energy	Moving water ✓
(4)	Kinetic energy	Kinetic energy

21

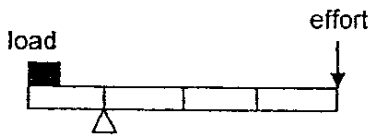
26. Study carefully the four circuits shown below. The batteries and bulbs used in the four circuits are similar.



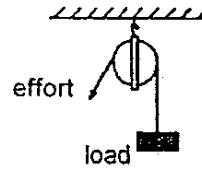
The brightness of the bulb in each circuit is not the same. Arrange the circuits in ascending order of brightness.

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

27. Felicia used two simple machines, a lever and a fixed pulley, to lift different loads.



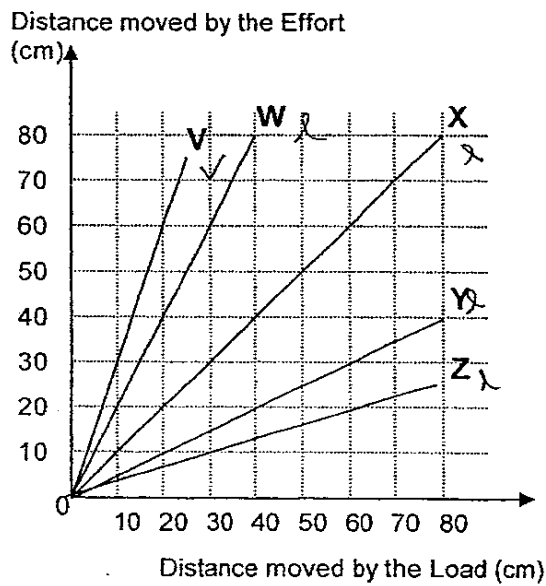
Lever



Fixed pulley

She recorded the distance moved by the load and the distance moved by the effort for the two machines.

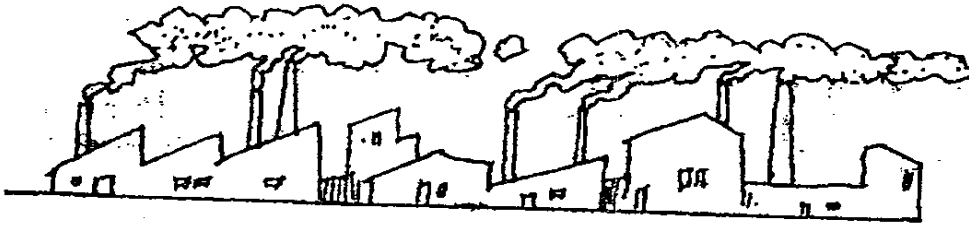
Using the data recorded, she plotted two graphs.



Which one of the following correctly matches the simple machine with the graphs plotted?

	Lever	Fixed pulley
(1)	V	W
(2)	V	X
(3)	Z	Y
(4)	Z	X

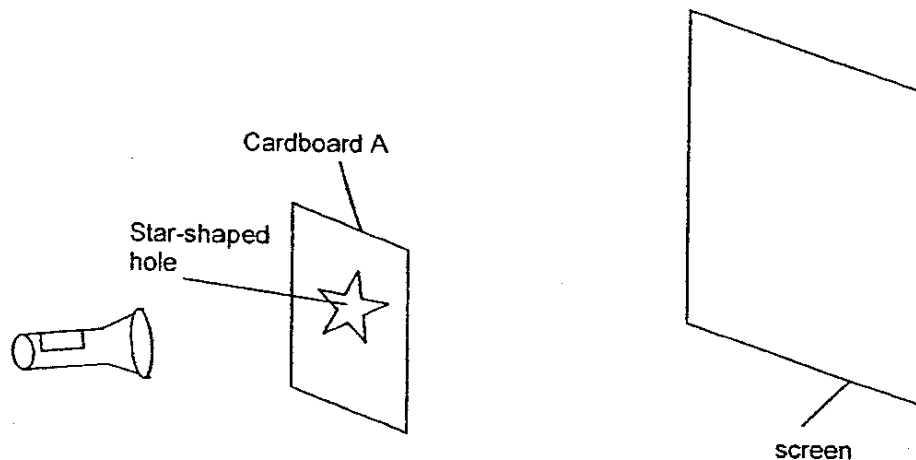
28. Study the diagram below carefully.



Which one of the following correctly matches the harmful effect that would result from the activities shown in the above diagram?

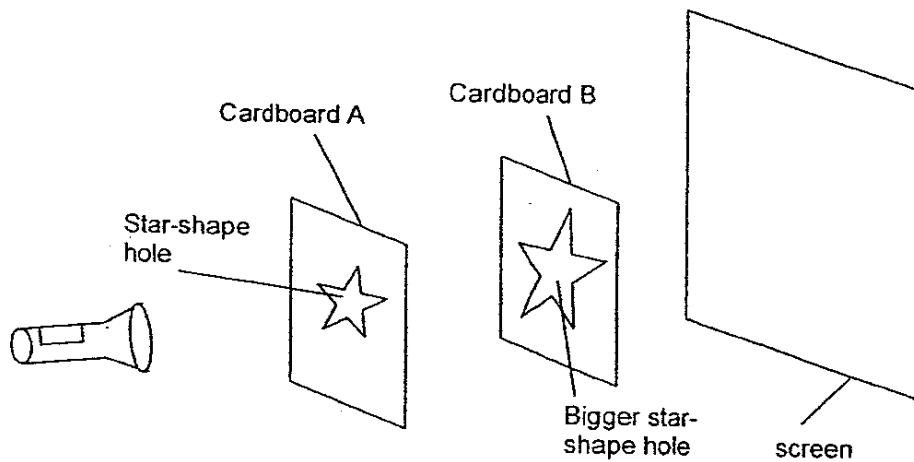
	Pollution type	Result of pollution	Harmful effect on environment
(A)	Air	Acid rain	Cause damage to buildings/monuments
(B)	Air	Global warming	Hole in ozone layer
(C)	Water	Acid rain	Kills organisms living in rivers and lakes
(D)	Water	Global warming	Cause damage to buildings/monuments

29. The experiment below is carried out in a dark room.



Sherlyn placed Cardboard A, a cardboard with a star-shaped hole, in front of the torch. When the torch is switched on, a bright star-shaped patch of light is seen on the screen.

Then she placed Cardboard B, which is similar in size to Cardboard A but has a larger star-shaped hole, in between Cardboard A and the screen as shown in the diagram below. Both Cardboards are arranged in a straight line.

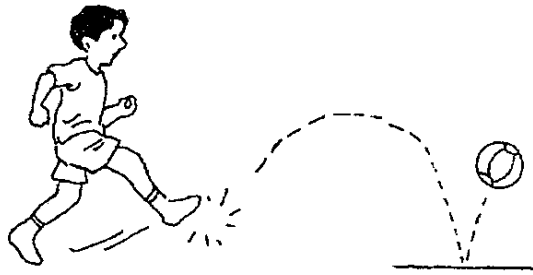


What happened to the star patch of light on the screen?

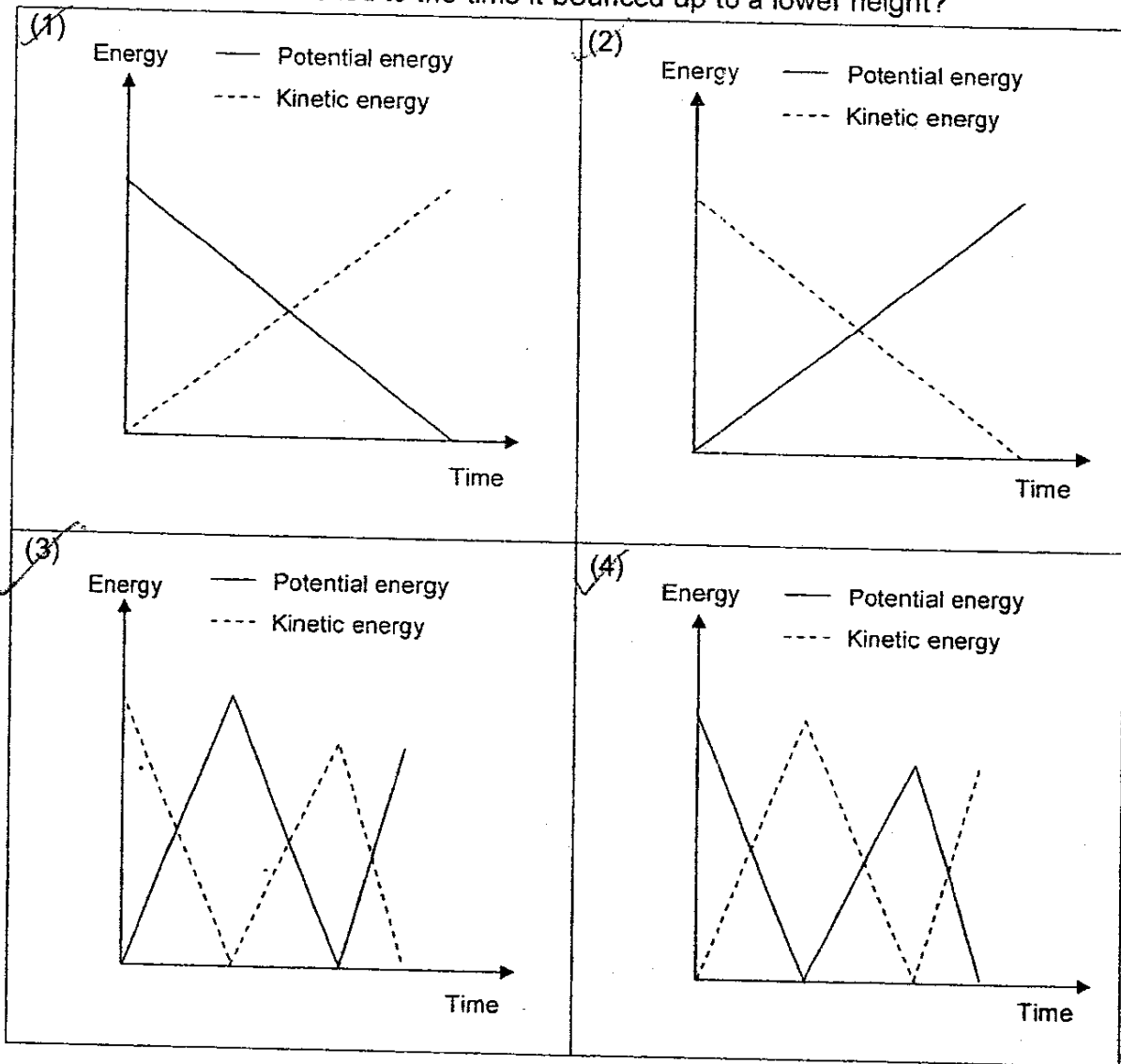
- (1) The star patch of light became bigger.
- (2) The star patch of light became bigger and brighter.
- (3) The star patch of light became bigger but dimmer.
- (4) The star patch of light remained the same.

25

30. The diagram below shows the path of the ball after Keith kicks it.



Which one of the following graphs shows the energy change of the ball from the time it was kicked to the time it bounced up to a lower height?

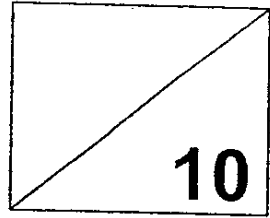


End of Section A

Part I

Name: _____ ()

Class: P6 _____



SECTION B: 40 Marks

For questions 31 to 46, write your answers in the spaces provided.

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

31. The following diagrams show the foot bones belonging to three animals, A, B and C.



A



B



C

The three feet are adapted to increase animals A, B and C's chances of survival in the same habitat.

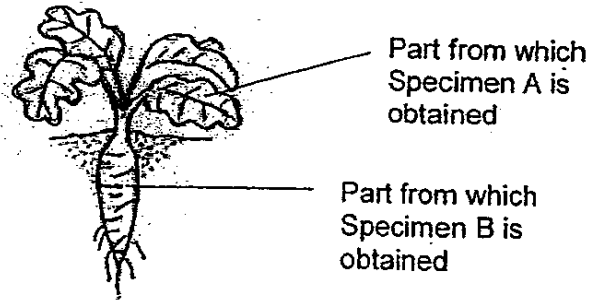
- (a) Suggest one possible habitat where animals A, B and C live in.

[1m]

- (b) Describe the structural adaptation that is common in the three feet. Explain how this structural adaptation helps the animals survive in their habitat.

[2m]

32. During a Science laboratory lesson, pupils were required to obtain cell specimens from two parts of a carrot plant for observation under the microscope. The diagram below shows the parts of the carrot plant from which Specimen A and Specimen B were obtained.



Zhimin was successful in preparing both specimens on two separate slides.

- (a) Fill in the table below to show what Zhimin would have observed under the microscope. Put a tick (✓) for the parts observed.

Parts of a cell	Specimen A	Specimen B
Nucleus		
Cell wall		
Cell Membrane		
Cytoplasm		
Chloroplast		

[1m]

- (b) What is the function of the cell wall?

[1m]

33. Rafidah carried out an experiment to germinate two green bean seeds. She placed each green bean seed in a small plate with some cotton wool and water.

She made an observation of when the baby shoot first appeared in both seeds by keeping a record like the one shown below.

	Seed A	Seed B
Day 1	x	x
Day 2	x	x
Day 3	x	x
Day 4	x	x
Day 5	✓	✓
Amount of water in the small plate	15 ml	25 ml

x - no baby shoot
✓ - baby shoot appeared

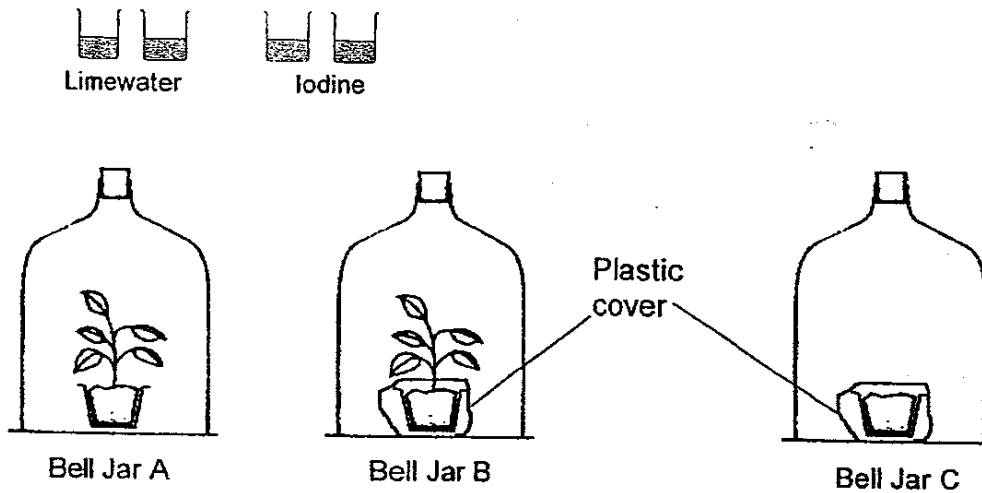
- (a) What do you think is the aim of her experiment?

[1m]

- (b) Explain how you can make the results of the experiment more accurate.

[1m]

34. Daniel wanted to show that plants produce carbon dioxide when they respire. The diagram below shows the materials which may be useful for his experiment.



- (a) Which materials should he choose to conduct his experiment? Put a tick [✓] against the material chosen.

Bell Jar A	
Bell Jar B	
Bell Jar C	
Limewater	
Iodine	

[1m]

- (b) Based on the materials chosen in (a), explain how he should conduct the experiment so that it is a fair test.

Step 1: _____

Step 2: _____

[1m]

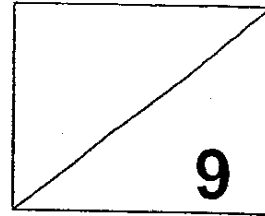
- (c) Explain the purpose of the plastic cover.

[1m]

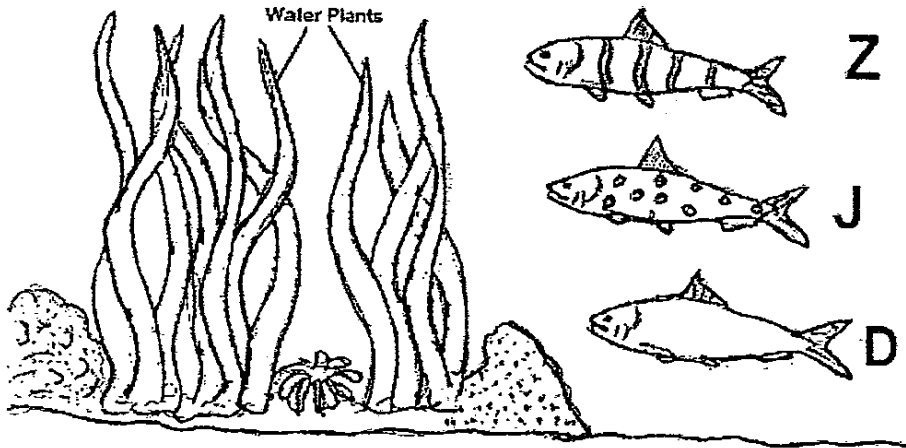
Part II

Name: _____ ()

Class: P6 _____



35. The diagram below shows three types of fish Z, J and D living among water plants in a pond.



Another type of fish, P, which preys on Z, J and D, was introduced into the pond.

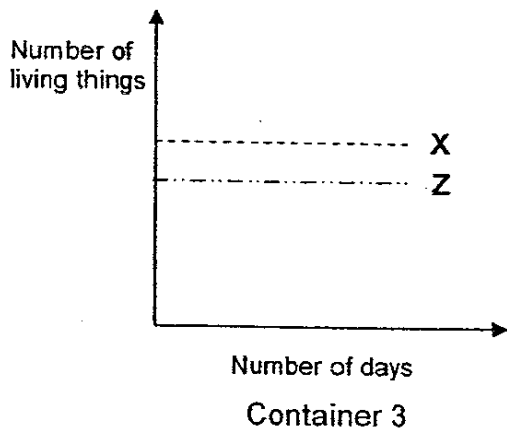
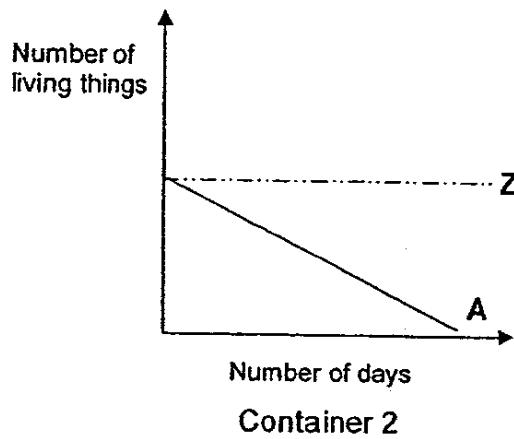
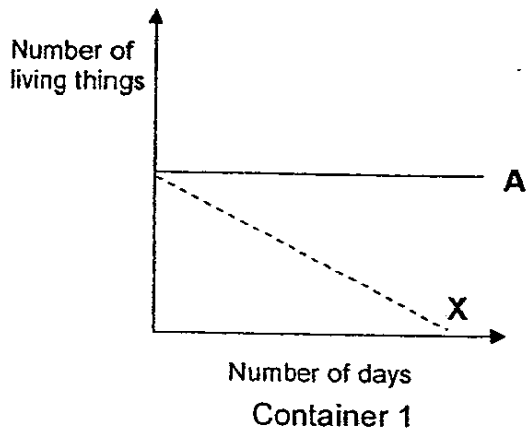
(a) State one type of fish (Z, J or D) that would most likely decrease **the least** in number after a period of time.

_____ [1m]

(b) Explain your answer in (a).

_____ [1m]

36. Some living things, A, X and Z were put into three separate containers. A and X were in Container 1. A and Z in Container 2. X and Z in Container 3. The number of the living things in each container was recorded over a period of time. The results are shown in the graphs below.

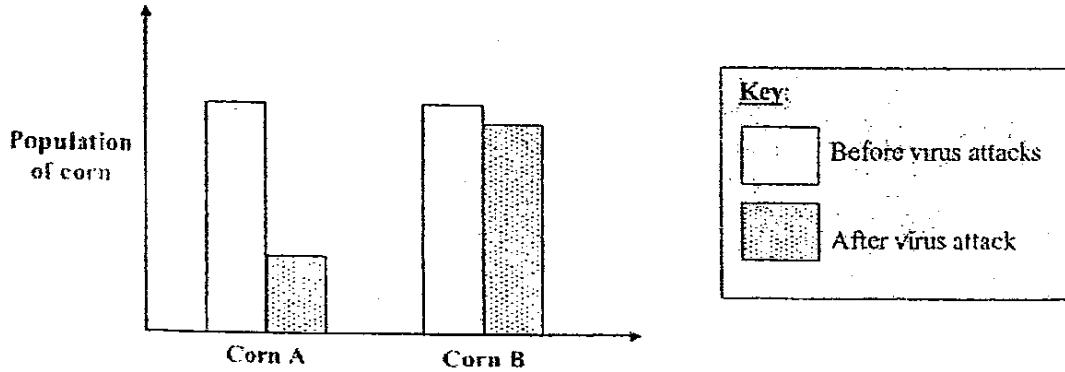


Study the statements below and tick (✓) the appropriate boxes.

	True	False	Cannot tell
A is a predator of X <i>A eats X</i>			
Z eats A			
Z is a carnivore <i>herbivore</i>			
X is a plant			

[2m]

37. The graph below shows the population of Corn A and Corn B before and after a virus attack.



- (ai) From the information provided in the graph, which corn do you think has been genetically modified?

(ai)

[1m]

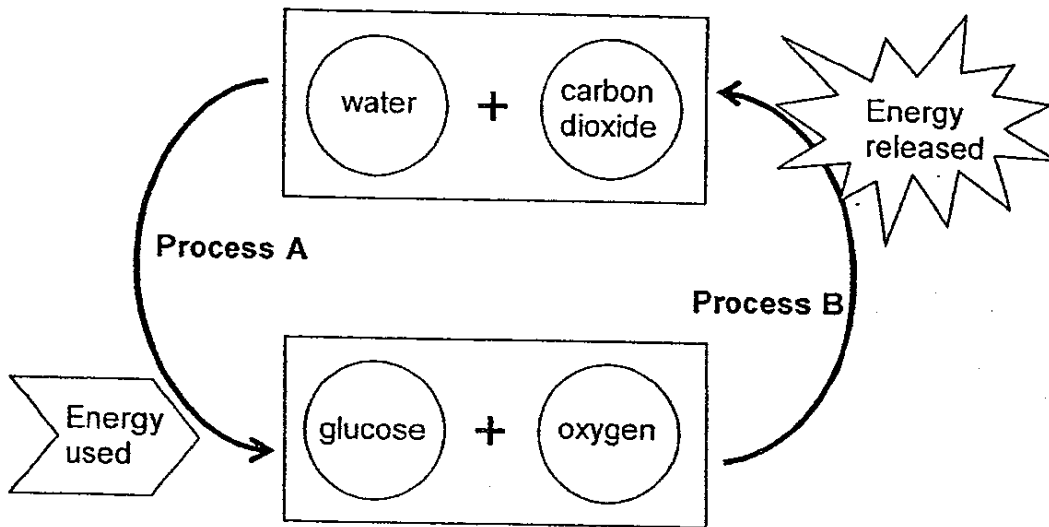
- (aii) What characteristic does the corn in (a) have after it has been genetically modified?

[1m]

- (b) State two types of organisms used in fermentation.

[1m]

38. Study the diagram below carefully.



(a) Name the processes:

Process A _____ [½ m]

Process B _____ [½ m]

(b) Other than information given in the diagram above, state one difference between Process A and Process B.

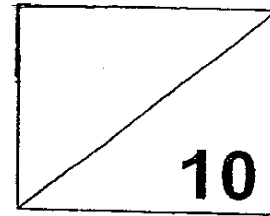
[1m]

34

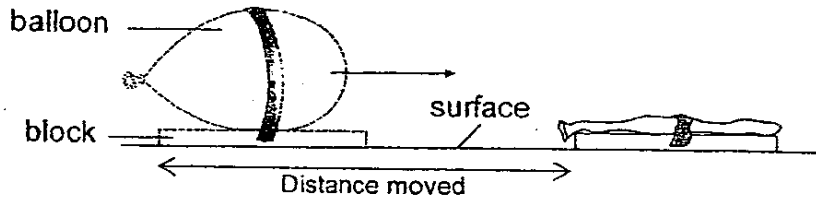
Part III

Name: _____ ()

Class: P6 _____



39. Adrian set up an experiment as shown below.



He pumped 600 cm^3 of air into the balloon and then released it. He measured and recorded the distance moved by the block. He repeated the experiment on four different types of surfaces and recorded the distance moved in the table below.

Type of surface	Distance moved
Unpolished wood	15 cm
Sand paper	9 cm
Glass	26 cm
Cloth	20 cm

(a) Based on the results, what can you conclude about the relationship between the type of surface and the distance moved by the block?

[1m]

(b) Describe two modifications Adrian should make to the experiment if the aim of his experiment was to find out if the volume of air in the balloon affects the distance moved by the block.

[1m]

40. The table below shows the state of four substances, A, B, C and D at different temperatures.

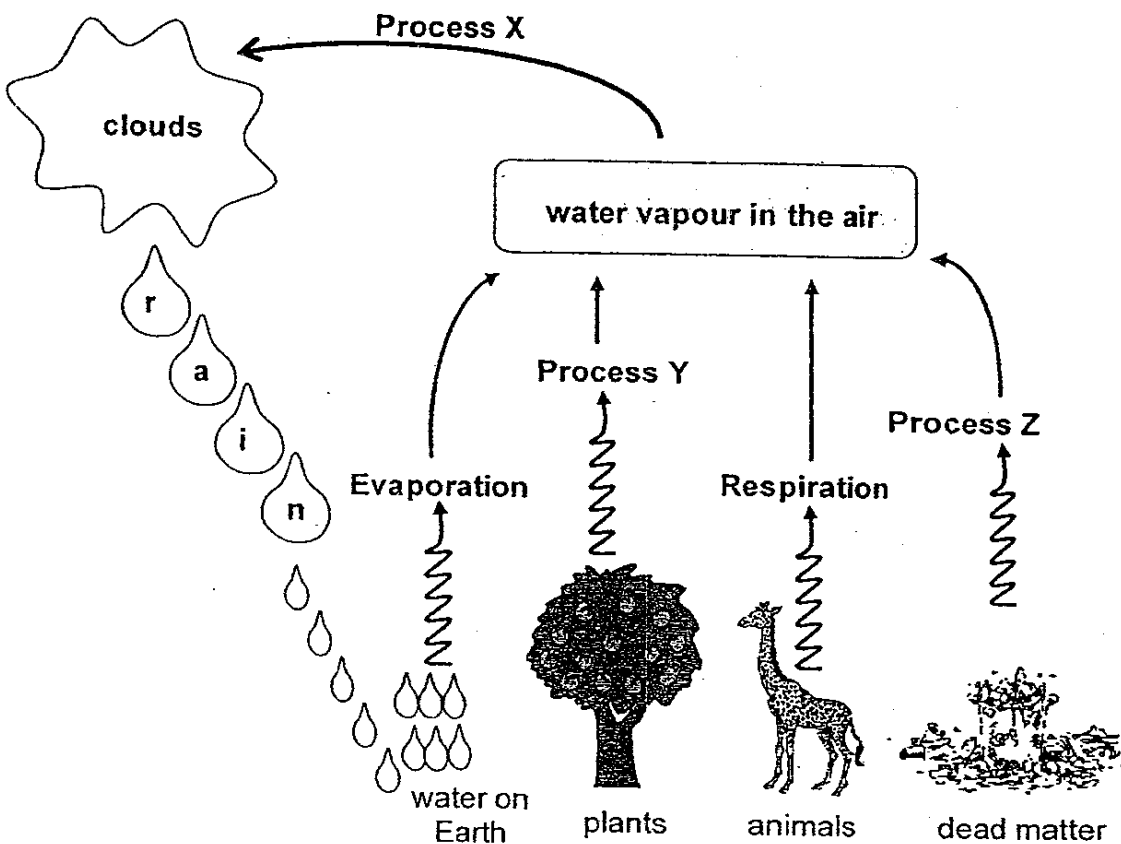
Substance	State of substance at		
	10°C	30°C	80°C
A	solid	liquid	gas
B	liquid	liquid	liquid
C	liquid	gas	gas
D	solid	solid	solid

Study the statements below and tick (✓) the appropriate boxes.

	True	False	Cannot tell
a The melting point of Substance A is 30°C.			
b Substance B has the lowest freezing point.			
c Substance C is in its gaseous state at 50°C.			
d Substance D has the highest melting point.			

[2m]

41. Study the diagram of the water cycle below.



(a) Name the two processes which release water vapour into the air, shown in the diagram.

Process Y : _____ [1m]

Process Z : _____ [1m]

(b) State whether heat is gained or lost in the processes named.

Evaporation : heat is _____ [½ m]

Process X : heat is _____ [½ m]

42. Given below are four similar batteries and four similar bulbs.

(a) Draw wires to connect them such that there are two separate circuits created.

You must ensure that the following conditions are met:

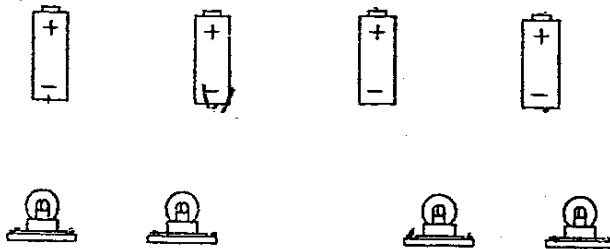
A: The bulbs in one circuit are brighter than the bulbs in the other circuit.

B: There should be same number of bulbs and batteries in both circuits.

C: The bulbs are connected in series.

D: All the given batteries and bulbs are used to complete the circuits.

[2m]



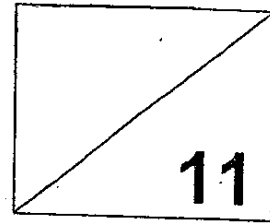
(b) Are bulbs in a house connected mainly in parallel or in series? Explain why.

[1m]

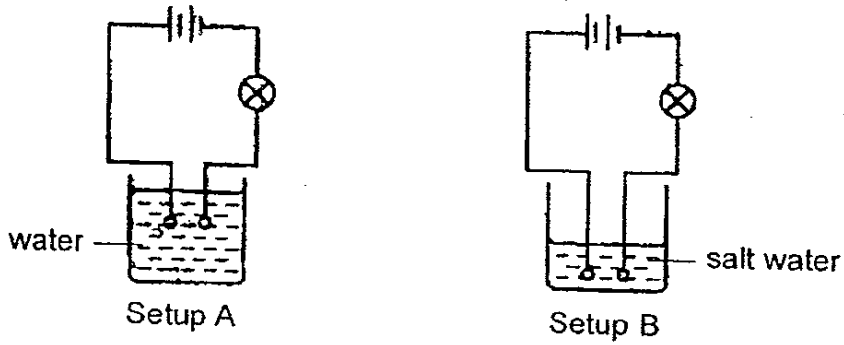
Part IV

Name: _____ ()

Class: P6 _____



43. Alice conducted an experiment as shown in the diagram below. She observed that the bulb in Setup B is brighter than the bulb in Setup A.



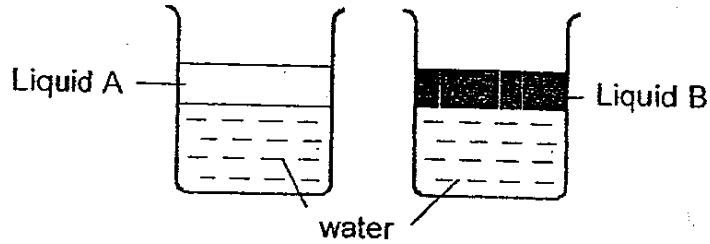
- (a) What is the aim of her experiment?

[1m]

- (b) Do you think Alice has conducted a fair test? Why?

[1m]

44. Study the diagram below carefully.



(a) What can you conclude about how heavy Liquid A and Liquid B are?

[1m]

(b) If only Liquid A and Liquid B are poured into a beaker, predict what will happen by putting a tick (✓) in the correct box.

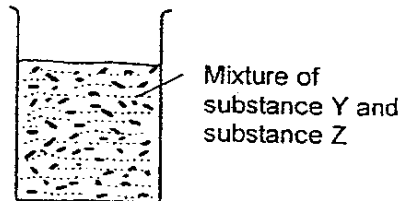
Liquid A floats on Liquid B	Liquid B floats on Liquid A	Cannot tell
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[1m]

Darrell was given a mixture of substance Y and substance Z. He was told that substance Y can dissolve in water but substance Z cannot dissolve in water.

He was also provided with the following:

- some Liquid A
- some Liquid B
- some water
- an empty beaker
- a stirrer
- a funnel with filter paper



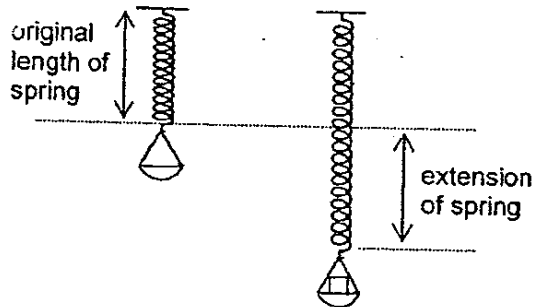
(c) Describe, in the table below, the steps he should take to separate substance Z from the mixture using only what he was provided.

You should number the steps and draw a line after each step.

[2m]

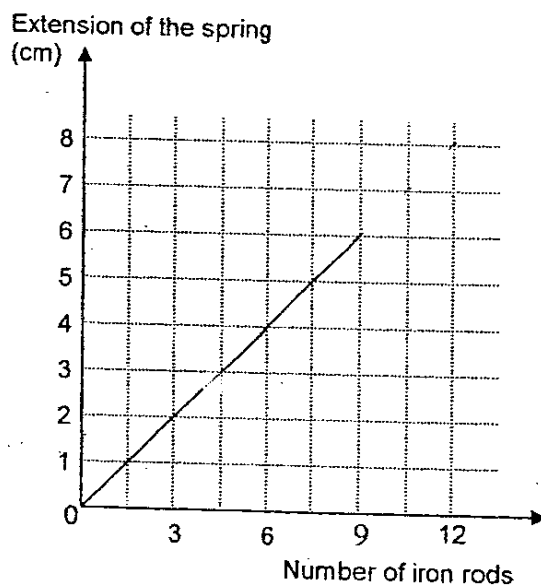
Steps	Description
Step 1	
Step 2	

45. Joan carried out an experiment to find out the relationship between the number of iron rods placed in the iron pan and the extension of a spring. She used a spring with an iron pan attached to it, some identical iron rods and a ruler for her experiment.



She recorded the results in a table and plotted a graph as shown below.

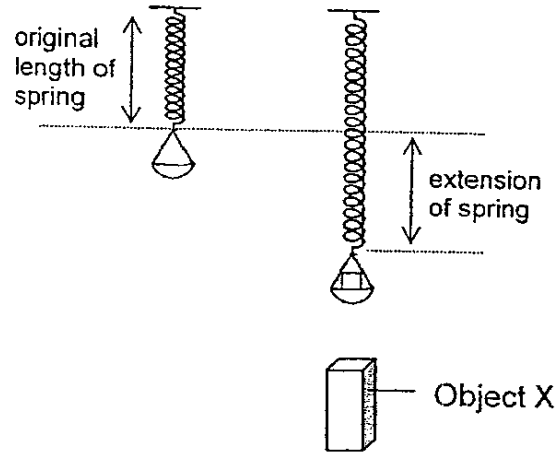
Number of iron rods	Length of spring (cm)	Extension of spring (cm)
0	8	0
3	10	2
6	12	4
9	14	6
12	16	?



- (a) Calculate the extension of the spring when 12 iron rods are placed in the pan and use the answer to complete the graph given above.

[1m]

Object X was placed near the pan as shown in the diagram.



- (b) When 15 iron rods were placed in the pan, the length of the extended spring became 21 cm. What do you think Object X is?

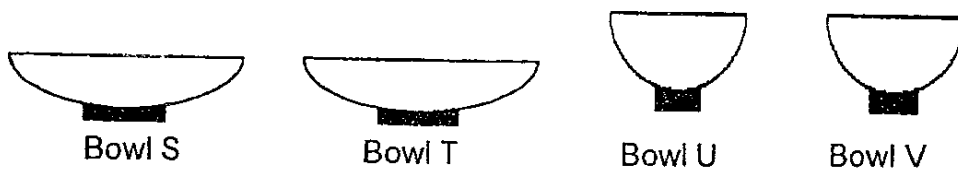
[1m]

- (c) Explain why the length of the extended spring was longer than expected.

[1m]

42

46. Farif wants to find out if the presence of salt affects the rate of evaporation of water.
He was provided with the following for his experiment.



- 10g of sugar
- 10g of salt
- 700g of water

- (a) Farif prepared Setup A and a control setup for his experiment.
List in the table below, the bowl and the amount of materials he should use for the control setup.

	Setup A	Control Setup
Bowl used	Bowl T	
Amount of water (g)	300g	
Amount of salt (g)	10g	
Amount of sugar (g)	0g	

[1m]

- (b) After one day, if 200g of the solution in Setup A was left in the bowl, it would contain about _____ g of water and _____ g of salt.

[1m]

End of Section B

Paya Lebar Methodist Girls' Primary School
Primary 6 Science Preliminary Exams (2006)

(ANSWER KEY)

SECTION A : (60 MARKS)

Qn no.	Ans
1	2
2	4
3	1
4	4
5	1
6	2
7	4
8	3
9	2
10	1

Qn no.	Ans
11	4
12	4
13	3
14	2
15	3
16	1
17	3
18	2
19	4
20	3

Qn no.	Ans
21	4
22	2
23	4
24	3
25	1
26	4
27	2
28	1
29	4
30	3

SECTION B (40 MARKS)

Qn No.	Answers
31a.	Trees
31b.	The foot bones have long, curved toes. Their long, curved toes allow them to grasp the branches on the tree.

32a.	Parts of cell	Specimen A	Specimen B
	Nucleus	✓	✓
Cell wall	✓	✓	
Cell membrane	✓	✓	
Cytoplasm	✓	✓	
Chloroplast	✓		

32b.	The cell wall gives the cell a fixed shape.
------	---

Qn No.	Answers
33a.	She wanted to find out whether the amount of water would affect the germination of the green bean seeds.
33b.	She can repeat the experiment.

34a.	Bell Jar A	✓
	Bell Jar B	✓
	Bell Jar C	✓
	Limewater	
	Iodine	
34b.	Step 1 : Place one beaker of limewater in Bell Jar B and the other in Bell Jar C	
	Step 2 : Place the Bell Jar in a dark cupboard for the same length of time.	
34c.	To prevent carbon dioxide from escaping from other sources.	

35a.	Fish Z
35b.	Fish Z stripes on its body allow it to camouflage with the water plants.

36.	A eats X : True
	Z eats A : True
	Z is herbivore : False
	X is a plant : Cannot tell

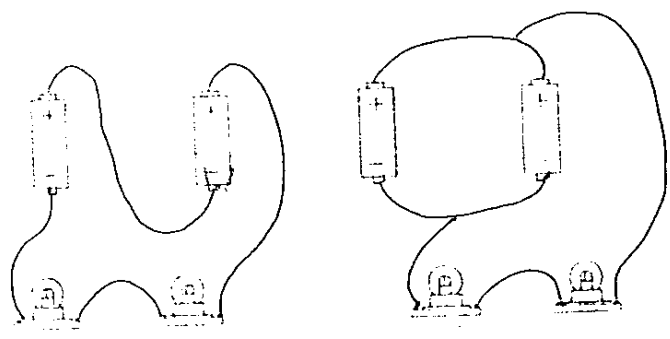
37a. (i)	Corn B
(ii)	The corn has become resistant to virus attacks.
37b.	Bacteria and mould.

38a.	A : photosynthesis B : respiration
38b.	Process A occurs only in the presence of sunlight whereas process B occurs all the time.

39a.	The rougher the type of surface, the less the distance moved by the block.
39b.	Adrian should use the same type of surface and a different amount of air to be pumped into the balloon each time and repeats the experiment.

Qn No.	Answers
40a.	Cannot tell
40b.	Cannot tell
40c.	True
40d.	True

41a.	Y : respiration Z : decomposition
41b.	Evaporation : Gained
	Process : Lost

42a.	
42b.	They are connected in parallel. So that if one bulb fuses, the others can still function.

43a.	She wanted to find out whether water or salt water conducts electricity better.
43b.	No, I do not think so. She has not used the same amount of water for both set-ups.

44a.	Liquid A and B are lighter than water.
44b.	Cannot tell.
44c.	Step 1 : Pour some water into the mixture and stir it to dissolve substance Y.
	Step 2 : What is left on the filter paper is the substance Z.

Qn No.	Answers
45a.	
45b.	I think object X is a magnet.
45c.	The iron rods in the pan were attracted to object X, thus pulling the spring to extend it.

46a.		Setup A	Setup B
	Bowl used	Bowl T	Bowl S
	Amount of water (g)	300g	300g
	Amount of salt (g)	10g	0g
	Amount of sugar (g)	0g	0g
46b.	190, 10		