

Test: Primary 5 Science (Term 2) - Rosyth

Points: 67 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 65

Primary 5 Science (Term 2) 2 pts

For each question, four options are given. One of them is the correct answer so make your choice (A, B, C or D) and choose the correct answer. (56 marks)

Four pupils Aida, Becky, Candice and Denise stated the importance of nucleus in cells as follows:

Aida: It stores genetic information for cell.

Becky: It allows substances to move within the cell.

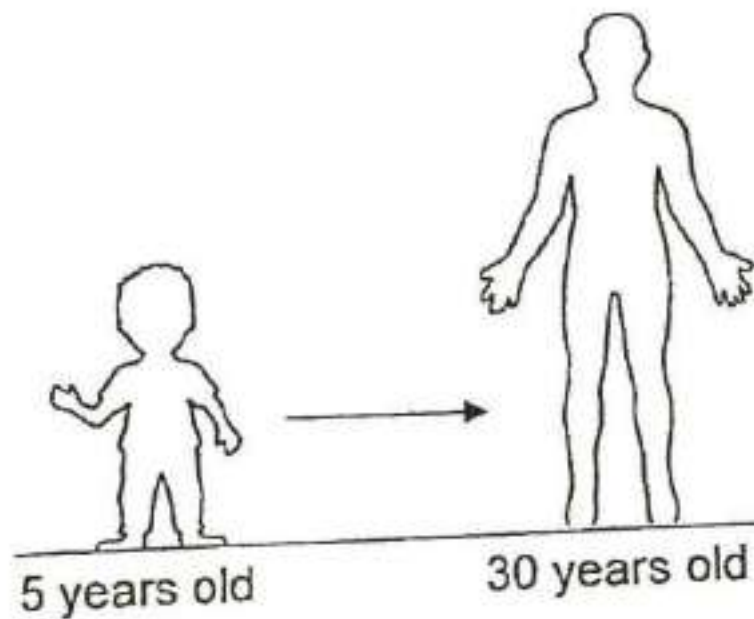
Candice: It controls activities that happen in the cell.

Denise: It controls which substances can enter and leave the cell.

Whose statements are true about nucleus?

-
- A)** Aida and Candice only
- B)** Becky and Denise only
- C)** Candice and Denise only
- D)** Aida and Becky only

The diagram shows the physical growth of a boy.



What has/have caused the growth of the boy?

A: The cells increased in size.

B: The cells increased in number.

C: The cells died and replaced themselves.

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

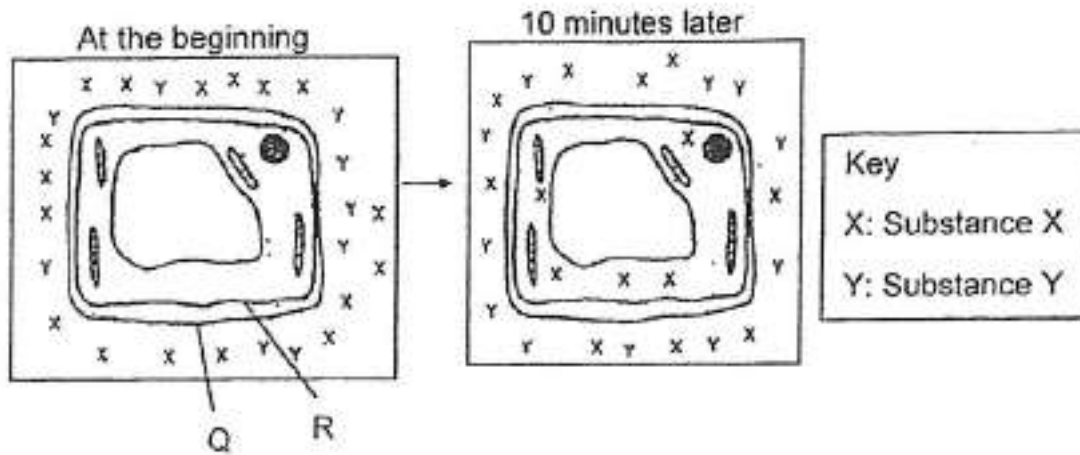
Ellie, Faye and Gwen recorded some parts of cells observed in three different cells as shown below.

	Parts of cells observed
Ellie	cytoplasm, nucleus, chloroplast, cell wall
Faye	cell membrane, cell wall, nucleus
Gwen	cell membrane, cytoplasm, nucleus

Who could have observed plant cells?

-
- A) Ellie only
- B) Gwen only
- C) Ellie and Faye only
- D) Gwen and Faye only

The diagram below shows what happened before and after a cell is placed in a container filled with substances X and Y.



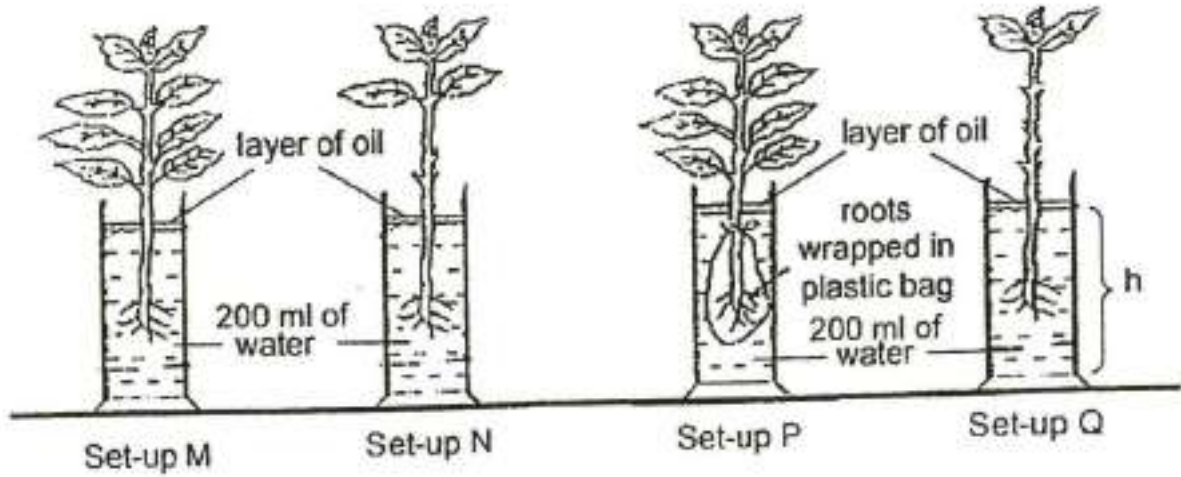
Read the statements below.

- A: Part Q maintains the shape of the cell.
- B: Part Q stops Substance X from entering the cell.
- C: Part R stops Substance Y from entering the cell.

Which is/are the following statement(s) can be determined by the above diagram?

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

Polly placed four plants of the same type in identical jars, each containing 200 ml water at the same level as shown below. She then placed the four set-ups, M, N, P and Q, next to the window for an hour. At the end of the experiment, Polly measured the height of water, h , in each jar.



Which of the following shows correctly the height of the water in each of the above set-ups after an hour?

- A) Height of water after an hour (mm)

M	N	P	Q
200	190	180	185

- B) Height of water after an hour (mm)

M	N	P	Q
190	185	200	180

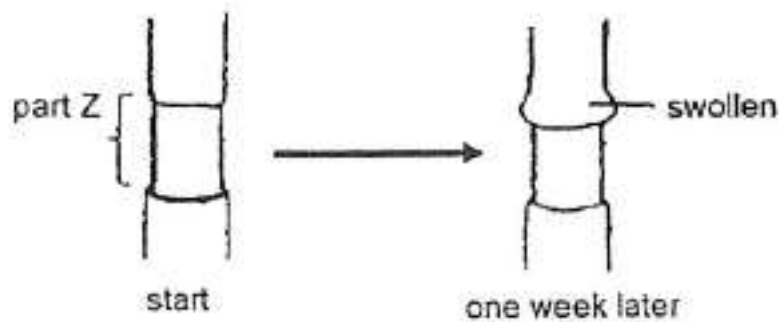
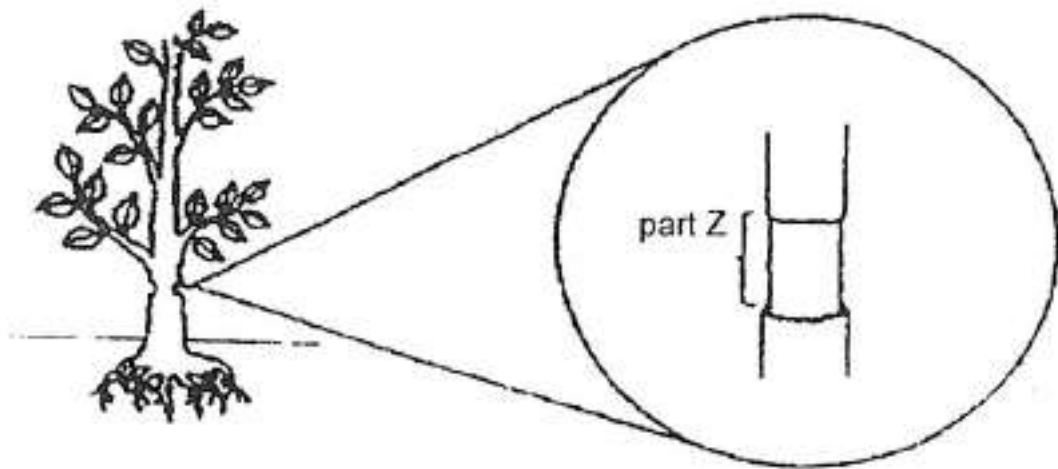
- C) Height of water after an hour (mm)

M	N	P	Q
185	180	190	200

- D) Height of water after an hour (mm)

M	N	P	Q
180	185	200	190

Jane removed the outer ring of a plant at part Z. After one week, she observed a swollen part above part Z.



Which tube was removed and what was the correct explanation for her observation?

- A)

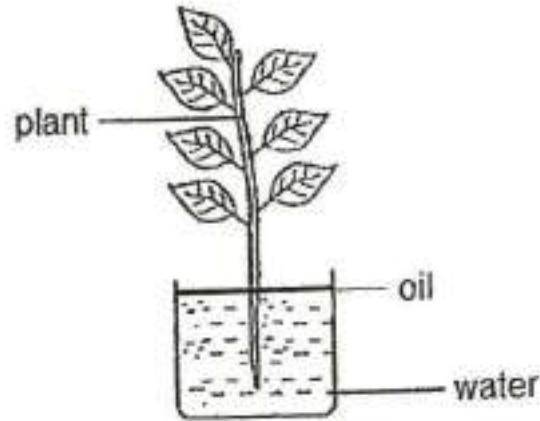
Tube Removed	Explanation
Food-carrying	Food from the leaves was not able to be transported downwards
- B)

Tube Removed	Explanation
Food-carrying	Food from the leaves was not able to be transported upwards
- C)

Tube Removed	Explanation
Water-carrying	Water from the roots was not able to be transported upwards
- D)

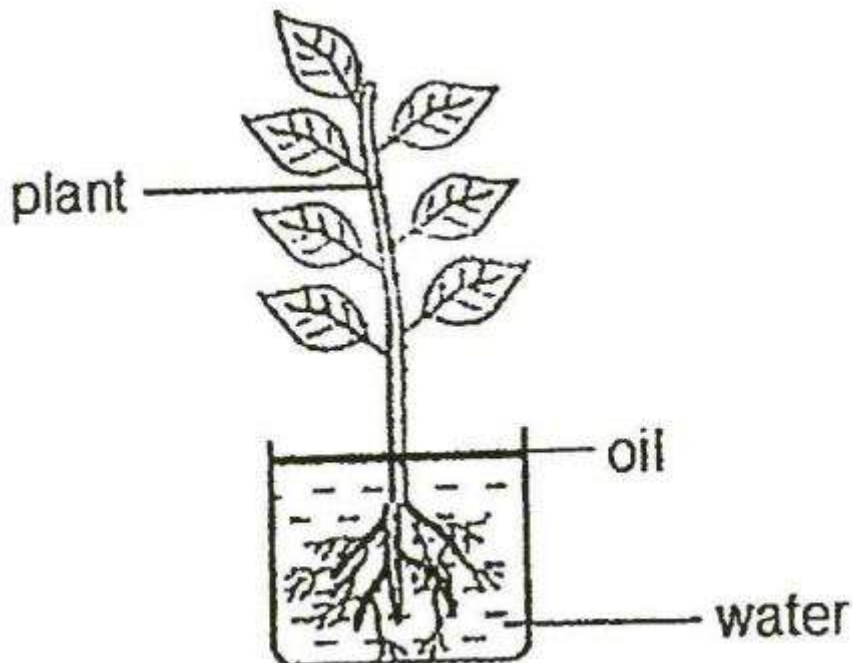
Tube Removed	Explanation
Water-carrying	Water from the leaves was not able to be transported downwards

Mary wanted to find out if plants take in water through their roots. She has prepared the set-up below.

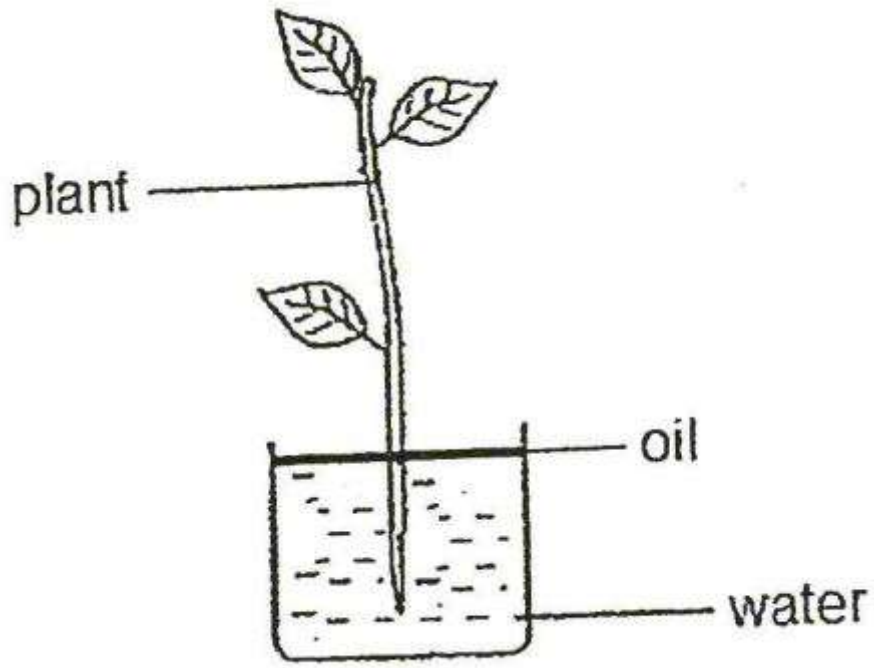


Which one of the following should Mary use as a control set-up for her experiment?

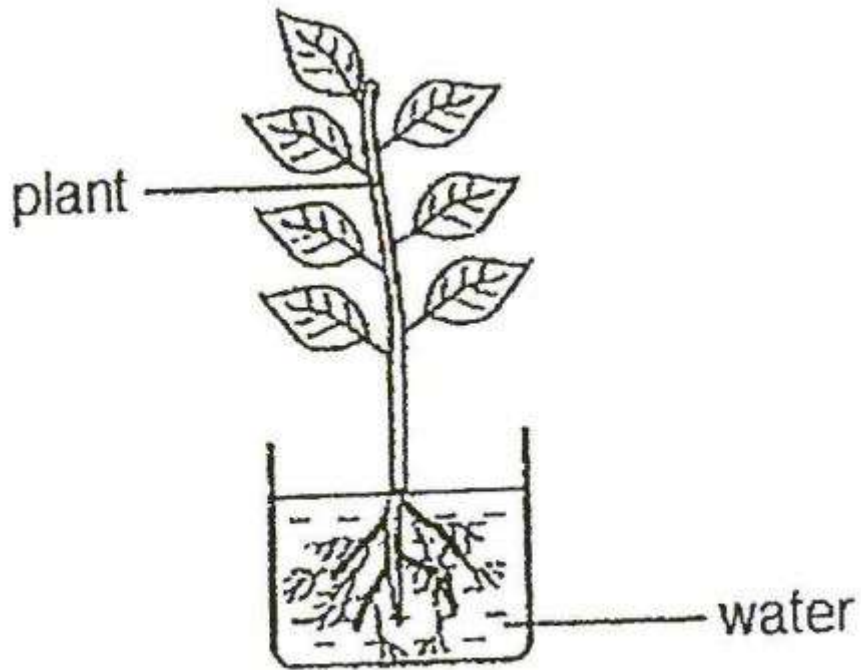
A)



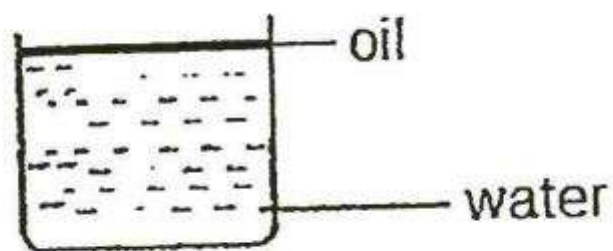
B)



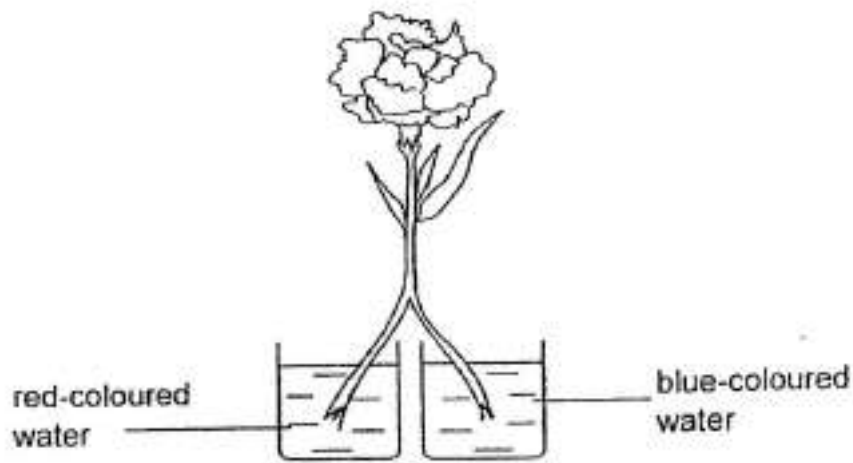
c)



d)



Jialing cut a stalk of a white carnation and placed it in two separate beakers of red-coloured and blue-coloured water as shown below.

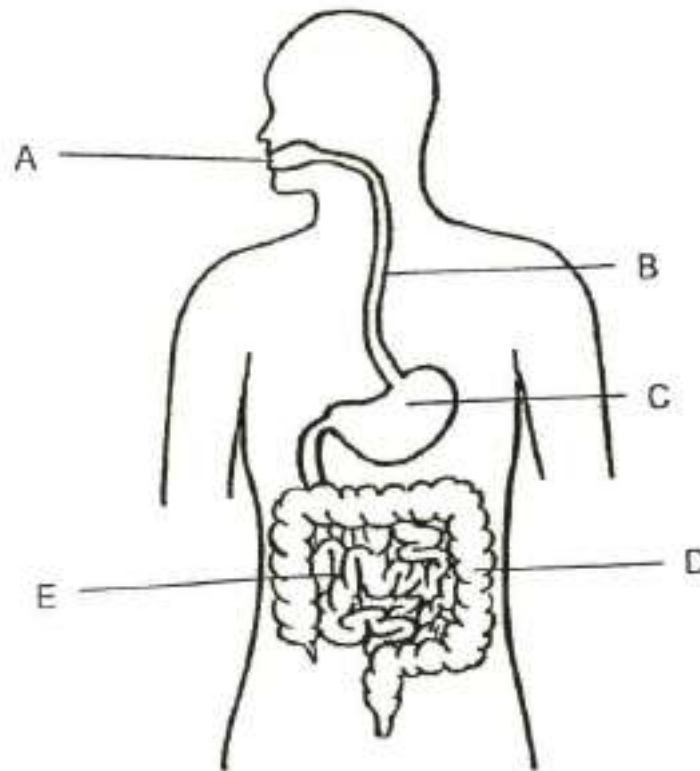


She left the stalk overnight. The next morning, one half of the flower became blue and the other half became red.

What can she conclude from the above experiment?

-
- A) There is only one water-carrying tube in the stem.
 - B) There is more than one water-carrying tube in the stem.
 - C) Cutting the stalk into half removed all the food-carrying tube.
 - D) Cutting the stalk into half caused the food-carrying tube to carry water too.

The diagram below shows the digestive system of a human body.



Based on the diagram above, which of the following correctly matches the parts of the human digestive system with their functions?

- A) Parts of the human digestive system where

digestion takes place	absorptions of digested food takes place	absorption of water takes place
A, C	E	D

- B) Parts of the human digestive system where

digestion takes place	absorption of digested food takes place	absorption of water takes place
B, C, E	D	A

- C) Parts of the human digestive system where

digestion takes place	absorption of digested food takes place	absorption of water takes place
A, C, E	E	D

- D) Parts of the human digestive system where

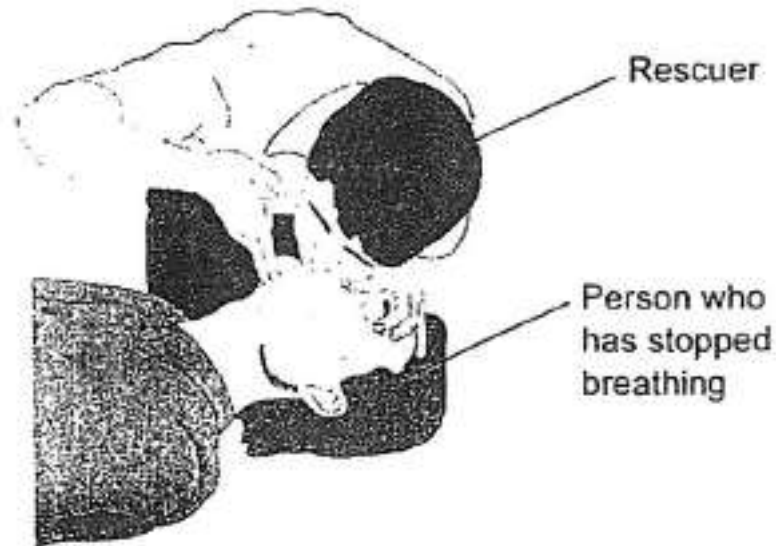
digestion takes place	absorptions of digested food takes place	absorption of water takes place

Question 10 of 65

Primary 5 Science (Term 2)

2 pts

An emergency procedure called mouth-to-mouth resuscitation is carried out on a person who has stopped breathing. In this procedure, the rescuer helps to keep the person alive by blowing exhaled air into the person's lungs.



Why does the rescuer blow exhaled air into the person's lungs?

- A) Exhaled air contains some heat needed by the lungs.
- B) Exhaled air contains some oxygen needed by the lungs.
- C) Exhaled air contains some water vapour needed by the lungs.
- D) Exhaled air contains some carbon dioxide needed by the lungs.

Question 11 of 65

Primary 5 Science (Term 2)

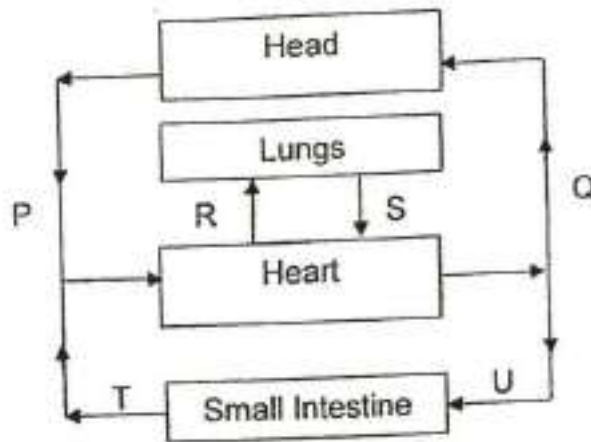
2 pts

Which of the following systems in our body work together to transport oxygen and food around our body?

System A: Circulatory system
System B: Digestive system
System C: Respiratory system
System D: Skeletal system
System E: Muscular system

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

The diagram below shows the movement of blood in the human circulatory system to certain parts of the body.



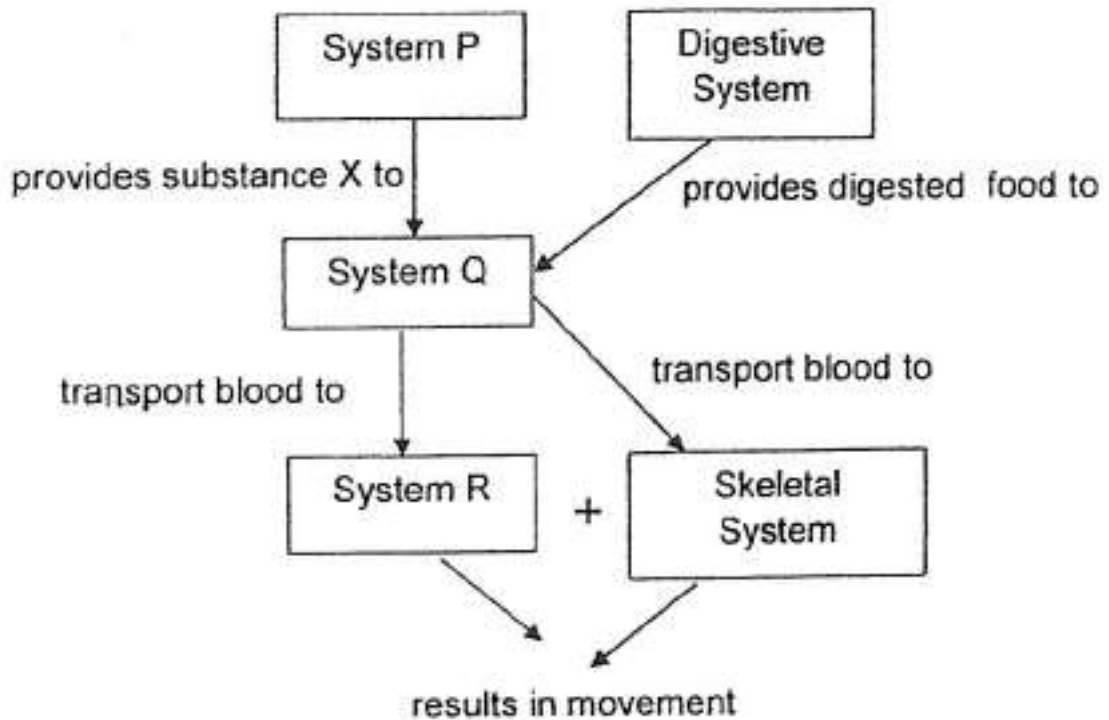
Which one of the following statements correctly describes the amount of substances in the blood in pathways P, Q, R, S, T and U?

- A) Blood in S contains less oxygen than blood in R.
- B) Blood in U has less digested food than blood in T.
- C) Blood in P contains most oxygen than blood in Q.
- D) Blood in Q contains more carbon dioxide than blood in T.

Which one of the following correctly shows the path that oxygen takes when we breathe in by the nose?

- A) Air sacs in lungs --> windpipe --> blood vessels
- B) Windpipe --> blood vessels --> air sacs in lungs
- C) Blood vessels --> air sacs in lungs --> windpipe
- D) Windpipe --> air sacs in lungs --> blood vessels

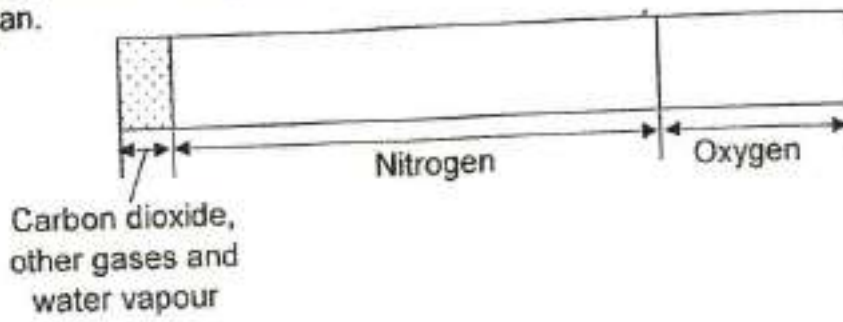
Study the flowchart of the human systems as shown below.



Which systems do P, Q and R represent and what is substance X?

- A)
- | System P | System Q | System R | Substance X |
|--------------------|--------------------|-----------------|-------------|
| circulatory system | respiratory system | muscular system | oxygen |
- B)
- | System P | System Q | System R | Substance X |
|--------------------|--------------------|-----------------|-------------|
| respiratory system | circulatory system | muscular system | oxygen |
- C)
- | System P | System Q | System R | Substance X |
|--------------------|-----------------|--------------------|----------------|
| circulatory system | muscular system | respiratory system | carbon dioxide |
- D)
- | System P | System Q | System R | Substance X |
|--------------------|--------------------|-----------------|----------------|
| respiratory system | circulatory system | muscular system | carbon dioxide |

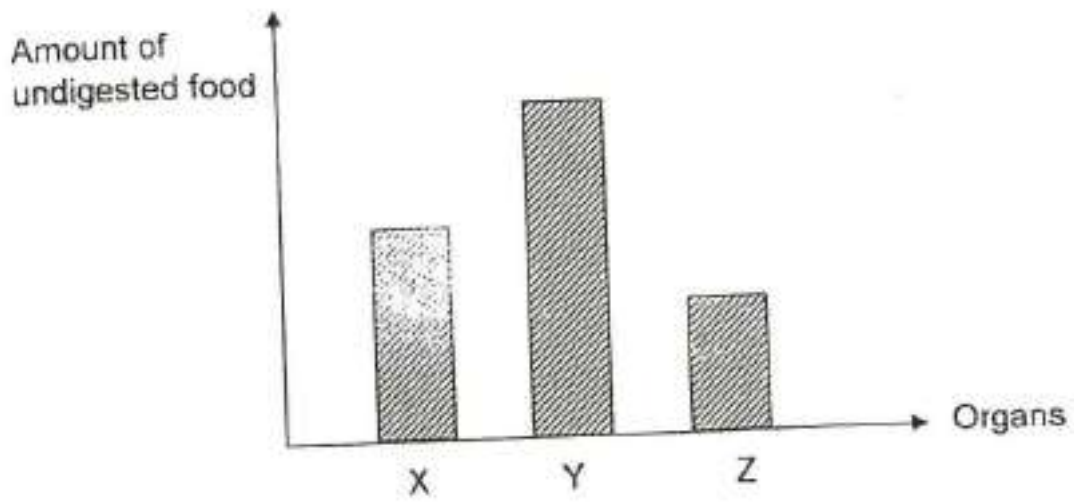
The diagram below represents the composition of gases in the air inhaled by a human.



Which of the following statements are false about the composition of gases in the exhaled air of a human?

- A) Amount of oxygen decreases
- B) Amount of nitrogen remains the same
- C) Amount of all the above gases decrease
- D) Amount of carbon dioxide and other gases increases

The graph below shows the amount of undigested food in organs X, Y and Z of the human digestive system.



If organ Z is the small intestine, what could organs X and Y be?

- A)

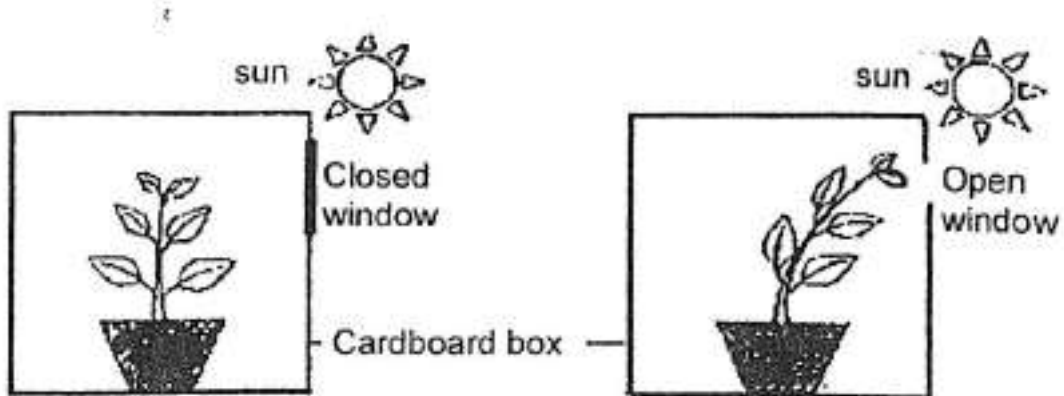
X	Y
Mouth	Stomach
- B)

X	Y
Gullet	Stomach
- C)

X	Y
Stomach	Mouth
- D)

X	Y
Gullet	Large intestine

The diagram below shows two similar plants growing in different conditions.



What does this tell you about living things?

-
- A) Living things can respond to changes.
 - B) Living things can make their own food.
 - C) Living things needs air, food and water.
 - D) Living things can move from places to places by themselves.

Reanne observed some plants in her school garden. Which of the following observations did she make to conclude that the plants were non-flowering?

-
- A) The plants had big leaves.
 - B) The plants had weak stems.
 - C) There were fruits on the plants.
 - D) Spores were found on the underside of the leaves.

Four pupils in a class made the following observation about animals.

Lynn: All mammals have fur or hair.

Macy: All amphibians can live in water and land.

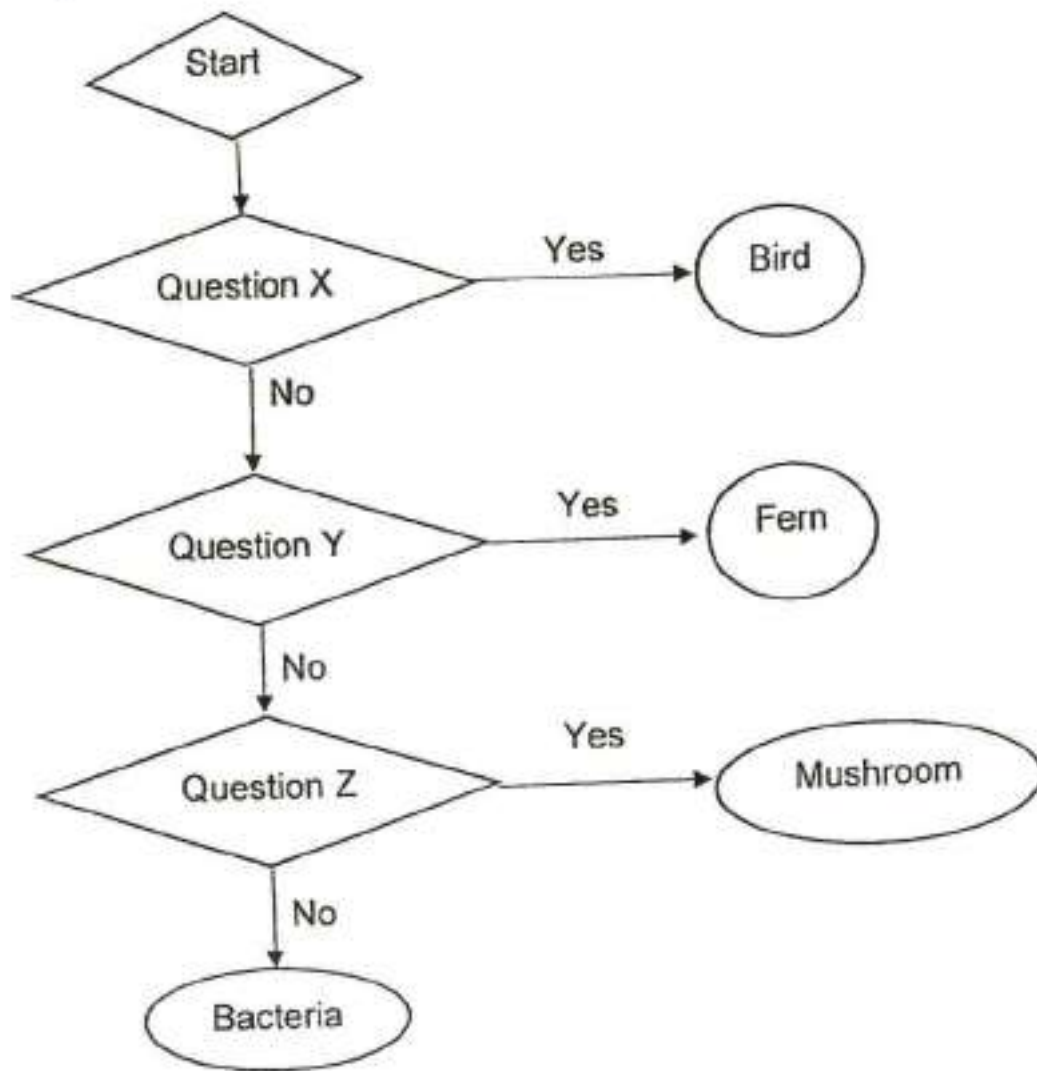
Noel: All birds have a beak, feathers and can fly.

Olivia: Some animals lay eggs while other give birth to young alive.

Whose statements are correct?

- A)** Lynn and Noel only
- B)** Noel and Olivia only
- C)** Lynn, Macy and Olivia only
- D)** Lynn, Macy, Noel and Olivia

Study the flowchart below



Which of the following can be Questions X, Y and Z?

- A)

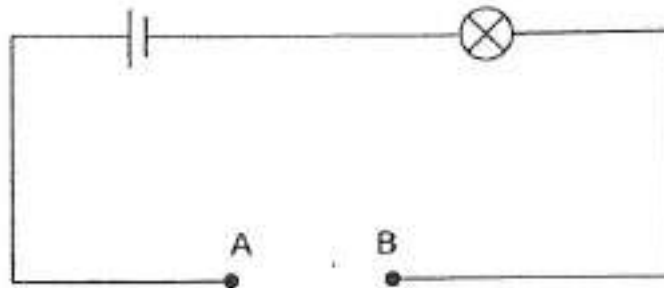
Question X	Question Y	Question Z
Is it an animal?	Does it reproduce by spores?	Does it make its own food?
- B)

Question X	Question Y	Question Z
Does it make its own food?	Is it an animal?	Can it be seen without a microscope?
- C)

Question X	Question Y	Question Z
Can it be seen without a microscope?	Does it make its own food?	Is it an animal?
- D)

Question X	Question Y	Question Z
Is it an animal?	Does it make its own food?	Does it reproduce by spores?

John cut 4 pieces of copper wire, P, Q, R and S, each of different length and thickness. The circuit diagram below shows how he set up the experiment.



He placed each wire at connection points A and B to close the circuit. He observed the brightness of the bulb. Then he recorded his observations in the table below.

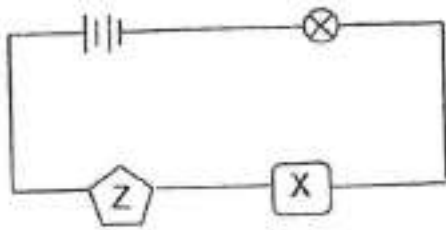
Wire	Length of wire (cm)	Thickness of wire (mm)	Brightness of bulb
P	10	1	Bright
Q	10	2	Very bright
R	20	1	Not bright
S	20	2	Bright

Based on the information given in the table, what can John conclude from his experiment?

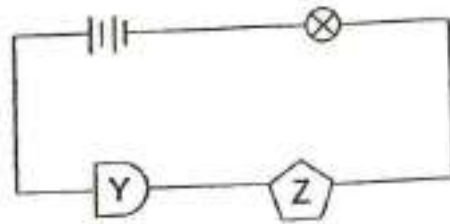
- A: As the length of the wire decreases, the brightness of the bulb increases.
 B: As the length of the wire decreases, the brightness of the bulb decreases.
 C: As the thickness of the wire increases, the brightness of the bulb increases.
 D: As the thickness of the wire increases, the brightness of the bulb decreases.

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

Jacob set up the circuits below using a bulb, 2 batteries and 3 objects X, Y and Z.

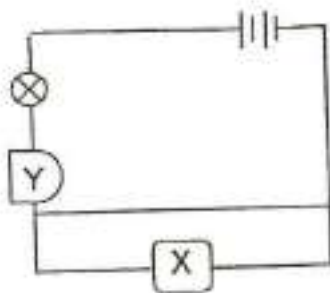


Bulb lights up

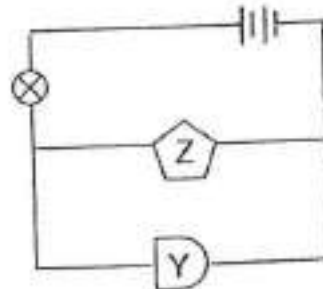


Bulb does not light up

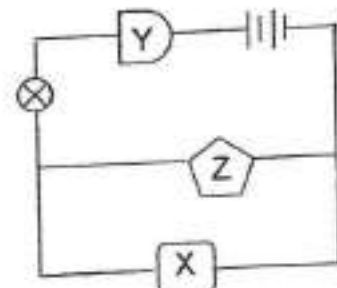
He used the objects X, Y and Z again to form the circuits below.



Circuit A



Circuit B

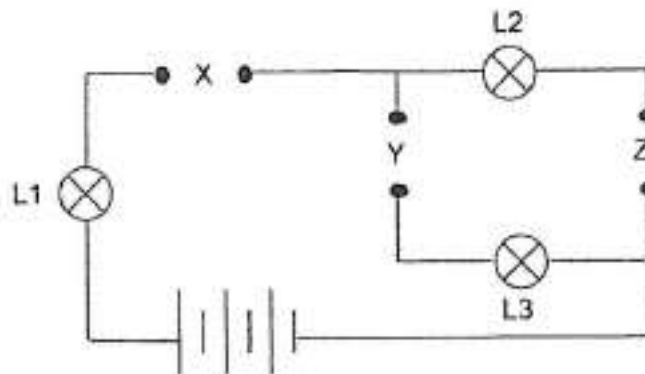


Circuit C

In which of the circuits A, B and C as shown above, would the bulb light up?

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

Byran has three rods, P, Q and R, made of unknown materials. He placed them in various positions, X, Y and Z, in the circuit shown below.



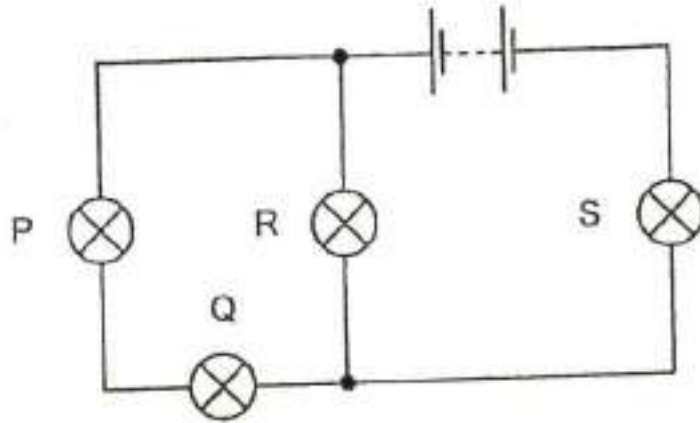
The results of the experiment were shown in the table below. When any of the lamps, L1, L2 or L3, lit up during the experiment, a tick (✓) was placed in the box.

Positions where rods were placed			Lamp		
X	Y	Z	L1	L2	L3
P	Q	R	✓	✓	
Q	R	P			
R	P	Q	✓		✓

Based on the results above, which one of the following deductions is correct?

- A) Only rod R is not able to conduct electricity.
- B) Only rods P and Q are able to conduct electricity.
- C) Only rods P and R are able to conduct electricity.
- D) Rods Q and R are better conductors of electricity than rod P.

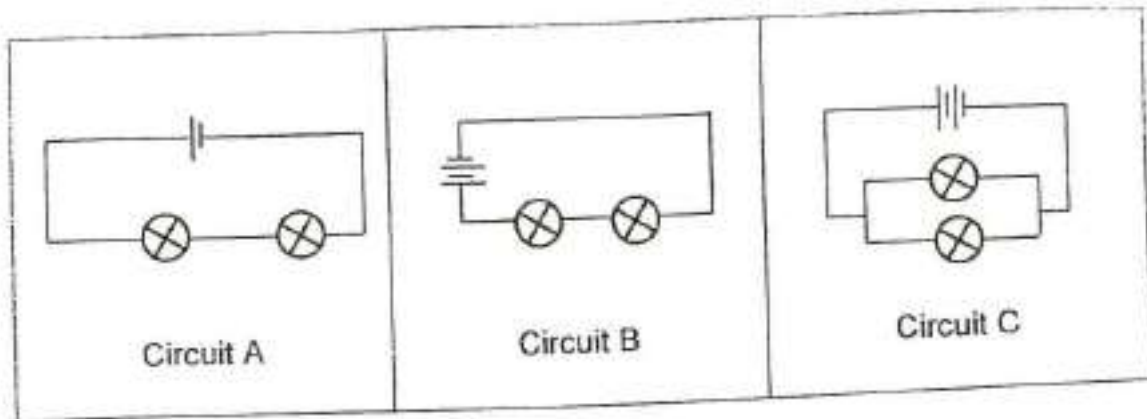
Study the circuit shown below. When one of the bulbs fuses, all the other bulbs will not light up.



Which one of the bulbs has fused?

- A) P
- B) Q
- C) R
- D) S

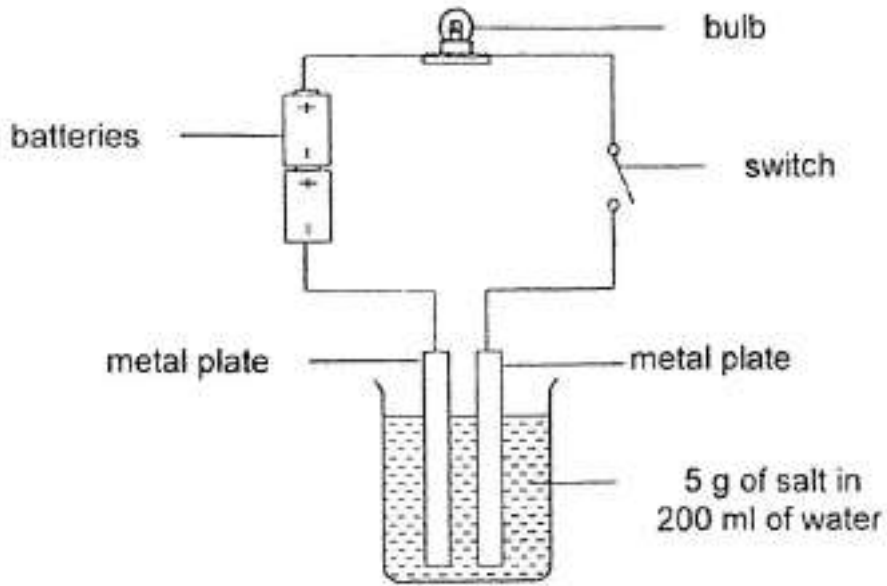
Ravi arranged 3 closed circuits A, B, C, as shown below. He used identical batteries, bulbs and wires for each circuit.



Arrange the bulbs in circuits A, B and C from the brightest to the dimmest.

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

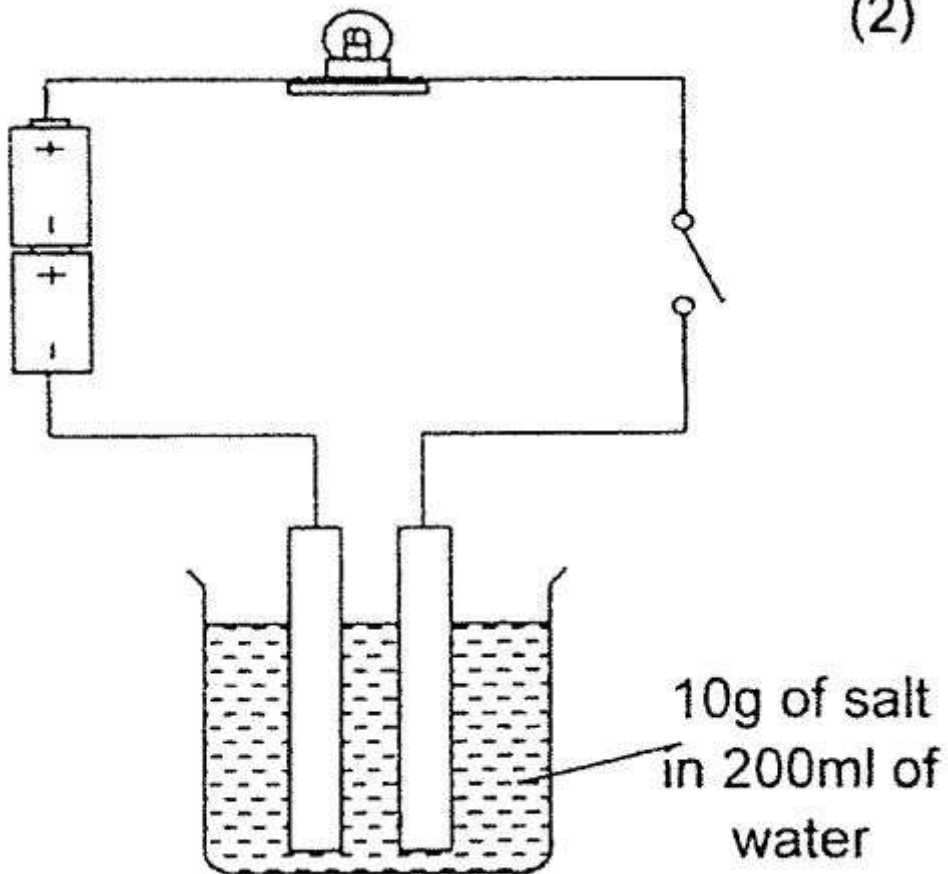
Randy wanted to find out whether water conducts electricity when salt is dissolved in it. He used the set-up below:-



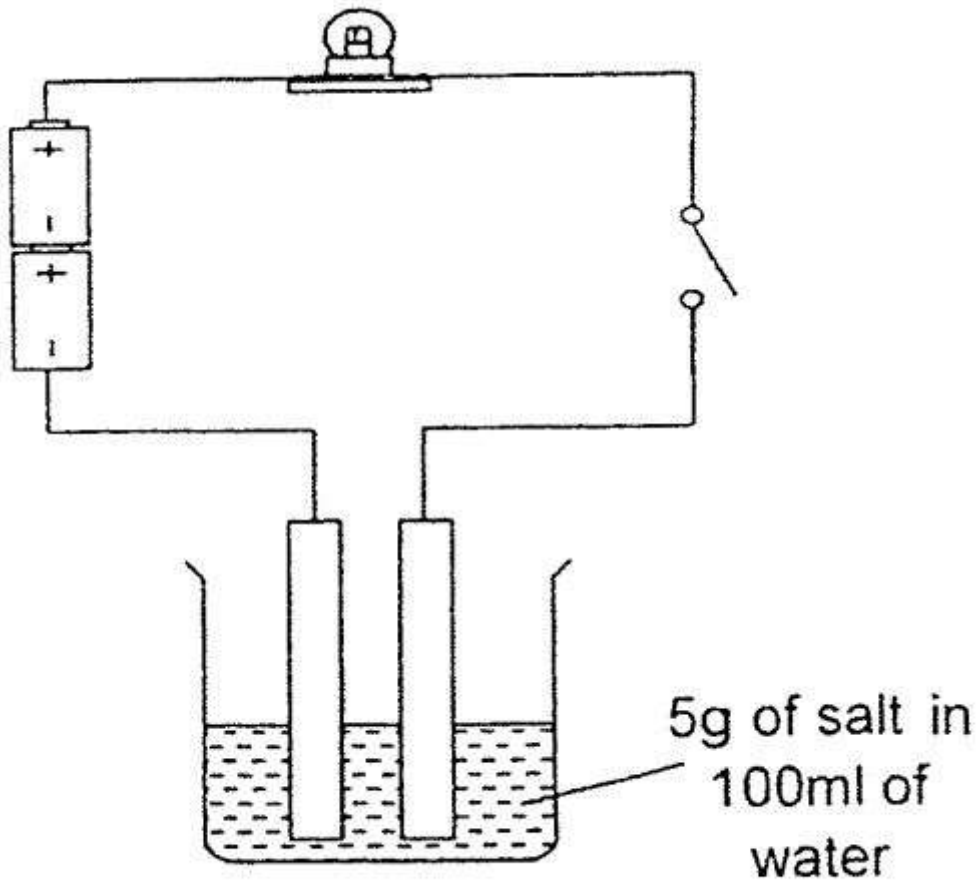
Which one of the following shows the most suitable set-up for a control to his experiment?

A)

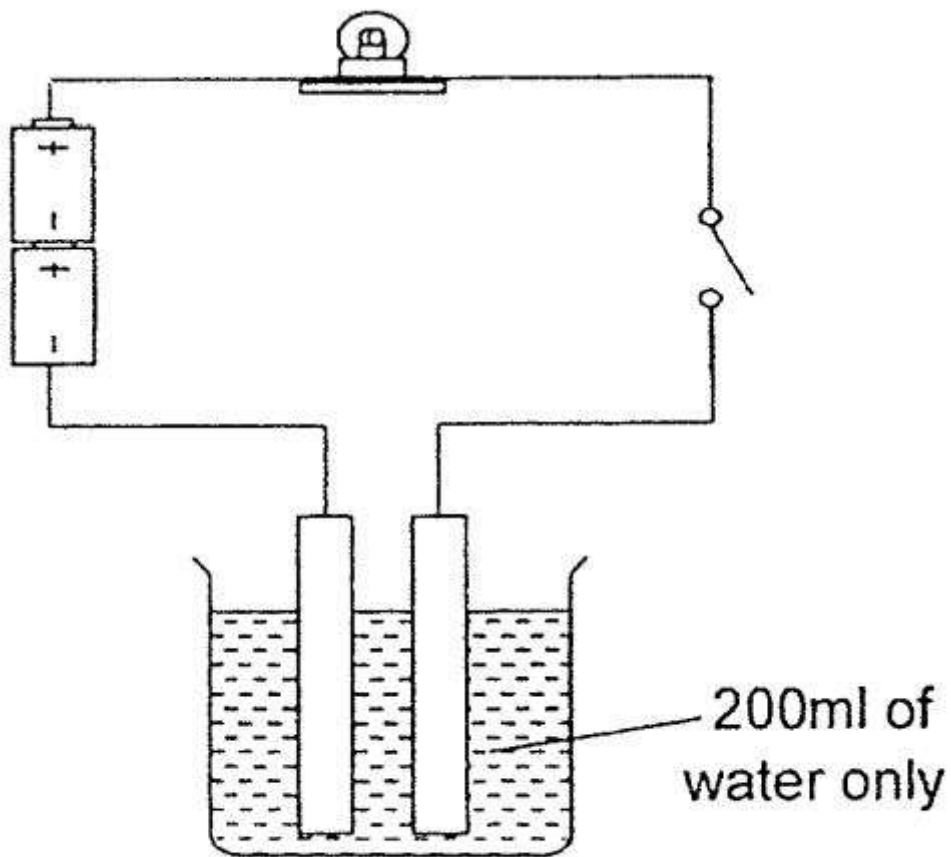
(2)



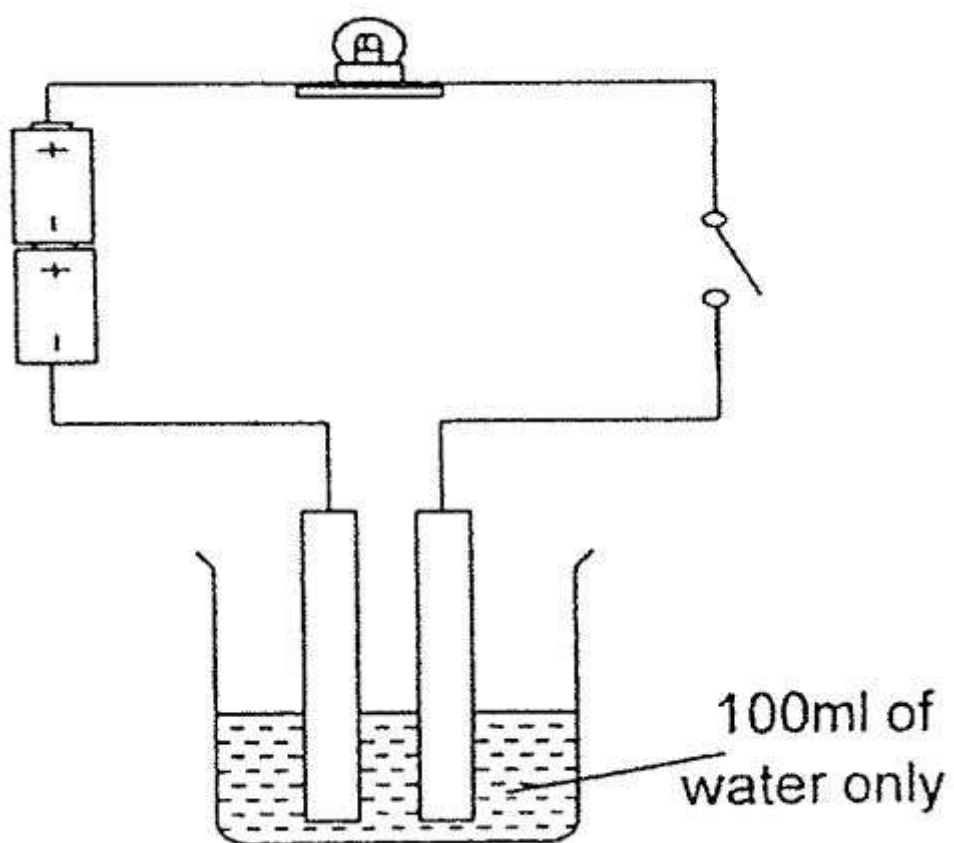
○ B)



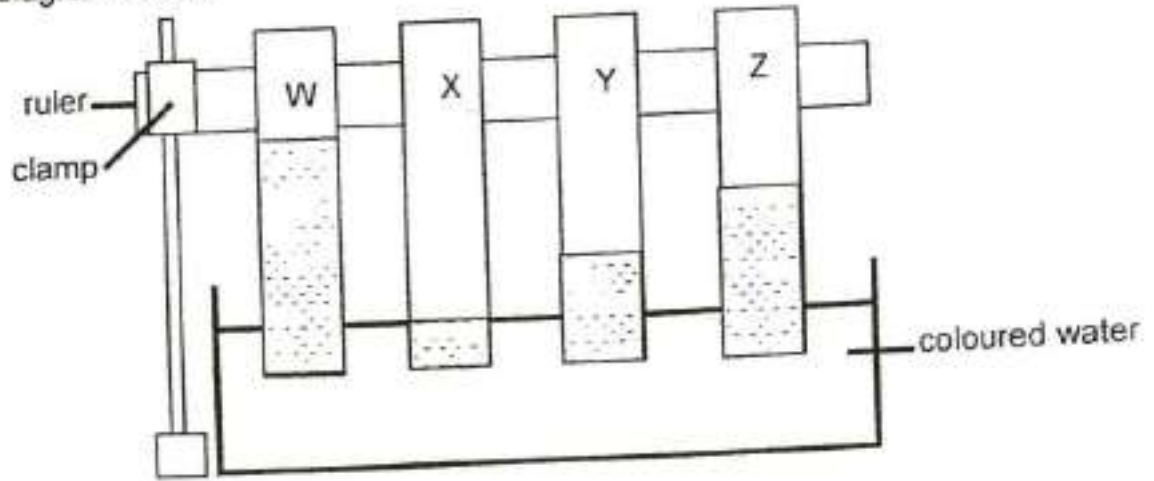
○ C)



○D)



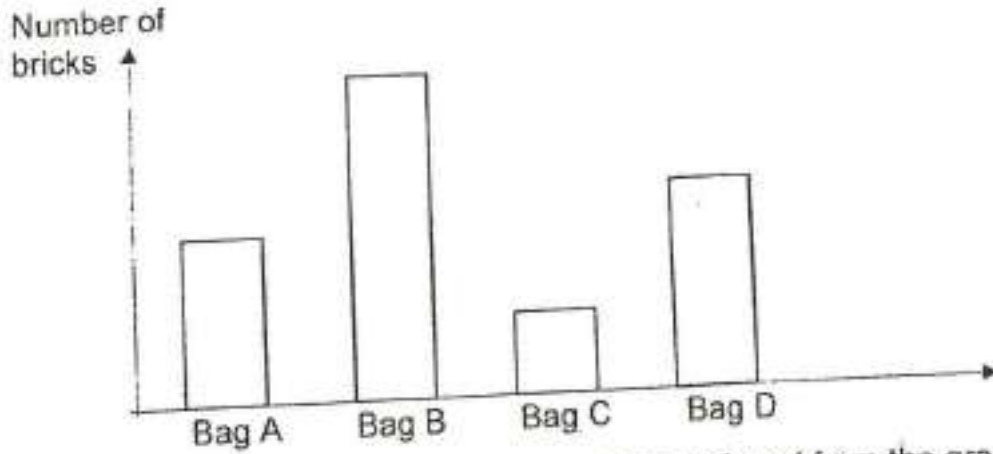
The set-up below is to find out the amount of coloured water that can be absorbed by four similar-sized strips of different materials, W, X, Y and Z. After ten minutes, the strips absorb water to different levels as shown in the diagram below.



Which one of the materials is most suitable for making a raincoat?

- A) W
- B) Y
- C) X
- D) Z

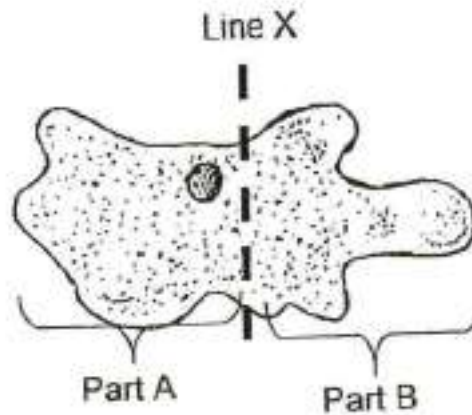
Four bags of different materials were used for this experiment. The graph below shows the maximum number of bricks that the different bags can hold before breaking.



Which of the following conclusions cannot be deduced from the graph?

- A) Bag B is the strongest.
- B) Bag A is stronger than bag C.
- C) Bag D is stronger than bag A.
- D) Bag C is made from the thinnest material.

Lily found a single cellular organism in the school pond. She wanted to do an investigation using the organism. She cut the cell at Line X as shown below.



After a few days, she recorded her observations in the table below.

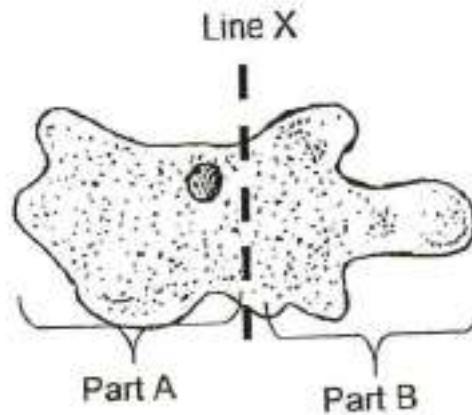
Part A	Part B
Continued to grow a new Part B	Shrunk and died

Why was Part A able to grow a new Part B? (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.

Lily found a single cellular organism in the school pond. She wanted to do an investigation using the organism. She cut the cell at Line X as shown below.



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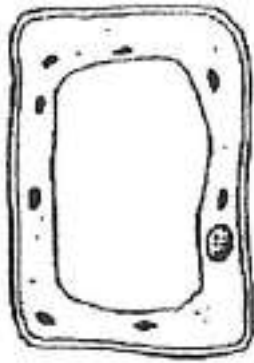
Part A	Part B
Continued to grow a new Part B	Shrunk and died

Explain why Part A of the cell is important for her investigation. (1 mark)

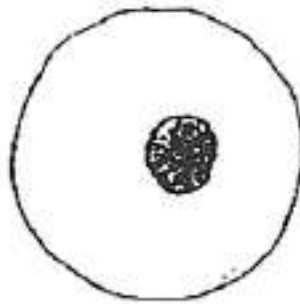
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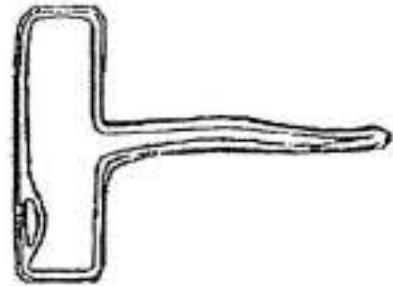
The diagram below shows some cells.



Cell A



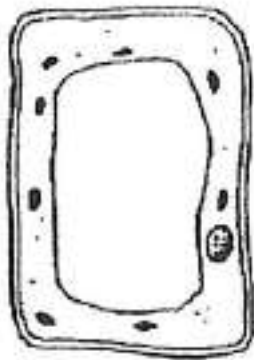
Cell B



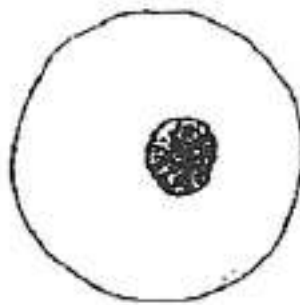
Cell C

Which cell part is found in the cytoplasm of Cell A but not in Cell B and C?

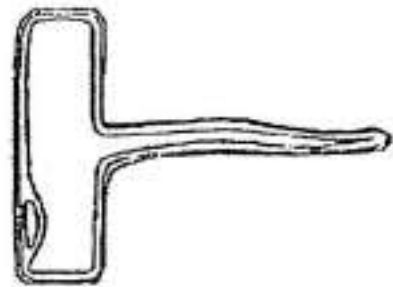
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Cell A



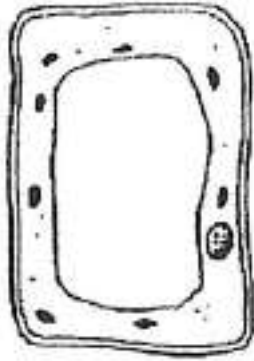
Cell B



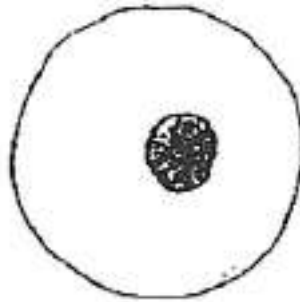
Cell C

Cell A, B and C are placed in a container of water. After some time, one of them burst. Which cell burst? Explain your choice.

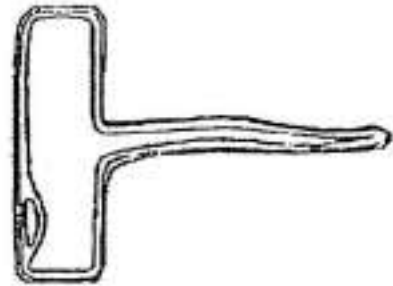
The diagram below shows some cells.



Cell A



Cell B



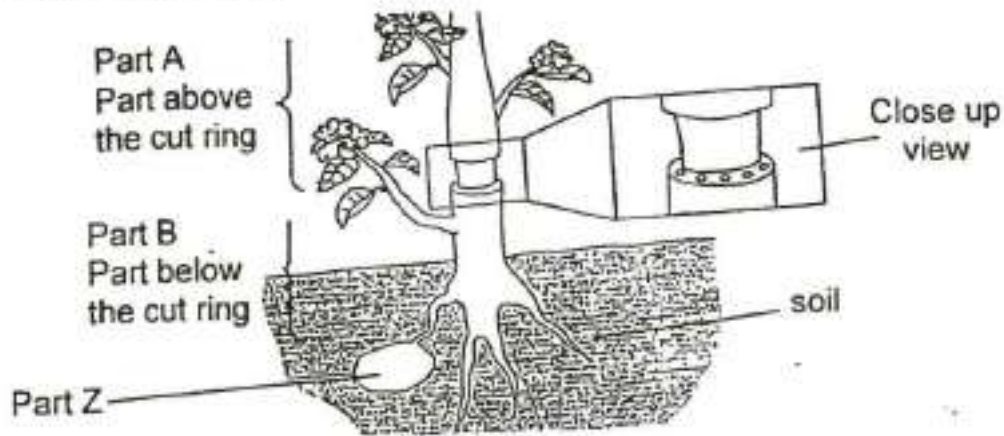
Cell C

The shape of Cell C is different from a typical cell. Explain how the shape of Cell C enables it to carry out its function more effectively. (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.

An outer ring of a stem was removed from a green plant as shown below. As a result, the tube carrying food and water were removed. There is stored food in Part Z of the plant.



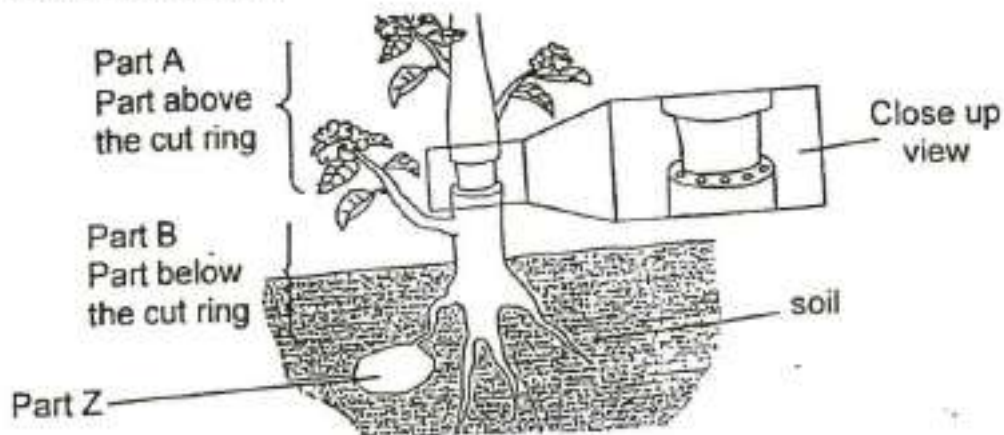
In the graph below, draw a line graph to represent the mass of Part Z after the ring was removed. [1]



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.

An outer ring of a stem was removed from a green plant as shown below. As a result, the tube carrying food and water were removed. There is stored food in Part Z of the plant.

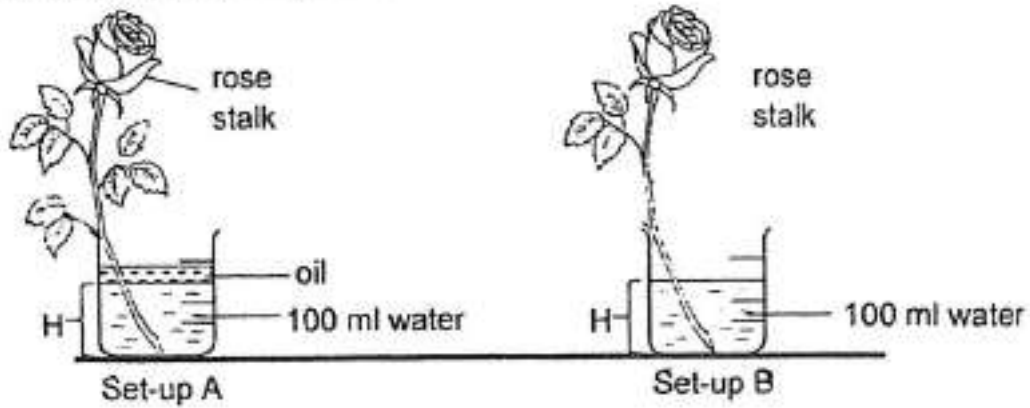


After some time, Part A of the plant withered before Part B. Explain why.

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.

Penny conducted an experiment in a classroom using set-ups A and B as shown. She removed most of the leaves from set-up B. She then recorded the height of water, H, at regular time intervals.

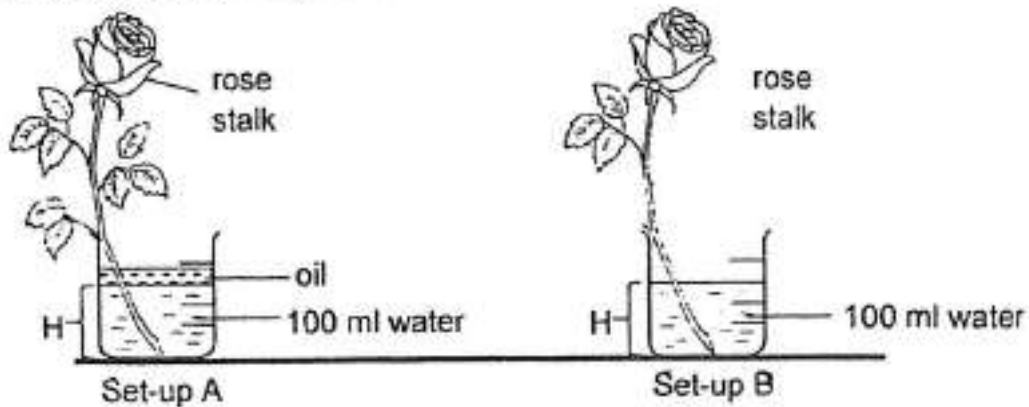


Explain why her experiment is not a fair one. (1 mark)

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Penny conducted an experiment in a classroom using set-ups A and B as shown. She removed most of the leaves from set-up B. She then recorded the height of water, H, at regular time intervals.



State the changed and measured variables. (1 mark)

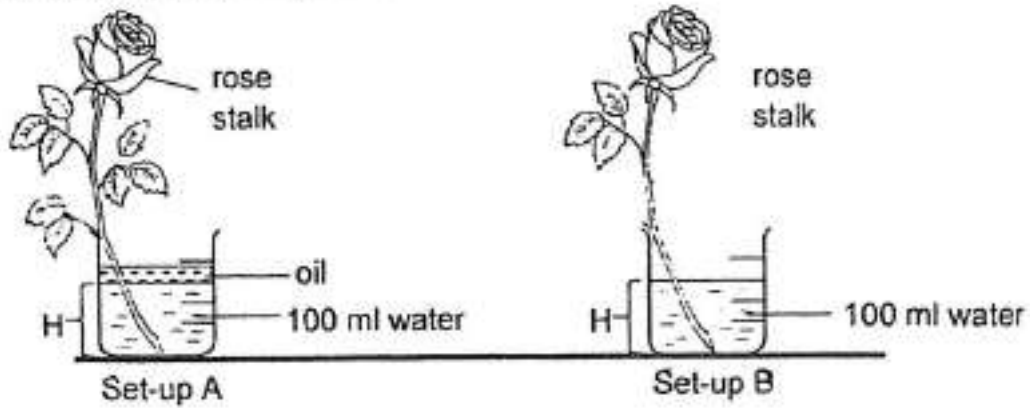
Changed variable: _____

Measured variable: _____

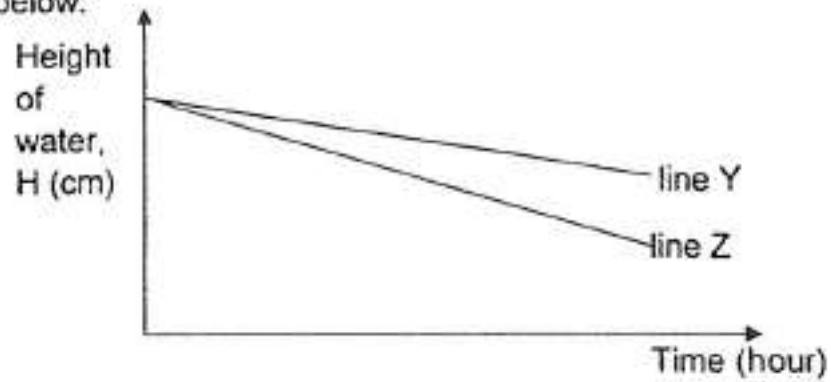
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

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Penny conducted an experiment in a classroom using set-ups A and B as shown. She removed most of the leaves from set-up B. She then recorded the height of water, H, at regular time intervals.

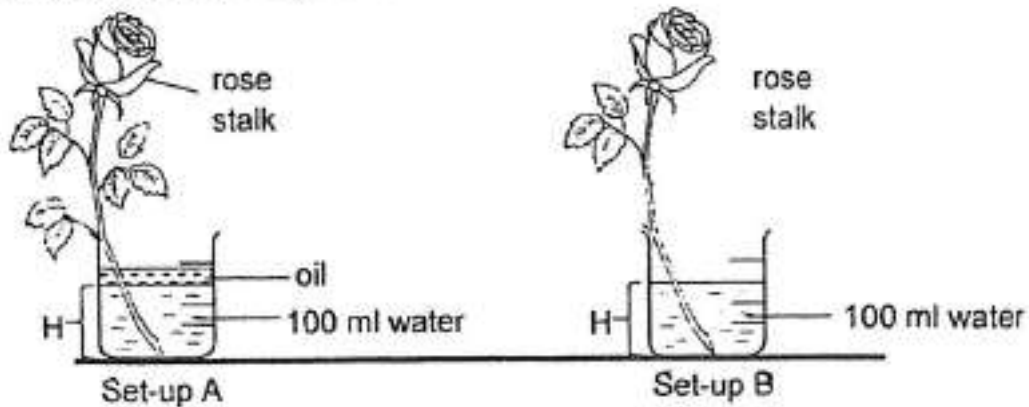


After ensuring that her experiment is fair, she obtained the results as shown in the graph below:

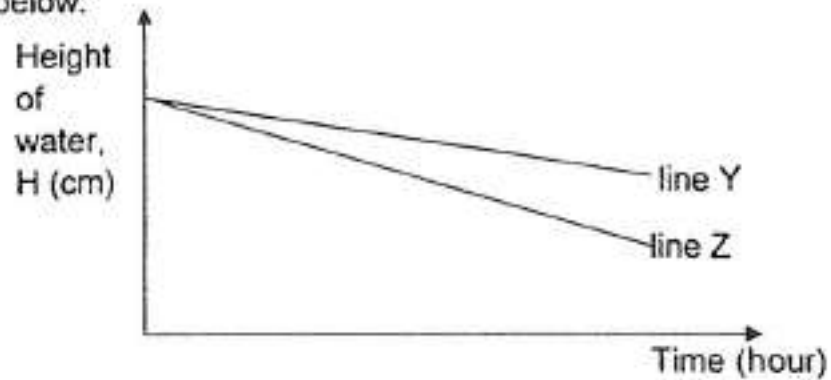


Which line, Y or Z, represents the results obtained for set-up A? Explain your answer.

Penny conducted an experiment in a classroom using set-ups A and B as shown. She removed most of the leaves from set-up B. She then recorded the height of water, H, at regular time intervals.



After ensuring that her experiment is fair, she obtained the results as shown in the graph below:



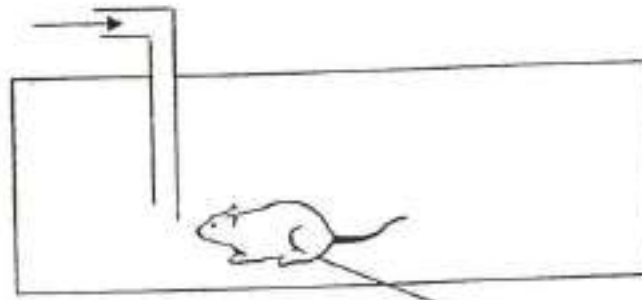
What is the aim of this experiment? (1 mark)

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.

Animal W was placed in a tank as shown below. Different amounts of carbon dioxide were pumped into the tank.

Carbon dioxide
pumped in



Animal W (connected to a pulse sensor)

The table below shows how different amounts of oxygen and carbon dioxide in the tank affect the breathing rate of animal W.

Percentage of carbon dioxide in the tank (%)	Percentage of oxygen in the tank (%)
0.03	21
1.00	20
3.00	18
5.00	16

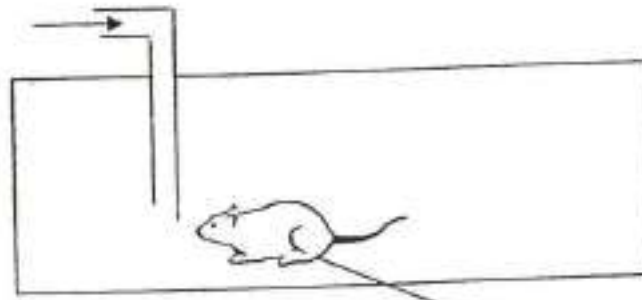
Based on the table above, what is the relationship between different amounts of carbon dioxide and the amount of oxygen in the tank? (1 mark)

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.

Animal W was placed in a tank as shown below. Different amounts of carbon dioxide were pumped into the tank.

Carbon dioxide
pumped in



Animal W (connected to a pulse sensor)

The table below shows how different amounts of oxygen and carbon dioxide in the tank affect the breathing rate of animal W.

Percentage of carbon dioxide in the tank (%)	Percentage of oxygen in the tank (%)
0.03	21
1.00	20
3.00	18
5.00	16

The breathing rate of Animal W increases as the amount of carbon dioxide increases. Explain why. (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.

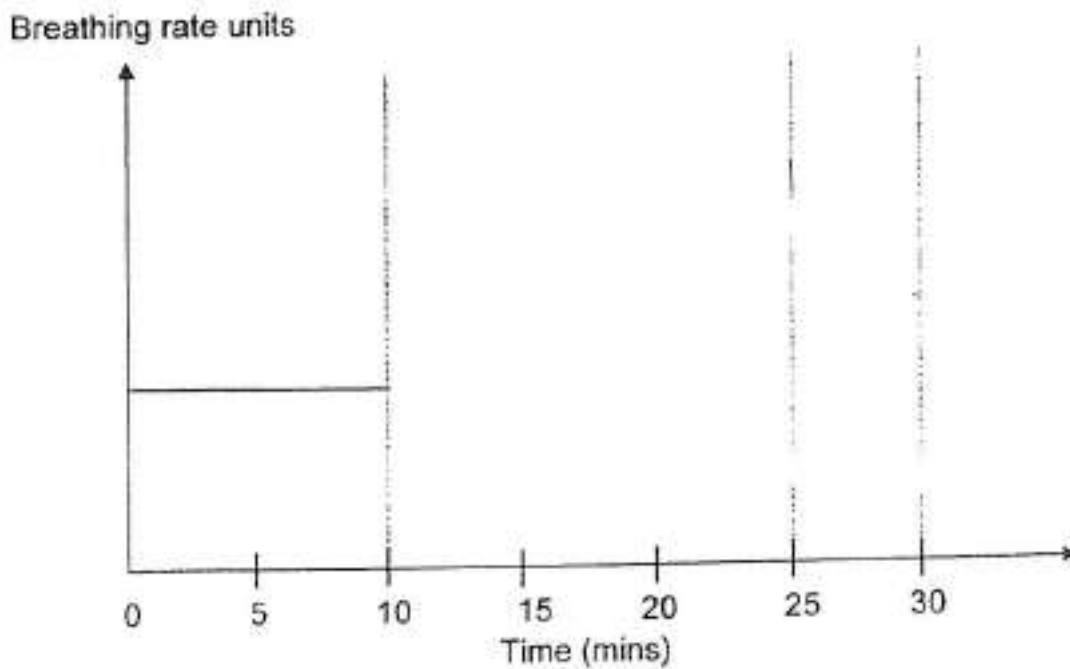
Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Question 42 of 65

Primary 5 Science (Term 2) 0 pts

During a physical education lesson, Jordan remained seated for the first 10 minutes to listen to his teacher's instruction. He then played frisbee with his friends continuously for the next 15 minutes. After that, he rested on a bench for 5 minutes.

Complete the graph below to show how Jordan's breathing rate changed between 10 minutes to 30 minutes. [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.

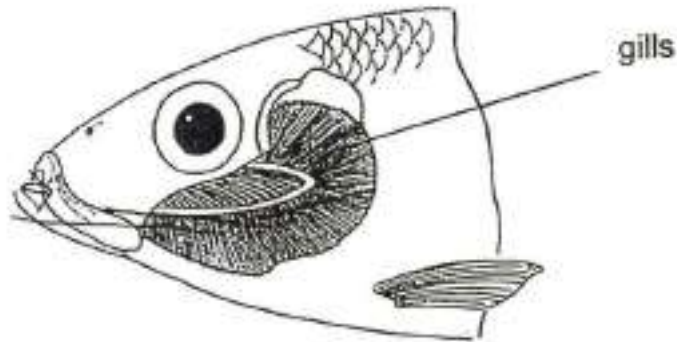
Question 43 of 65

Primary 5 Science (Term 2) 0 pts

During a physical education lesson, Jordan remained seated for the first 10 minutes to listen to his teacher's instruction. He then played frisbee with his friends continuously for the next 15 minutes. After that, he rested on a bench for 5 minutes.

Jordan's heart rate changed while playing frisbee with his friends. Explain why this happened. (2 marks)

Fish have special breathing organs called gills which are located on the sides of their heads as shown below.

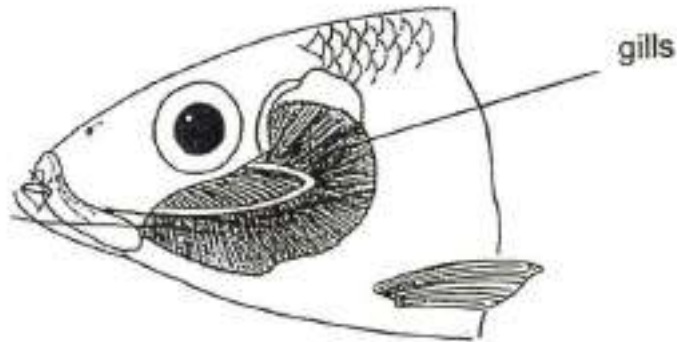


Indicate on the picture above using arrows to show how water enters and leave the fish when it breathes. (2 marks)

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.

Fish have special breathing organs called gills which are located on the sides of their heads as shown below.

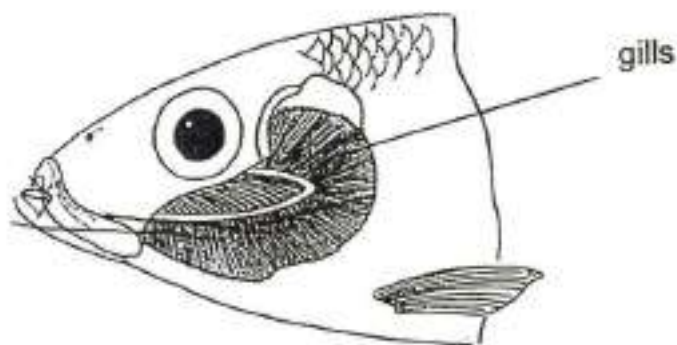


Give a reason why it is necessary for the gills to have many blood vessels. (1 mark)

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.

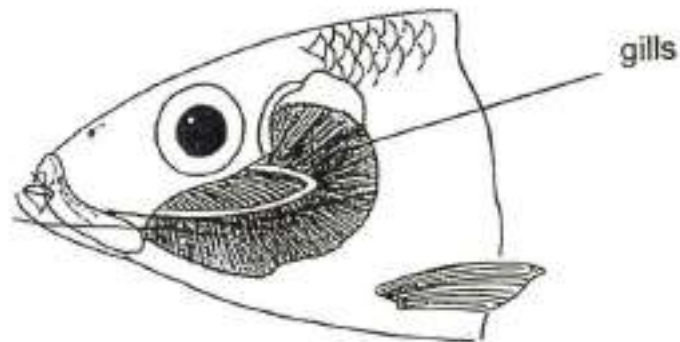
Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Fish have special breathing organs called gills which are located on the sides of their heads as shown below.



Which part of the human respiratory system is similar to the fish gills? (1 mark)

Fish have special breathing organs called gills which are located on the sides of their heads as shown below.

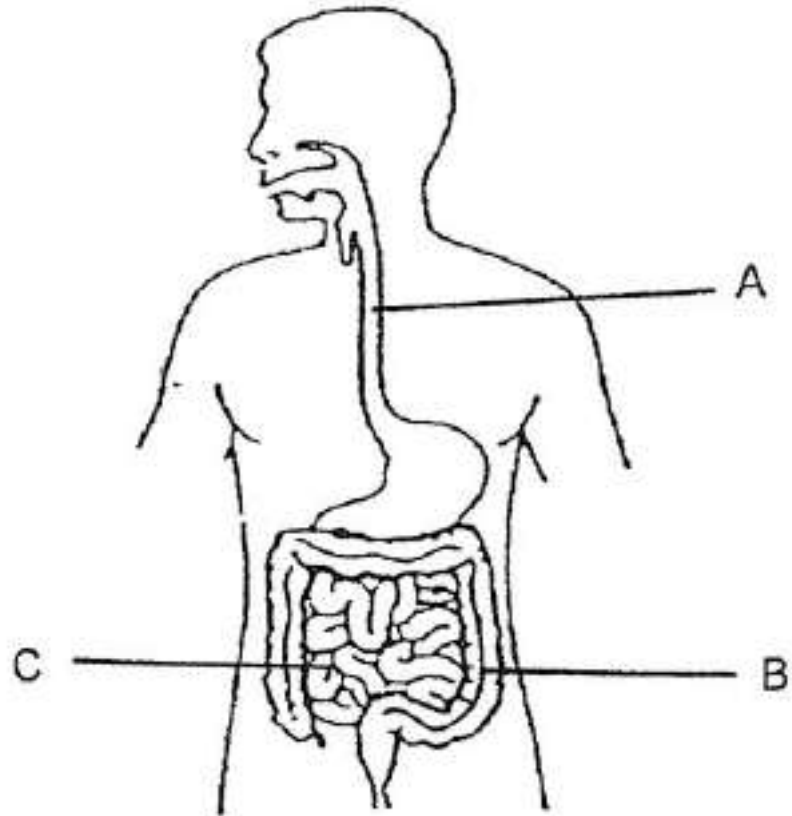


Why fish has gills and not lungs? (1 mark)

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.

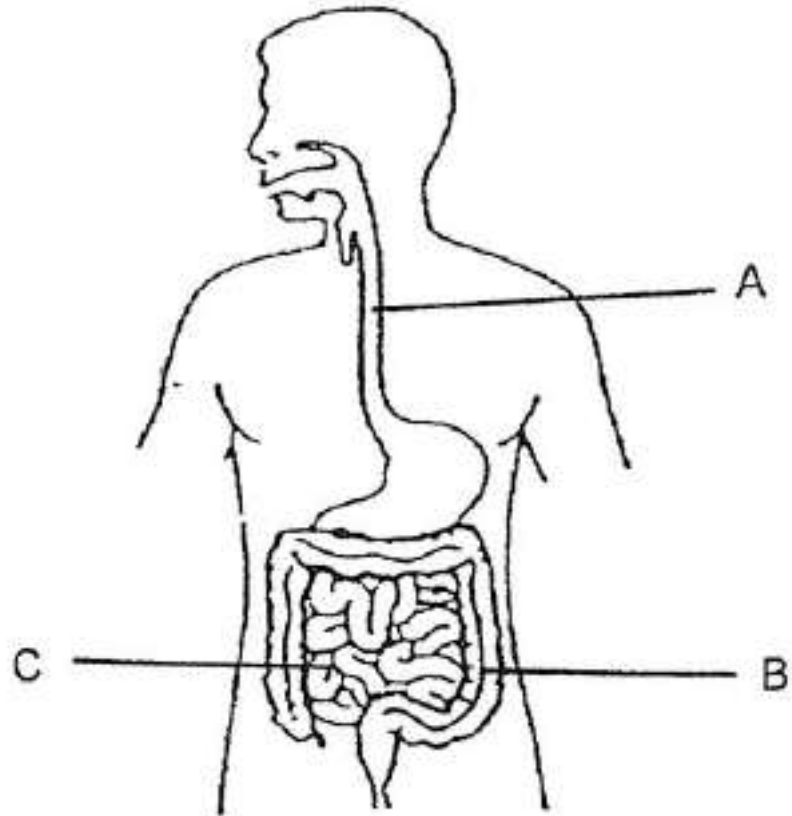
The diagram shows the human digestive system.



Name the part labelled A.

A: _____

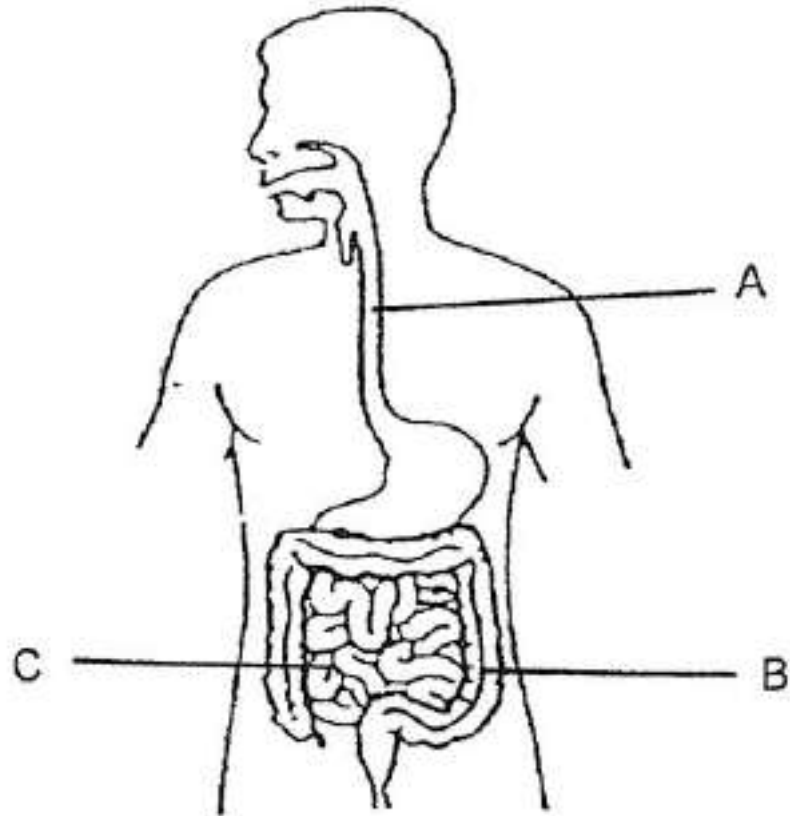
The diagram shows the human digestive system.



Name the part labelled B.

B: _____

The diagram shows the human digestive system.

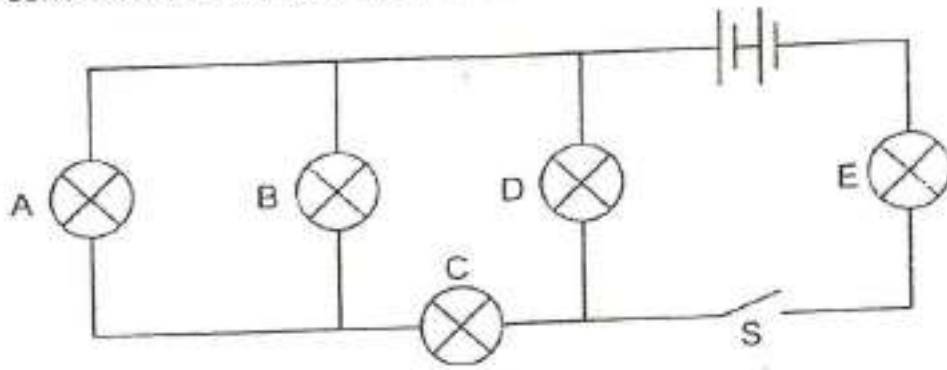


Why is it important for part C to be very long? (1 mark)

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.

Max constructed a circuit as shown below.



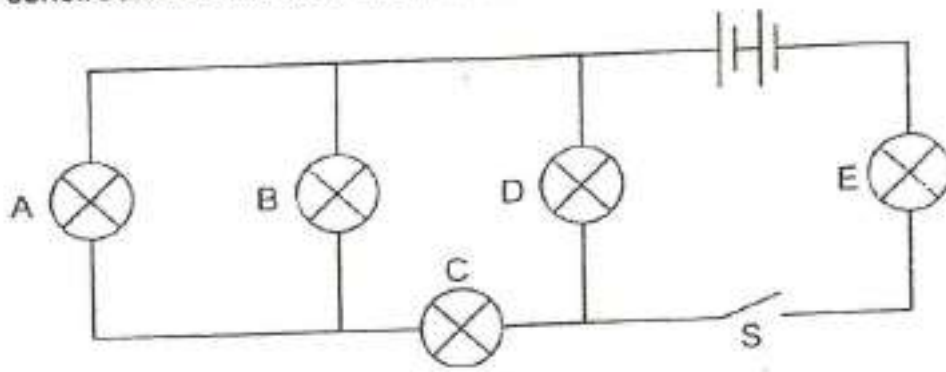
He closed switch S and observed that all the bulbs lighted up. However, after 20 seconds, bulb D fused.

What will happen to the other bulbs when bulb D fused? Explain 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.

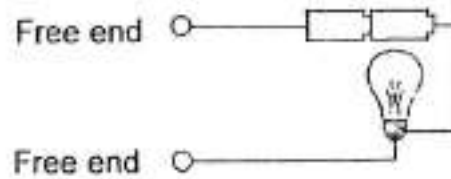
Max constructed a circuit as shown below.



He closed switch S and observed that all the bulbs lighted up. However, after 20 seconds, bulb D fused.

Which bulb(s) will not light up when bulb E fuses?

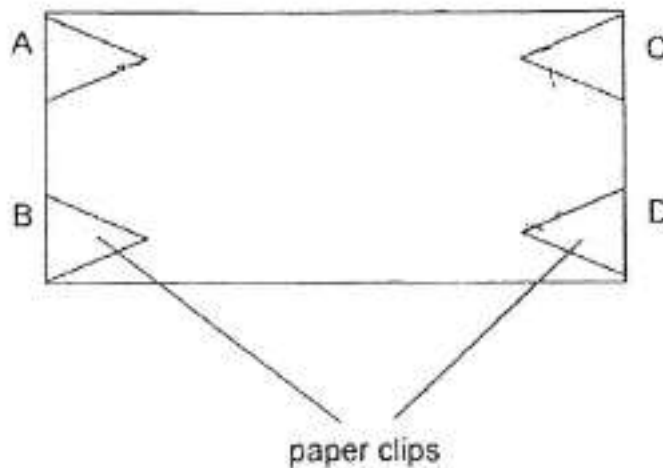
Jason had a circuit card with four metal paper clips, A, B, C and D which were connected on the underside by wires.



Jason connected the circuit tester to two paper clips of the circuit card each time. He recorded the results as shown in the table below.

Paper clips attached to free ends	Did the bulb light up?
A and B	No
A and C	Yes
A and D	Yes
B and C	No
B and D	No
C and D	Yes

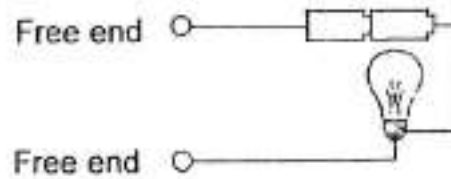
Based on the results, draw wires in the circuit card below to show how the paper clips were connected. [2]



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.

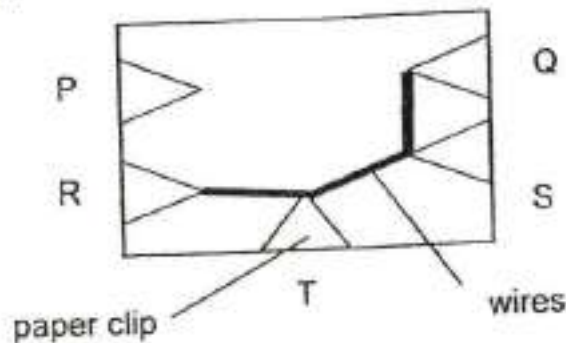
Jason had a circuit card with four metal paper clips, A, B, C and D which were connected on the underside by wires.



Jason connected the circuit tester to two paper clips of the circuit card each time. He recorded the results as shown in the table below.

Paper clips attached to free ends	Did the bulb light up?
A and B	No
A and C	Yes
A and D	Yes
B and C	No
B and D	No
C and D	Yes

Jason had another circuit card with the arrangement of wires on the underside as shown below.



Fill in the blanks below to show if the bulbs lighted up. Indicate your answer with a 'Yes' or 'No'.

Paper clip tested in pairs	Did the bulb light up?
P and Q	No
P and S	
Q and S	Yes
Q and R	
S and T	Yes

Match the options below:

1. [] P and S

A. No

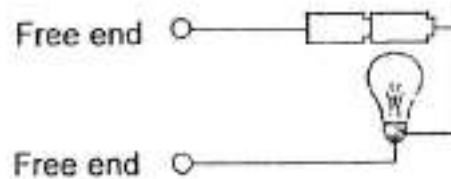
2. [] Q and R

B. Yes

Question 55 of 65

Primary 5 Science (Term 2) 0 pts

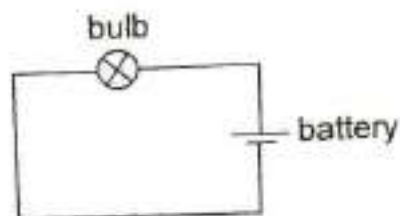
Jason had a circuit card with four metal paper clips, A, B, C and D which were connected on the underside by wires.



Jason connected the circuit tester to two paper clips of the circuit card each time. He recorded the results as shown in the table below.

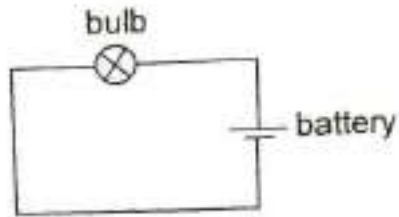
Paper clips attached to free ends	Did the bulb light up?
A and B	No
A and C	Yes
A and D	Yes
B and C	No
B and D	No
C and D	Yes

In the second experiment, Jason took 4 types of wires, W, X, Y and Z of different thicknesses. He connected each of the wires to a bulb as shown in the diagram below.



State the sim of the second experiment. (1 mark)

In the second experiment, Jason took 4 types of wires, W, X, Y and Z of different thicknesses. He connected each of the wires to a bulb as shown in the diagram below.

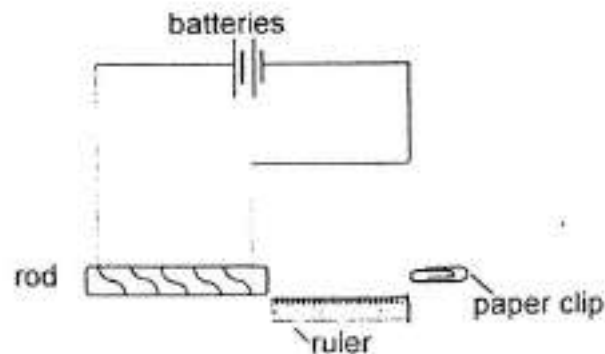


Explain why Jason must keep the material and the length of the wires the same when he conducted the experiment. (1 mark)

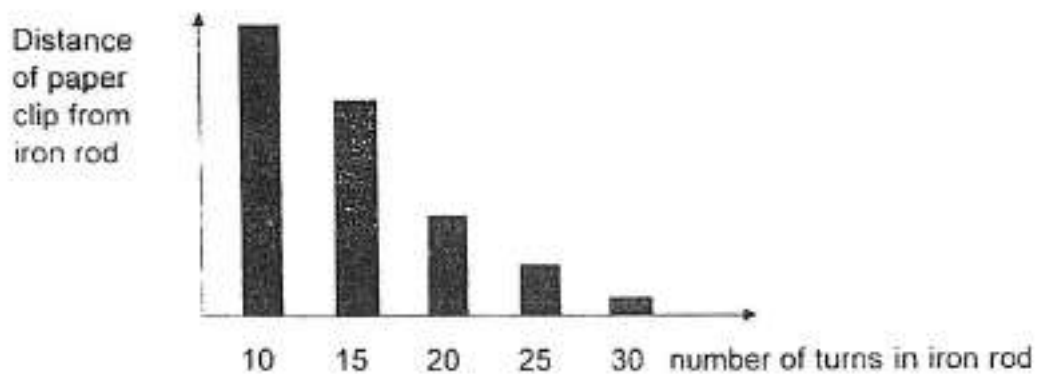
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

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 Jeremy's experiment using an electromagnet. When the electrical circuit was closed, the paper clip was slowly moved towards the iron rod.



The distance of the clip from the rod just before it was pulled was recorded. Jeremy increased the number of turns of wire around the iron rod and repeated the experiment. The results of the experiment are shown in the graph below.

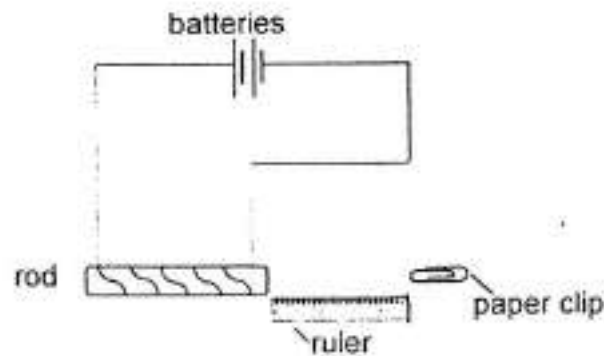


What was the variable that is changed in this experiment? (1 mark)

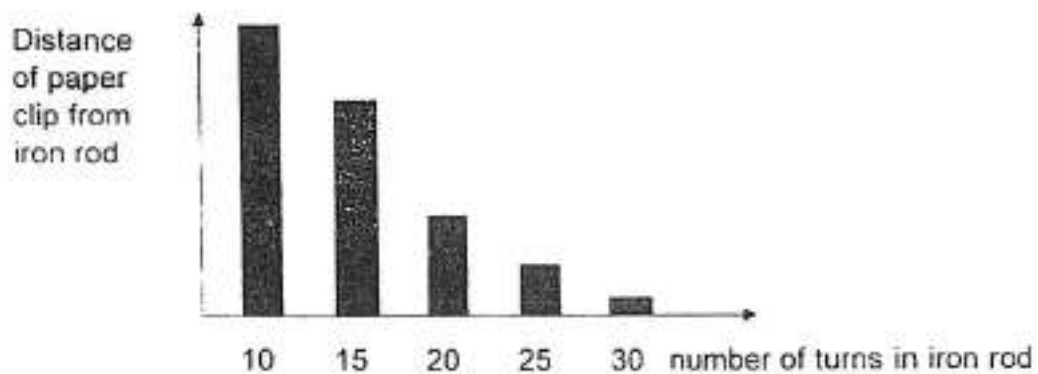
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The distance of the clip from the rod just before it was pulled was recorded. Jeremy increased the number of turns of wire around the iron rod and repeated the experiment. The results of the experiment are shown in the graph below.

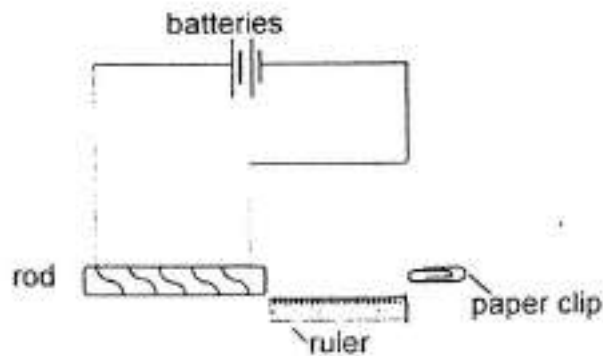


Were the results obtained by Jeremy correct? Explain your answer clearly. (2 marks)

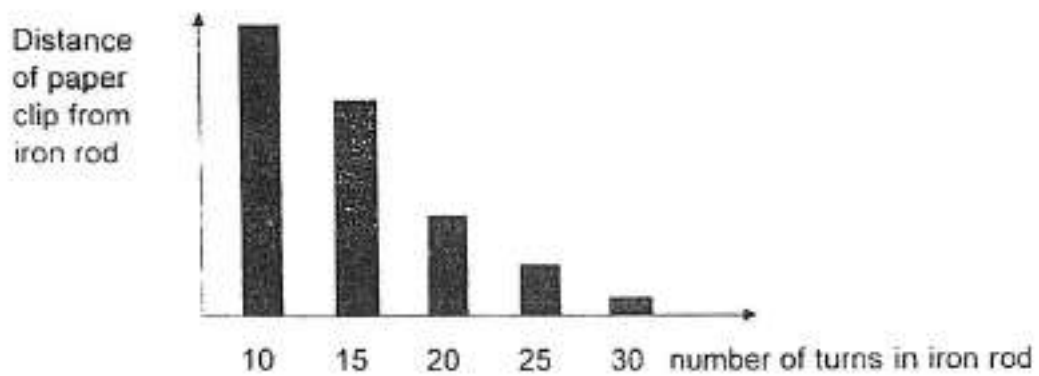
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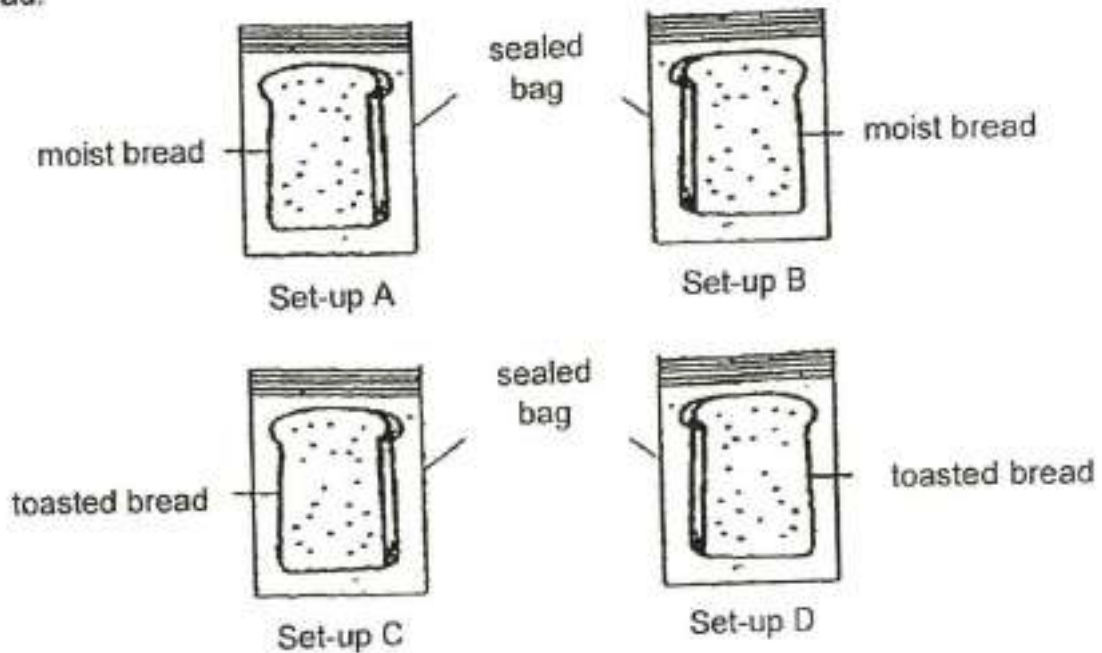


The distance of the clip from the rod just before it was pulled was recorded. Jeremy increased the number of turns of wire around the iron rod and repeated the experiment. The results of the experiment are shown in the graph below.



What material must the paper clip be made of?

Sharon set up the following experiment in her classroom to grow some bread mould. She and her classmates observe the four pieces bread every day. After one week, they observed some mould growing on some of the pieces of bread.

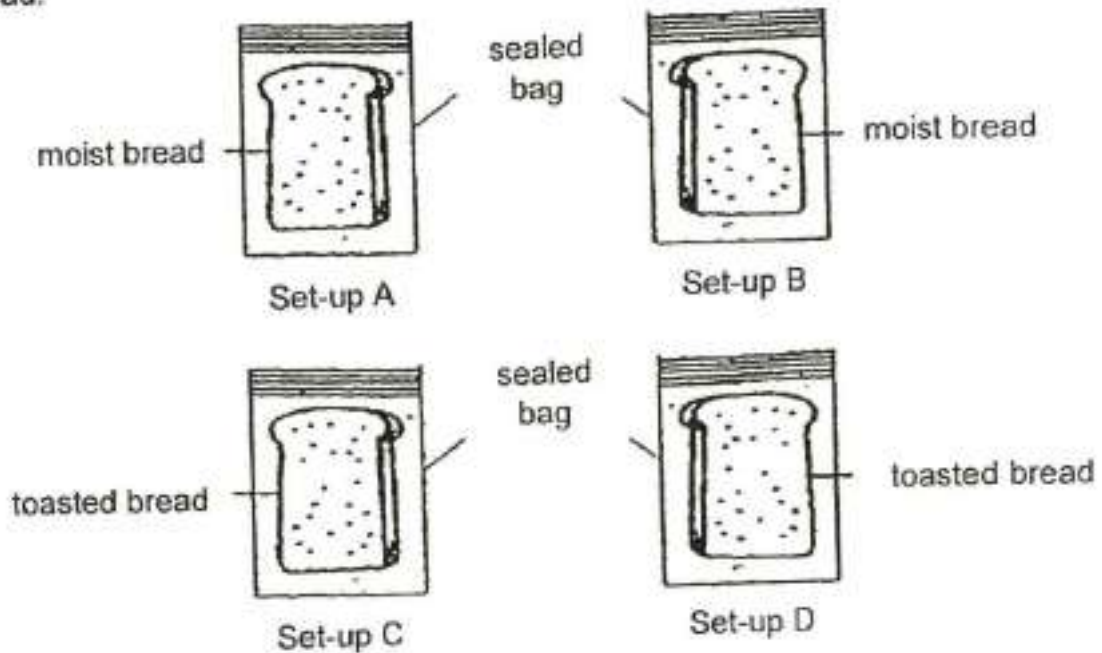


Which set-up(s) would likely have mould growing after a few days?
Explain your answer. (1 mark)

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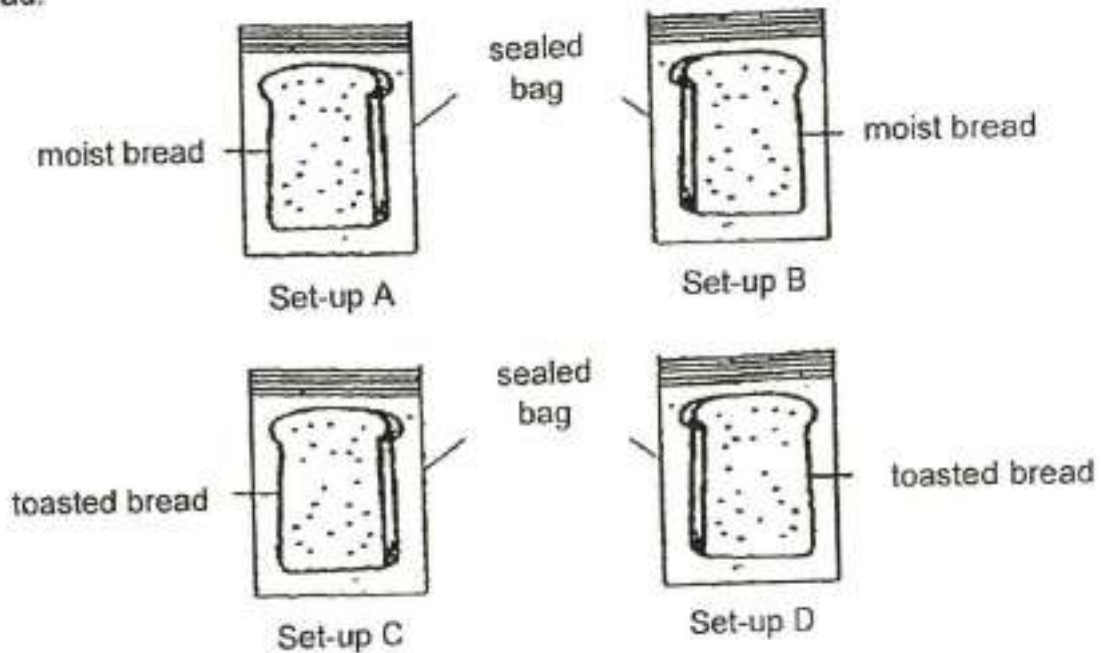


Where did the mould obtain its food? (1 mark)

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.

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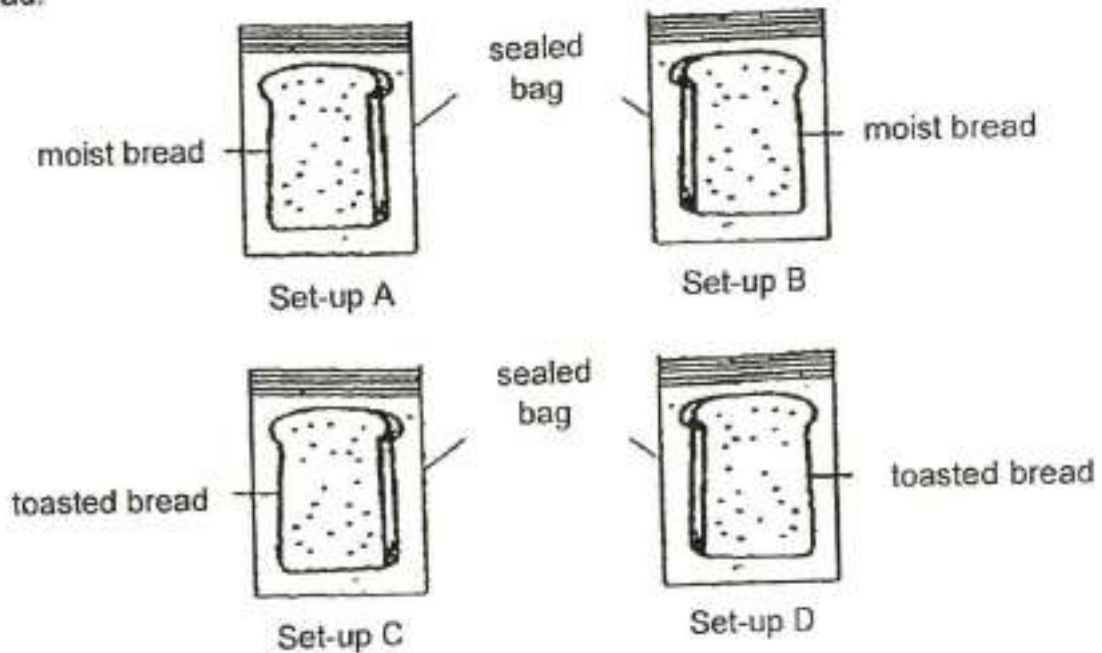


What could Sharon do to increase the rate of mould growing on the bread? (1 mark)

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.

Sharon set up the following experiment in her classroom to grow some bread mould. She and her classmates observe the four pieces bread every day. After one week, they observed some mould growing on some of the pieces of bread.



After a hot shower, Sharon dropped her towel into a laundry basket. After a few days, she noticed patches of mould on it. Her mum told her that she should hang her wet towel on the towel rack instead.

How does hanging her towel prevent the growth of mould? (1 mark)

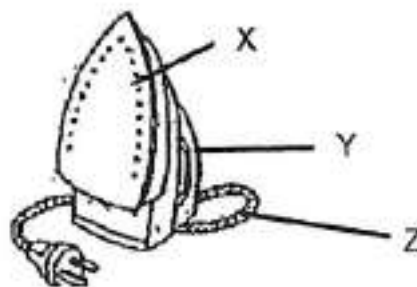
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

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 properties of four different materials, P, Q, R and S, are shown in the table below.

Material	Property of Material	
	Can bend easily	Can conduct heat easily
P	yes	yes
Q	yes	no
R	no	yes
S	no	no

The diagram below shows an iron for ironing of clothes.



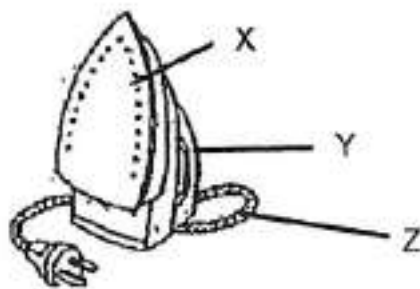
Which one of the materials P, R and S is most suitable to make parts X?
Give a reason why material Q is suitable for part Z. (2 marks)

Part	Material	Reason for one of the property of the material
X		Its needs to be able to conduct heat easily to the clothes.
Z	Q	

The properties of four different materials, P, Q, R and S, are shown in the table below.

Material	Property of Material	
	Can bend easily	Can conduct heat easily
P	yes	yes
Q	yes	no
R	no	yes
S	no	no

The diagram below shows an iron for ironing of clothes.



Suggest a suitable material for Part Y.
