

Test: Primary 5 Science (Term 2) - ACS

Points: 71 points

Name: _____

Score: _____

Date: _____

Signature: _____

Select multiple choice answers with a cross or tick:

Only select one answer

Can select multiple answers

Question 1 of 62

Primary 5 Science (Term 2) 2 pts

For each question, four options are given. One of them is the correct answer. Make your choice (A, B, C or D) and choose your correct answer.

Which of the following living things are plants that reproduce from spores?

- A** Moss
- B** Ferns
- C** Mushroom
- D** Papaya plant

-
- A)** A and B only
 - B)** B and C only
 - C)** A, B and C only
 - D)** A, B and D only

Jamal wanted to find out the strength of different strings, A, B, C and D. Each string is of the same length and thickness. She hangs different mass of weight at the end of each string until it breaks. The amount of mass each string can hold before it breaks is recorded in the table below.

String	Amount of mass each string can hold before it breaks.
A	450 g
B	200 g
C	150 g
D	400 g

Arrange the strings above in order of their strength, beginning with the strongest to the weakest.

- A) A, B, C, D
- B) A, D, B, C
- C) C, B, D, A
- D) D, C, B, A

Ameen had to classify the four animals shown below.



Guppy



Grasshopper

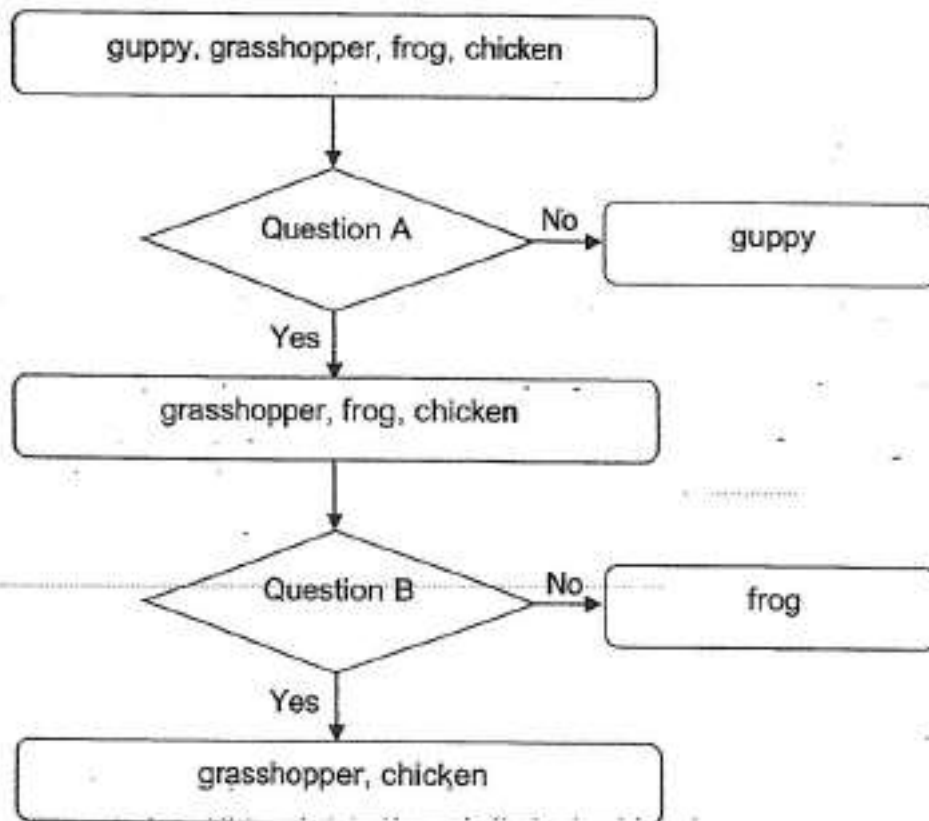


frog



chicken

He classified them with the help of the flowchart below.



What were the two correct questions A and B in the flowchart above?

- A)

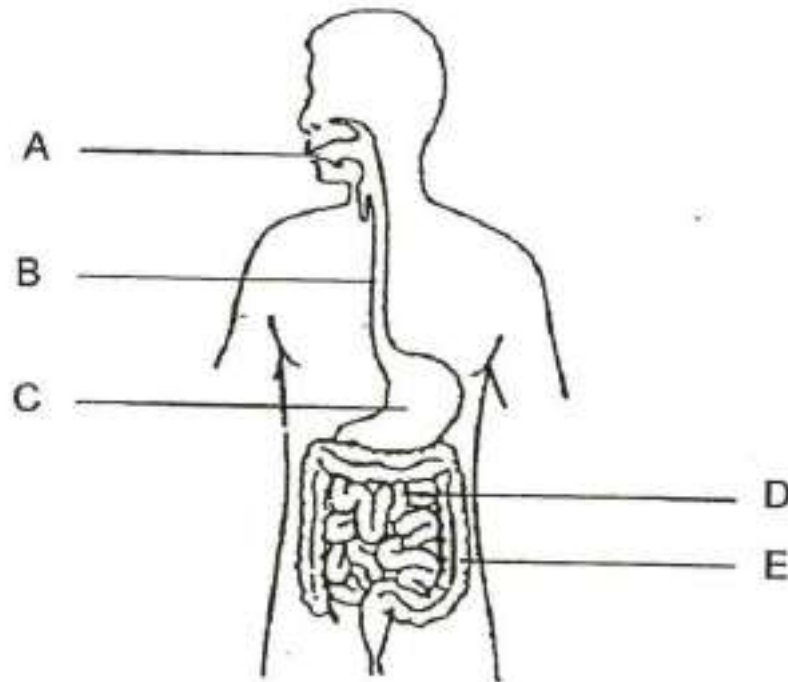
Question A	Question B
Can they live on land?	Do they lay eggs?
- B)

Question A	Question B
Do they have wings?	Can they fly?
- C)

Question A	Question B
Do they lay eggs?	Can they live on land?
- D)

Question A	Question B
Do they lay eggs?	Do they have wings?

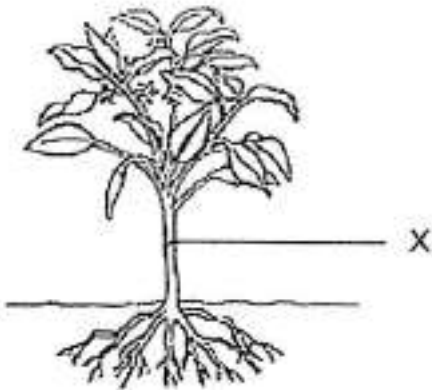
The diagram below shows the human digestive system.



Which one of the following is correct?

- | | | |
|--------------------------|--|--|
| <input type="radio"/> A) | Organ involved in the absorption of excess water | Organs where digestion of food takes place |
| | D | A, C and E |
| <input type="radio"/> B) | Organ involved in the absorption of excess water | Organs where digestion of food takes place |
| | D | B, C and E |
| <input type="radio"/> C) | Organ involved in the absorption of excess water | Organs where digestion of food takes place |
| | E | A, C and D |
| <input type="radio"/> D) | Organ involved in the absorption of excess water | Organs where digestion of food takes place |
| | E | B, C and D |

A seed was planted and it grew into a plant as shown below.



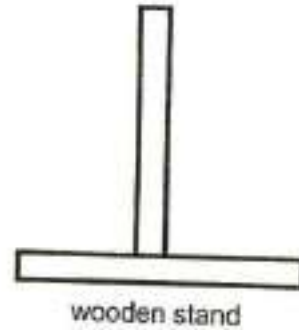
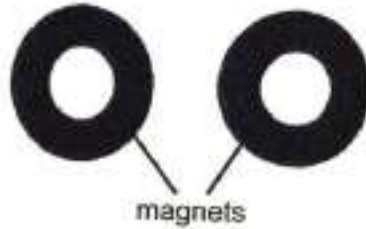
Four pupils made the following statements about the main functions of the plant part labelled X.

Pupil	Statement
A	It holds the plant upright.
B	It holds the plant firmly to the ground.
C	It supports the leaves and the flowers.
D	It helps to transport water from the roots to other parts of the plant.

Which pupils were correct?

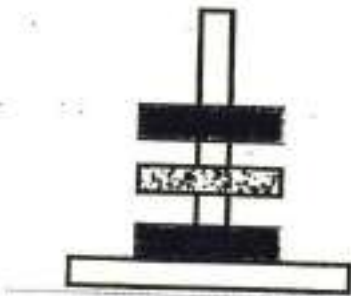
- A) A and B only
- B) A and C only
- C) A, B and D only
- D) A, C and D only

The diagram below shows three discs, each with a hole at its centre. Two of the discs are magnets and one is a thin sheet of plastic. All three discs can be slotted through the wooden stand.



Which of the following arrangement(s) is/are possible?

A



P



C

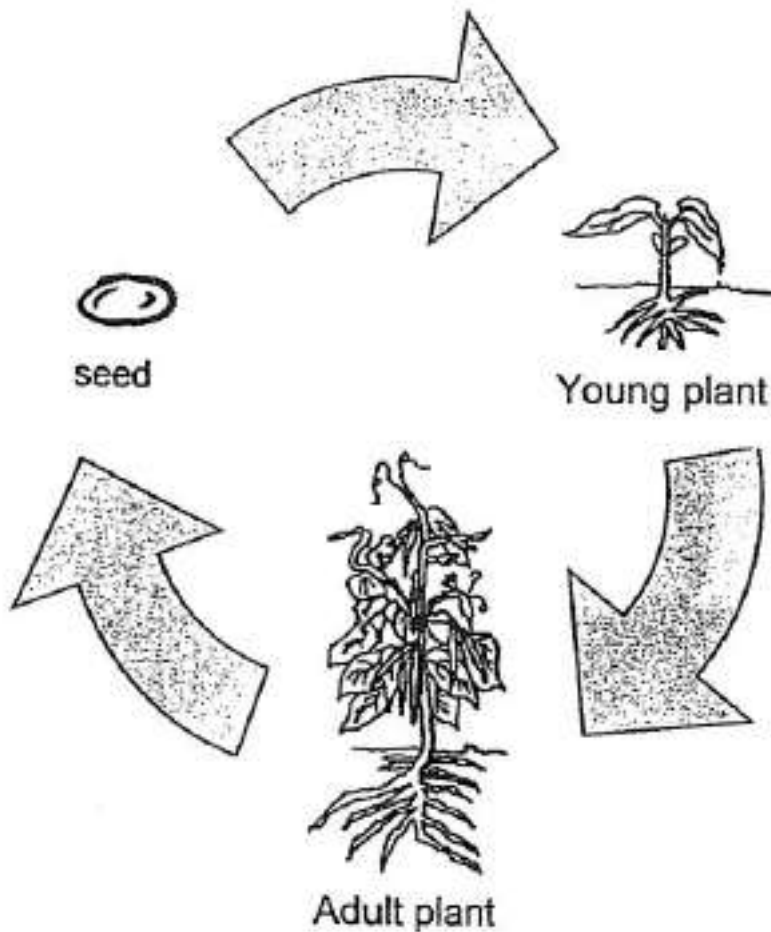


D



- A) A only
- B) A and C only
- C) C and D only
- D) B, C and D only

The diagram below represents the life cycle of a plant.

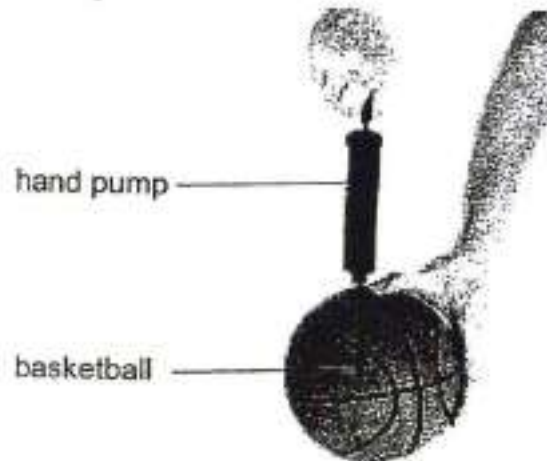


What information can you infer from the life cycle shown above?

- A This plant reproduces by seed.
- B There is only one seed in each fruit.
- C It takes a short time to complete the life cycle.

- A) A only
- B) A and C only
- C) B and C only
- D) A, B and C

A basketball was pumped by a hand pump as shown in the diagram below. After the basketball was fully pumped, another 100 cm^3 of air was pumped into it. The basketball retained its shape and did not burst even with the additional air being pumped into it.

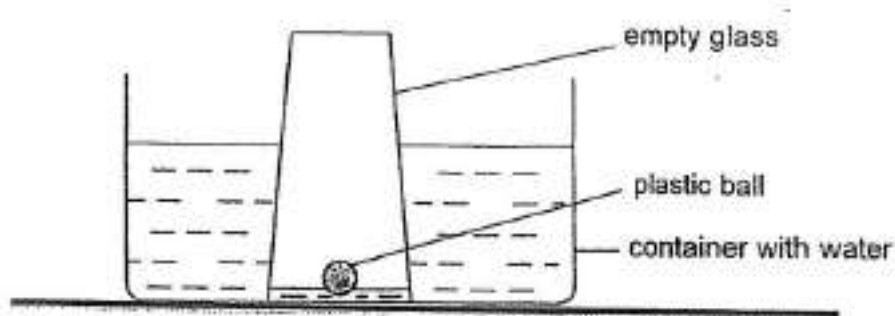


Which two statements are correct?

- A The volume of air in the ball has increased.
- B The volume of air in the ball remains the same.
- C The mass of air in the ball has increased.
- D The mass of air in the ball remains the same.

-
- A) A and C
 - B) A and D
 - C) B and C
 - D) B and D

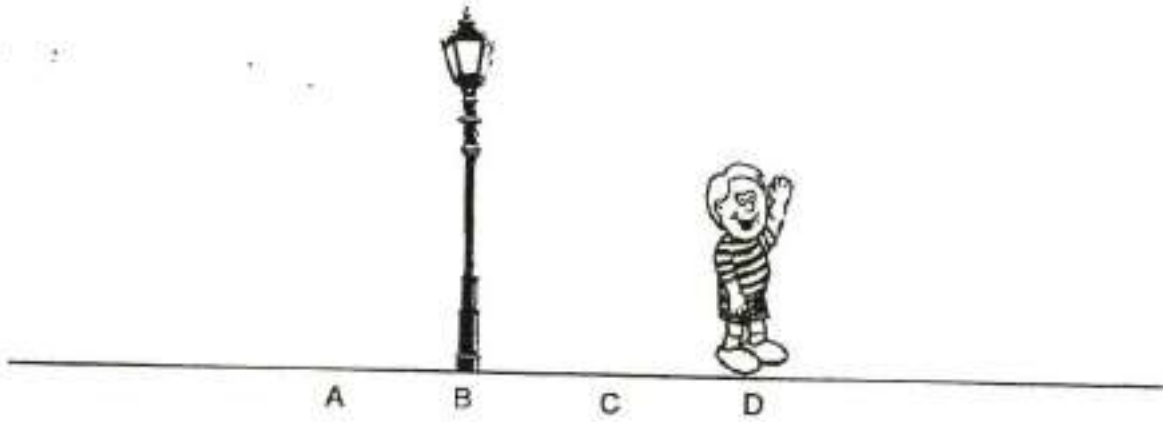
Kenneth lowered an empty glass with a small plastic ball into a container of water as shown below. He observed that the level of water inside the glass was lower than the level of water outside the glass.



Which one of the following explanations below best describes the difference in the levels of water inside and outside the glass?

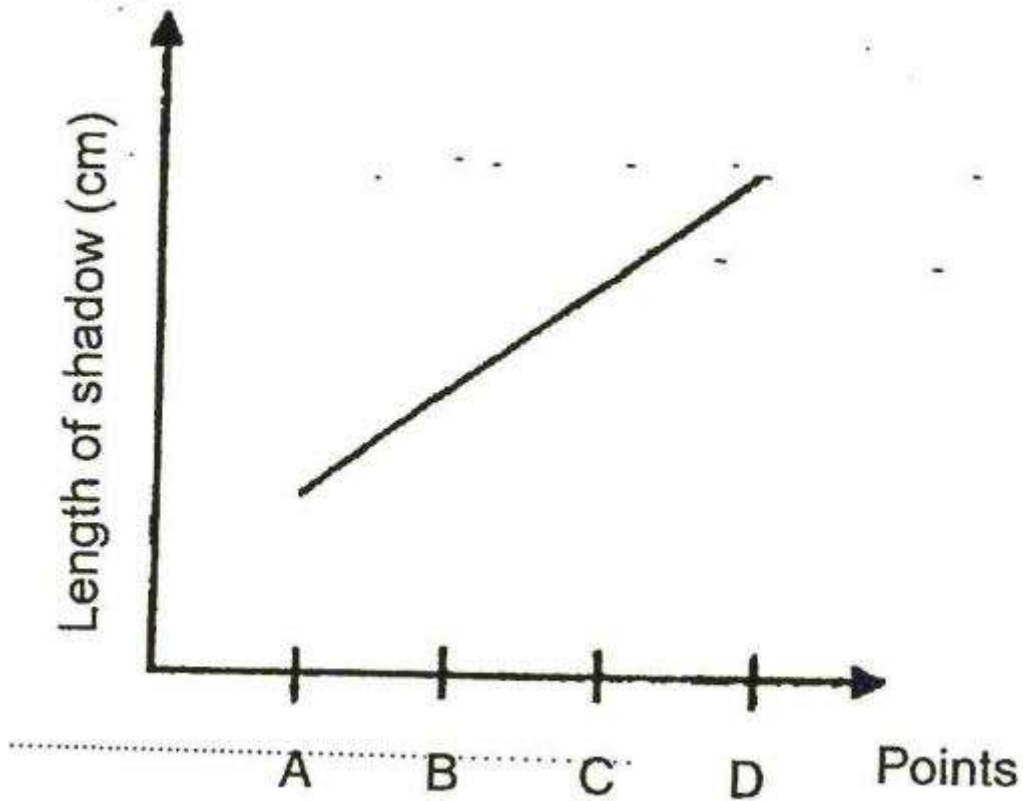
- A) The air in the glass occupied space.
- B) The plastic ball is able to float on water.
- C) The plastic ball does not allow too much water to enter.
- D) The opening of the glass is touching the base of container.

Jack was walking along a street from Point A to Point D under a lighted street lamp on one night. He observed that the length of his shadow changed as he walked from Point A to Point D and plotted his data on a graph.

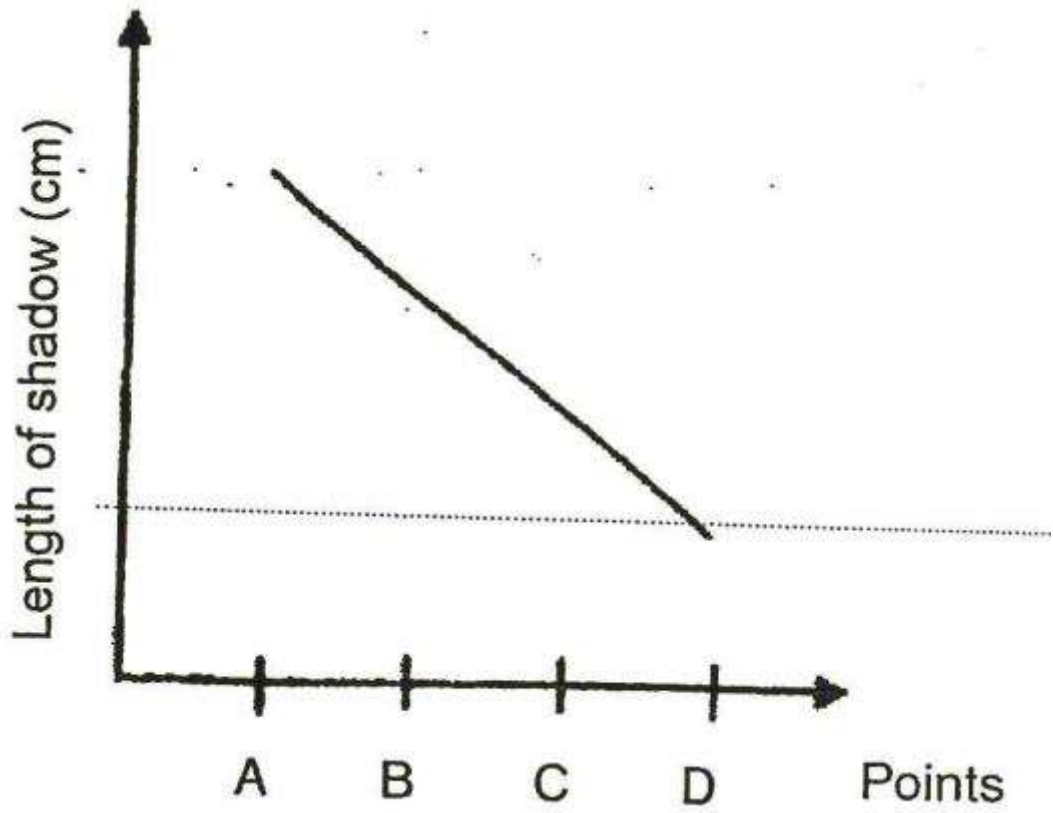


Which one of the following would be the correct graph that he plotted?

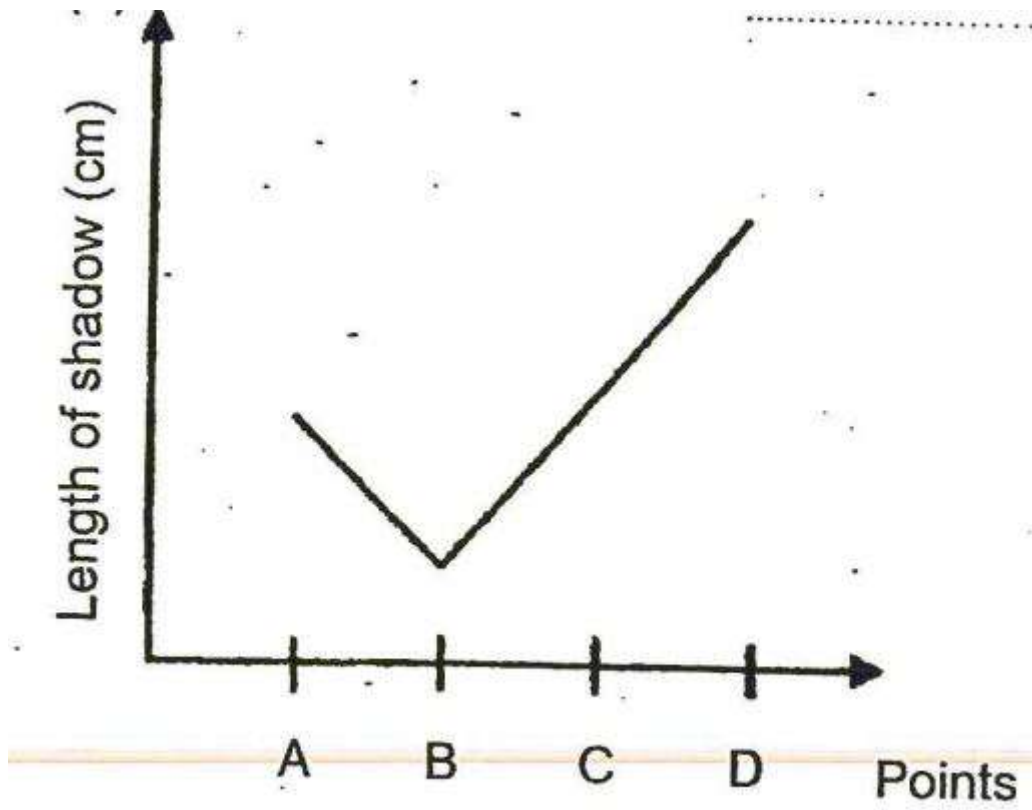
A)



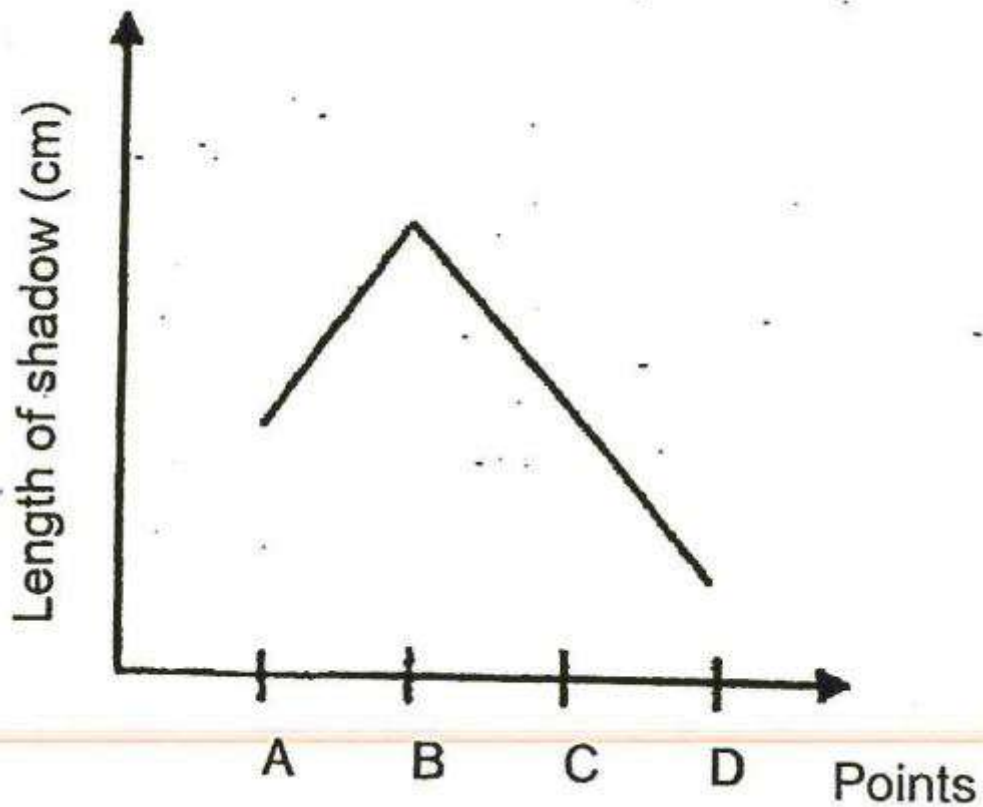
B)



C)



D)

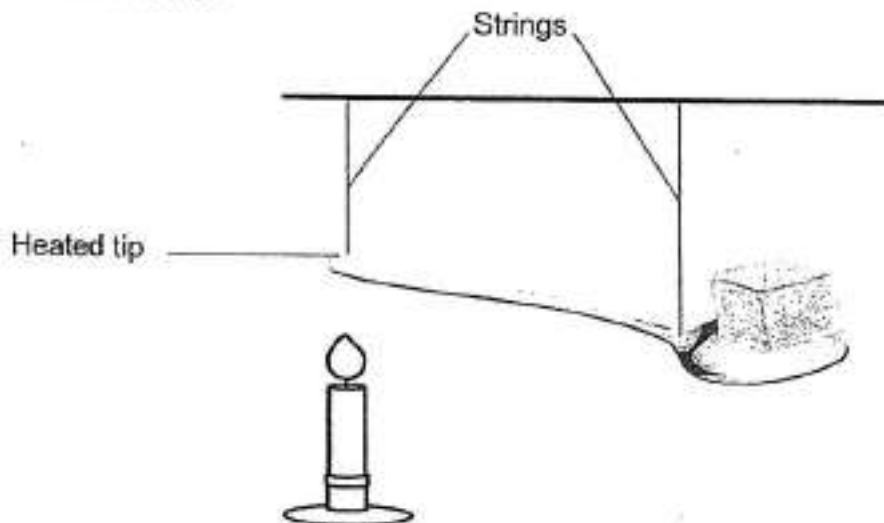


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Primary 5 Science (Term 2)

2 pts

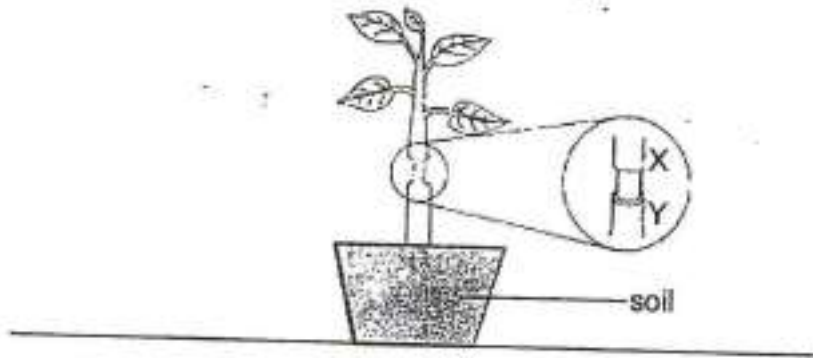
Thaddeus set up an experiment as shown below and observed the ice cube melting after some time.



Which one of the following statements best explains his observation?

- A) The ice cube lost heat to the metal spoon.
- B) The coldness travelled from the ice cube to the metal spoon.
- C) The spoon conducted the heat from the ice cube to the heated tip.
- D) The heat travelled from the heated tip of the metal spoon to the ice cube.

Scott cut an outer ring of the stem between positions X and Y of a plant as shown below. Only the food carrying tubes between positions X and Y were removed.



After some time, he observed that one part of the stem had swelled.

Which part of the stem, X or Y, was swollen and what would be the likely reason?

- A)

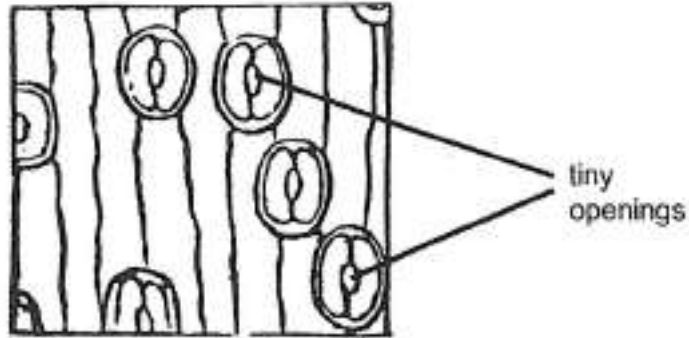
Swollen Part	Reason
X	Water travelling down the stem was unable to travel downwards and thus got collected at X.
- B)

Swollen Part	Reason
X	Food made by the leaves was unable to travel downwards and thus got collected at X.
- C)

Swollen Part	Reason
Y	Water travelling up the stem was unable to travel upwards and thus got collected at Y.
- D)

Swollen Part	Reason
Y	Food made by the leaves travelled downwards and thus got collected at Y.

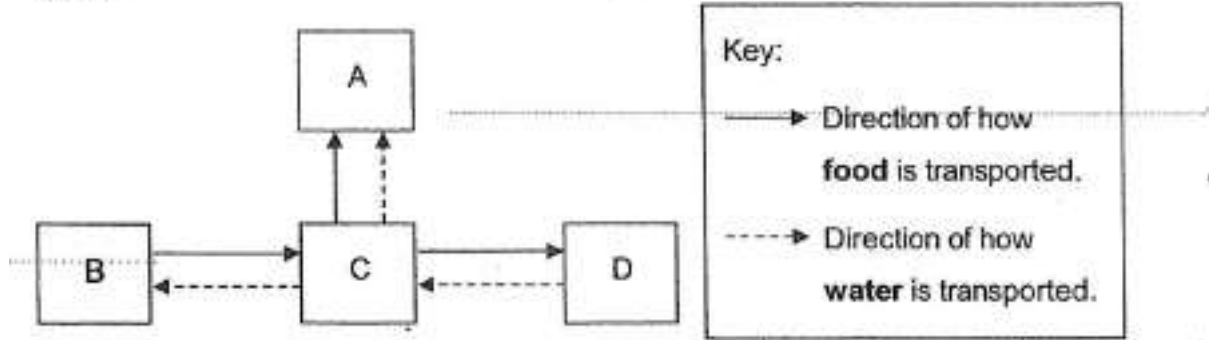
The diagram below shows tiny openings that are found on the under surface of leaves.



Which one of the following is a function of these openings?

-
- A) They trap water in the leaves.
 - B) They enable the exchange of gases.
 - C) They release excess food made by the leaves.
 - D) They allow the movement of minerals in and out of the openings.

Study the diagram shown below. A, B, C and D represents the different parts of the plant.



Which one of the following parts of the plant are best represented by parts A, B, C and D respectively?

- A)

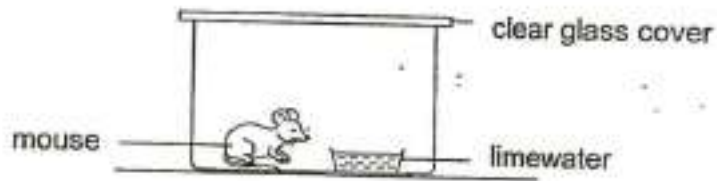
A	B	C	D
flowers	leaves	stem	roots
- B)

A	B	C	D
fruit	roots	flowers	leaves
- C)

A	B	C	D
leaves	flowers	stem	roots
- D)

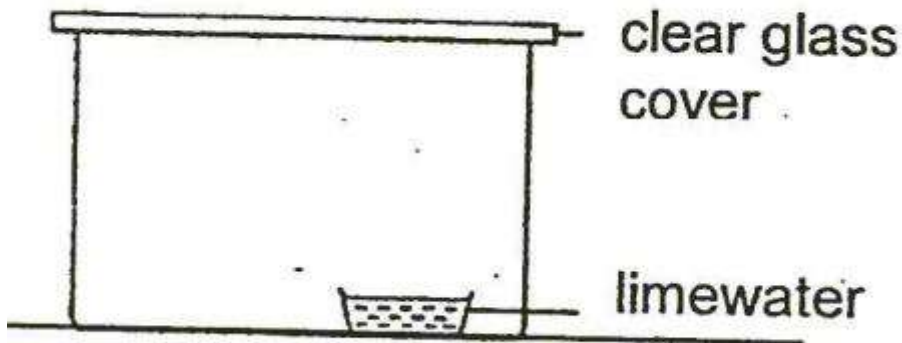
A	B	C	D
stem	leaves	roots	flowers

Andy set up an experiment as shown below to investigate if the mouse carries out respiration.

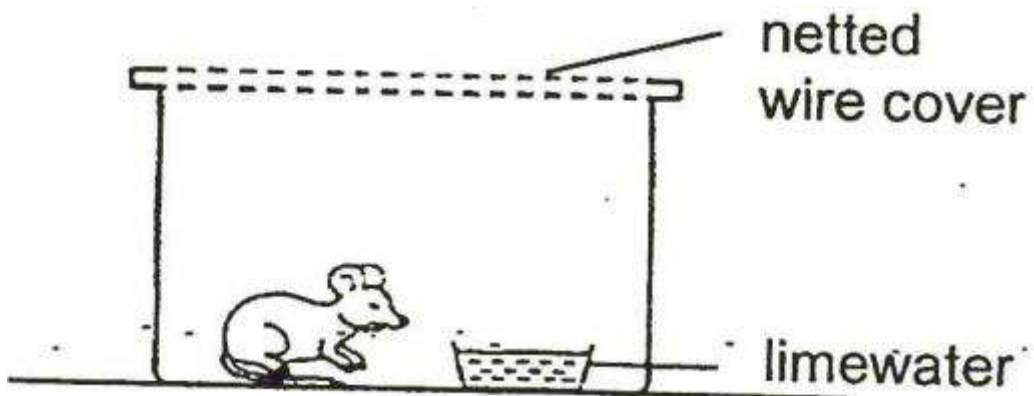


Which one of the following set-ups should he also set up as a control to ensure that the experiment is fair?

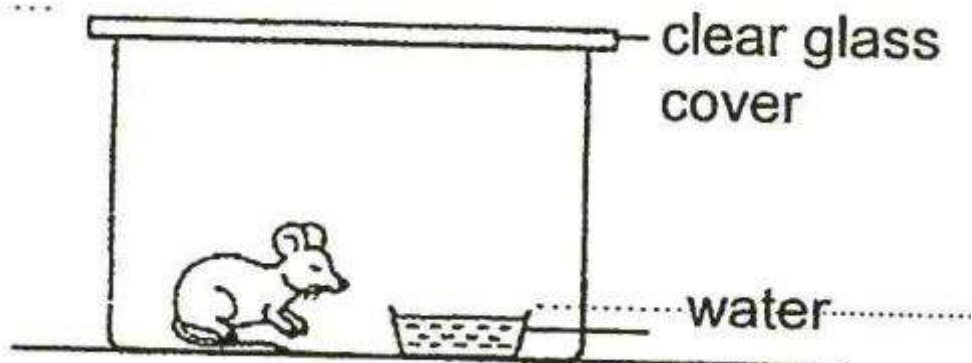
A)



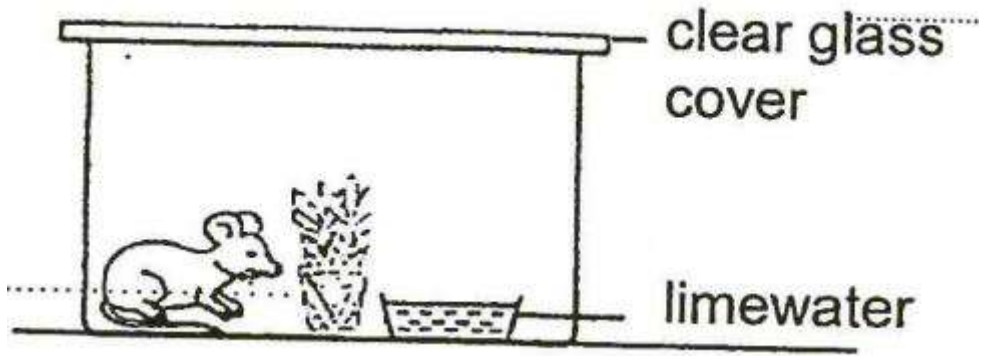
B)



C)



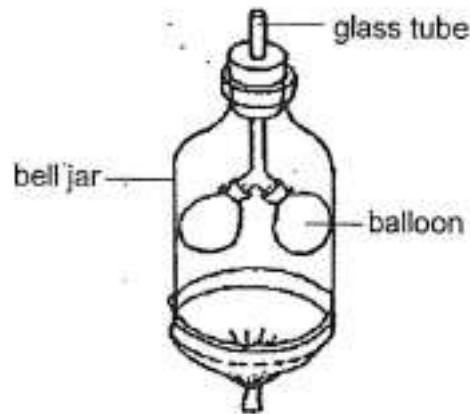
D)



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Primary 5 Science (Term 2) 2 pts

Victor made a model of the human respiratory system using the following objects as shown below.



Which parts of the respiratory system do the objects in the model represent?

- A)

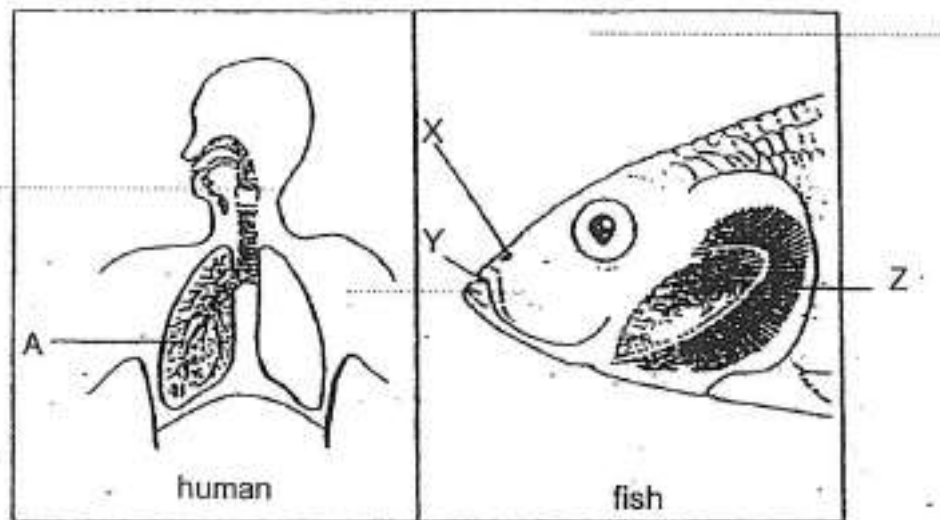
Glass tube	Bell jar	Balloon
chest	windpipe	muscle
- B)

Glass tube	Bell jar	Balloon
windpipe	chest	lungs
- C)

Glass tube	Bell jar	Balloon
muscle	windpipe	lungs
- D)

Glass tube	Bell jar	Balloon
windpipe	lungs	chest

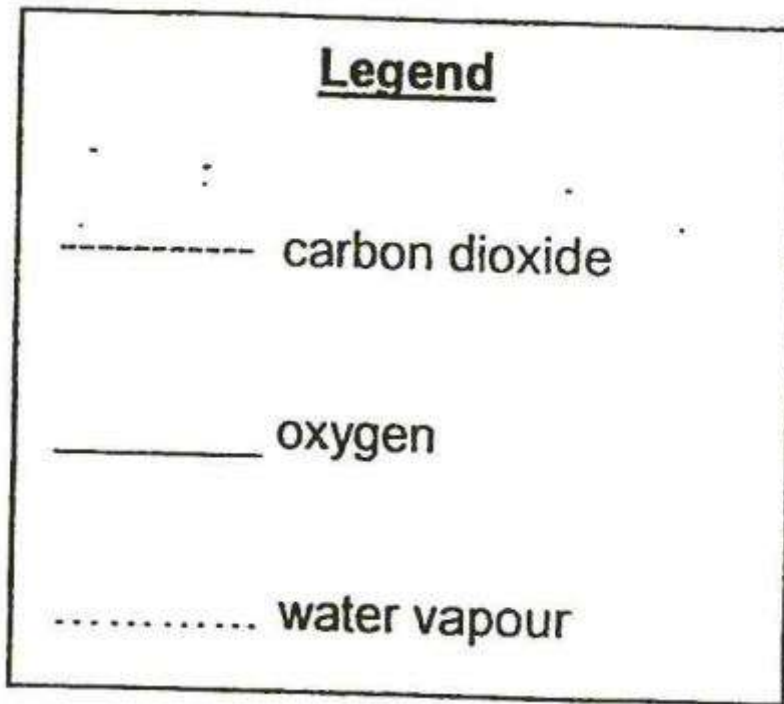
The diagram below shows the respiratory systems of a human and a fish.



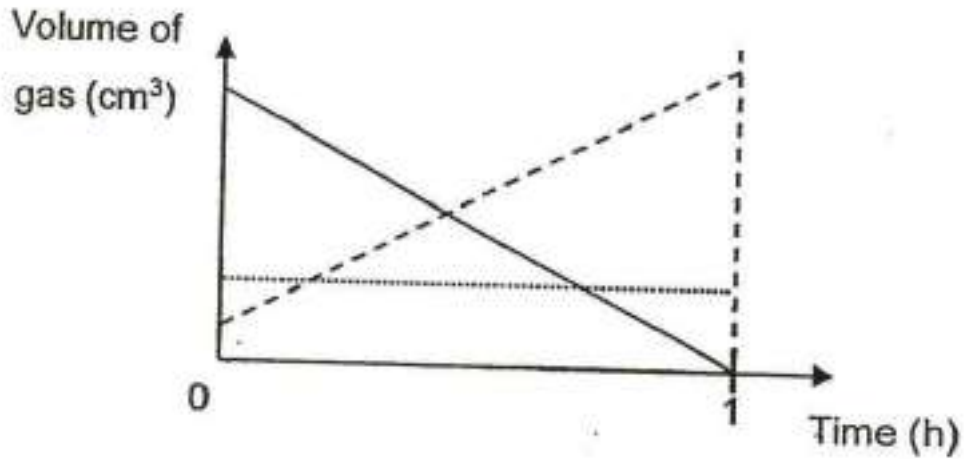
Which part of the fish has the same function as part A in a human?

- A) X
- B) Y
- C) Z
- D) None of the above

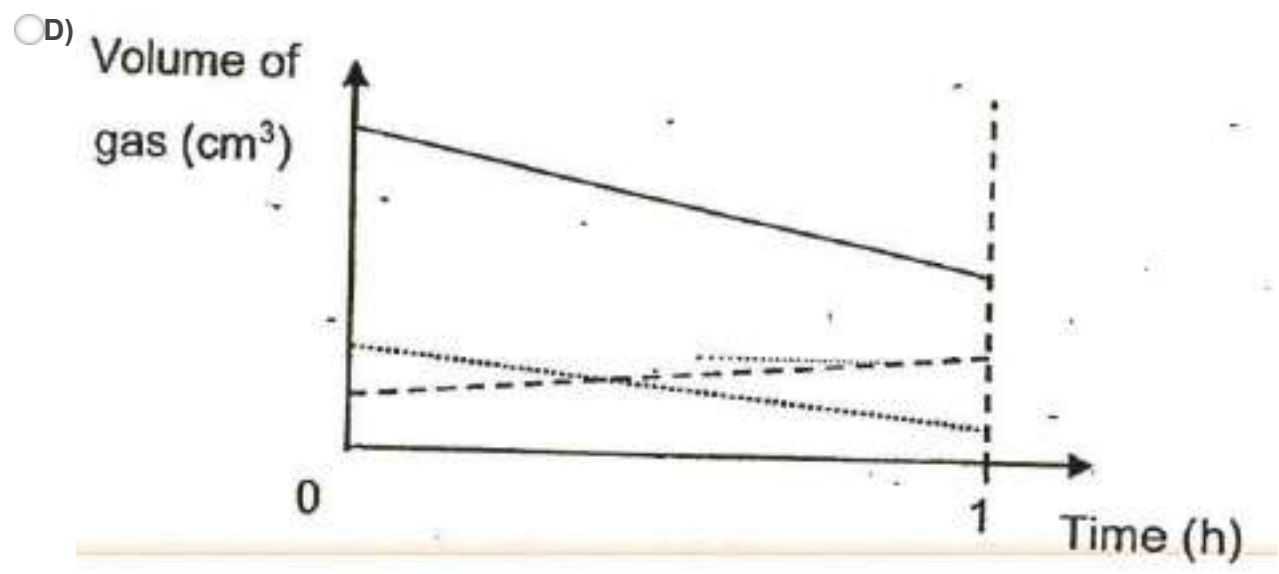
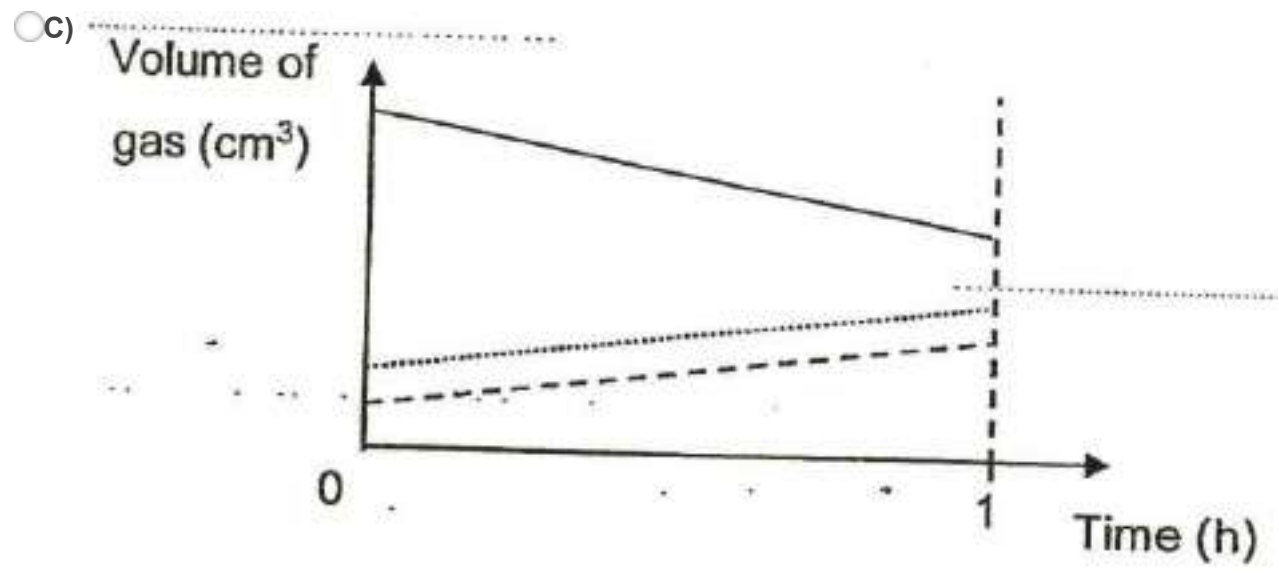
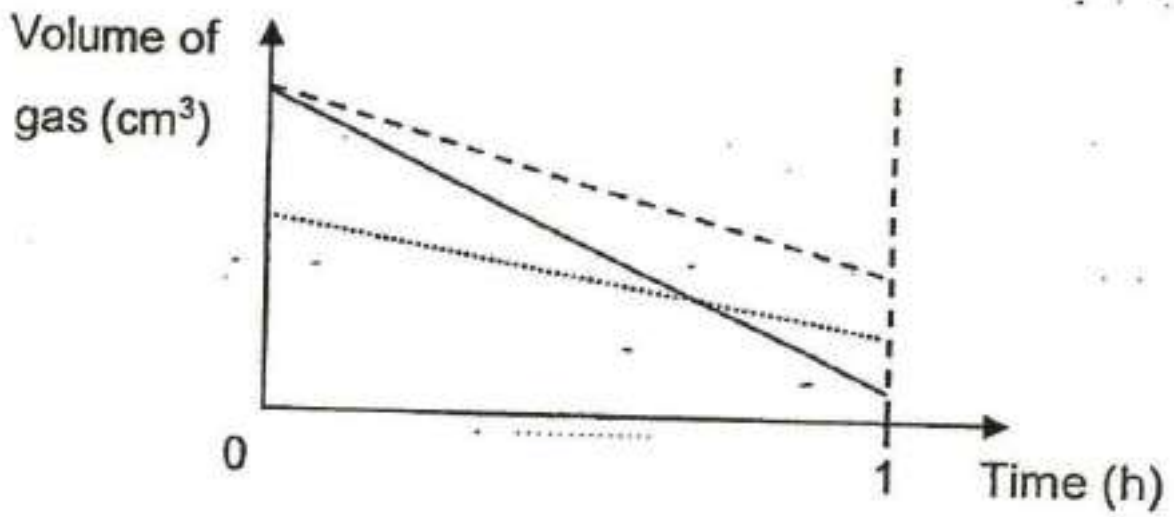
Two people were trapped in a lift for an hour. There was no fresh air entering the lift. Which one of the graphs below best shows the changes in the volume of gases in the lift over an hour?



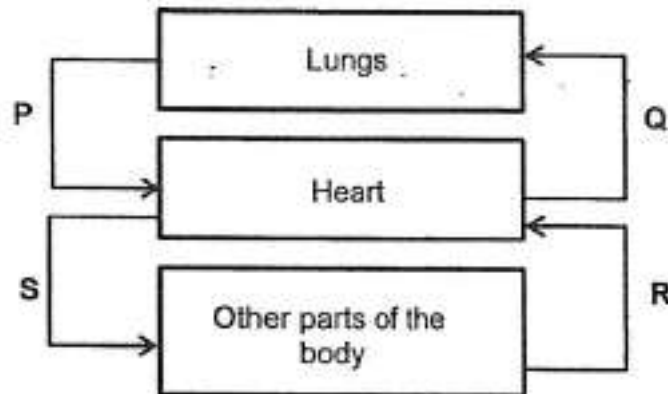
A)



B)



The diagram below shows the human circulatory system. The arrows represent the direction of flow of blood in the human body.



Which of the following correctly describes the amount of oxygen and carbon dioxide in the blood found in P, Q, R and S?

- A)

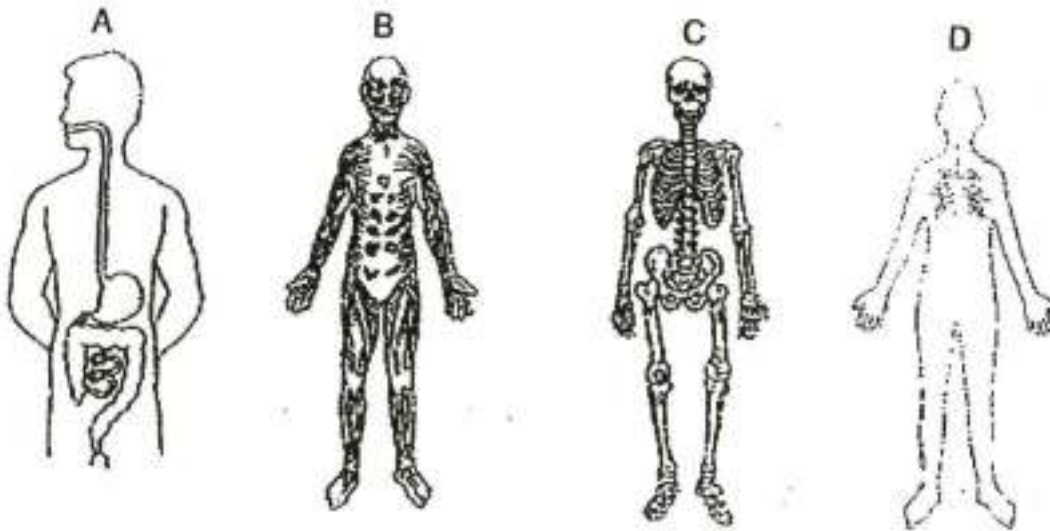
Blood rich in oxygen	Blood rich in carbon dioxide
P and Q	R and S
- B)

Blood rich in oxygen	Blood rich in carbon dioxide
Q and S	P and R
- C)

Blood rich in oxygen	Blood rich in carbon dioxide
P and S	Q and R
- D)

Blood rich in oxygen	Blood rich in carbon dioxide
R and S	P and Q

Study the diagram of the four human body systems as shown below.



Which two body systems need to work together at the same time to allow for movement of the human body?

- A) A and B
- B) B and C
- C) A and D
- D) C and D

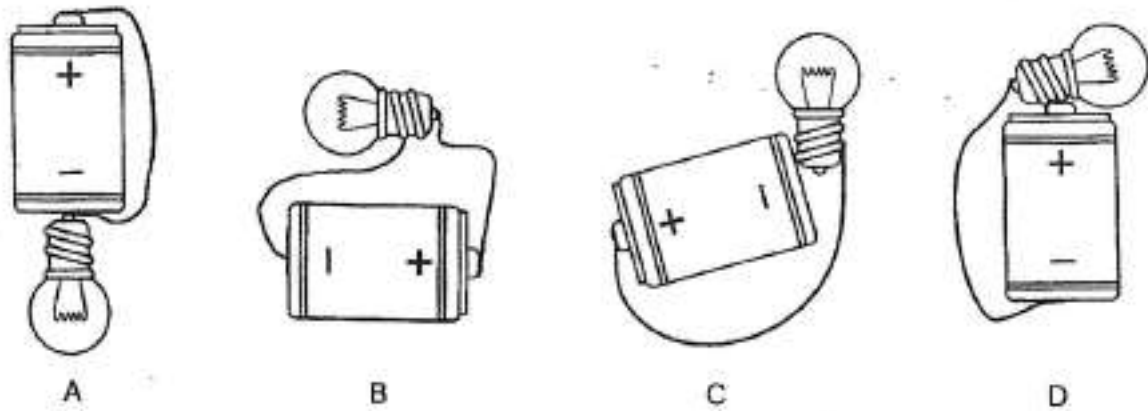
The statements below describe how electricity may be used in homes.

- A Not touching the switch with your wet hands.
- B Not attaching too many plugs into a power socket.
- C Repairing any damaged wires yourself as soon as possible.

Which of the statement(s) above is/are statements that describe how electricity can be used safely?

- A) A only
- B) A and B only
- C) B and C only
- D) A, B and C

The diagrams below show different arrangements of a battery, a bulb and some copper wires. All components are in working condition.



In which circuit(s) above will the bulb light up?

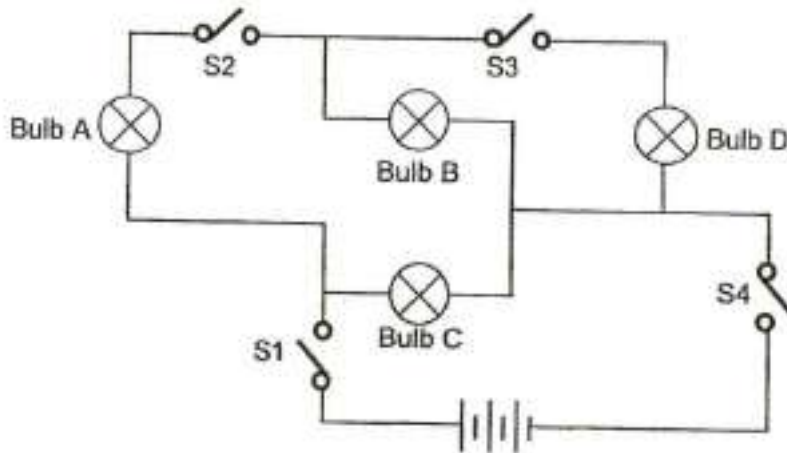
- A) B only
- B) B and D only
- C) A, B and D only
- D) A, B, C and D

Which of the following statements below are the possible reasons for us to conserve electricity?

- A Fossil fuels that are needed to generate electricity is limited.
- B There is not enough electricity generated for everyone to use.
- C Burning fossil fuels to generate electricity pollutes the environment.
- D Using too much electricity may cause an electrical fire even if we install circuit breakers and fuses in our home.

- A) A and B only
- B) A and C only
- C) C and D only
- D) A, B, C and D

The diagram below shows an electrical circuit where all the components in it are in working condition.



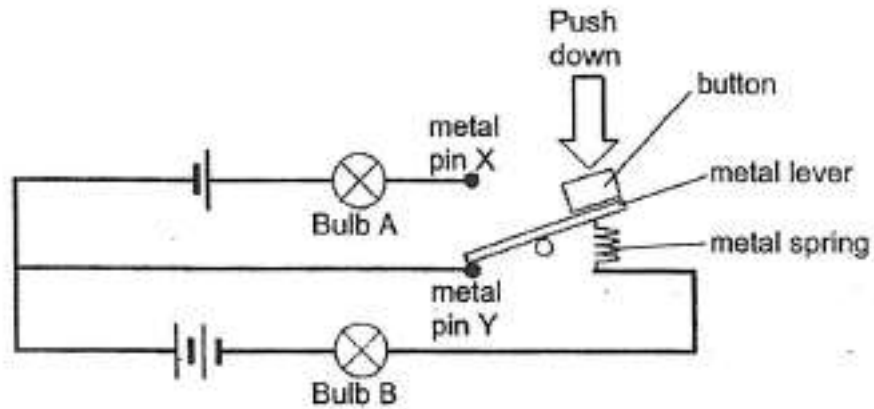
Bobby closed some switch(es) at a time and observed whether the bulbs lit up. He recorded his actions and observations in the table below.

Actions	Description of action: Switch(es) that are closed	Observation: Bulbs that lighted up
X	S3	B and D only
Y	S1, S2 and S4	A, B and C only
Z	S1 and S4	C and D only

Which combination(s) of actions will likely produce the correct observation(s) as recorded in the table above?

- A) X only
- B) Y only
- C) Y and Z only
- D) X, Y and X

The electric circuit in the diagram below consists of two identical bulbs and three identical batteries. All the components of the circuit are in working condition. At first, only Bulb B was lit with a brightness of 10 units while Bulb A was unlit. When the button was pushed downwards as shown by the arrow, the metal lever moved upwards to touch metal pin X and both bulbs were lit up.



What would be the brightness of Bulb A and B when the button was pushed down?

- A)

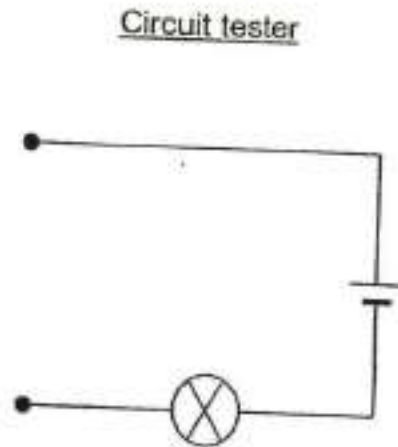
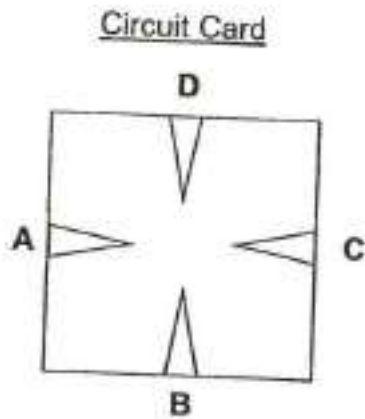
Bulb A	Bulb B
Brighter than 10 units	Brighter than 10 units
- B)

Bulb A	Bulb B
Dimmer than 10 units	10 units
- C)

Bulb A	Bulb B
Dimmer than 10 units	Dimmer than 10 units
- D)

Bulb A	Bulb B
10 units	10 units

James tested the circuit card below with a circuit tester.

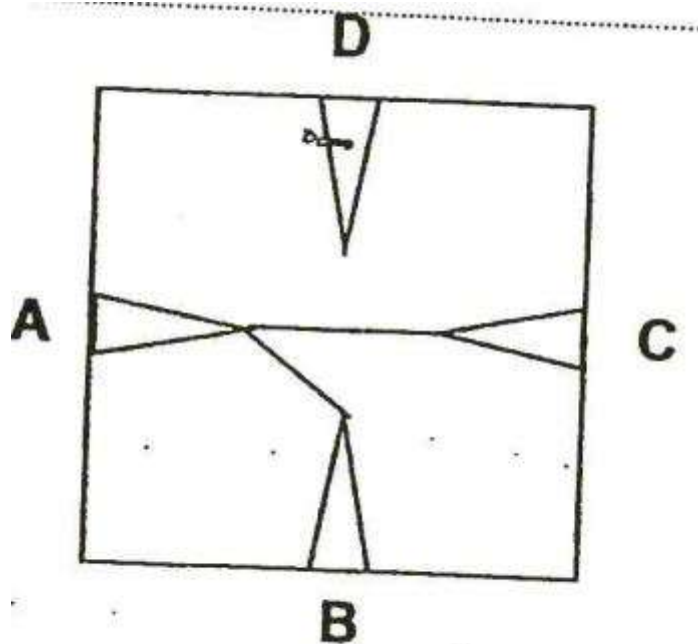


He recorded the results in the table below.

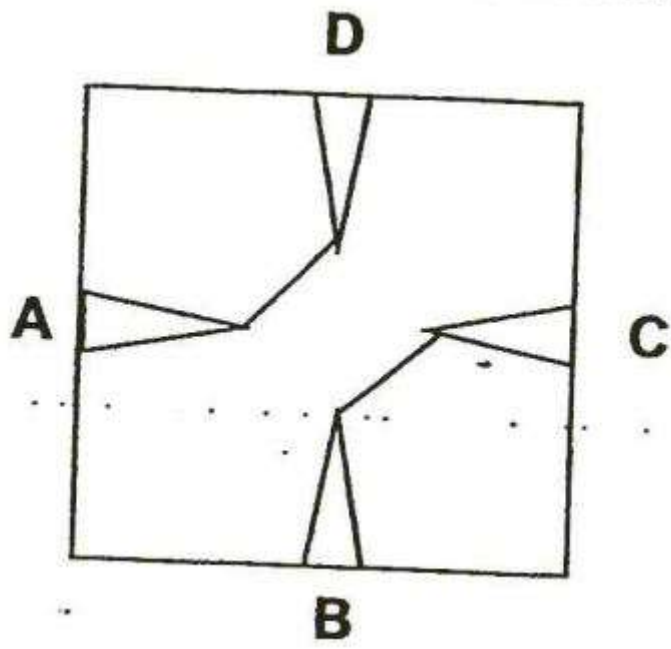
Points tested	Does the bulb light up?
A and B	No
B and C	Yes
C and D	Yes
D and A	No

Which one of the following circuit cards shows the correct arrangement of the wires?

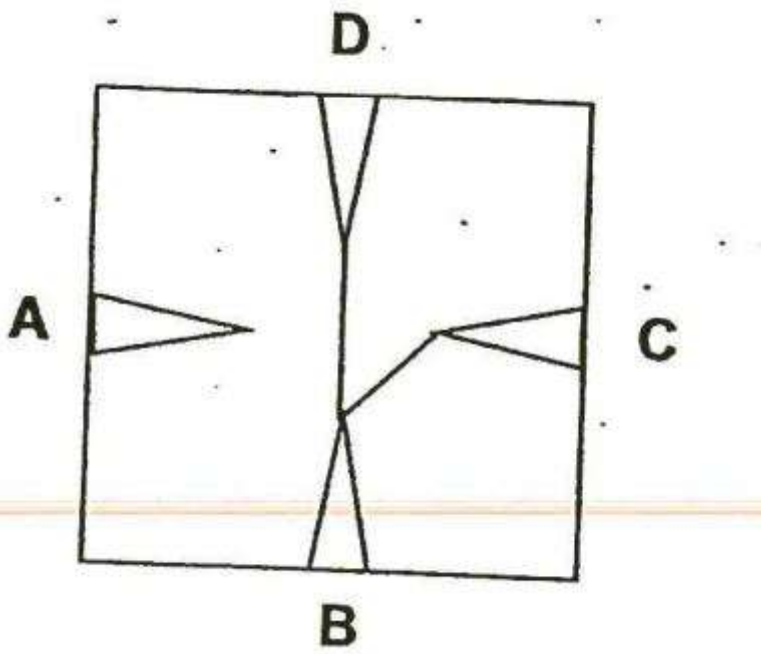
A)



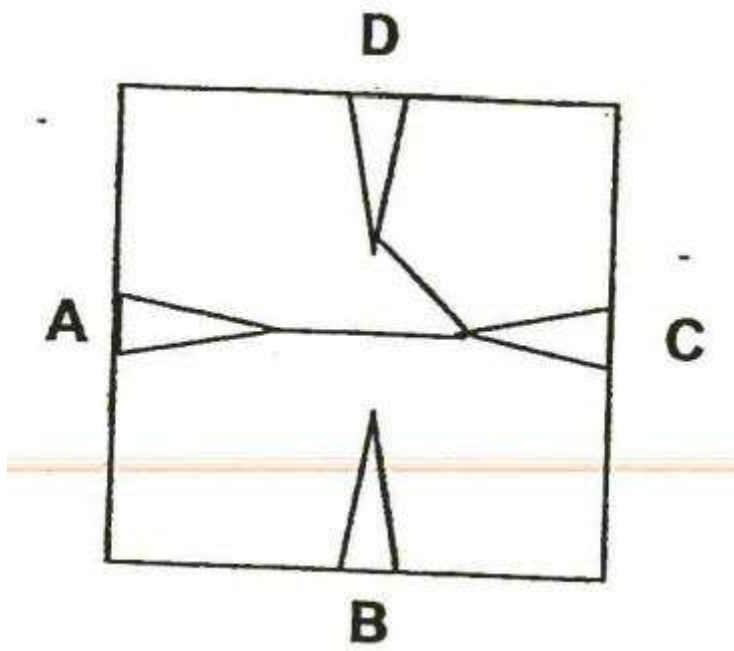
B)



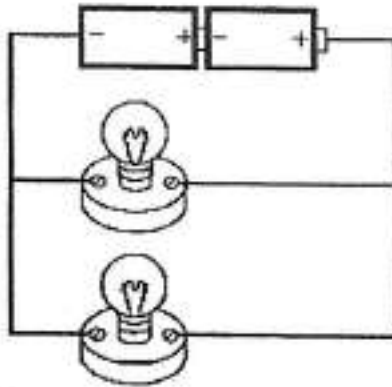
C)



D)

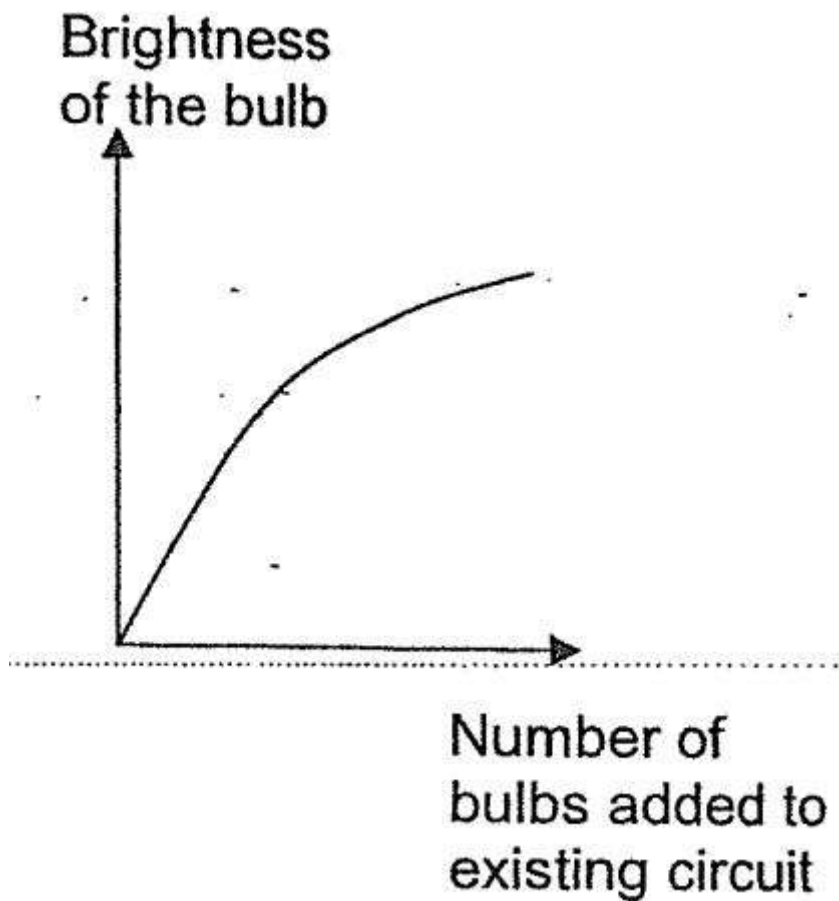


Study the electric circuit shown below carefully. All components of the circuit are in working condition.



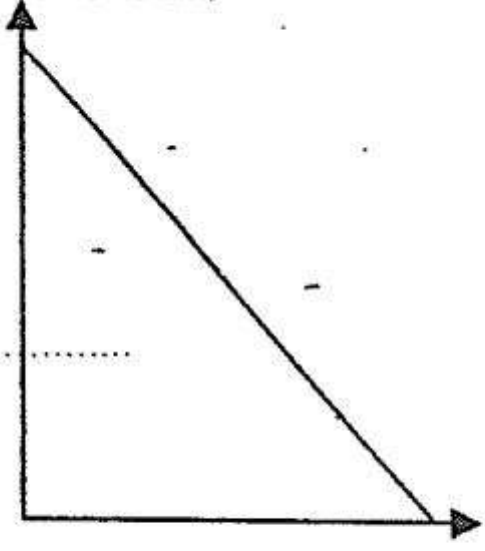
Which one of the following graphs best represents the brightness of all the bulbs when more bulbs are added in parallel to the existing electric circuit above?

A)



B)

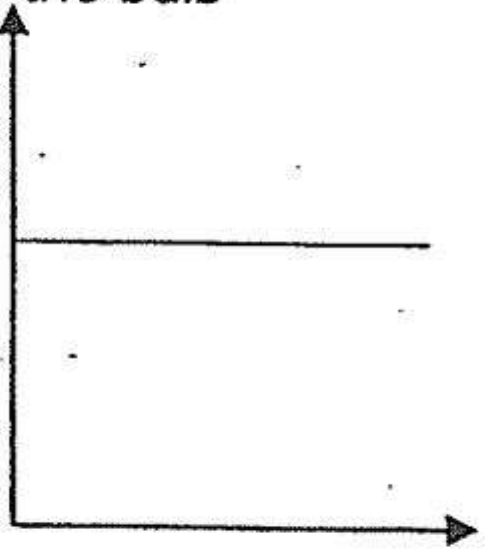
Brightness of the bulb



Number of bulbs added to existing circuit

C)

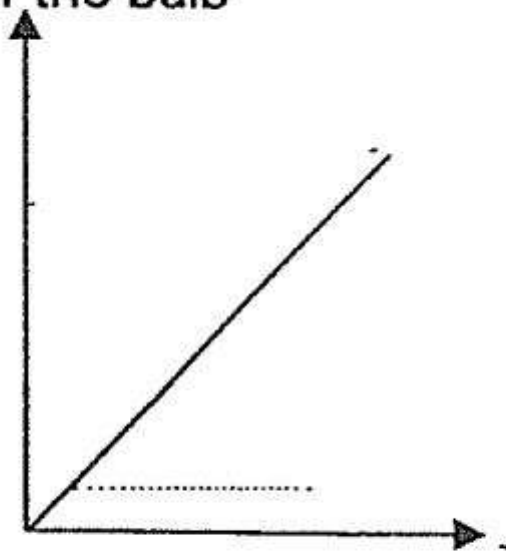
Brightness of the bulb



Number of bulbs added to existing circuit

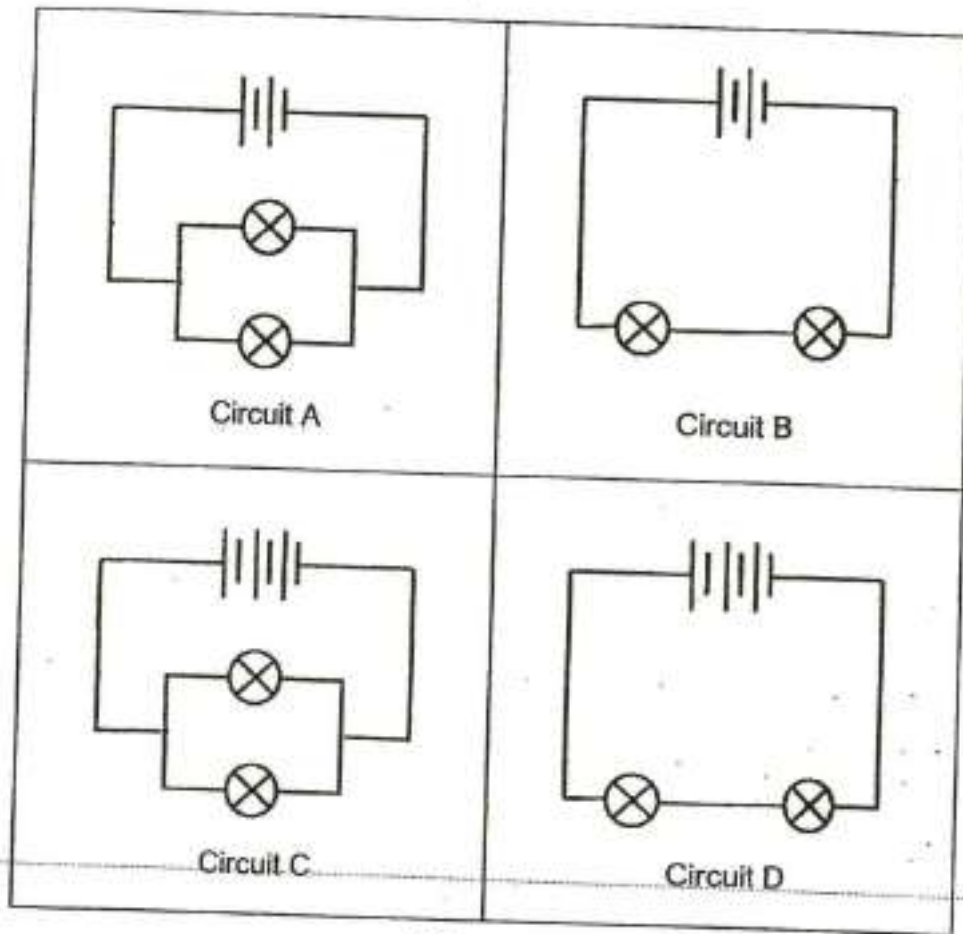
D)

Brightness
of the bulb



Number of
bulbs added to
existing circuit

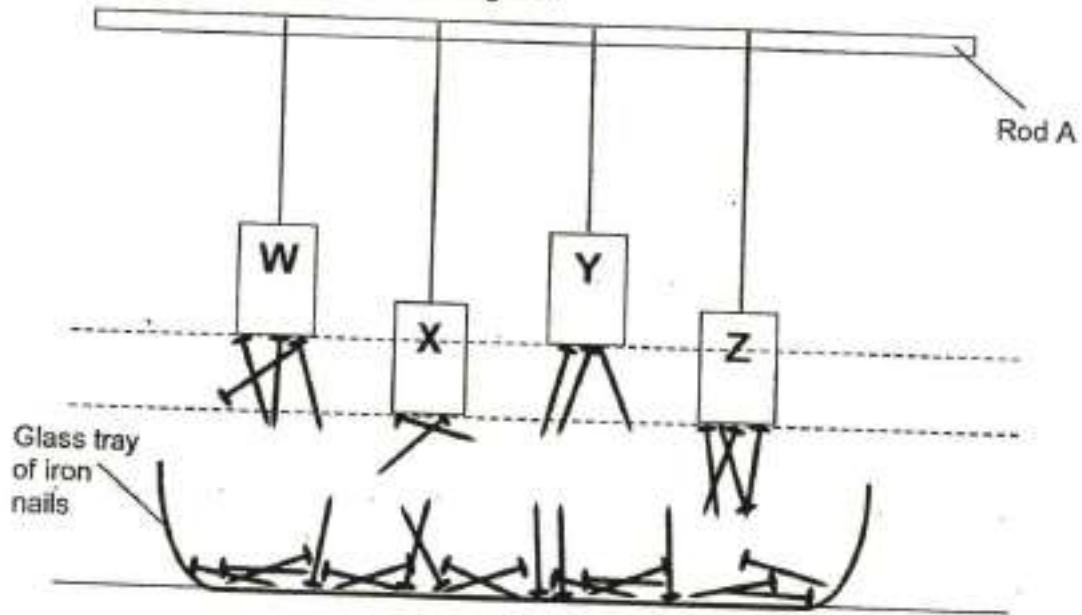
Study the four electric circuits A, B, C and D shown below. The bulbs and the batteries in the four electric circuits are identical and in working condition. All the bulbs in the four electric circuits lit up.



Which one of the following sequences correctly shows the brightness of the bulbs arranged from the dimmest to the brightest?

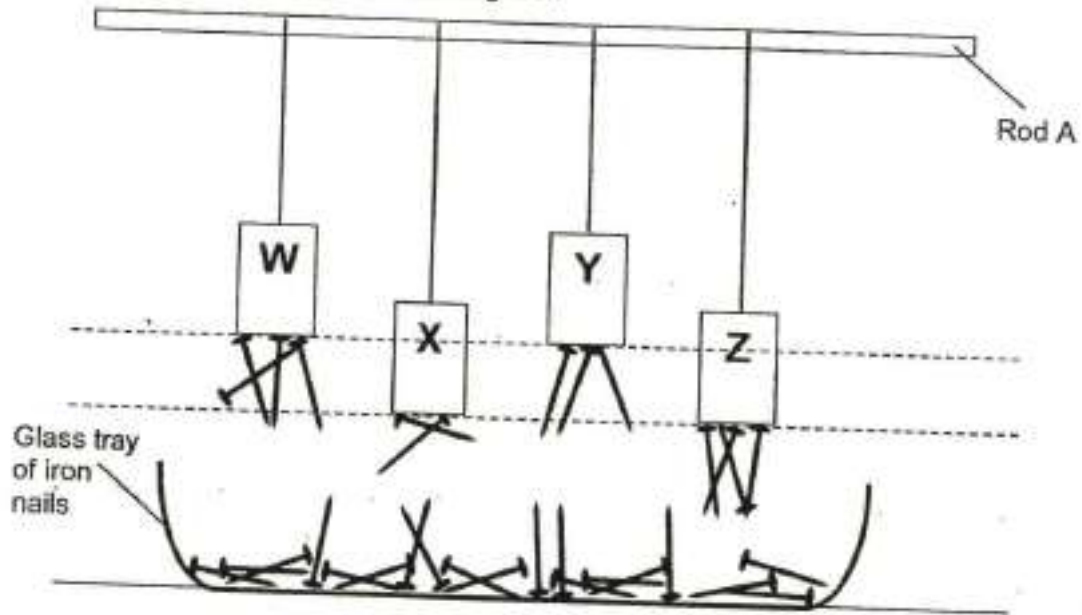
- A) B, C, A, D
- B) B, D, A, C
- C) D, C, A, B
- D) D, B, C, A

W, X, Y and Z are magnets hanging from Rod A as shown in the diagram below. A glass tray of iron nails was placed below the magnets.



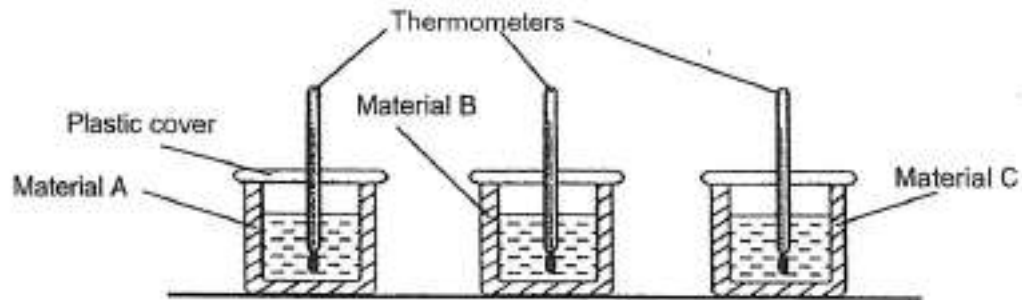
From the results shown above, which is the weakest magnet? Give a reason for your answer.

W, X, Y and Z are magnets hanging from Rod A as shown in the diagram below. A glass tray of iron nails was placed below the magnets.



Do magnets W and Z have the same strength? Explain your answer.

Brody set up an experiment using three different materials A, B and C as shown in the diagram below. He placed three identical beakers each filled with 300 ml of water at 90°C into each container of different material as shown in the diagram below.

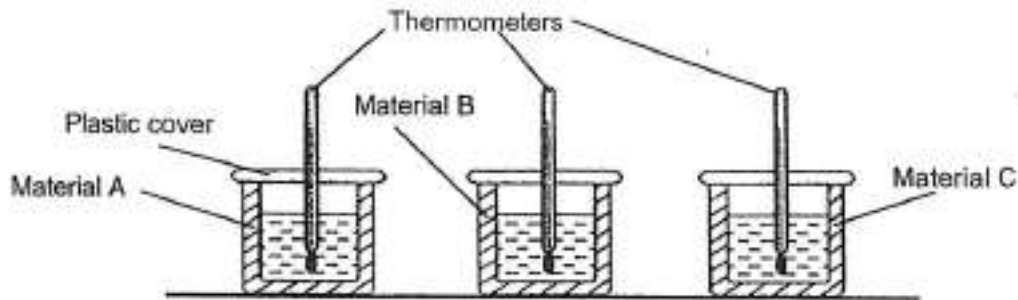


He recorded the duration for the water in each beaker to reach 50°C as shown in the table below.

Material around the beaker	Time taken for water in beaker to reach 50°C (min)
A	22
B	31
C	14

Based on the data above, which material, A, B or C can be used to make a container to keep food warm for the longest period of time? Explain your answer.

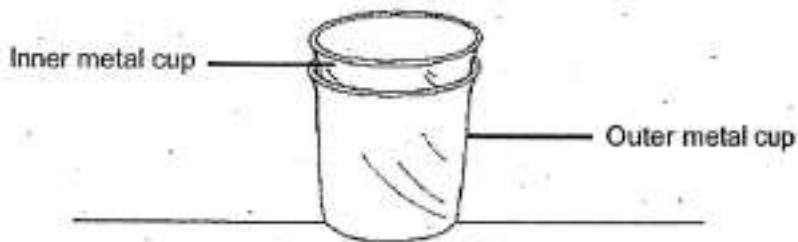
Brody set up an experiment using three different materials A, B and C as shown in the diagram below. He placed three identical beakers each filled with 300 ml of water at 90°C into each container of different material as shown in the diagram below.



He recorded the duration for the water in each beaker to reach 50°C as shown in the table below.

Material around the beaker	Time taken for water in beaker to reach 50°C (min)
A	22
B	31
C	14

Two metal cups were stacked together and became stuck as shown below.



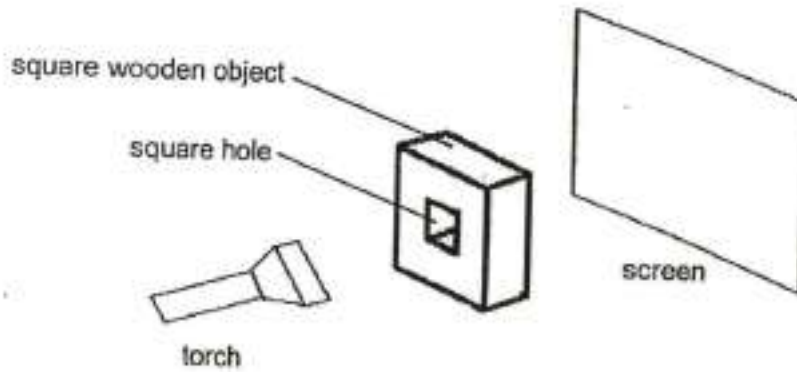
Suggest a method to separate the two metal cups and explain how the method would work.

[2]

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

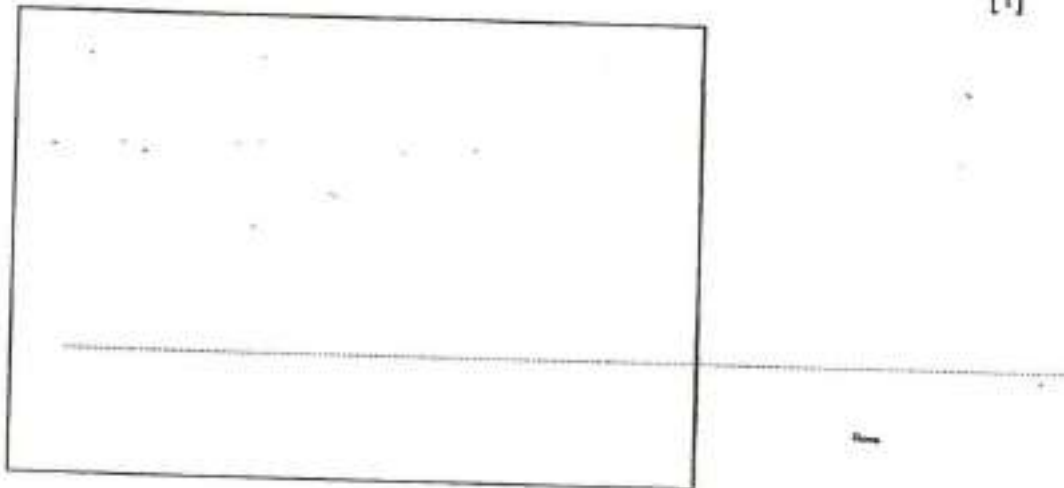
Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Matthew placed a square wooden object with a square hole in the centre between the torch and the screen as shown below.



In the box below, use ruler and pencil to draw and shade completely the shadow that will be formed on the screen.

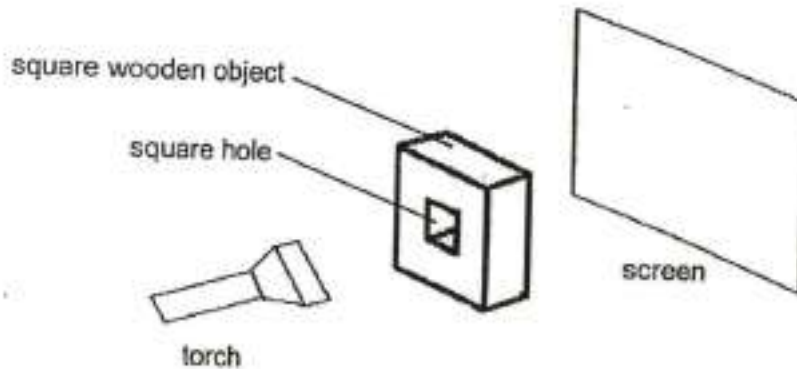
[1]



This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Matthew placed a square wooden object with a square hole in the centre between the torch and the screen as shown below.

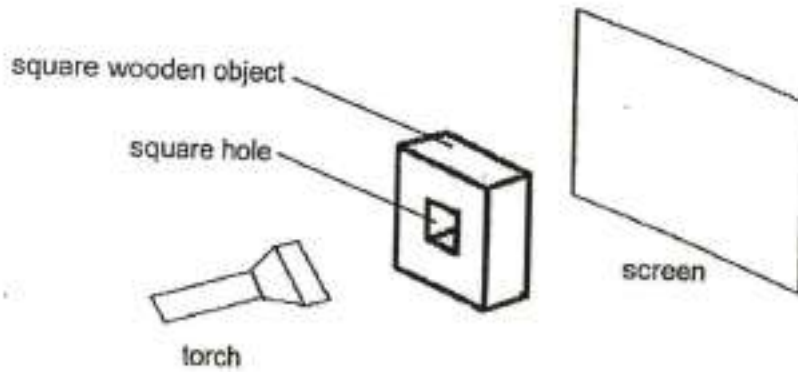


If Matthew would like a bigger shadow to be formed on the screen, what could he do without using bigger objects? (1 mark)

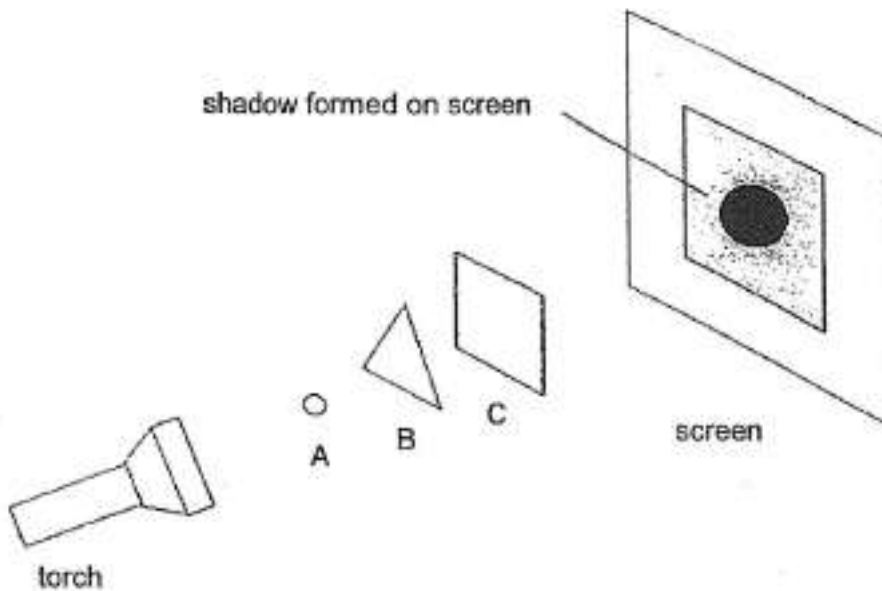
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Matthew placed a square wooden object with a square hole in the centre between the torch and the screen as shown below.



Matthew then replaced the wooden object with three other objects arranged in a straight line in front of the screen as shown below.



What properties should objects A, B and C have in order to form the shadow seen on the screen? Write the letters A, B and C in the correct box. [1]

Property	Object
Allows some light to pass through it.	
Does not allow any light to pass through it.	
Allows most of the light to pass through it.	

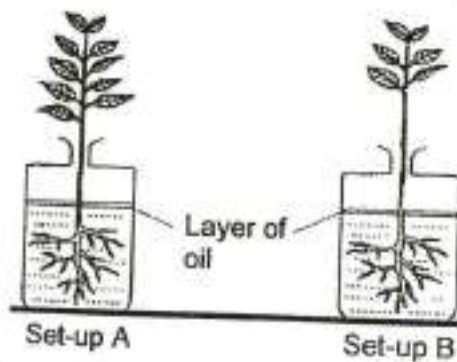
Match the options below:

- | | | |
|--------|--|------|
| 1. [] | Allows some light to pass through it. | A. B |
| 2. [] | Does not allow any light to pass through it. | B. C |
| 3. [] | Allows most of the light to pass through it. | C. A |

Question 36 of 62

Primary 5 Science (Term 2) 0 pts

Bala carried out an experiment to find out how the number of leaves on a plant affects how fast water is transported in it. He used the set-ups below with plants of the same type and size. The plants were put in separate beakers with the same amount of water covered with a layer of oil at the start of the experiment. They were exposed to the same amount of light. He carried out the same experiment three times and found that the results were always similar.



The table below shows Bala's measurements of the amount of water taken up by the plants in one of his experiments.

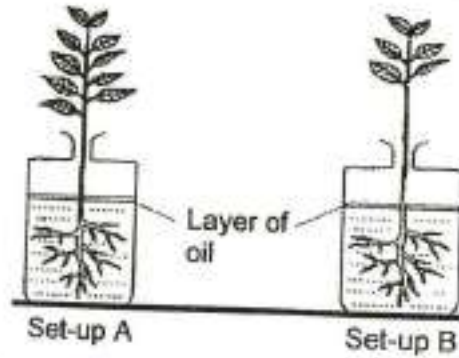
	Amount of water taken up by the plant	
	Set-up A	Set-up B
After a few days	150 ml	90 ml

What can Bala conclude from the results he observed? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Bala carried out an experiment to find out how the number of leaves on a plant affects how fast water is transported in it. He used the set-ups below with plants of the same type and size. The plants were put in separate beakers with the same amount of water covered with a layer of oil at the start of the experiment. They were exposed to the same amount of light. He carried out the same experiment three times and found that the results were always similar.



The table below shows Bala's measurements of the amount of water taken up by the plants in one of his experiments.

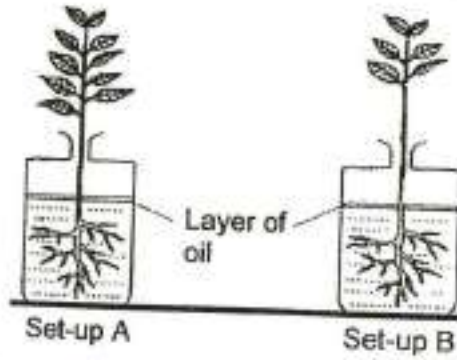
	Amount of water taken up by the plant	
	Set-up A	Set-up B
After a few days	150 ml	90 ml

Why did Bala repeat the same experiment three times? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Bala carried out an experiment to find out how the number of leaves on a plant affects how fast water is transported in it. He used the set-ups below with plants of the same type and size. The plants were put in separate beakers with the same amount of water covered with a layer of oil at the start of the experiment. They were exposed to the same amount of light. He carried out the same experiment three times and found that the results were always similar.

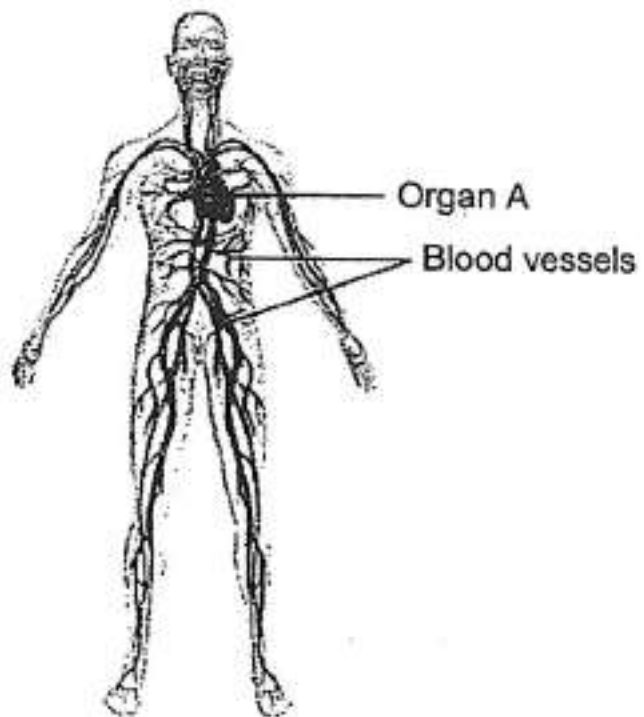


The table below shows Bala's measurements of the amount of water taken up by the plants in one of his experiments.

	Amount of water taken up by the plant	
	Set-up A	Set-up B
After a few days	150 ml	90 ml

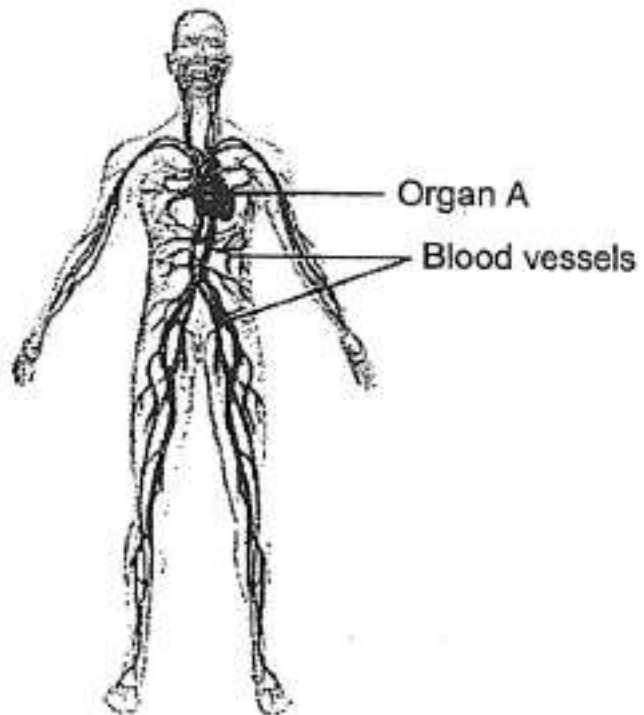
Was the experiment that Bala conducted a fair test? Give reason(s) to support your answer.

The diagram below shows a system of the human body.



What is the name of organ A?

The diagram below shows a system of the human body.

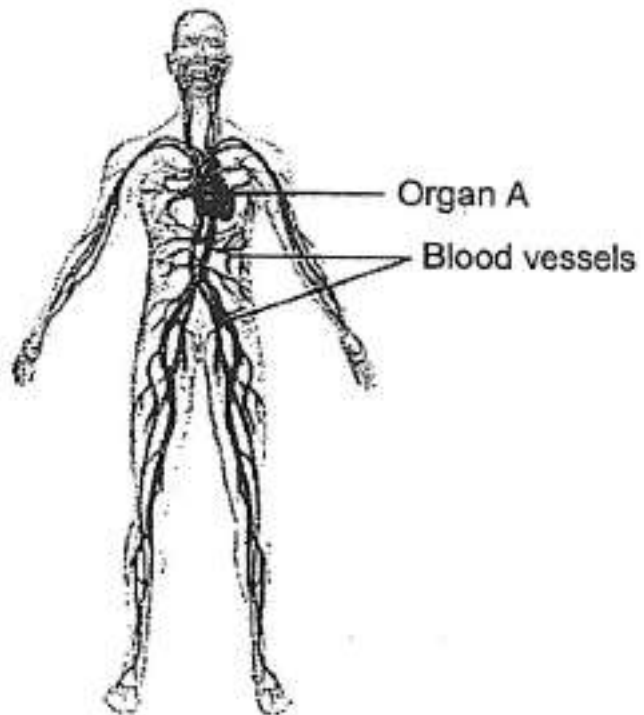


What is the function of organ A? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

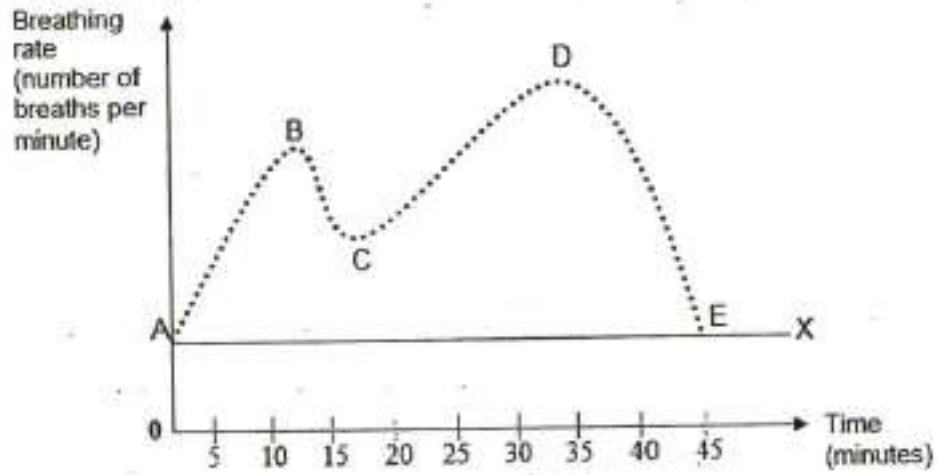
Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

The diagram below shows a system of the human body.



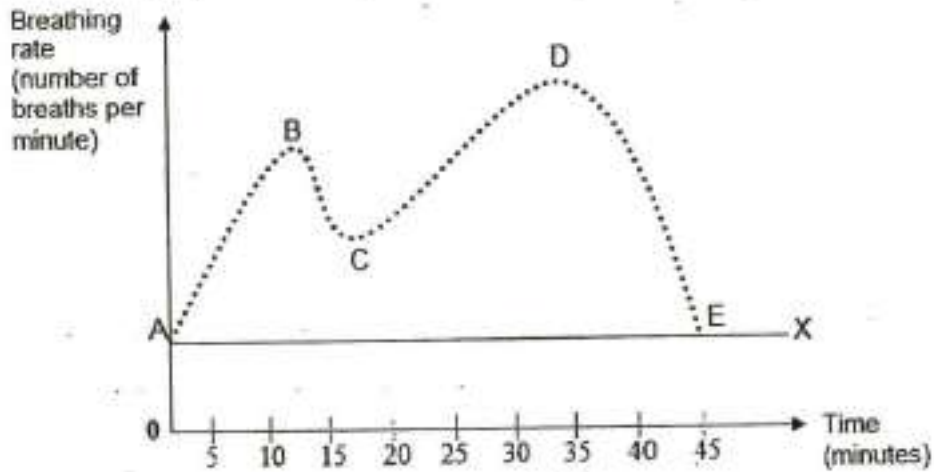
Name two substances transported in the blood?

Naahil recorded his breathing rate throughout his 35 minutes run in the stadium and represented his findings in the graph shown below. He drew line X on the graph to connect points A and E. A represents the point he started running and E represents the point where he left the stadium.



From the graph, identify the point where Naahil is most likely to have the highest heart rate.

Naahil recorded his breathing rate throughout his 35 minutes run in the stadium and represented his findings in the graph shown below. He drew line X on the graph to connect points A and E. A represents the point he started running and E represents the point where he left the stadium.



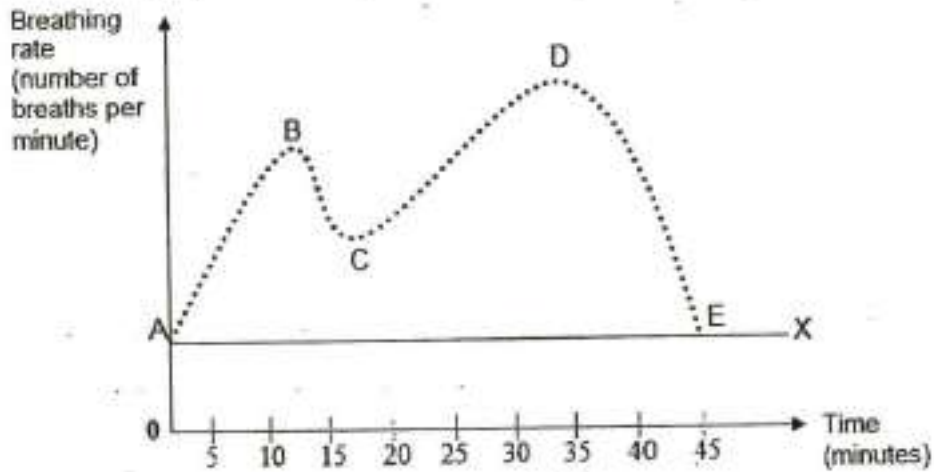
Between points B to D, Naahil does interval training where he slows down in running and then speeds up again. (1 mark)

Question 44 of 62

Primary 5 Science (Term 2)

1 pt

Naahil recorded his breathing rate throughout his 35 minutes run in the stadium and represented his findings in the graph shown below. He drew line X on the graph to connect points A and E. A represents the point he started running and E represents the point where he left the stadium.



After completing his running exercise, how long does it take for his breathing rate to return to normal?

Question 45 of 62

Primary 5 Science (Term 2)

0 pts

The table below is a comparison of the composition of air a human being inhaled and exhaled.

Amount	Inhaled Air	Exhaled Air
Oxygen	High	low
Carbon Dioxide	Low	high
Nitrogen	same as exhaled air	same as inhaled air
Dust particles	Some	none

Explain why the exhaled air is cleaner. (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Question 46 of 62

Primary 5 Science (Term 2) 0 pts

The table below is a comparison of the composition of air a human being inhaled and exhaled.

Amount	Inhaled Air	Exhaled Air
Oxygen	High	low
Carbon Dioxide	Low	high
Nitrogen	same as exhaled air	same as inhaled air
Dust particles	Some	none

Explain why is there no change in the amount of nitrogen in the exhaled and inhaled air? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Question 47 of 62

Primary 5 Science (Term 2) 0 pts

It was observed that the leaves of the mimosa plant folds itself together when touched.



Before being touched



After being touched

What is the characteristics of living things that is being demonstrated by the mimosa plant in the experiment above? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

It was observed that the leaves of the mimosa plant folds itself together when touched.



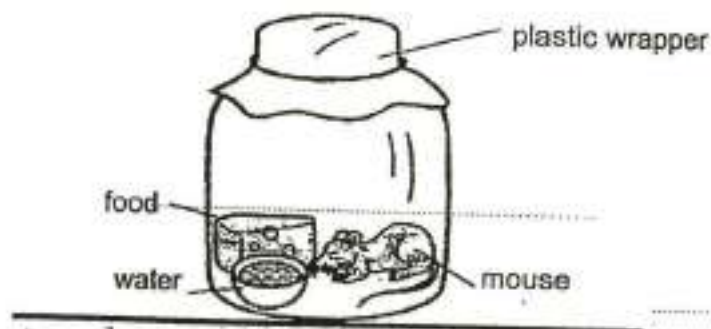
Before being touched



After being touched

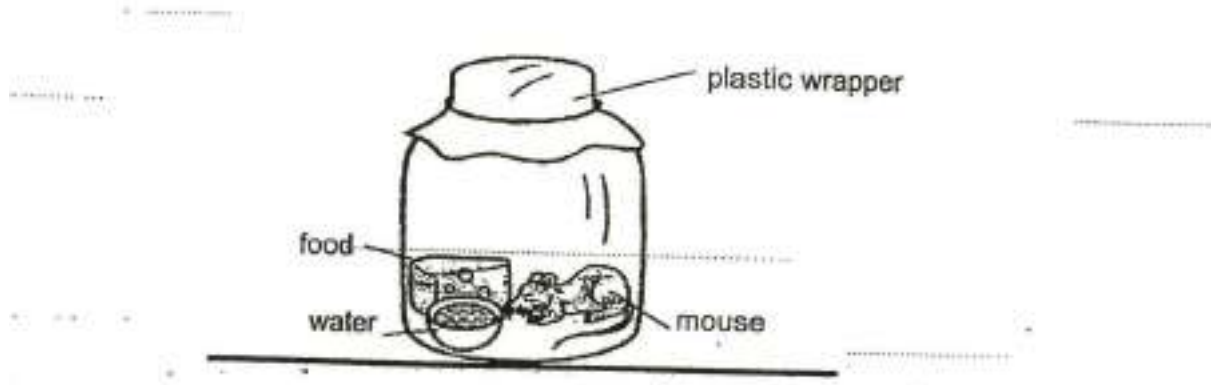
What is the function of the leaves of a mimosa plant?

A healthy mouse was placed in a container as shown in the diagram below. The plastic wrapper covers the opening of the container tightly.



What would happen to the mouse after three days?

A healthy mouse was placed in a container as shown in the diagram below. The plastic wrapper covers the opening of the container tightly.

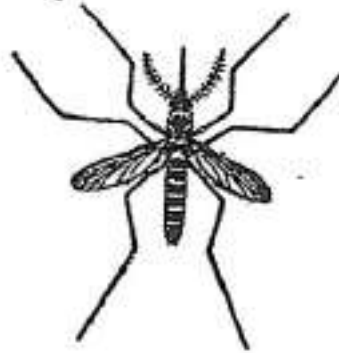


What can be done to prevent what you described in the previous question from happening?
(1 mark)

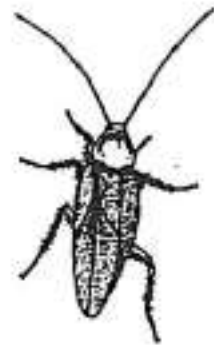
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

The diagrams below show a mosquito and a cockroach.



Mosquito



cockroach

Draw a diagram each to show the stages in the life cycles of a mosquito and a cockroach in the boxes provided below. (Use only words and arrows for your diagram)

[2]

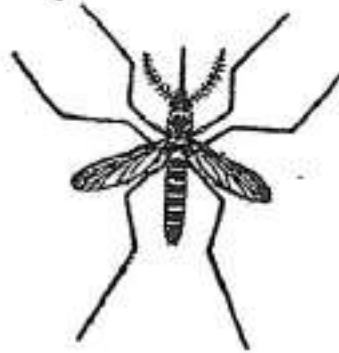
Life cycle of a mosquito
Empty space for drawing the life cycle of a mosquito

Life cycle of a cockroach
Empty space for drawing the life cycle of a cockroach

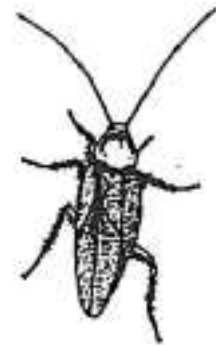
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

The diagrams below show a mosquito and a cockroach.



Mosquito



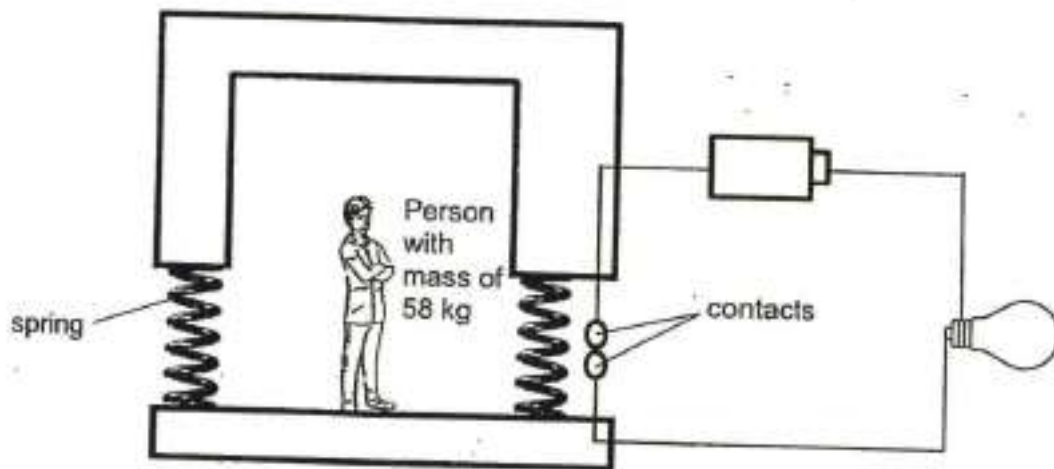
cockroach

Name two differences between the life cycle of a mosquito and a cockroach. (2 marks)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

A safety device as shown below is used to detect if a person has a mass of more than 60 kg or otherwise. The diagram below shows the set-up of this safety device.

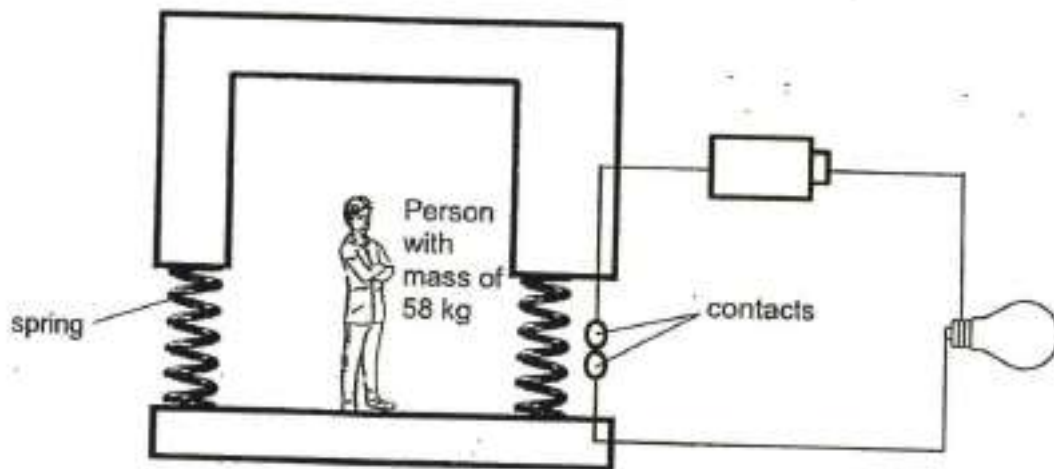


Based on the diagram above, what can be observed about the bulb when a person who is lighter than 60 kg steps on the safety device? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

A safety device as shown below is used to detect if a person has a mass of more than 60 kg or otherwise. The diagram below shows the set-up of this safety device.

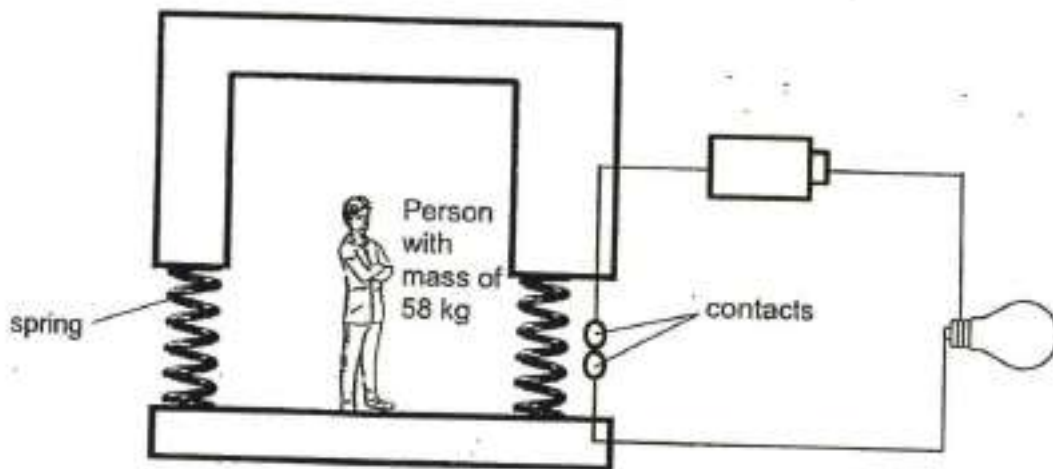


How can the bulb become brighter? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

A safety device as shown below is used to detect if a person has a mass of more than 60 kg or otherwise. The diagram below shows the set-up of this safety device.

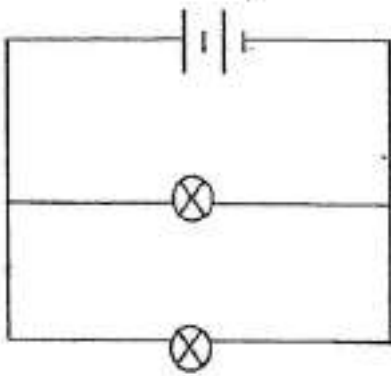


Based on the set-up above, explain how it is used to detect someone who is more than 60 kg in mass. (2 marks)

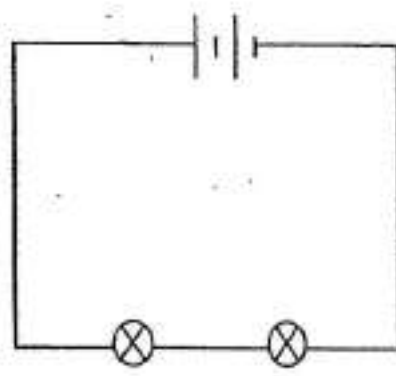
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Study the two electrical circuits A and B below.



Circuit A



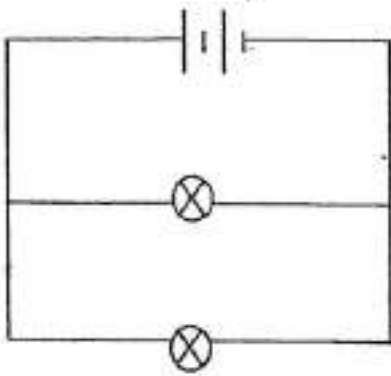
Circuit B

The batteries and bulbs used were identical and in working condition. Compare the brightness of the bulbs in circuits A and B. (1 mark)

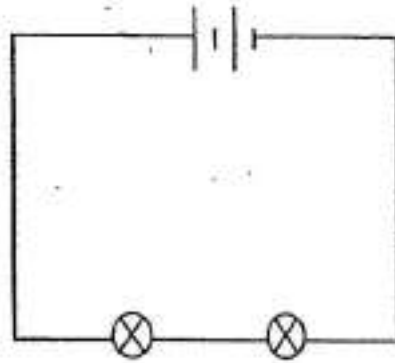
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Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Study the two electrical circuits A and B below.



Circuit A



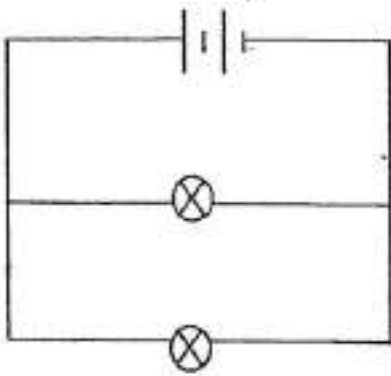
Circuit B

What will happen if one of the bulbs in circuit A fused? (1 mark)

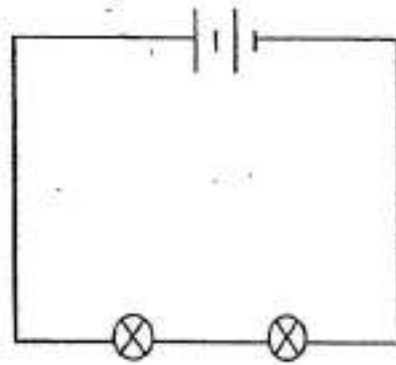
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Study the two electrical circuits A and B below.



Circuit A



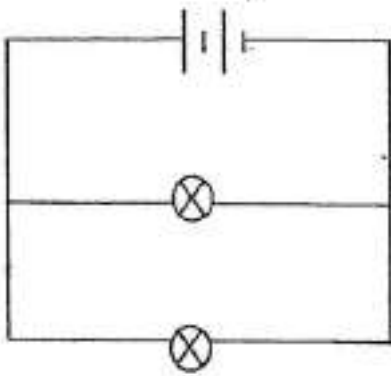
Circuit B

What will happen if one of the bulbs in circuit B fused? (1 mark)

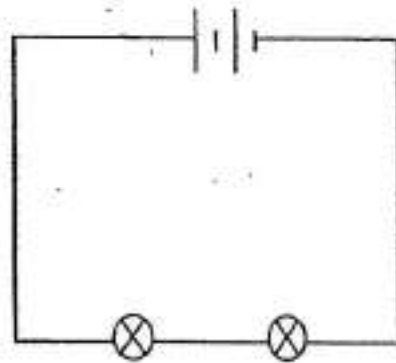
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Study the two electrical circuits A and B below.



Circuit A



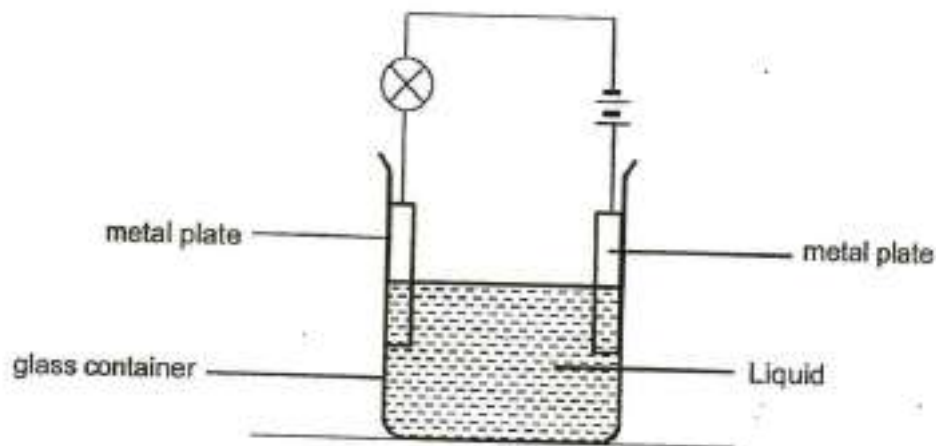
Circuit B

In **circuit A**, draw two crosses (X) to indicate the position of two switches which will allow each individual bulb to be controlled separately from the other. (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Samuel set up an experiment as shown in the diagram below to find out which liquid conducts electricity. The metal plates were separated by the liquid and touching the inner surface of the glass container.



A similar set-up was used every time a new liquid was tested. He recorded whether the bulb lit up in the table shown below.

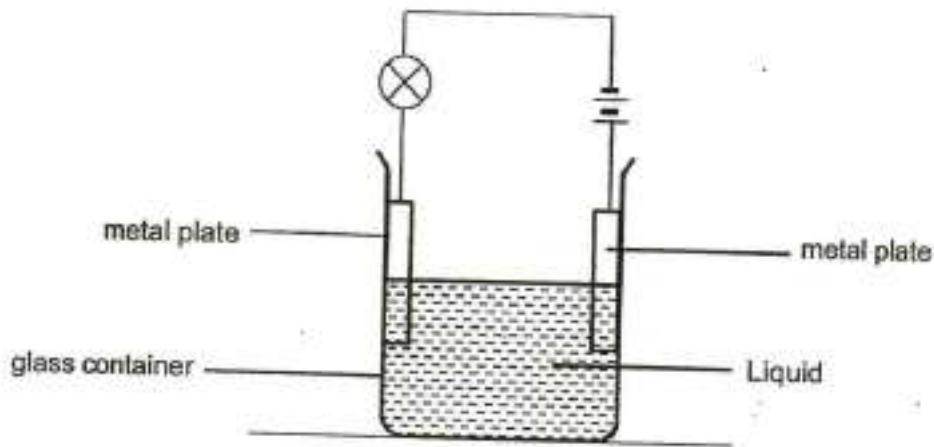
Liquids	Did the bulb light up?
Vinegar	Yes
Seawater	Yes
Cooking oil	No

Samuel inferred from his observation that seawater is a better conductor of electricity than vinegar. What could he have observed to make this inference? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Samuel set up an experiment as shown in the diagram below to find out which liquid conducts electricity. The metal plates were separated by the liquid and touching the inner surface of the glass container.



A similar set-up was used every time a new liquid was tested. He recorded whether the bulb lit up in the table shown below.

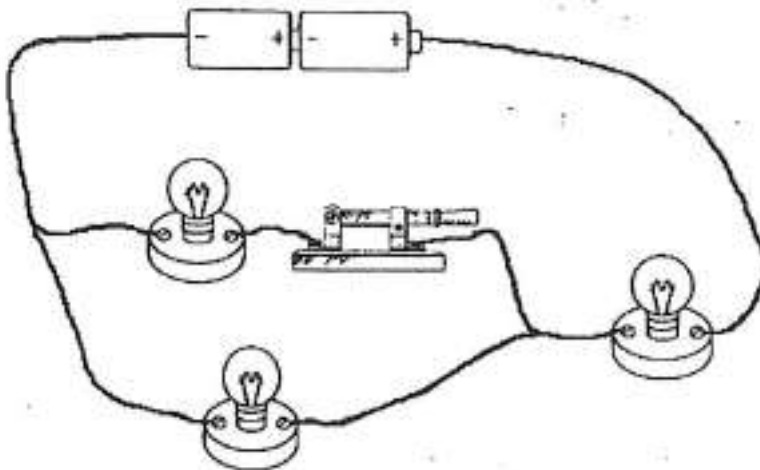
Liquids	Did the bulb light up?
Vinegar	Yes
Seawater	Yes
Cooking oil	No

What will the results show if the glass container is changed to a metal container. Why? (2 marks)

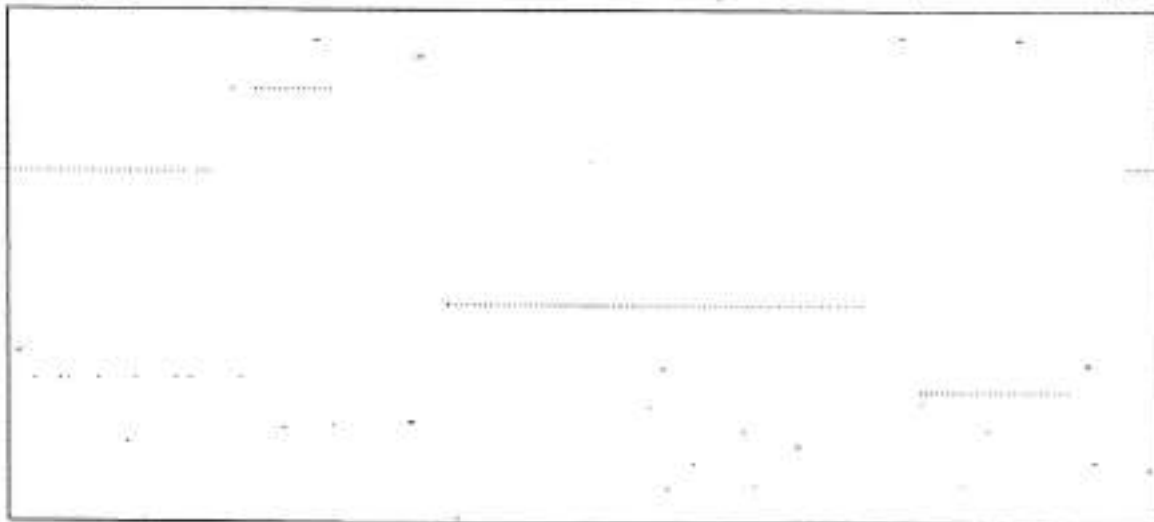
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

The diagram below shows a picture of an electrical circuit.



In the box below, using pencil and ruler, draw the circuit diagram that represents the above electrical circuit. Your diagram must include all the electrical components in the same arrangement as shown in the diagram above. [3]



This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.