

**Test:** Primary 5 Science (Term 4) - Catholic High

**Points:** 66 points

**Name:** \_\_\_\_\_

**Score:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

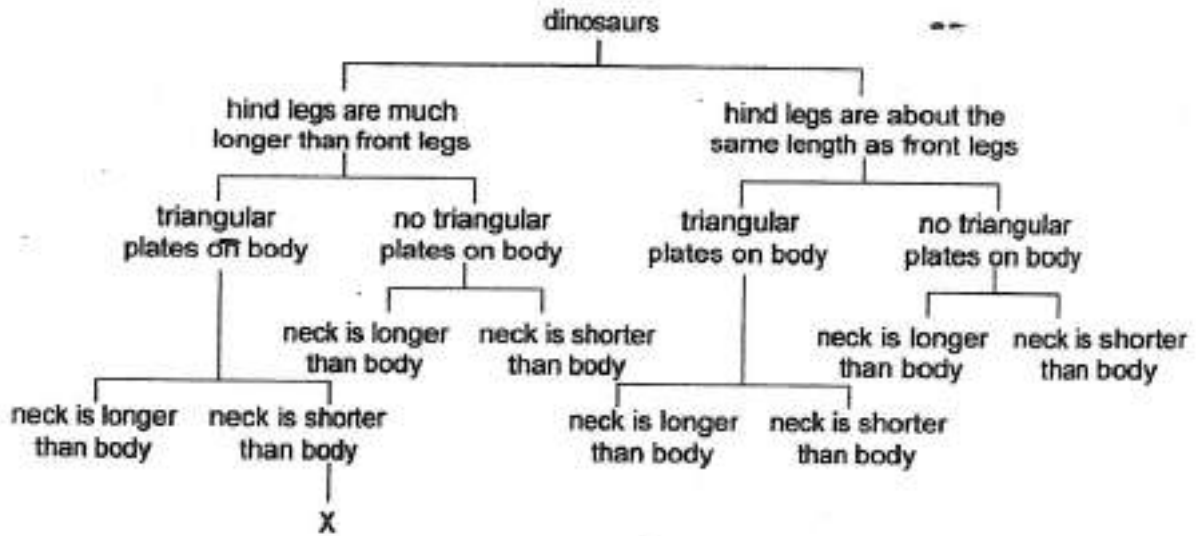
Select multiple choice answers with a cross or tick:

Only select one answer

Can select multiple answers

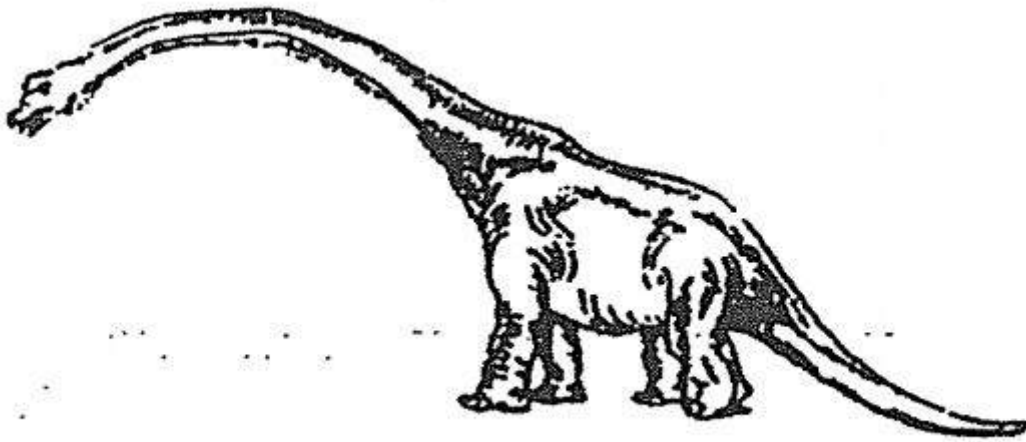
For each question, four options are given. One of them is the correct answer. (56 marks)

Study the chart below.

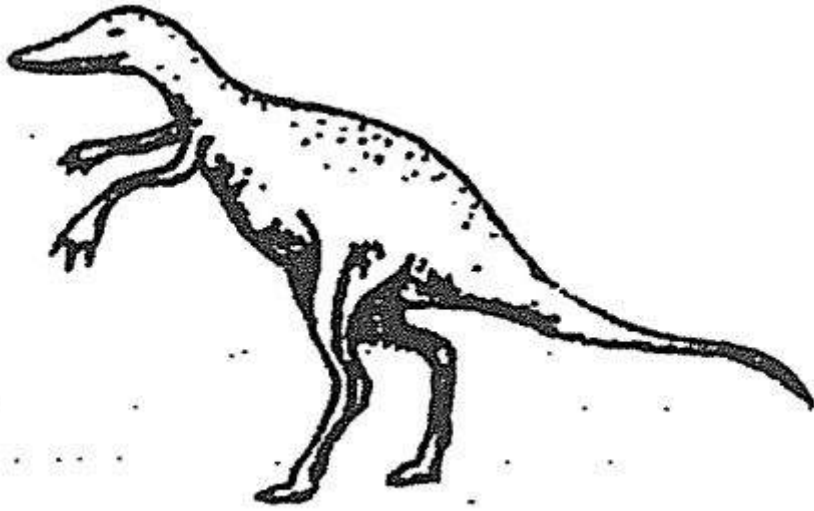


Which one of the dinosaurs shown below could be represented by X?

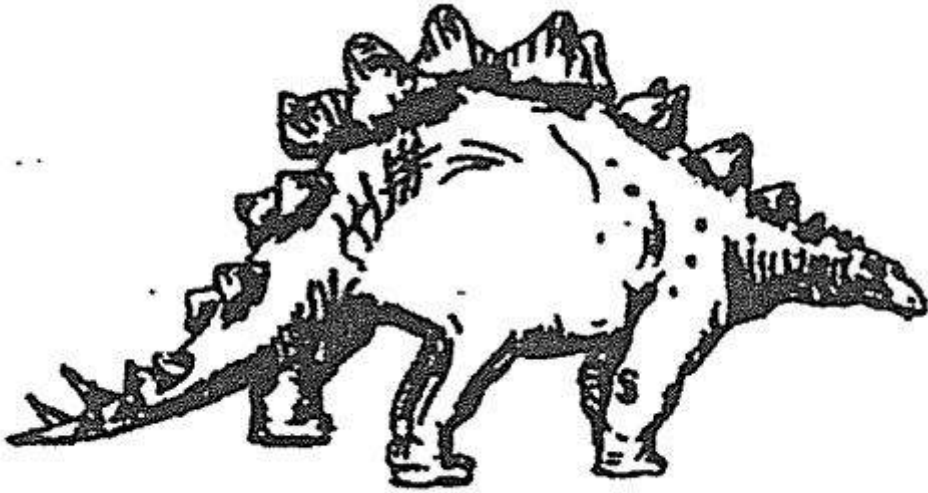
A)



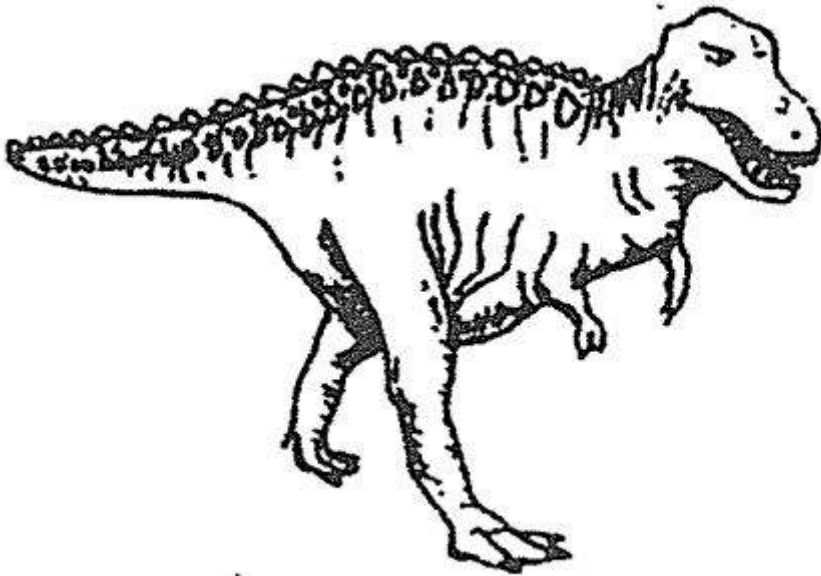
B)



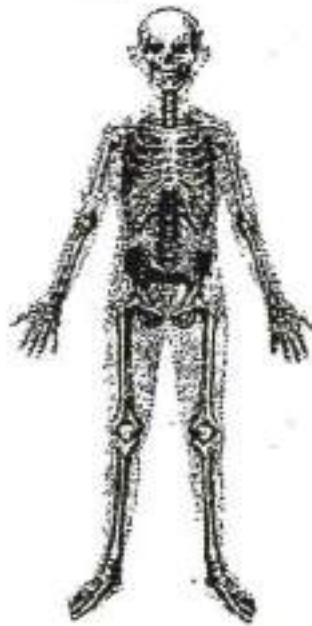
C)



D)



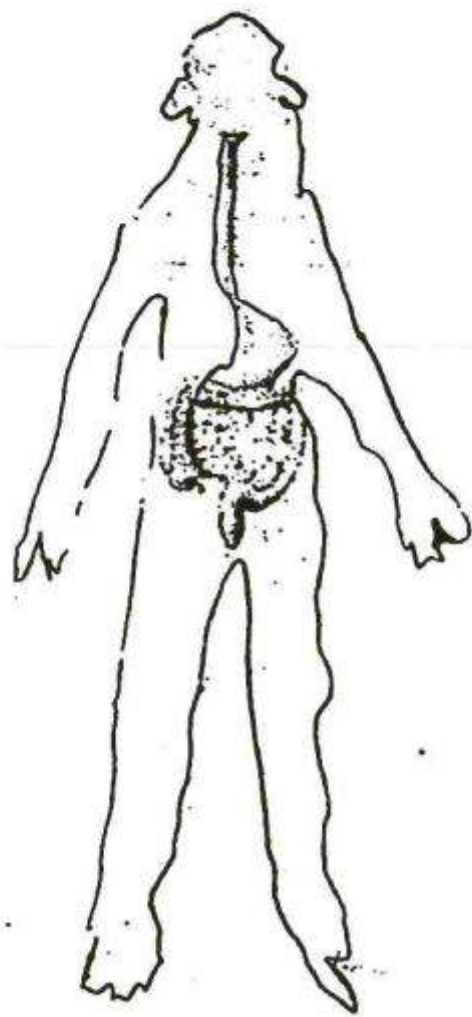
The diagram below shows a human body system.



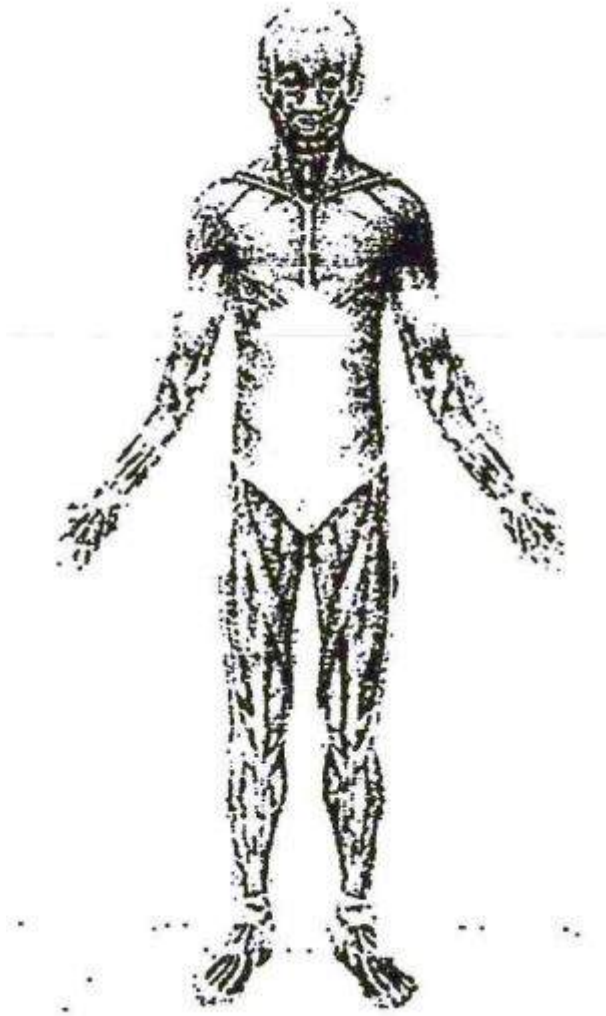
Which one of the following must work directly with the above body system to enable movement?

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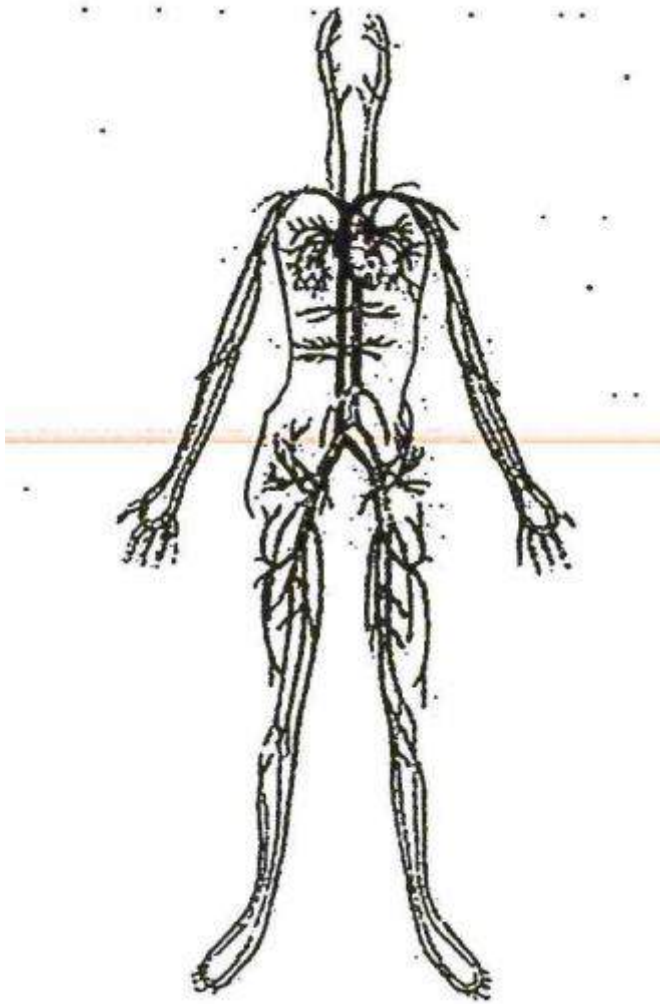
A)



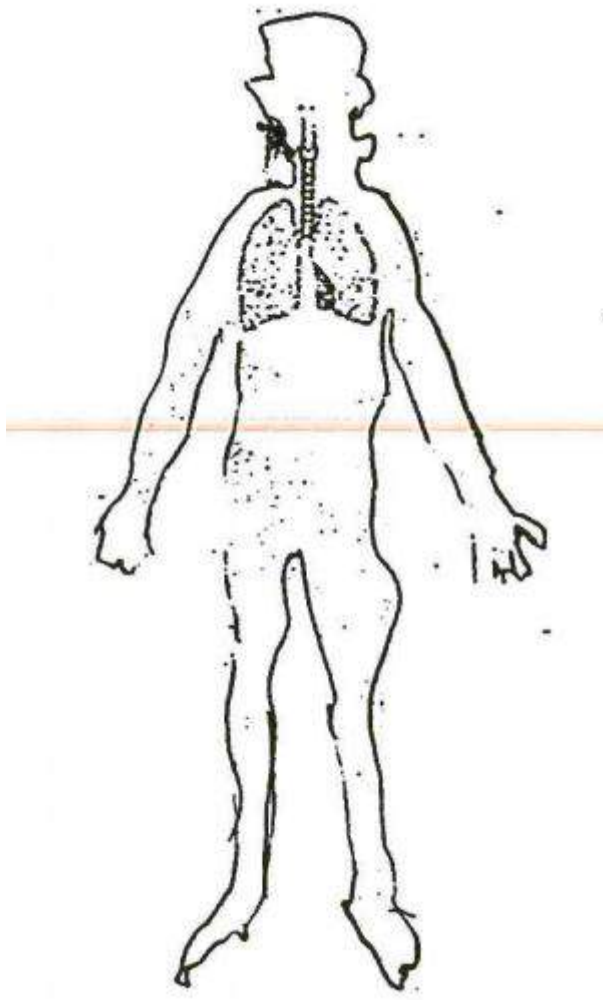
○ B)



○ c)

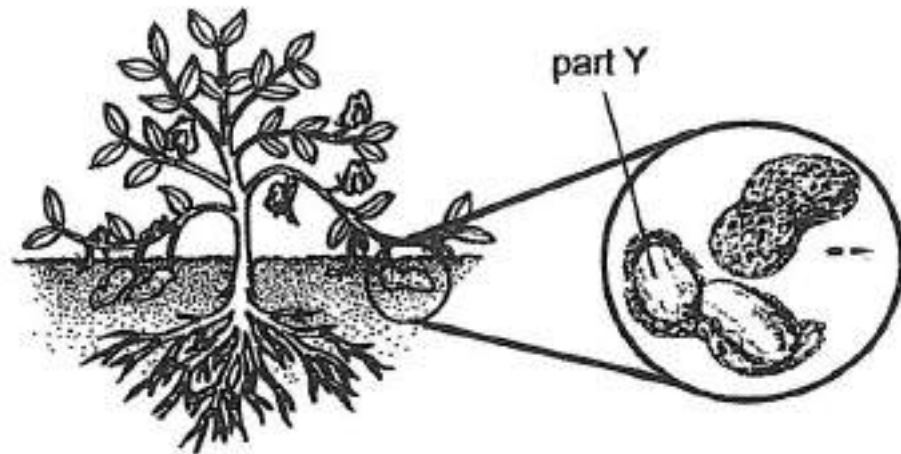


D)





Look at the diagram below.

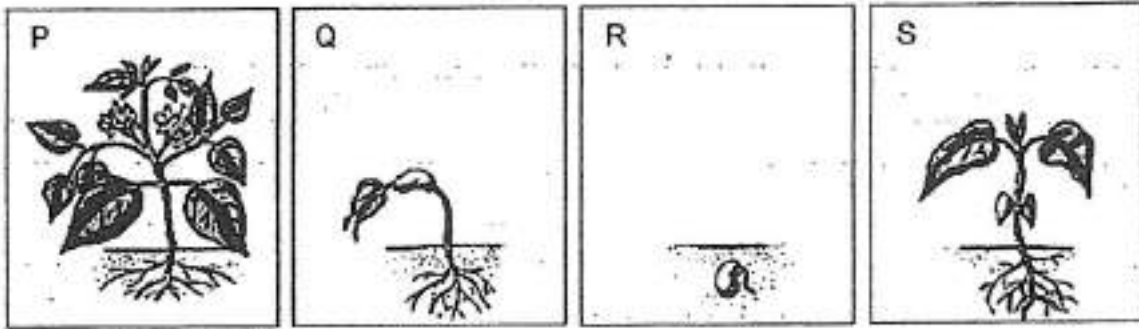


Why is part Y important to the plant?

- A** It can develop into a new plant.
- B** It anchors the plant firmly to the ground.
- C** It stores excess food made by the plant.

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

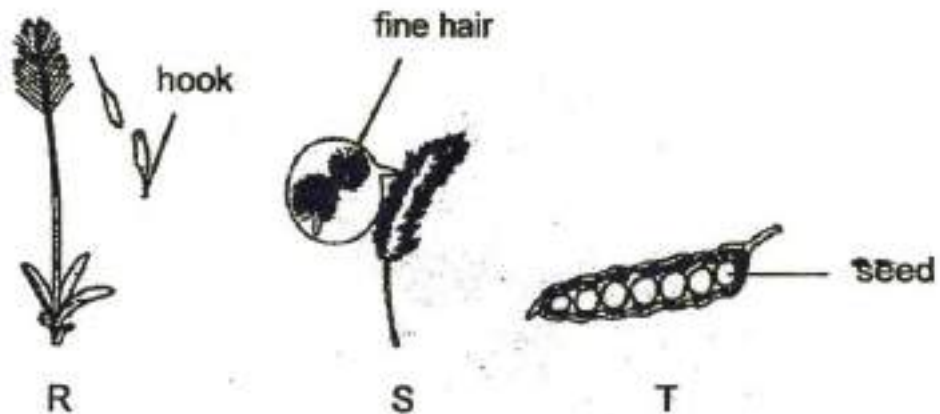
The diagrams below show the stages of a plant life cycle.



Which one of the following shows the stages in the correct order?

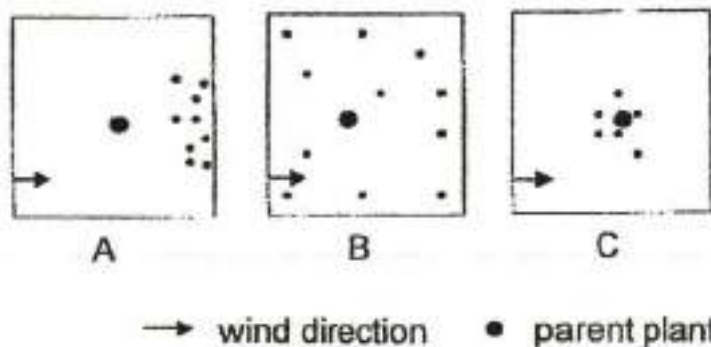
- 
- A) P, S, Q, R
  - B) P, R, Q, S
  - C) R, Q, P, S
  - D) R, P, S, Q

The diagrams below show the seeds of three plants, R, S and T.



Each plant was planted in the centre of three similar plots of land, A, B and C.

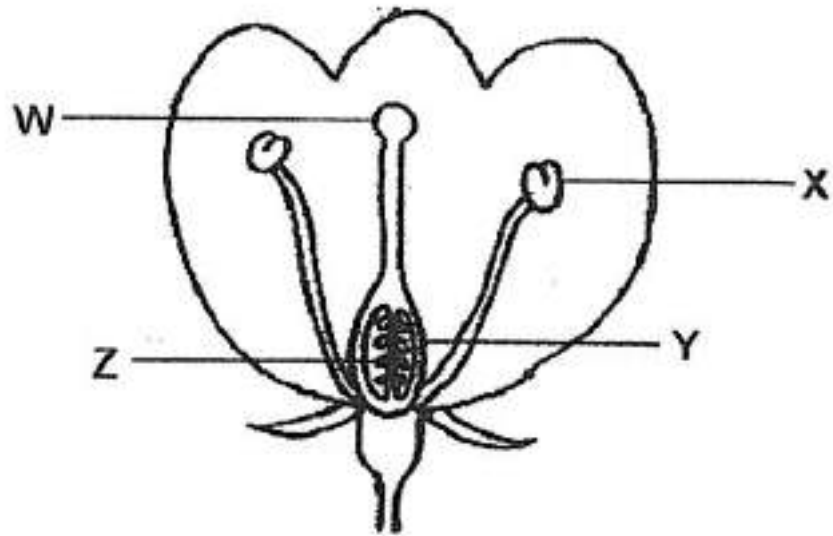
The diagrams below show where the seeds of each plant were being dispersed in each plot of land.



Which one of the following were most likely planted in each plot of land?

- A)
- |        |        |        |
|--------|--------|--------|
| Plot A | Plot B | Plot C |
| R      | S      | T      |
- B)
- |        |        |        |
|--------|--------|--------|
| Plot A | Plot B | Plot C |
| R      | T      | S      |
- C)
- |        |        |        |
|--------|--------|--------|
| Plot A | Plot B | Plot C |
| S      | T      | R      |
- D)
- |        |        |        |
|--------|--------|--------|
| Plot A | Plot B | Plot C |
| S      | R      | T      |

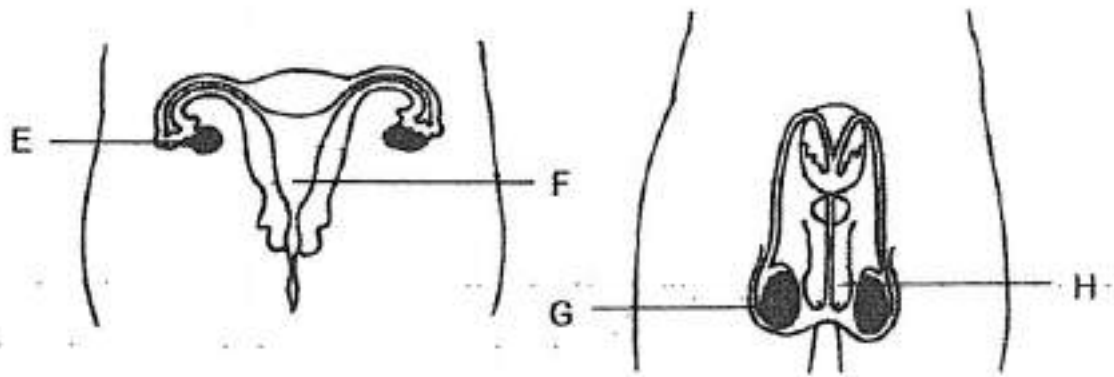
The diagram below shows parts of a flower.



Which part, W, X, Y or Z, will develop into a fruit?

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

The diagrams below show the male and female human reproductive systems.



Which one of the labelled parts produce cells that are necessary for fertilisation to take place?

- A) E and G
- B) E and H
- C) F and G
- D) F and H

Which of the characteristics below are passed on from the parent plants to the young plants?

- A type of seed
- B shape of leaf
- C colour of flower
- D number of fruits

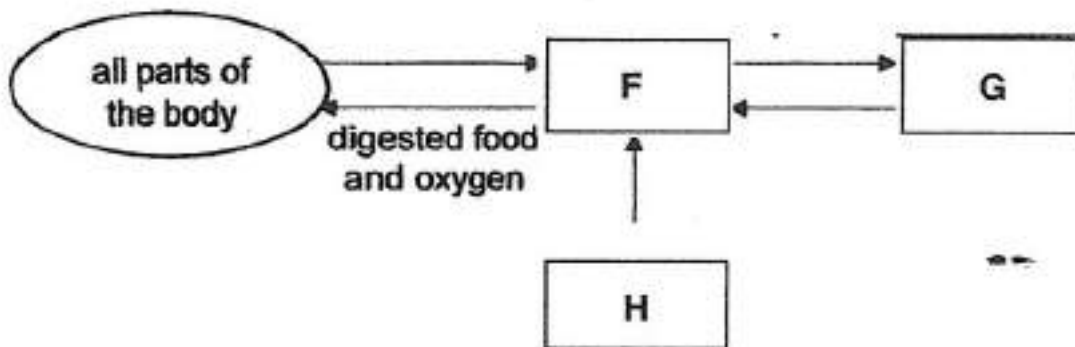
- A) A and B only
- B) C and D only
- C) A, B and C only
- D) A, B, C and D

Plants take in water through their roots. Where is the water transported to?

- A fruits
- B stems
- C leaves
- D flowers

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

The diagram below shows how the different human body systems work together. The arrows represent the transfer of substances and food.



Which one of the following correctly shows the body systems represented by F, G and H?

- A)
 

F	G	H
circulatory	respiratory	digestive
- B)
 

F	G	H
digestive	respiratory	circulatory
- C)
 

F	G	H
circulatory	respiratory	muscular
- D)
 

F	G	H
digestive	muscular	respiratory

Which one of the following is the basic unit of life of a plant and an animal respectively?

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- A) 

Plant	Animal
cell wall	cell membrane
- B) 

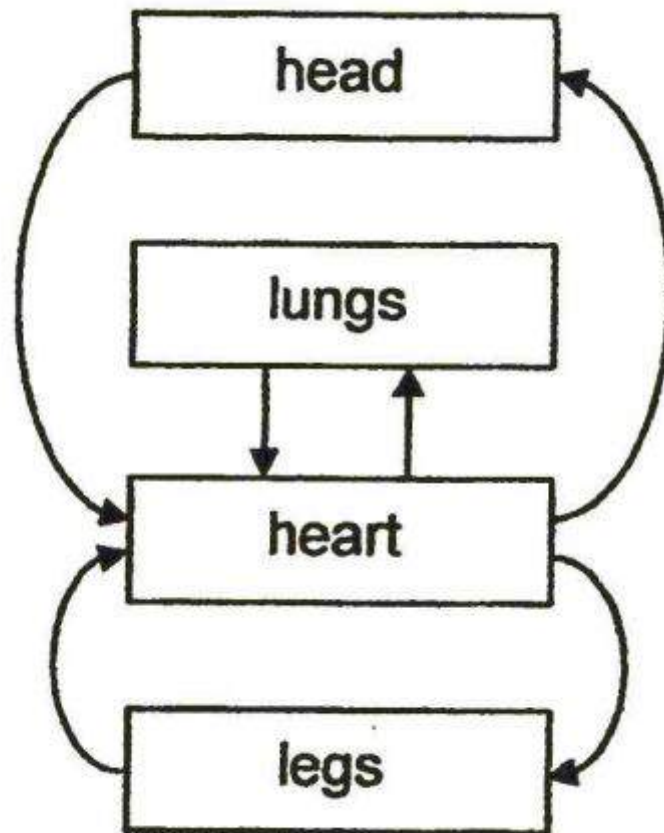
Plant	Animal
cell	cell
- C) 

Plant	Animal
chloroplast	nucleus
- D) 

Plant	Animal
nucleus	nucleus

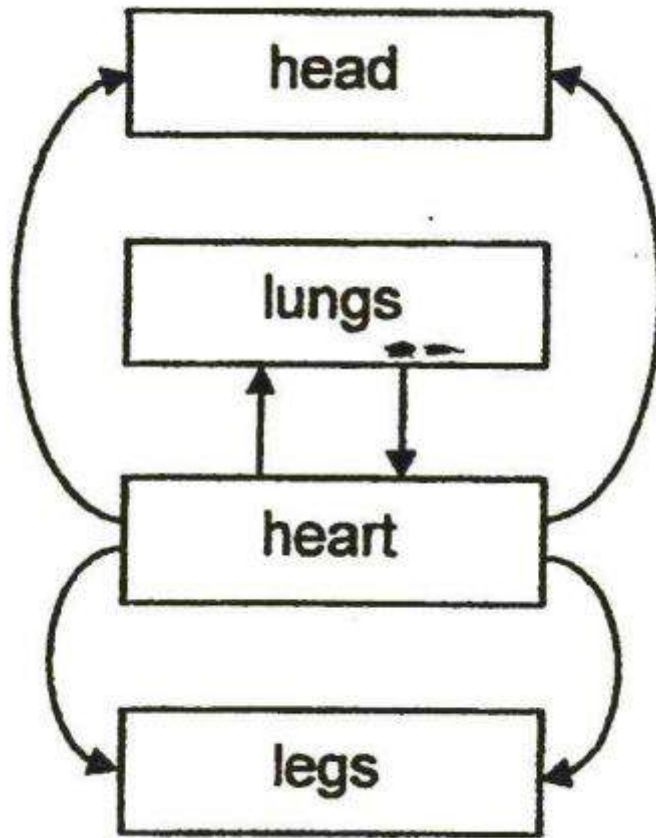
Which one of the following diagrams correctly shows the flow of blood in the human circulatory system?

A)

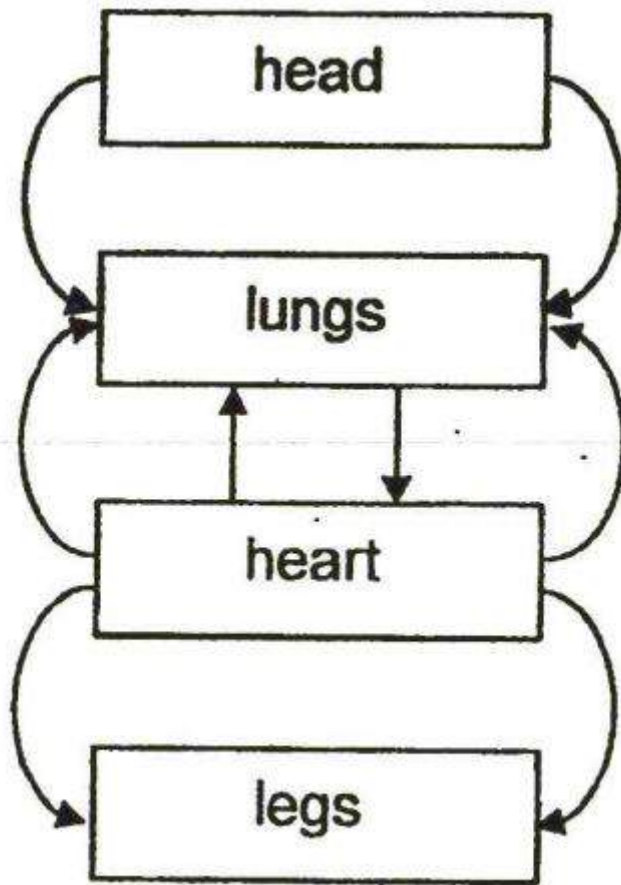


B)

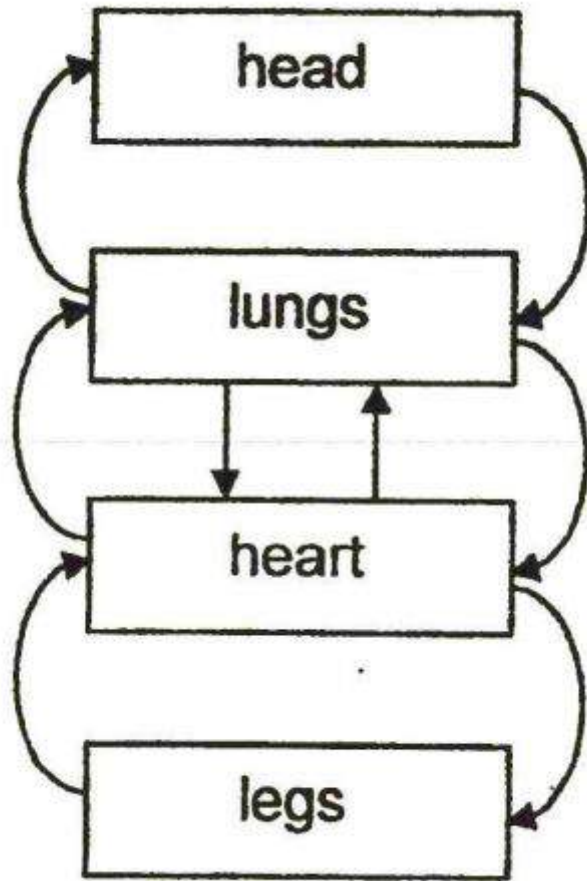




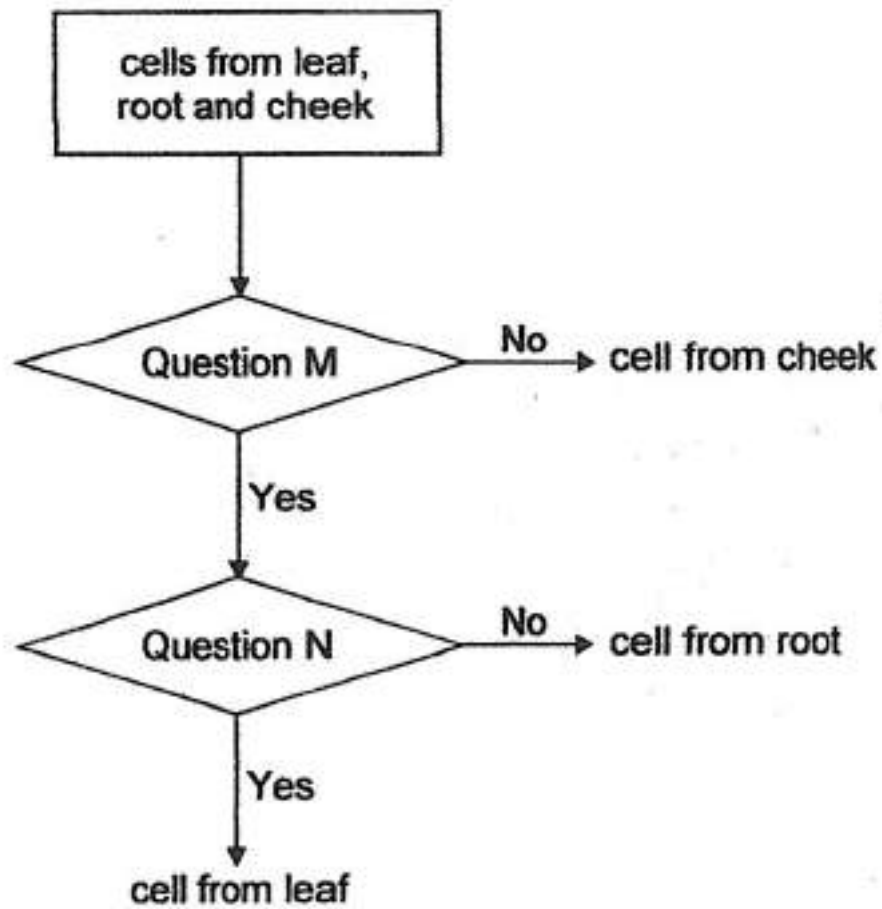
c)



d)



Study the chart below.



What do Questions M and N represent?

- A) 

Question M	Question N
Does the cell have chloroplast?	Does the cell have a cell wall?
- B) 

Question M	Question N
Does the cell have a cell wall?	Does the cell have chloroplast?
- C) 

Question M	Question N
Does the cell have a nucleus?	Does the cell have a cell membrane?
- D) 

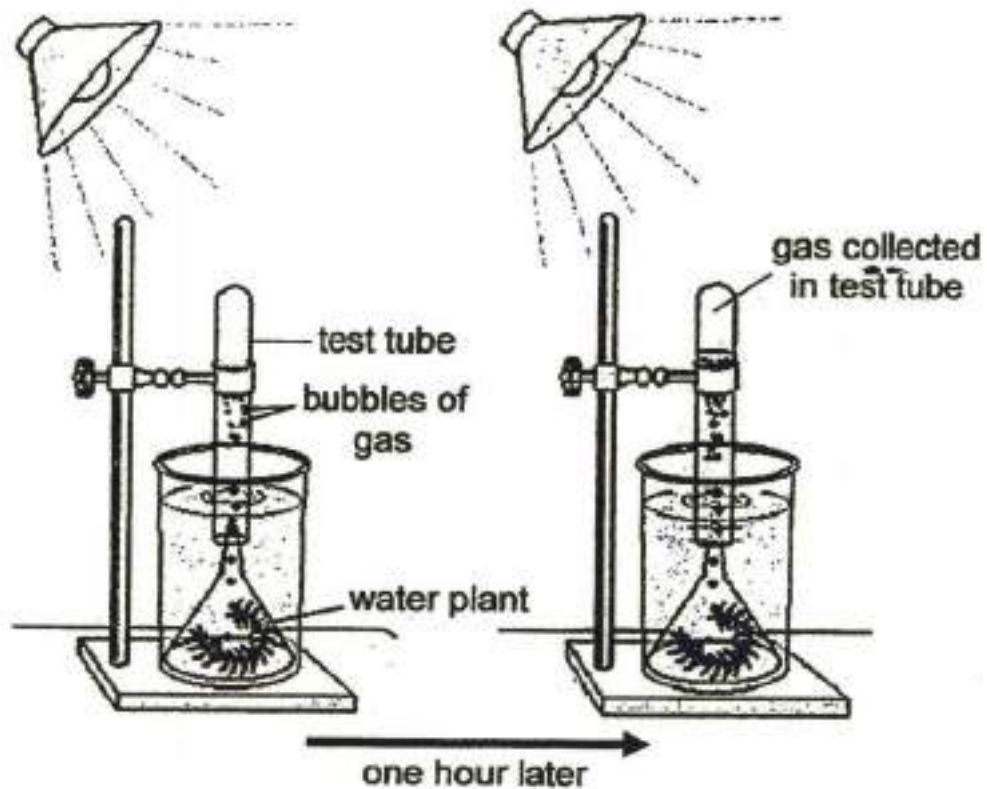
Question M	Question N
Does the cell have a cell membrane?	Does the cell have a nucleus?

Which one of the following statements about energy is not correct?

---

- A)** The sun provides light and heat energy.
- B)** Man obtains energy indirectly from the sun.
- C)** Plants obtain energy from the sun to make food.
- D)** An animal that is sleeping does not require energy.

Dorothy set up an experiment as shown below.



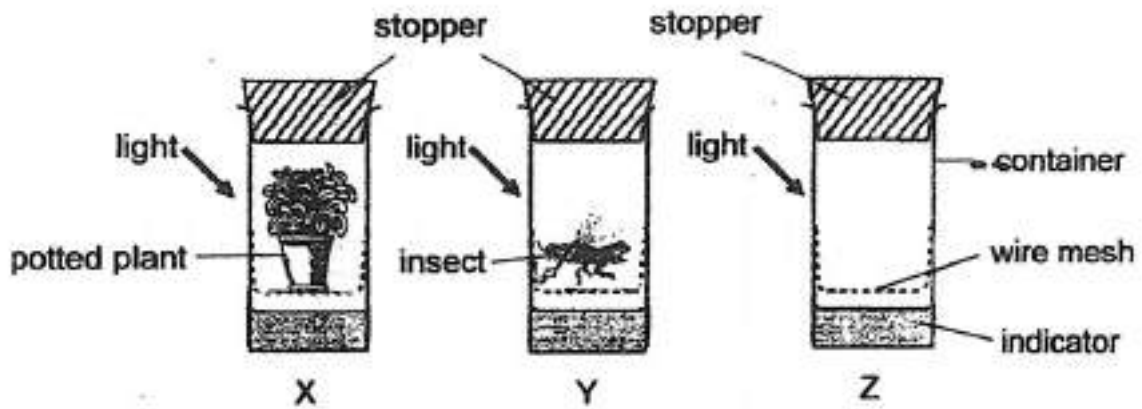
She noticed that there was gas collected in the test tube one hour later.

Based on the experiment, which of the following statements are correct?

- A The plants were photosynthesising.
- B The gas collected in the test tube was oxygen.
- C The bubbles of gas were mostly carbon dioxide which the plants gave off.
- D The gas collected took up space in the test tube once occupied by the water.

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

Rashid wanted to find out if plants and animals affect the amount of carbon dioxide in their surroundings. He set up three containers as shown below.



The same amount of indicator was added to each container. At the start, the colour of the indicator was red. If the amount of carbon dioxide increases, the indicator will change from red to yellow.

The table below shows the colour change of the indicator according to the different amounts of carbon dioxide present.

Colour of indicator	Amount of carbon dioxide
purple	less than normal
red	normal
yellow	more than normal

Which one of the following correctly shows the colour of the indicator in each container after two hours?

- A) 

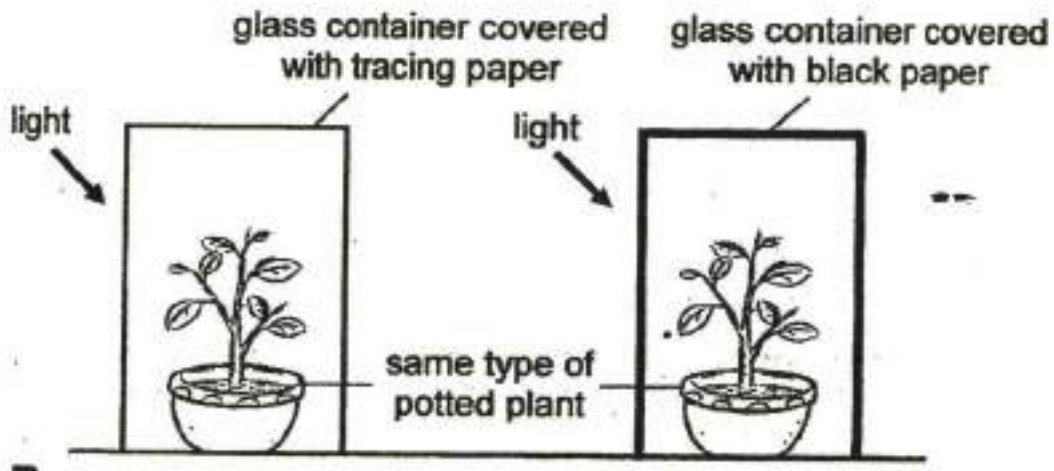
X	Y	Z
purple	yellow	red
- B) 

X	Y	Z
purple	red	yellow
- C) 

X	Y	Z
red	yellow	purple
- D) 

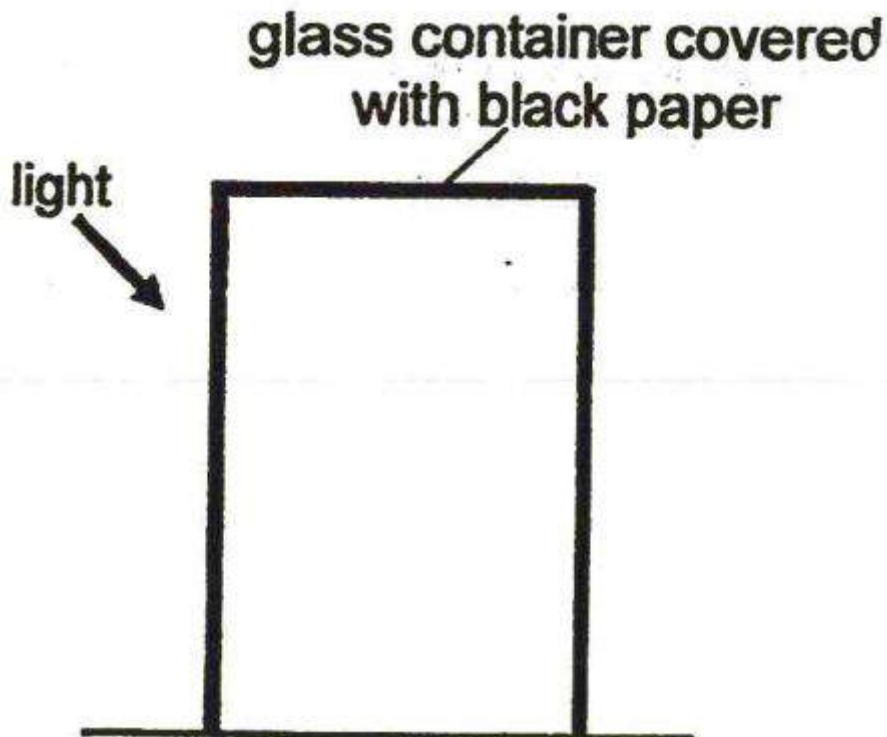
X	Y	Z
yellow	red	purple

Shi Kai wanted to investigate how the amount of light affects the rate of photosynthesis. The diagram below shows each of his set-ups in a glass container.

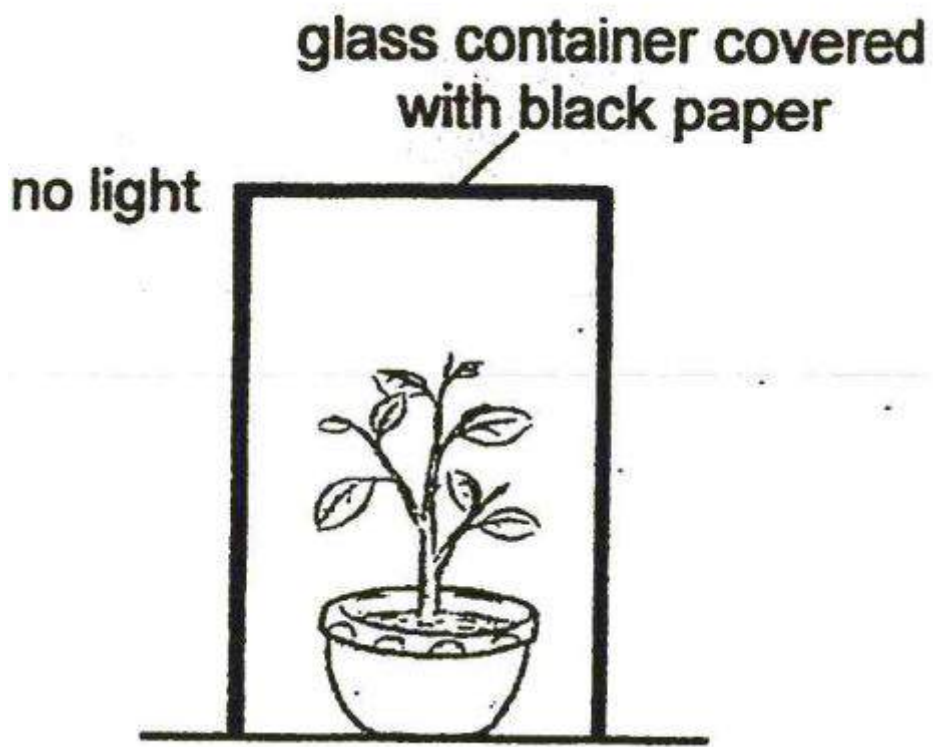


Which one of the following could be used as a control for his investigation?

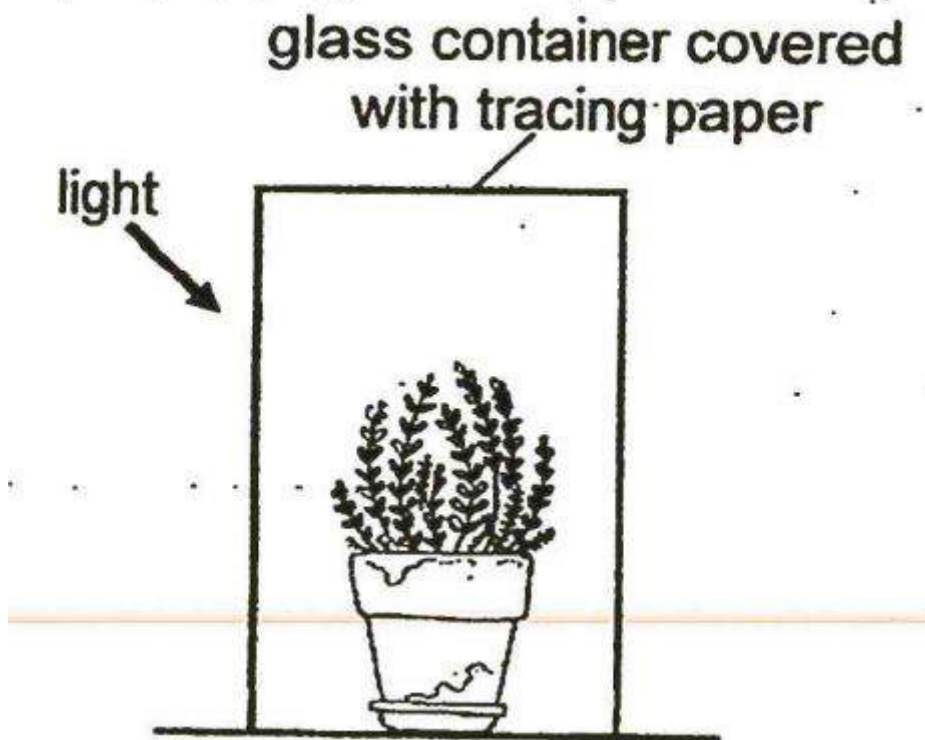
A)



B)

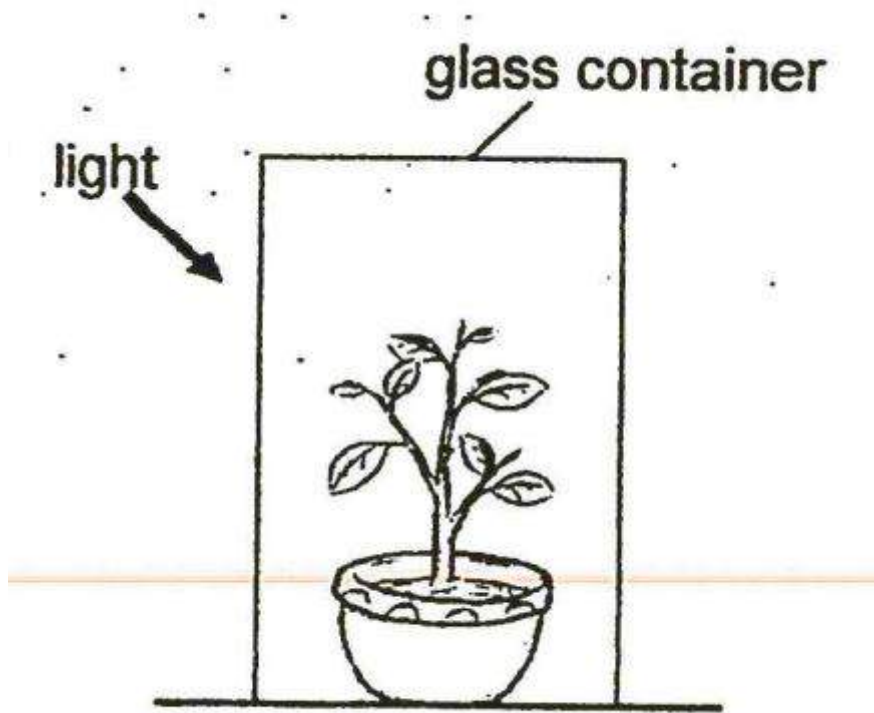


○ c)



○ d)





**Question 18 of 61**

Primary 5 Science (Term 4)

2 pts

Which one of the following materials does not match its property and use?

- A) 

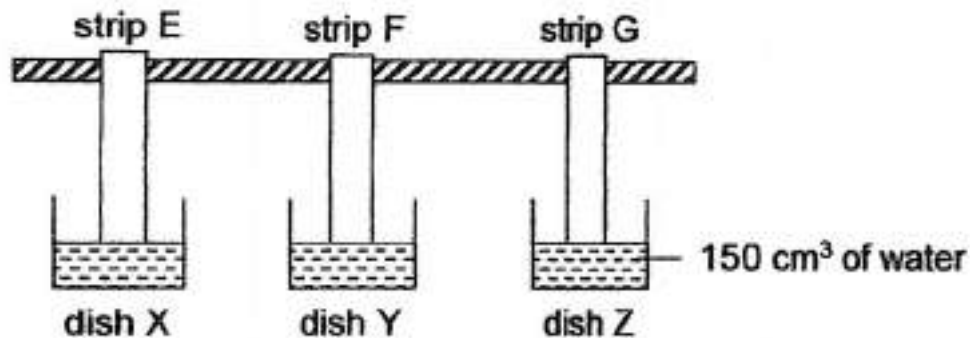
Material	Property	Use
fabric	flexible	dress
- B) 

Material	Property	Use
rubber	ability to sink	tyre of a car
- C) 

Material	Property	Use
metal	strong	cage
- D) 

Material	Property	Use
glass	transparent	display window

Wei Ling placed three different strips of materials, E, F and G, of equal thickness and lengths into three similar dishes, X, Y and Z, respectively as shown below. Each dish contained  $150 \text{ cm}^3$  of water.



After five minutes, the amount of water left in each dish was recorded in the table below.

Dish	Amount of water left ( $\text{cm}^3$ )
X	150
Y	35
Z	88

What could materials E, F and G be made of?

- A) 

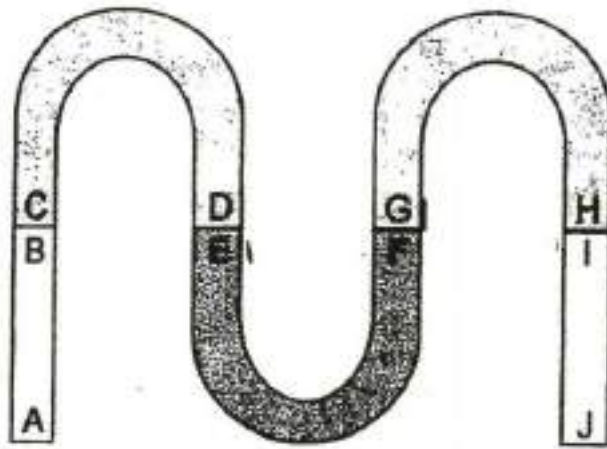
E	F	G
plastic	fabric	paper
- B) 

E	F	G
plastic	paper	fabric
- C) 

E	F	G
paper	fabric	plastic
- D) 

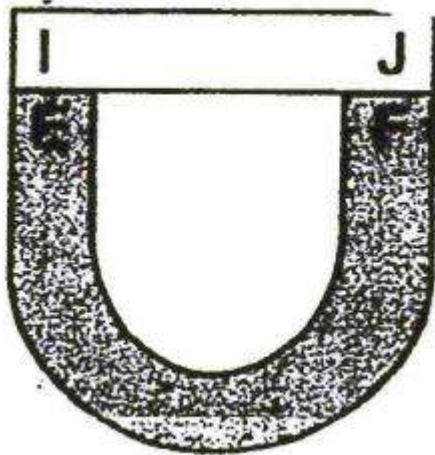
E	F	G
fabric	plastic	paper

The diagram below shows the arrangement of five magnets when they are attracted to each other.

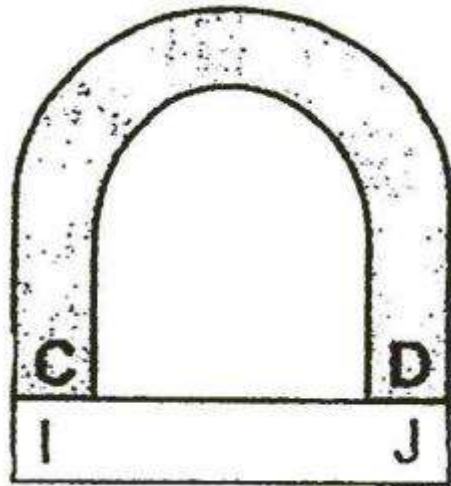


Which one of the following arrangements is correct?

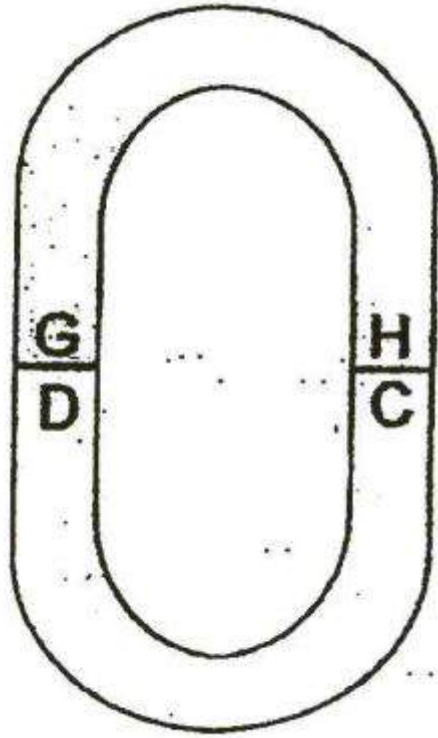
A)



B)



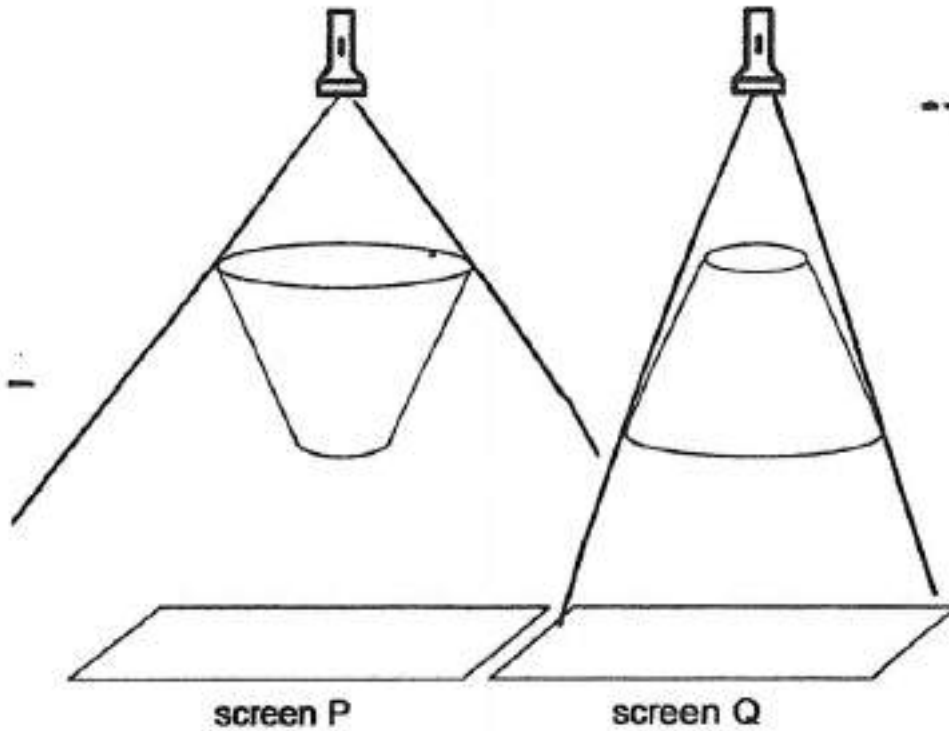
C)



D)



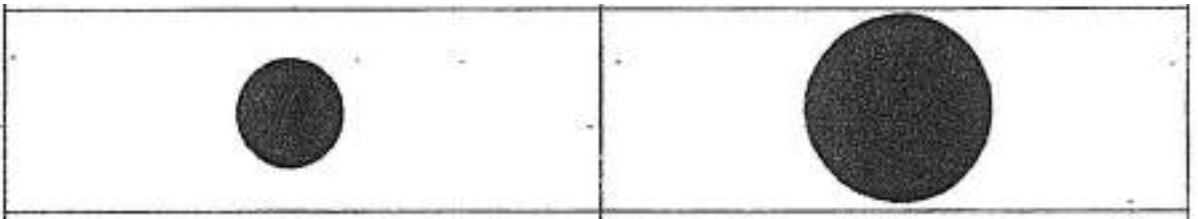
Two similar objects, each consisting of two circular surfaces and a curved surface, were placed in different ways directly under similar light sources in a dark room as shown below. The shadows were formed on screens P and Q.



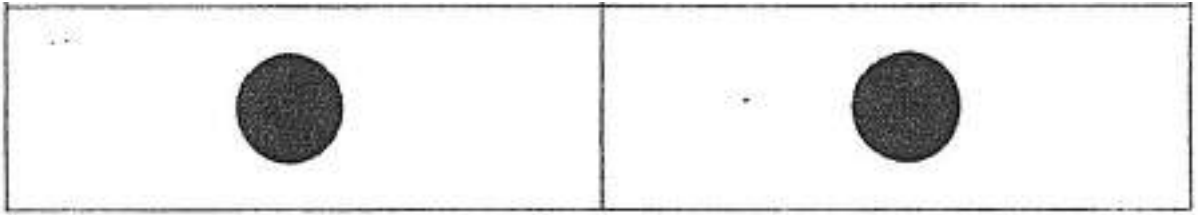
Which one of the following shadows would be observed for each screen?

- A)
- | screen P | screen Q |
|----------|----------|
|          |          |
- B)
- |  |  |
|--|--|
|  |  |
|--|--|

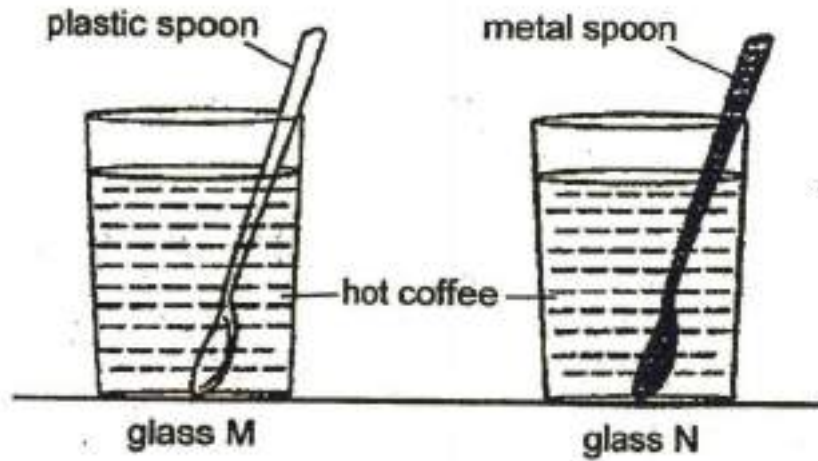
C)



D)

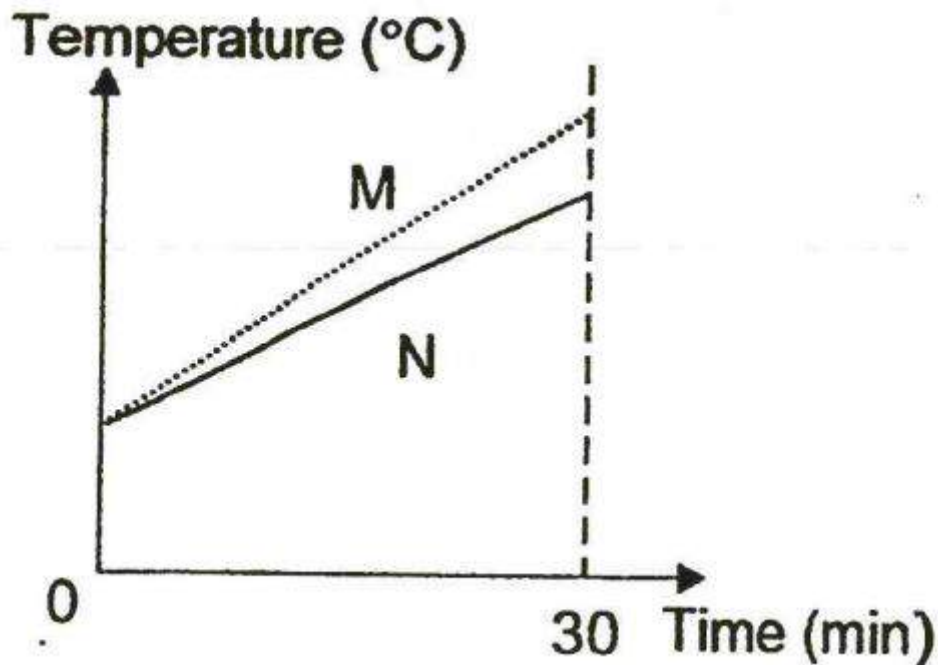


Kai Lin poured an equal amount of hot coffee into two similar glasses, M and N. She placed two spoons of the same size and shape, each of a different material, in the glasses as shown below.

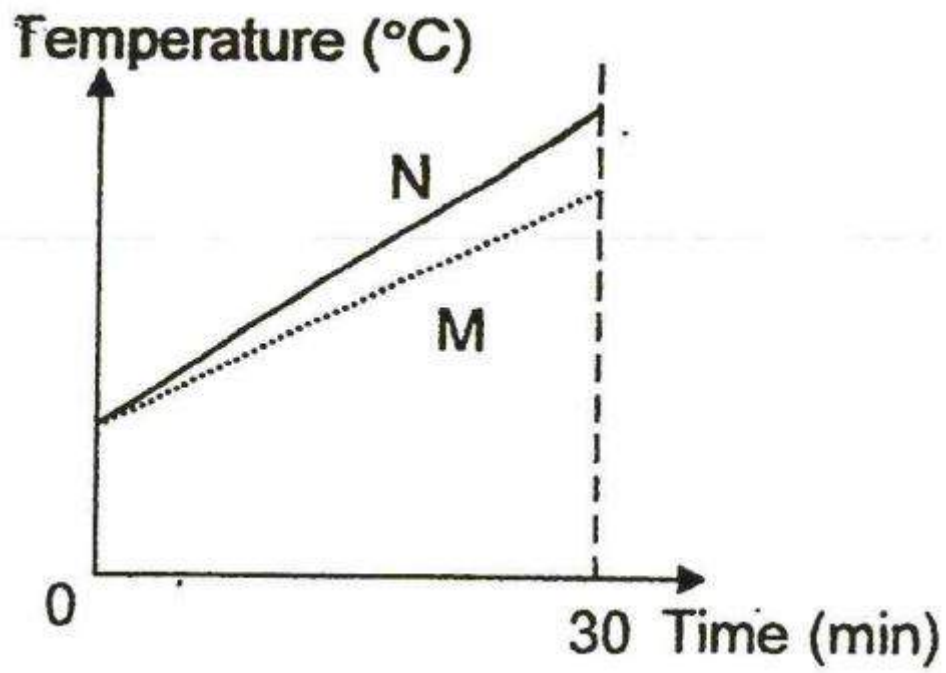


Kai Lin recorded the change in the temperature of coffee in glasses M and N for 30 minutes. Which one of the graphs below represents the change in the temperature of coffee in both glasses over time?

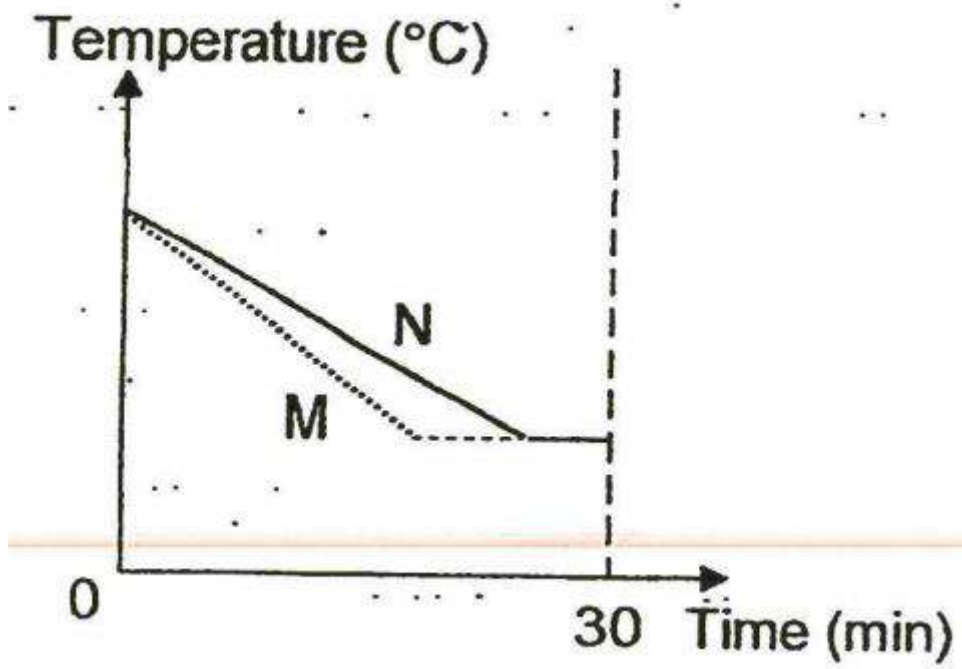
A)



B)

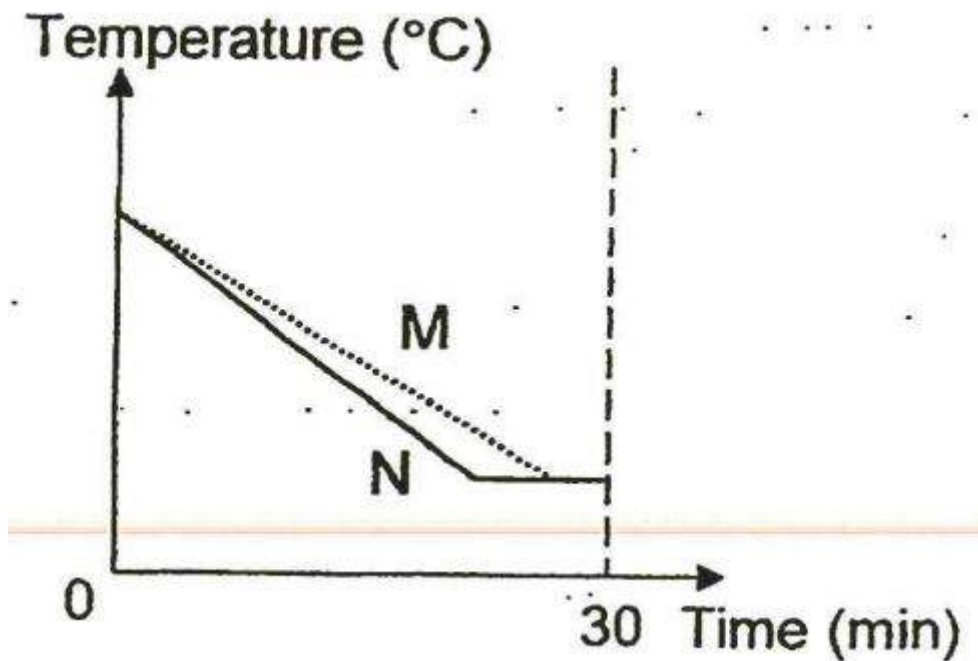


c)



d)



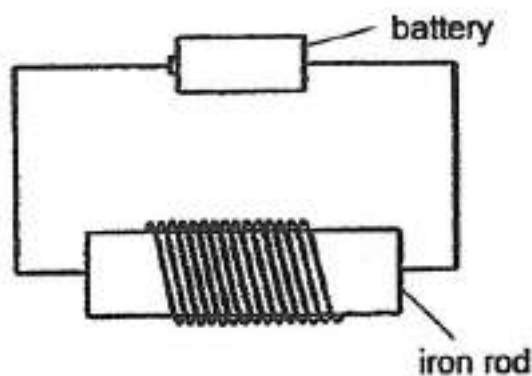


Question 23 of 61

Primary 5 Science (Term 4)

2 pts

Greg made a magnet with an iron rod as shown below.

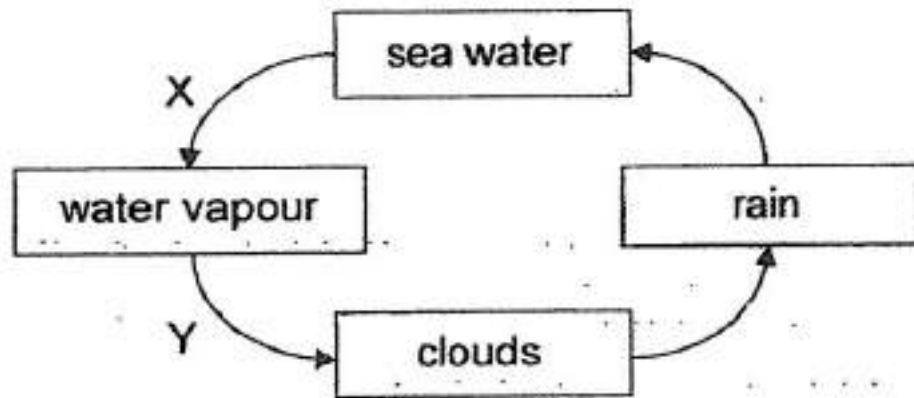


What should Greg do to ensure that the magnet attract more paper clips?

- A Use two batteries instead of one battery.
- B Increase the time for electric current to pass through the iron rod.
- C Use a longer iron rod with the same number of coils of wire around it.

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

The diagram below represents the water cycle.



Which one of the following is correct?

- A) 

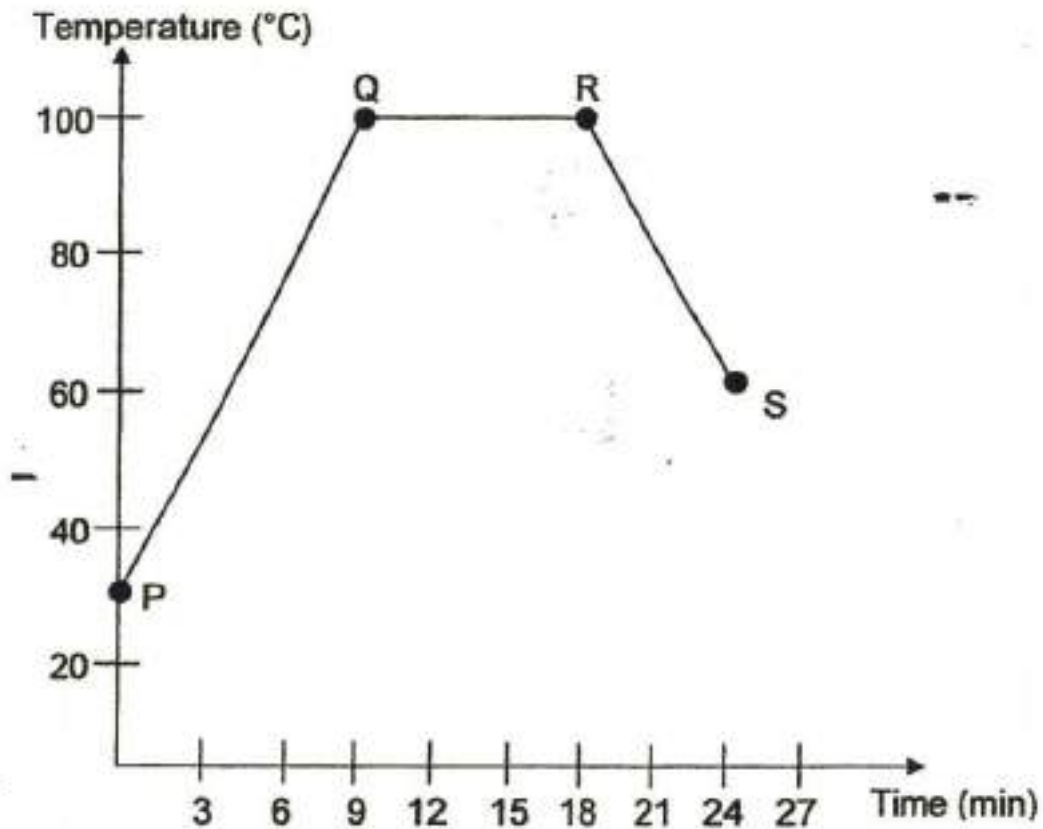
Condensation occurs at	Evaporation occurs at
X	W
- B) 

Condensation occurs at	Evaporation occurs at
Z	Y
- C) 

Condensation occurs at	Evaporation occurs at
Y	X
- D) 

Condensation occurs at	Evaporation occurs at
W	Z

Ryan heated some water in a beaker until it boiled. He continued to allow the water to boil for some time before it was left to cool on a table. He recorded the results in the graph as shown below.



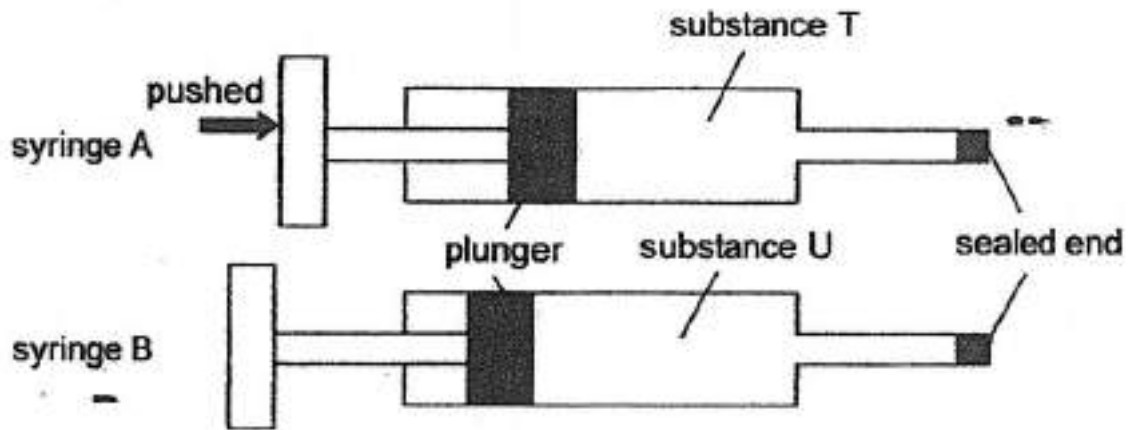
Which of the following statements are correct?

- A There was heat gain at QR.
- B Water existed in two states at PQ.
- C Evaporation took place only at RS.
- D The water was heated for 18 minutes.

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

Raudhah had two syringes, A and B, containing substances T and U respectively. She sealed the end of each syringe.

She observed that the plunger in syringe B could not be pushed in while the plunger in syringe A could be pushed in slightly.



What could substances T and U be?

- A) 

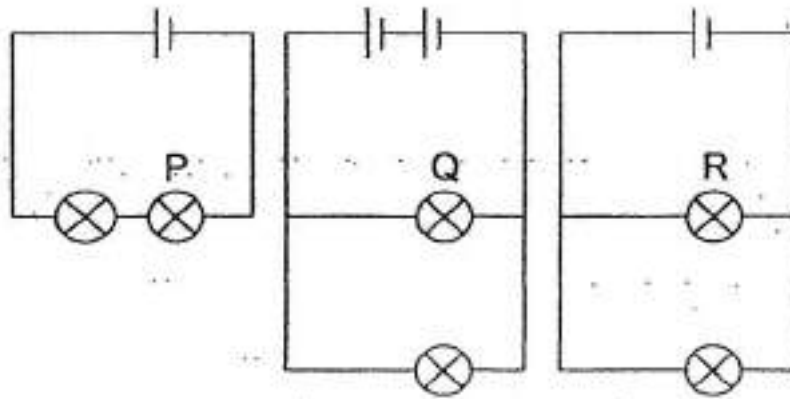
substance T	substance U
carbon dioxide	water
- B) 

substance T	substance U
oxygen	carbon dioxide
- C) 

substance T	substance U
tea	oxygen
- D) 

substance T	substance U
water	tea

Study the circuits below. The batteries and bulbs used are similar.



Arrange the bulbs from the brightest to the dimmest.

- A) 

Brightest bulb		Dimmest bulb
R	Q	P
- B) 

Brightest bulb		Dimmest bulb
P	R	Q
- C) 

Brightest bulb		Dimmest bulb
Q	P	R
- D) 

Brightest bulb		Dimmest bulb
Q	R	P

Four paper clips, A, B, C and D, were fixed onto a cardboard as shown in Diagram 1 below. Diagram 2 shows a battery and a bulb connected to two wires X and Y.

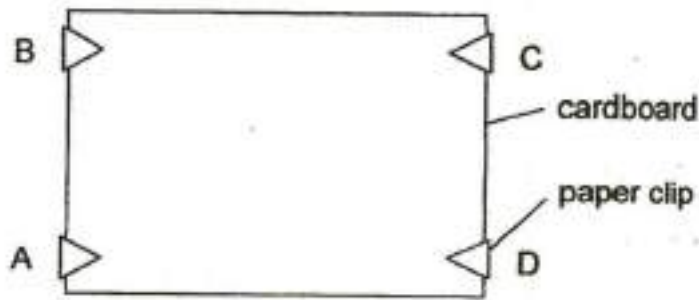


Diagram 1

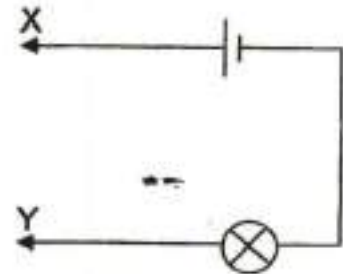


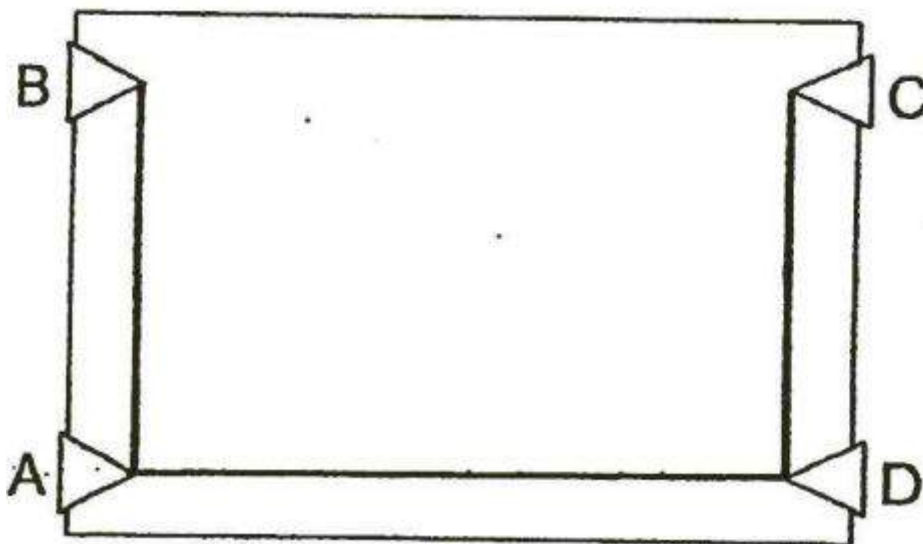
Diagram 2

Sheila connected some but not all of the paper clips on the cardboard in Diagram 1 with wires. She then connected X and Y across different pairs of paper clips in turn. She recorded her results in the table below.

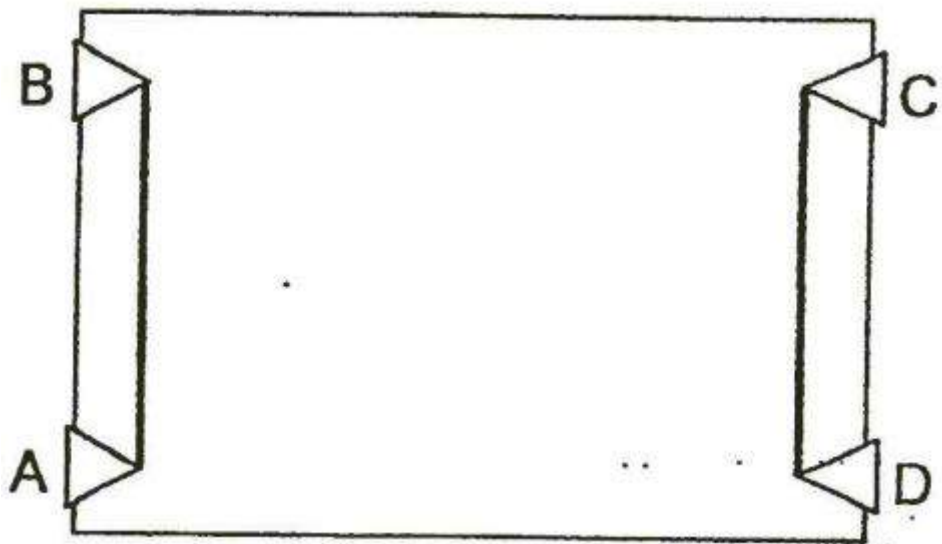
Clip connected to X	Clip connected to Y	Result
A	B	bulb lights up
A	C	bulb does not light up
C	D	bulb lights up

Which one of the following correctly shows the connections made by Sheila?

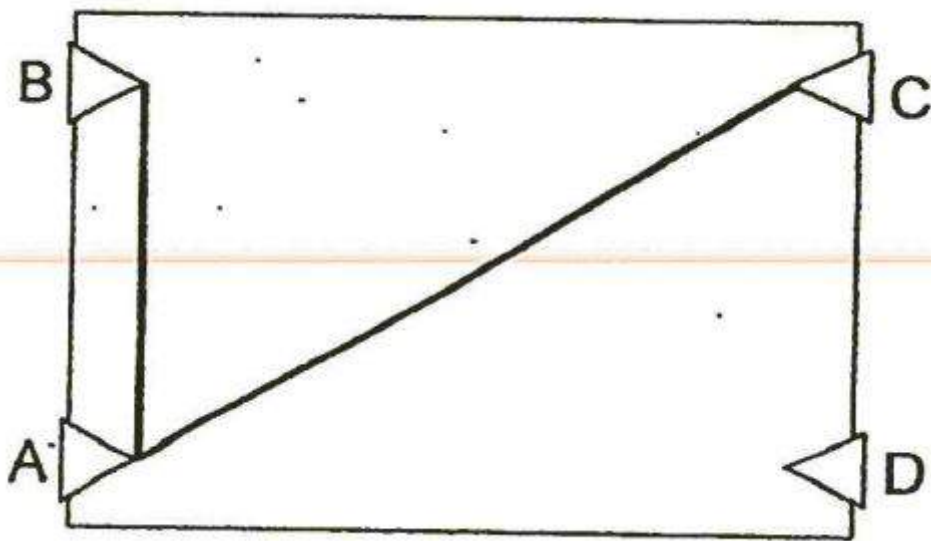
A)



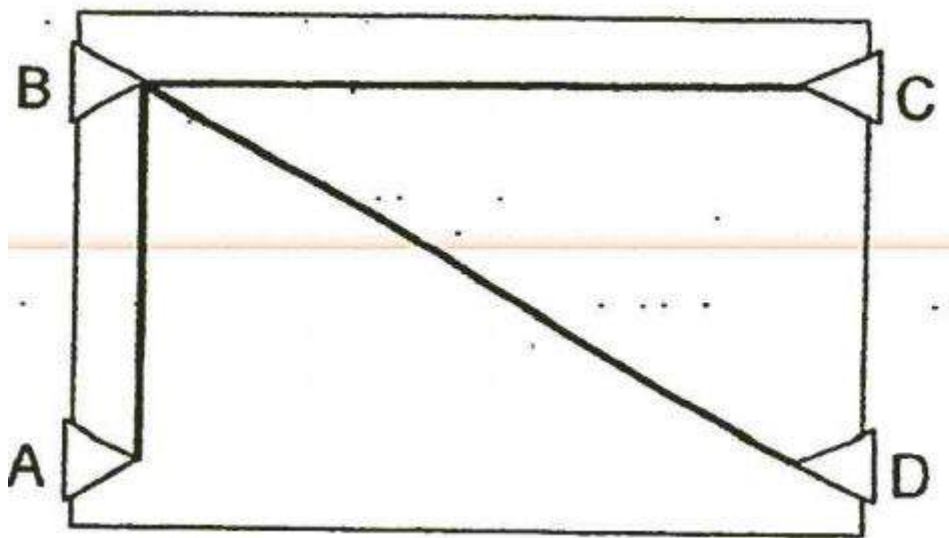
B)



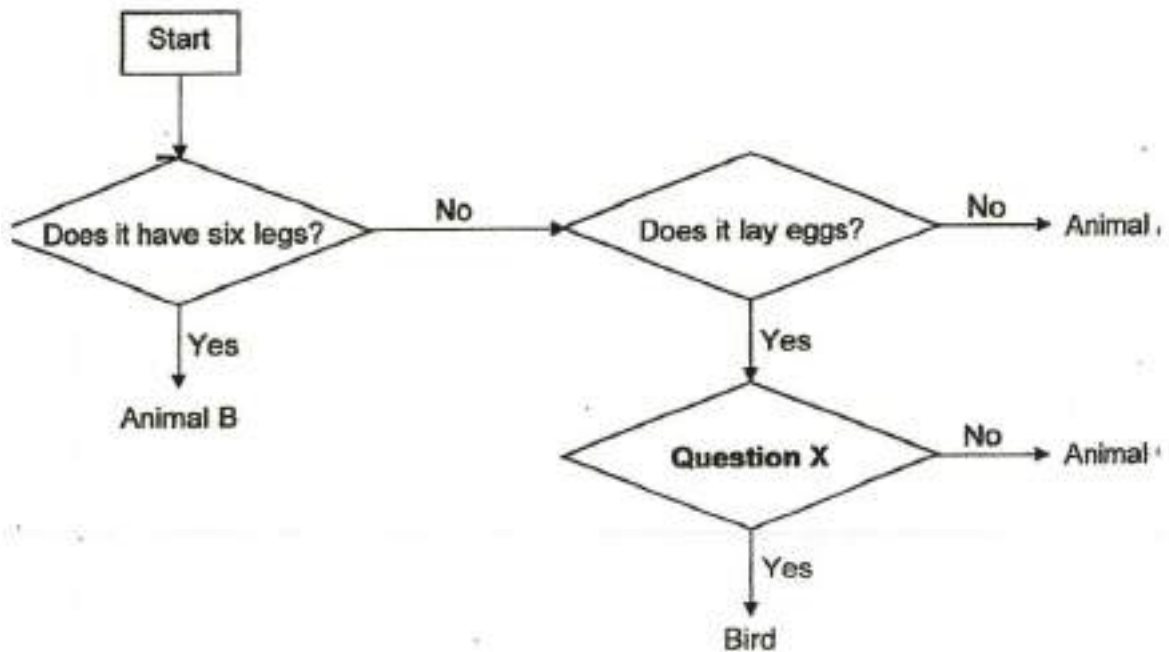
C)



D)



Study the chart below.



Based on the chart above, state one similarity between Animal A and Animal C. (1 mark)

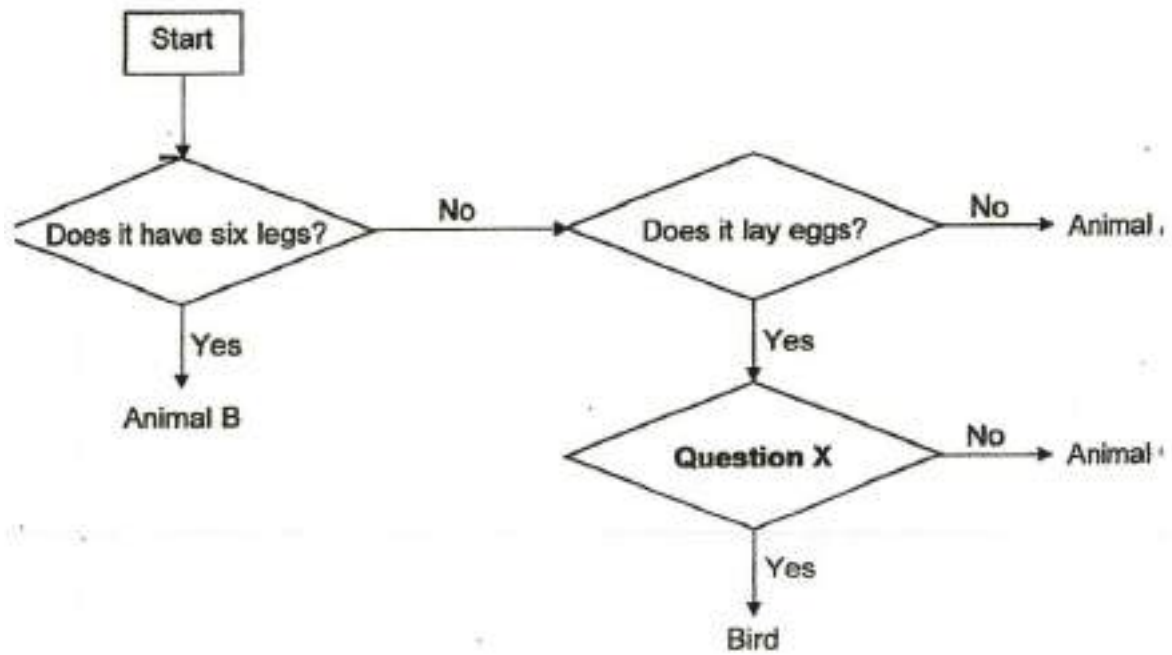
*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

*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.*

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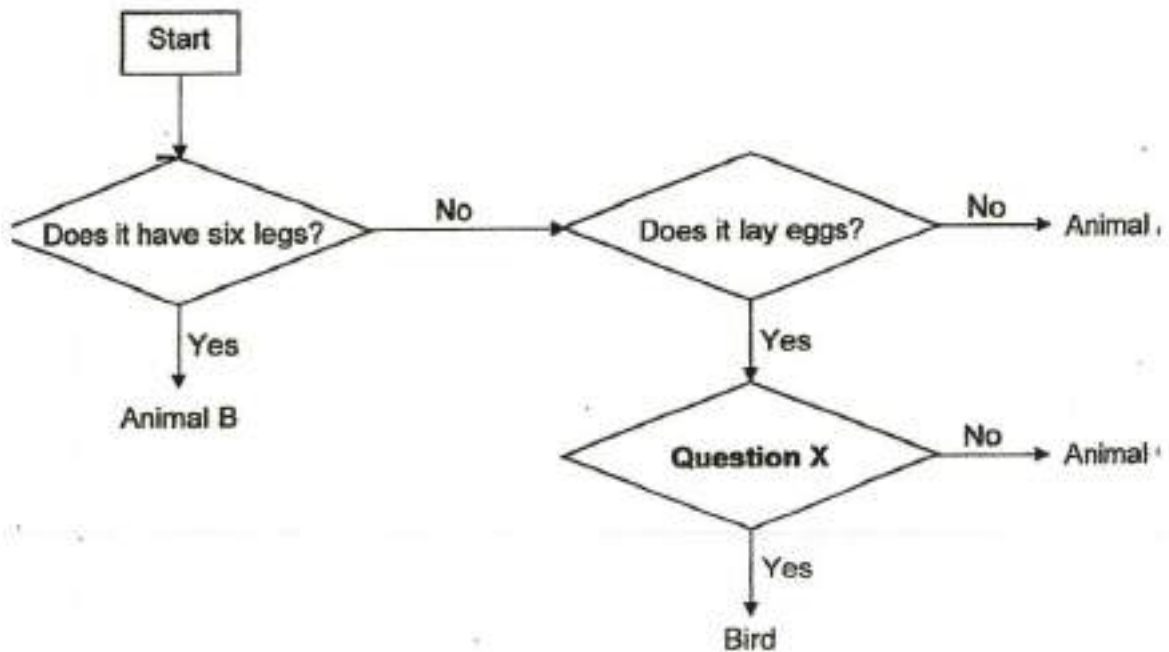
Study the chart below.



Which animal group does Animal B belong to?

---

Study the chart below.



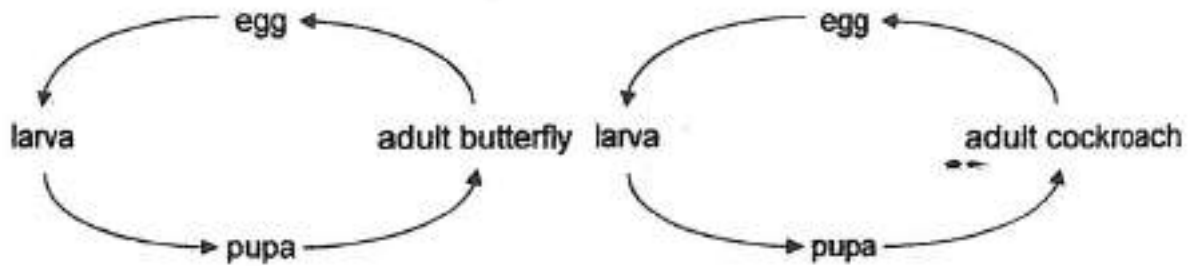
What question could be represented by X in the chart above? (1 mark)

*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.*

---

Arif drew the life cycles of two insects, a butterfly and a cockroach, as shown below.



One of the life cycles was not drawn correctly.

Draw the correct life cycle of that insect in the box below.

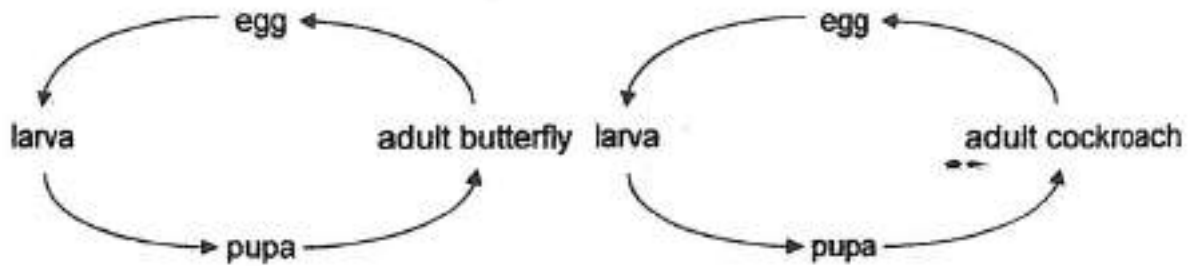
[1]

A large empty rectangular box provided for the student to draw the correct life cycle of the insect.

*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.*

Arif drew the life cycles of two insects, a butterfly and a cockroach, as shown below.



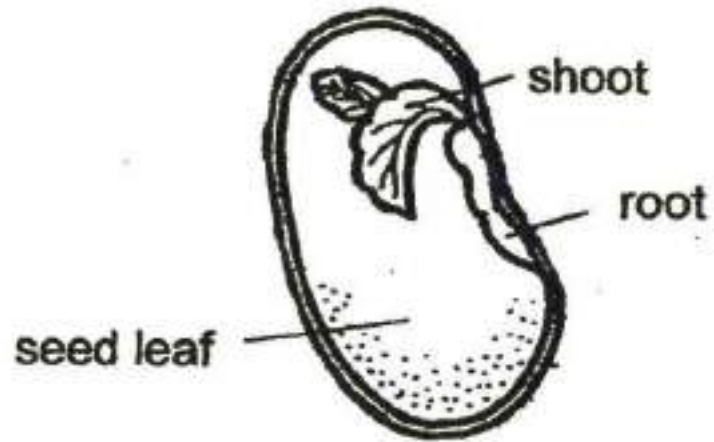
At which stage of the life cycle of a butterfly is it a pest to farmers?  
Give a reason? (1 mark)

*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.*

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The diagram below shows part of a seed.



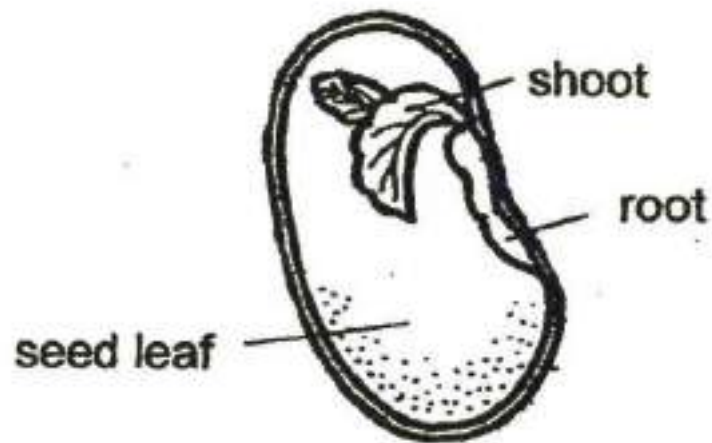
State the function of the seed leaf. (1 mark)

*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.*

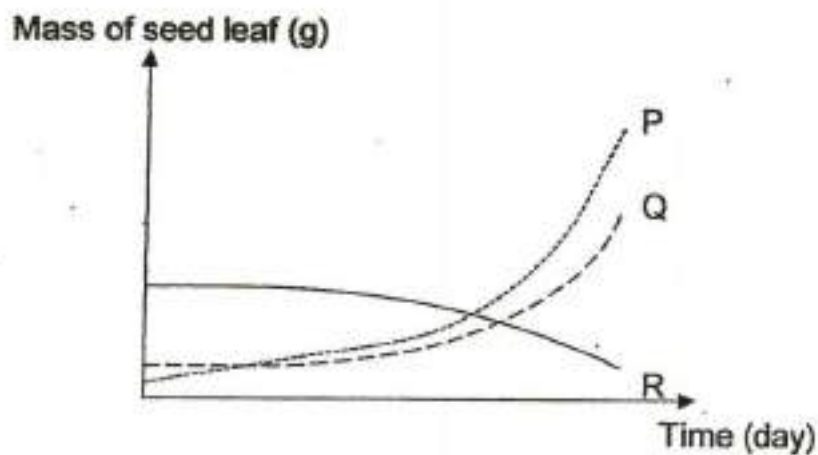
*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*

---

The diagram below shows part of a seed.



In the graph below, the three curves, P, Q and R, show the changes in the mass of the seed leaf, the shoot and the root over a period of time.

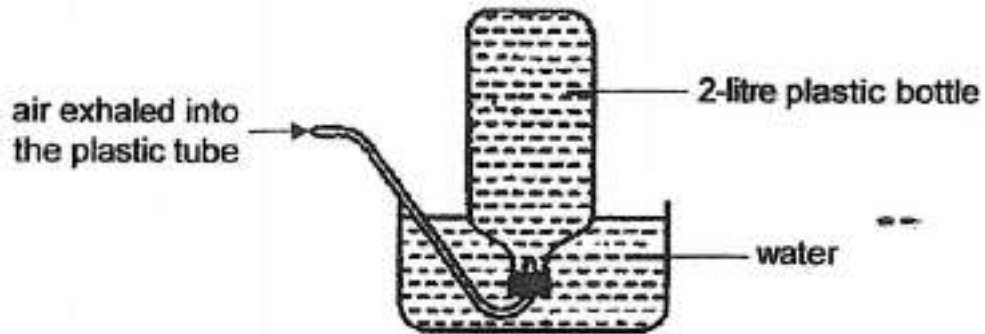


Based on the results above, which curve, P, Q or R, represents the mass of the seed leaf over a period of time? Explain your answer. [2]

*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.*

A group of pupils set up an experiment as shown in the diagram below to find out whose lungs can hold the most air.



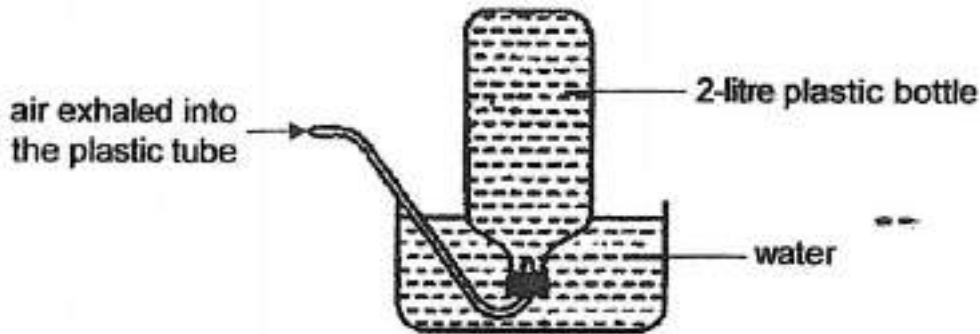
Each pupil took a deep breath and exhaled as much air as he could into the plastic tube. The table below shows the results they had obtained.

Name of pupil	Amount of water left in the plastic bottle (ml)
James	600
Peter	450
Adam	870
Sam	110

Based on the results, which pupil had the greatest lung capacity?  
Give a reason for your answer. (1 mark)

---

A group of pupils set up an experiment as shown in the diagram below to find out whose lungs can hold the most air.



Each pupil took a deep breath and exhaled as much air as he could into the plastic tube. The table below shows the results they had obtained.

Name of pupil	Amount of water left in the plastic bottle (ml)
James	600
Peter	450
Adam	870
Sam	110

Explain how this set-up is able to measure their lung capacity. (2 marks)

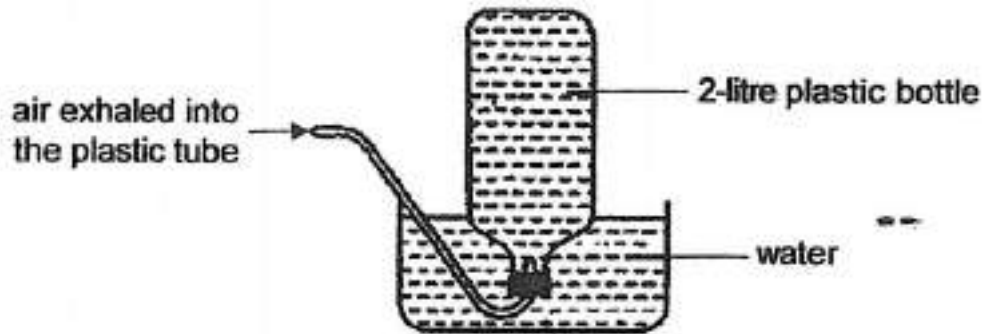
*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

*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.*

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A group of pupils set up an experiment as shown in the diagram below to find out whose lungs can hold the most air.



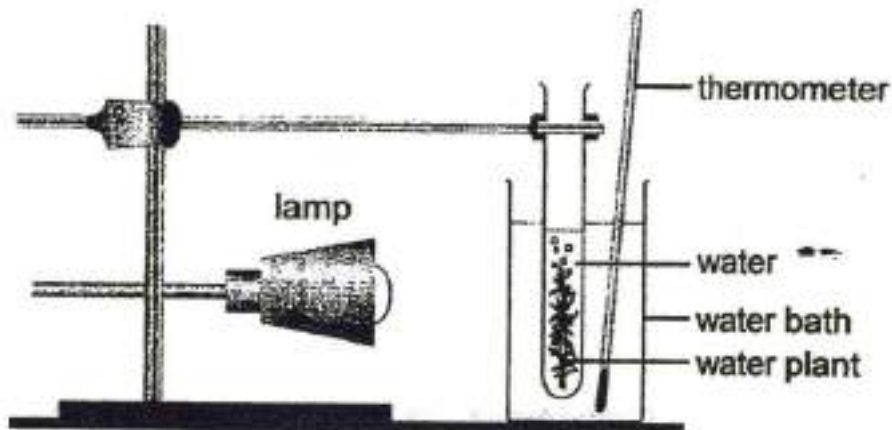
Each pupil took a deep breath and exhaled as much air as he could into the plastic tube. The table below shows the results they had obtained.

Name of pupil	Amount of water left in the plastic bottle (ml)
James	600
Peter	450
Adam	870
Sam	110

State the gas(es) that is/are involved in gaseous exchange in the lungs.

---

Suzi set up the experiment below to find out how temperature affects the number of bubbles produced by the water plant.



She set the temperature of the water bath at 20°C to ensure that the water plant in the test tube was kept at the required temperature. She counted the number of bubbles produced per minute at 20°C. Next, she repeated the experiment at different temperatures. The results are shown below.

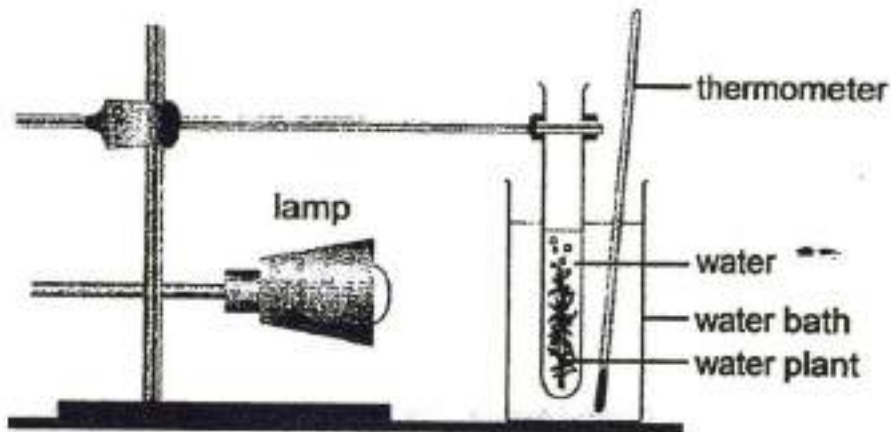
Temperature of water in the test tube (°C)	Number of bubbles produced per minute
20	8
25	12
30	25
35	36
40	31
45	25

Describe how the rate of photosynthesis changes with temperature. (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.*

Suzi set up the experiment below to find out how temperature affects the number of bubbles produced by the water plant.



She set the temperature of the water bath at 20°C to ensure that the water plant in the test tube was kept at the required temperature. She counted the number of bubbles produced per minute at 20°C. Next, she repeated the experiment at different temperatures. The results are shown below.

Temperature of water in the test tube (°C)	Number of bubbles produced per minute
20	8
25	12
30	25
35	36
40	31
45	25

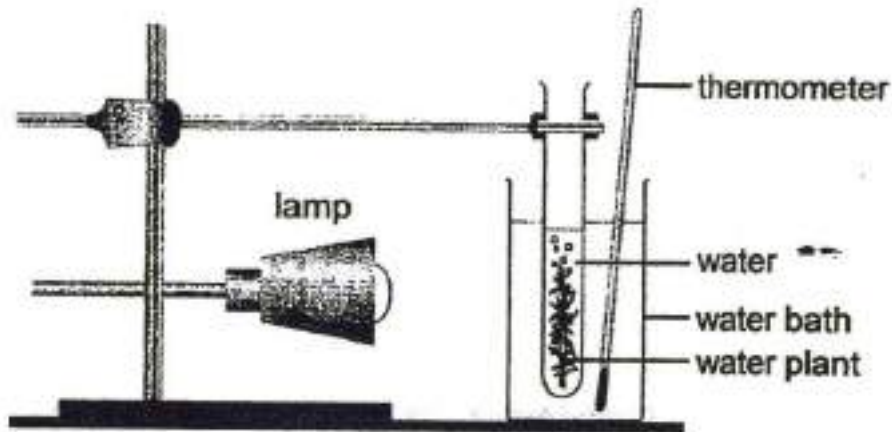
Suzi conducted the experiment in a dark room. Give a reason why this helped to make the experiment a fair test. (1 mark)

*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.*



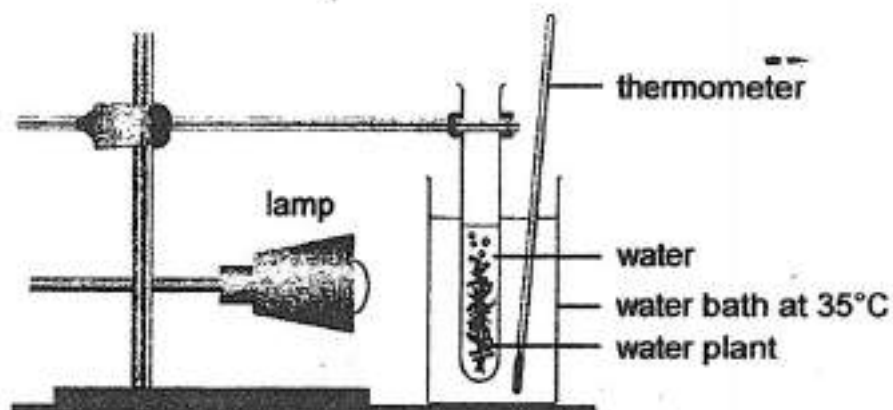
Suzi set up the experiment below to find out how temperature affects the number of bubbles produced by the water plant.



She set the temperature of the water bath at 20°C to ensure that the water plant in the test tube was kept at the required temperature. She counted the number of bubbles produced per minute at 20°C. Next, she repeated the experiment at different temperatures. The results are shown below.

Temperature of water in the test tube (°C)	Number of bubbles produced per minute
20	8
25	12
30	25
35	36
40	31
45	25

Suzi also wanted to find out if the amount of light affects the number of bubbles produced by the water plant.



She kept the water bath at a constant temperature of 35°C and moved the lamp nearer to the water plant as shown above.

What would she observe in the number of bubbles formed per minute? (1 mark)

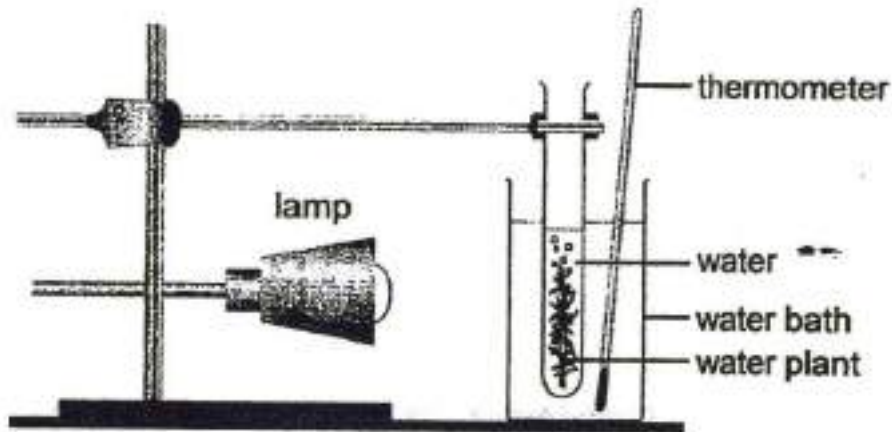
*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

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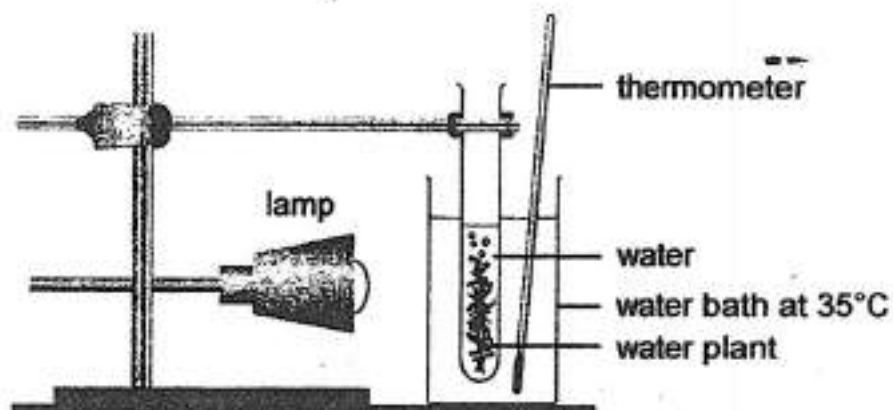
Suzi set up the experiment below to find out how temperature affects the number of bubbles produced by the water plant.



She set the temperature of the water bath at 20°C to ensure that the water plant in the test tube was kept at the required temperature. She counted the number of bubbles produced per minute at 20°C. Next, she repeated the experiment at different temperatures. The results are shown below.

Temperature of water in the test tube (°C)	Number of bubbles produced per minute
20	8
25	12
30	25
35	36
40	31
45	25

Suzi also wanted to find out if the amount of light affects the number of bubbles produced by the water plant.



She kept the water bath at a constant temperature of 35°C and moved the lamp nearer to the water plant as shown above.



Explain how moving the lamp nearer to the water plant would cause the observation in the previous question. (1 mark)

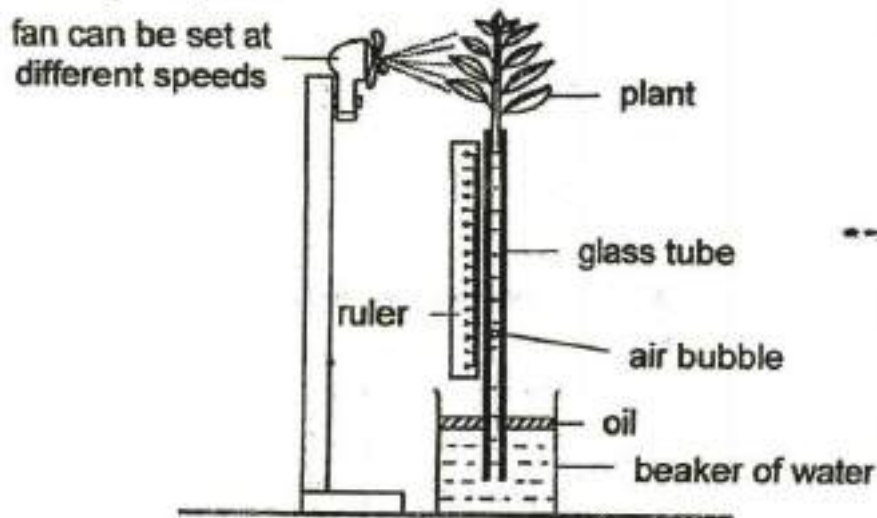
*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

*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 43 of 61**

Primary 5 Science (Term 4) 0 pts

Wei Zheng used the set-up below to investigate how the speed of the fan affects the distance moved by the air bubble in the glass tube when water was taken in by the plant.



The investigation was conducted at different wind speeds over a duration of an hour. The results are shown in the table below.

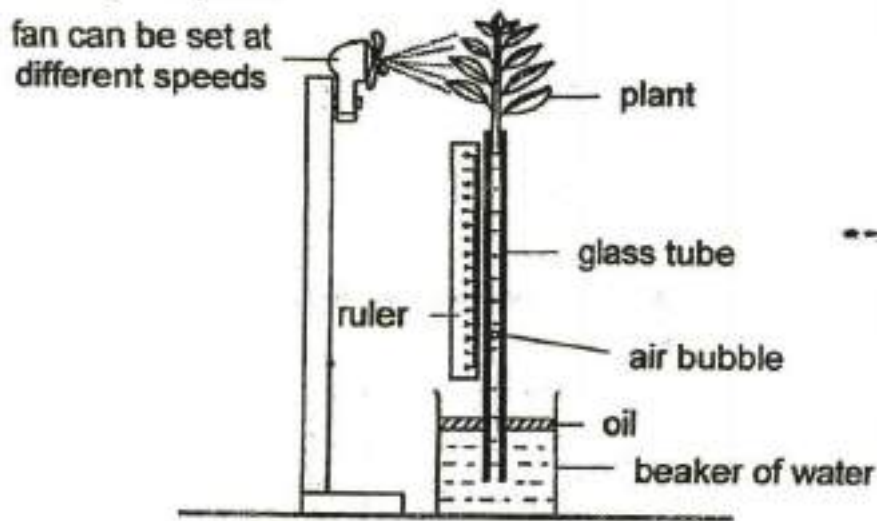
Wind speed	Distance moved by the air bubble (cm)
high	13
medium	9
low	6

What is the purpose of adding oil to the beaker of water in the set-up? (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.*

Wei Zheng used the set-up below to investigate how the speed of the fan affects the distance moved by the air bubble in the glass tube when water was taken in by the plant.



The investigation was conducted at different wind speeds over a duration of an hour. The results are shown in the table below.

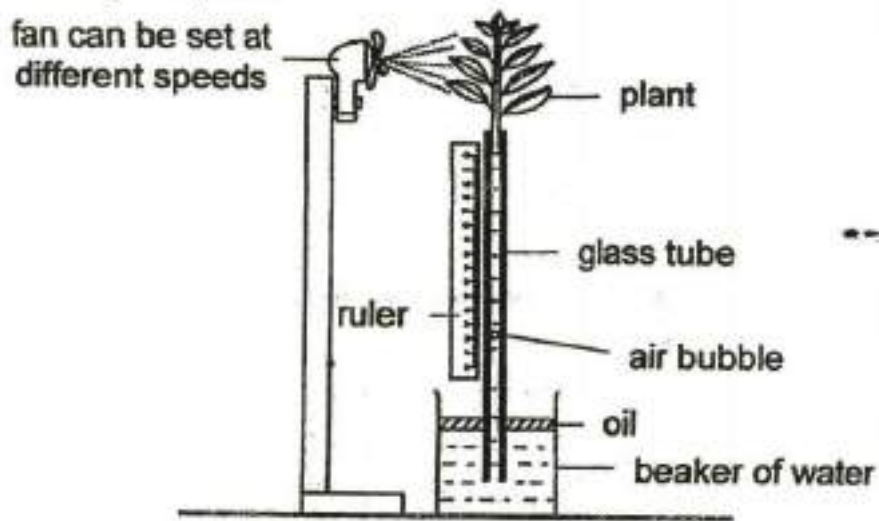
Wind speed	Distance moved by the air bubble (cm)
high	13
medium	9
low	6

Based on the results of his investigation, what is the relationship between wind speed and the amount of water taken in by the plant? (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.*

Wei Zheng used the set-up below to investigate how the speed of the fan affects the distance moved by the air bubble in the glass tube when water was taken in by the plant.



The investigation was conducted at different wind speeds over a duration of an hour. The results are shown in the table below.

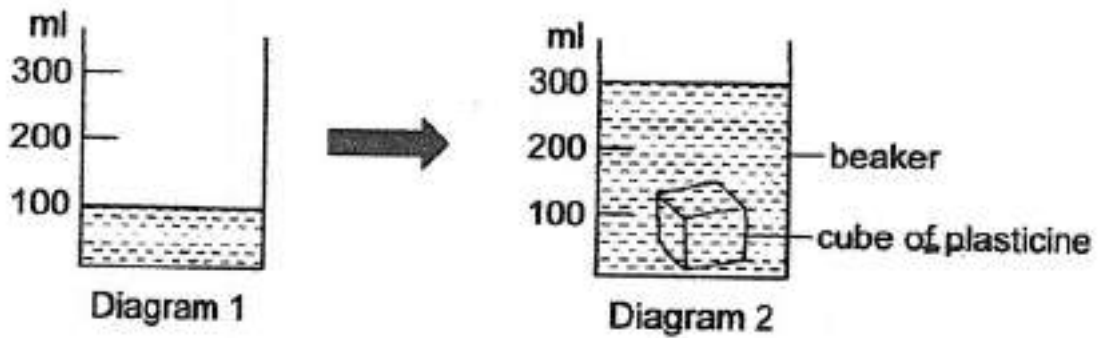
Wind speed	Distance moved by the air bubble (cm)
high	13
medium	9
low	6

Explain your answer in the previous question. (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 beaker was filled with 100 ml of water as shown in Diagram 1. Jie Bin put a cube of plasticine into the beaker of water as shown in Diagram 2.



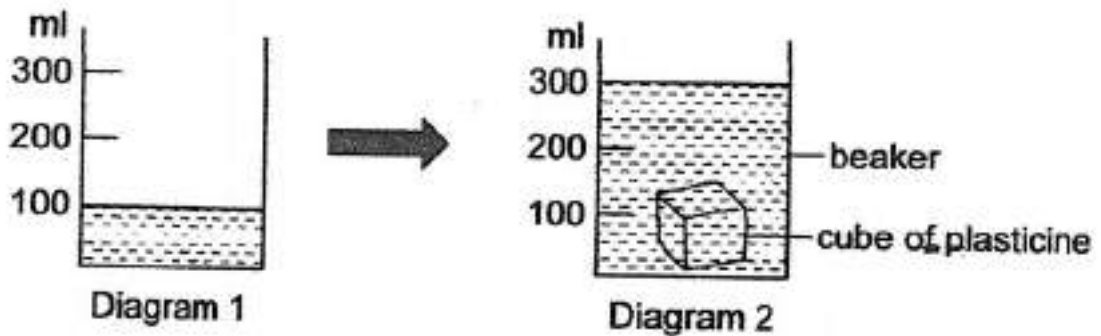
He observed that the water level rose. Why? (1 mark)

*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.*

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A beaker was filled with 100 ml of water as shown in Diagram 1. Jie Bin put a cube of plasticine into the beaker of water as shown in Diagram 2.



Jie Bin took the cube of plasticine out, flattened it and put it back into the beaker of water again.

What was the total volume of the contents in the beaker now?  
Explain your answer.

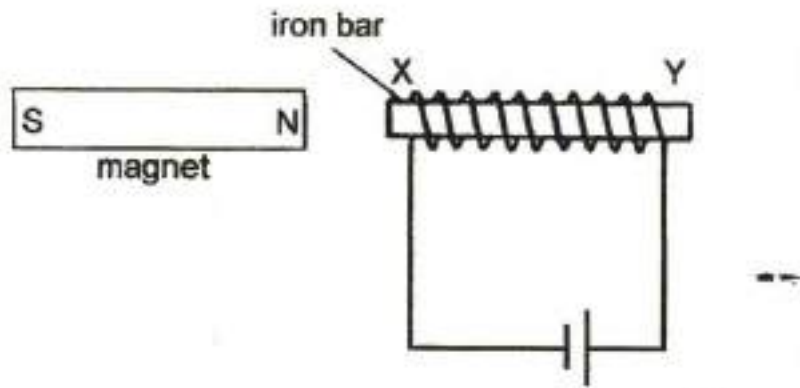
[2]

*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.*

---

An iron bar XY was magnetised using the electrical method as shown below.



A magnet was brought near the iron bar and the magnet was immediately attracted to it.

State what the magnetic poles of the iron bar would be at X and Y.

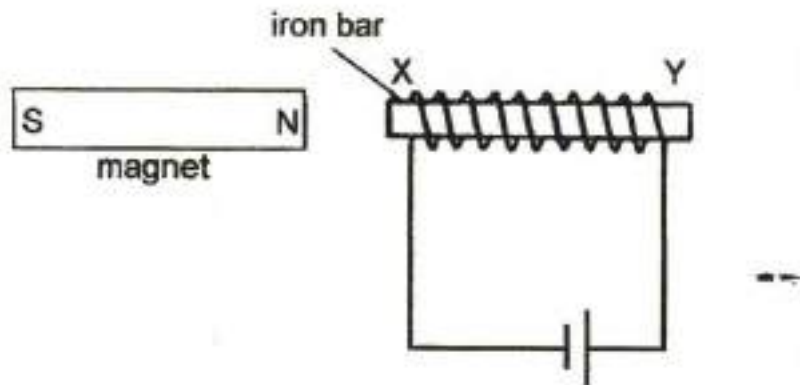
1. [ ] At X: \_\_\_\_\_

A. South

2. [ ] At Y: \_\_\_\_\_

B. North

An iron bar XY was magnetised using the electrical method as shown below.



A magnet was brought near the iron bar and the magnet was immediately attracted to it.

Aaron conducted a test with the magnetised iron bar in (a). Pins were placed, one at a time, at E, F and G until no more pins could be attracted by the iron bar. The result was observed as shown in Diagram 1.

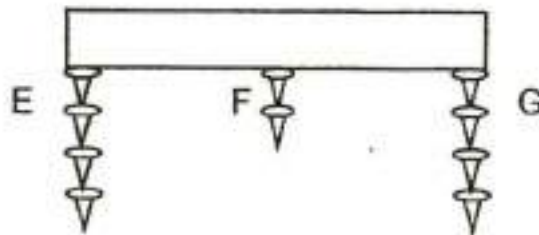


Diagram 1

Based on his observation in Diagram 1, what can he conclude about the magnetised iron bar? (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.*

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Aaron conducted a second test with two bars of the same size, M and N. One of the bars was a magnet and the other was a magnetic material.

In order to find out which bar was the magnet, Aaron arranged the bars, M and N, as shown in Diagram 2. He found that there was a weak attraction between the bars. When he rearranged the bars as shown in Diagram 3, the attraction between them was strong.

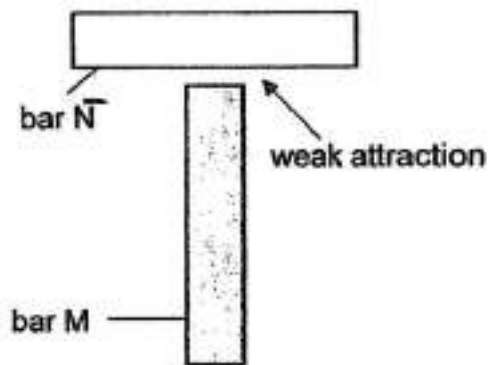


Diagram 2

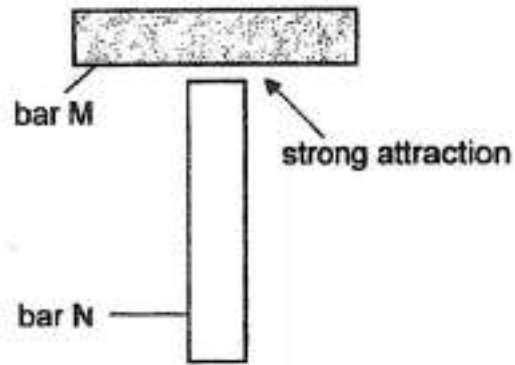


Diagram 3

Based on the observations made in Aaron's two tests, which bar, M or N, was the magnet? Explain your answer. [2]

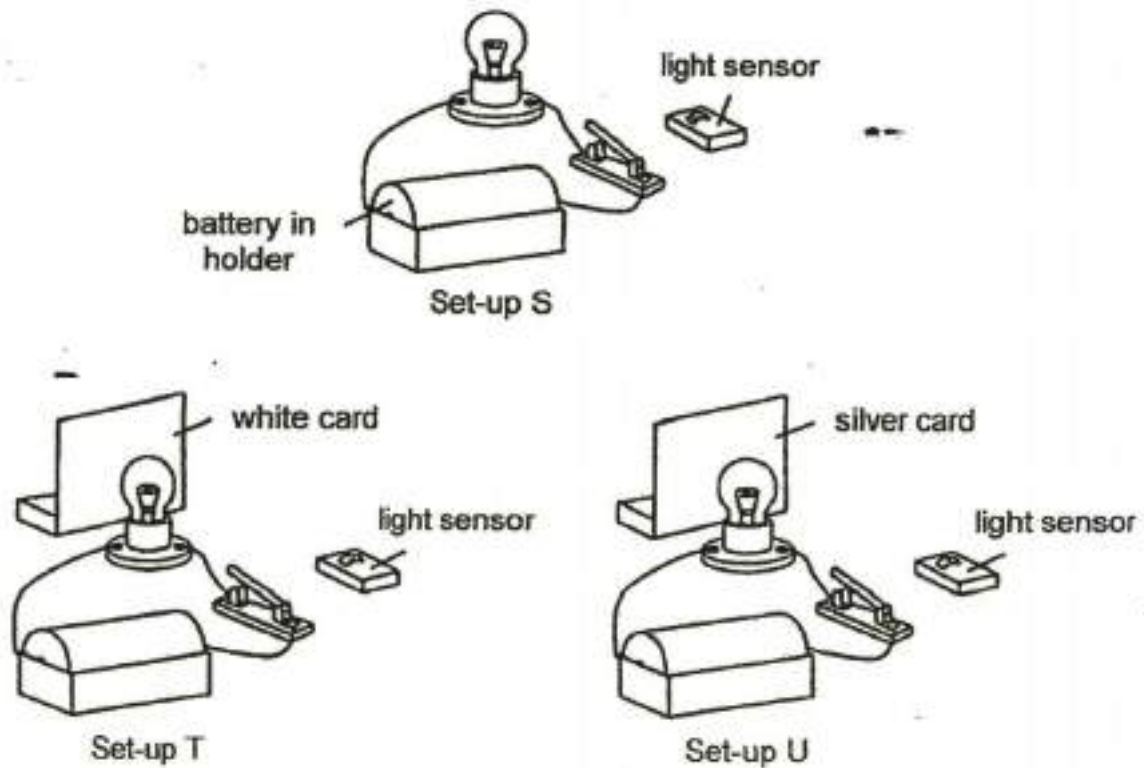
*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

*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.*

---



Gabby conducted an experiment in a dark room using similar bulbs and batteries with the set-ups below. A white and silver card was placed at the same distance behind the light bulb in set-ups T and U respectively.



She recorded the results in the table below.

Set-up	Light sensor reading (unit)
S	22
T	74
U	63

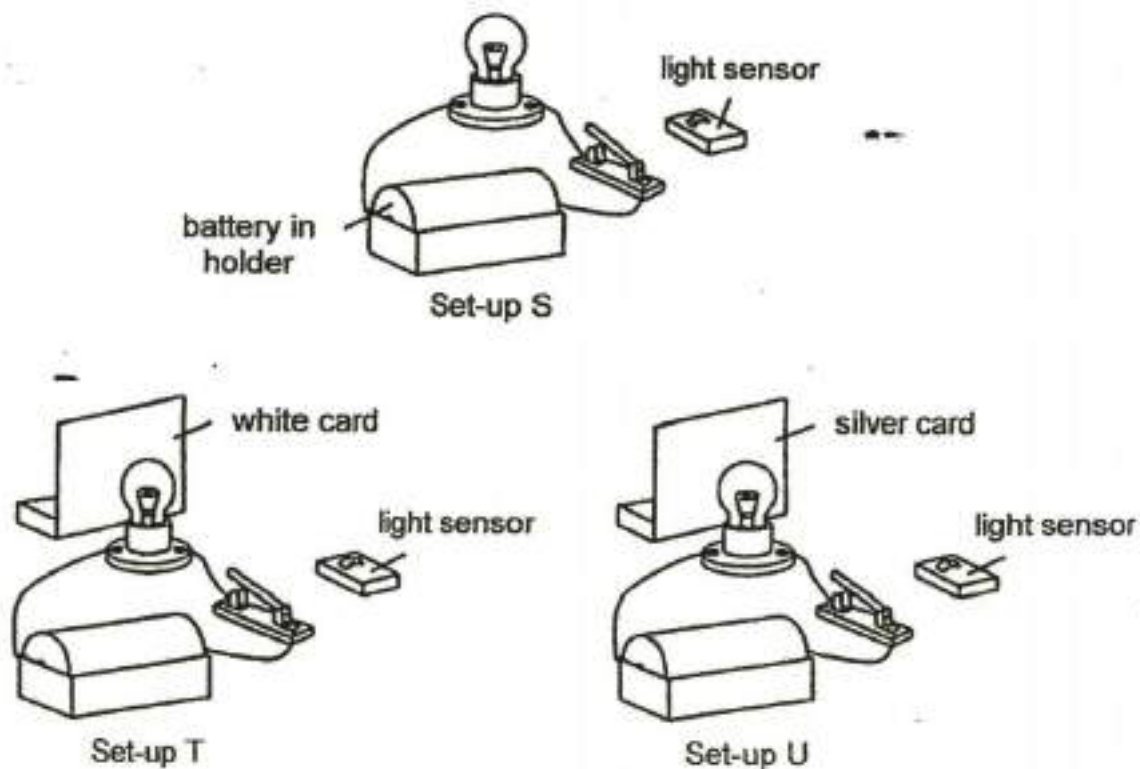
Explain why the light sensor in Set-up T produced the highest reading. (1 mark)

*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.*



Gabby conducted an experiment in a dark room using similar bulbs and batteries with the set-ups below. A white and silver card was placed at the same distance behind the light bulb in set-ups T and U respectively.



She recorded the results in the table below.

Set-up	Light sensor reading (unit)
S	22
T	74
U	63

Give a reason how each of the following actions helps to make Gabby's experiment a fair test. [2]

- (i) placing each card at the same distance behind the light bulb in set-ups T and U

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- (ii) using Set-up S ;

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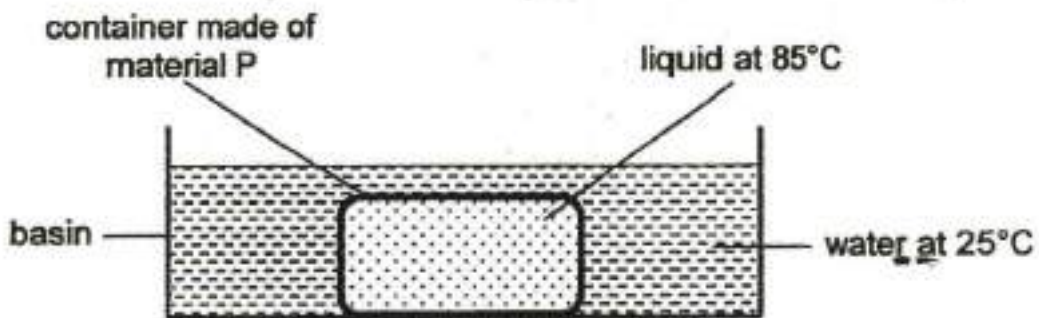
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

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.

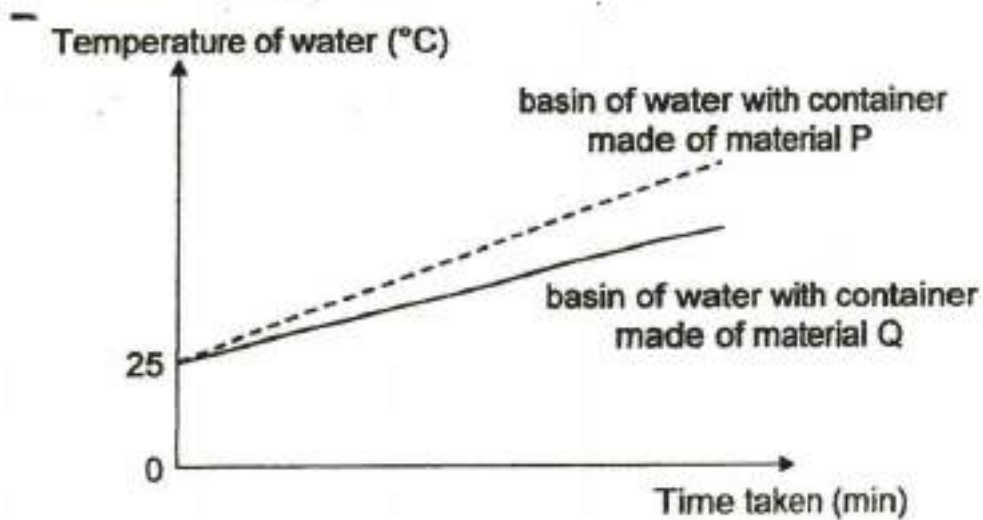
**Question 53 of 61**

Primary 5 Science (Term 4) 2 pts

Rahman conducted an experiment using the set-up below.

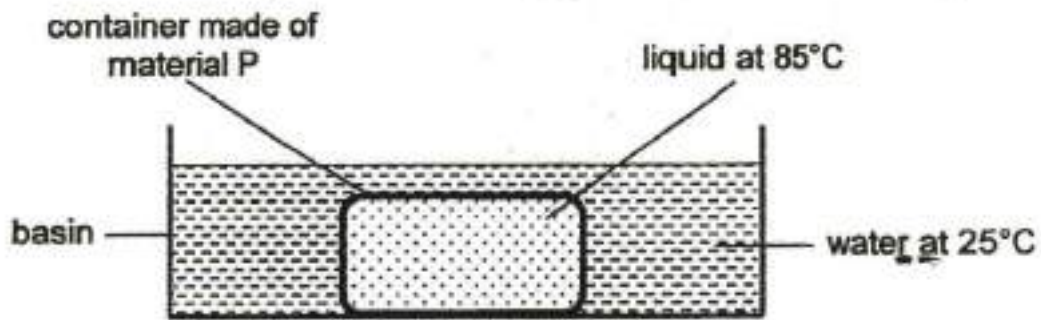


He measured the temperature of water in the basin over a period of time. He repeated the experiment using a container made of material Q. His results are shown in the graph below.

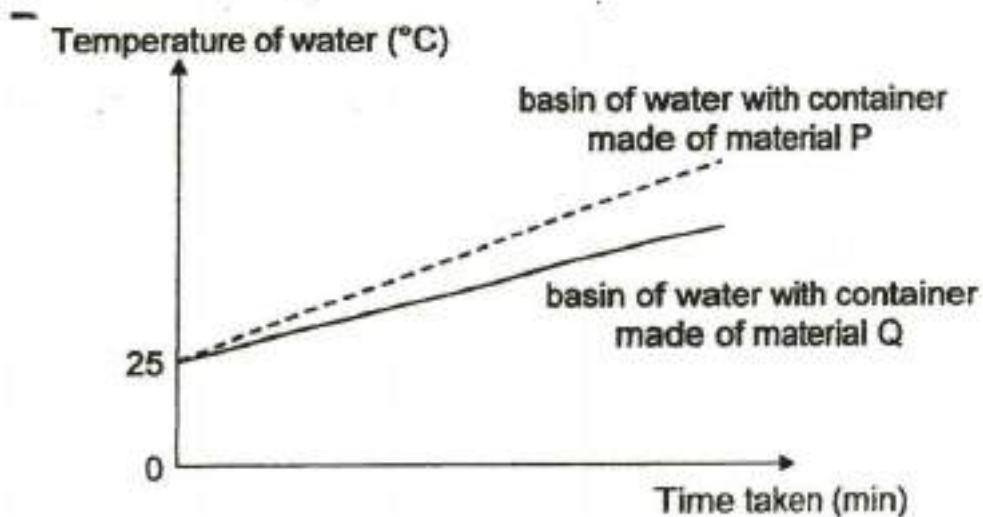


Based on his results, which material, P or Q, is a better conductor of heat? Explain your answer.

Rahman conducted an experiment using the set-up below.



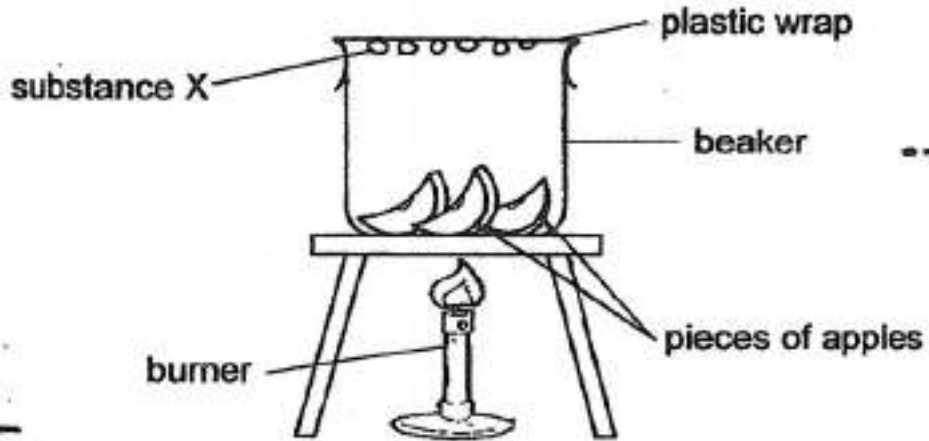
He measured the temperature of water in the basin over a period of time. He repeated the experiment using a container made of material Q. His results are shown in the graph below.



Rahman wanted to bring cold drinks for a school trip. Which material, P or Q, would be more suitable for a container to keep the drinks cool for a longer period of time? Explain your answer.

[1]

Tanisha put some pieces of apples into a beaker and placed a clear plastic wrap over the opening as shown in the set-up below. The beaker was then heated over a burner.

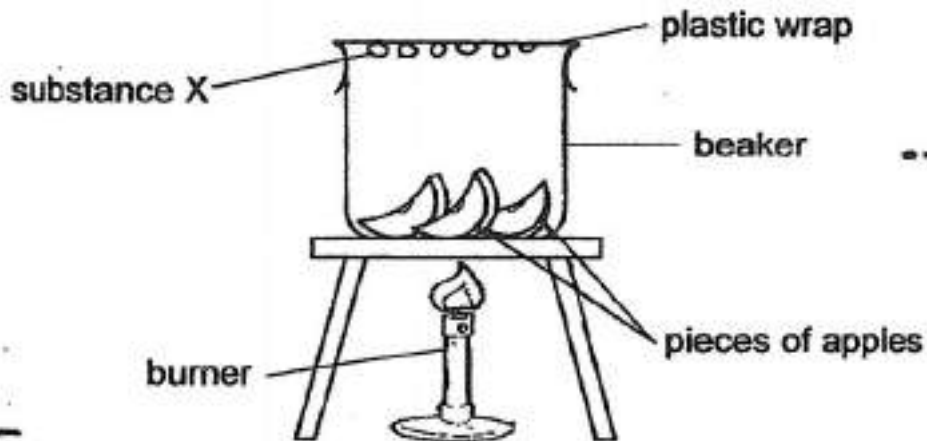


After a while, substance X could be observed on the underside of the plastic wrap.

What was substance X?

---

Tanisha put some pieces of apples into a beaker and placed a clear plastic wrap over the opening as shown in the set-up below. The beaker was then heated over a burner.



After a while, substance X could be observed on the underside of the plastic wrap.

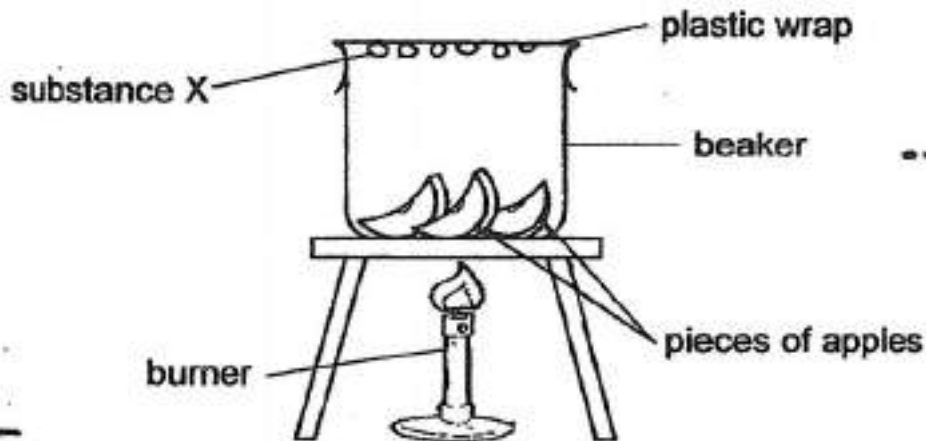
Explain how substance X was formed on the underside of the plastic wrap. (2 marks)

*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.*

---

Tanisha put some pieces of apples into a beaker and placed a clear plastic wrap over the opening as shown in the set-up below. The beaker was then heated over a burner.



After a while, substance X could be observed on the underside of the plastic wrap.

The plastic wrap in the above set-up was later changed to an aluminium sheet.

How would this affect the amount of substance X formed on the underside of it? Explain your answer. [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.*

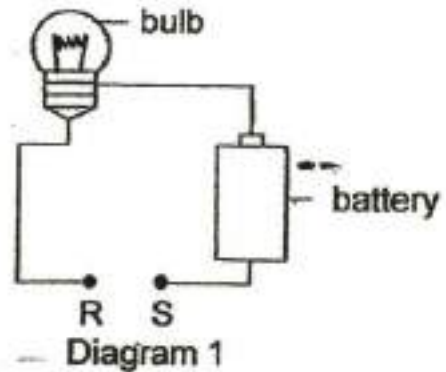
*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*

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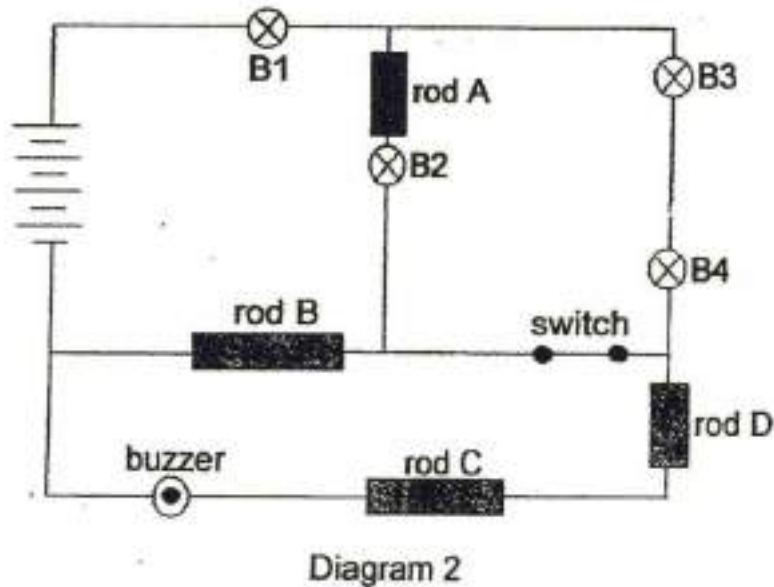


Li Xin sets up a circuit as shown in Diagram 1 to find out what will happen to the bulb in the circuit when four rods, A, B, C and D, are placed one at a time across RS. The results are recorded in the table below.

Rod at RS	Bulb lights up
A	yes
B	yes
C	no
D	yes



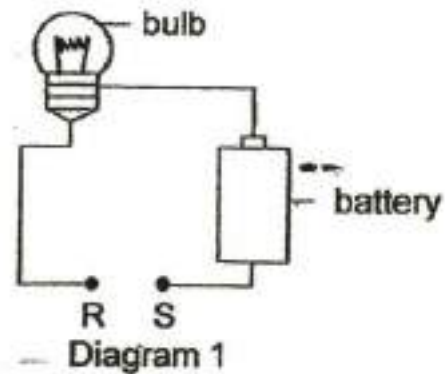
After that, Li Xin sets up another circuit as shown in Diagram 2 below.



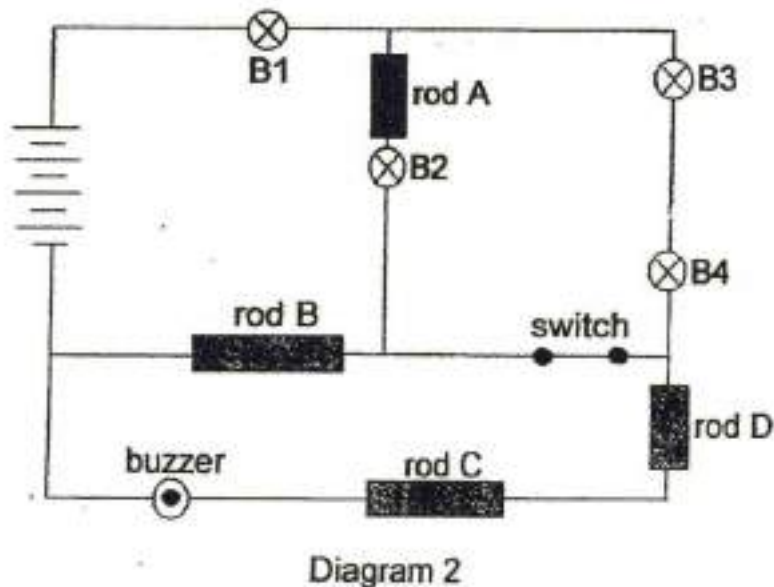
Based on the circuit in Diagram 2, how many bulbs will light up? (1 mark)

Li Xin sets up a circuit as shown in Diagram 1 to find out what will happen to the bulb in the circuit when four rods, A, B, C and D, are placed one at a time across RS. The results are recorded in the table below.

Rod at RS	Bulb lights up
A	yes
B	yes
C	no
D	yes



After that, Li Xin sets up another circuit as shown in Diagram 2 below.



Assuming that none of the bulbs are fused, what will you observe about the bulbs and the buzzer if the positions of rod B and rod C are switched? Put a tick (✓) in the box below.

[1]

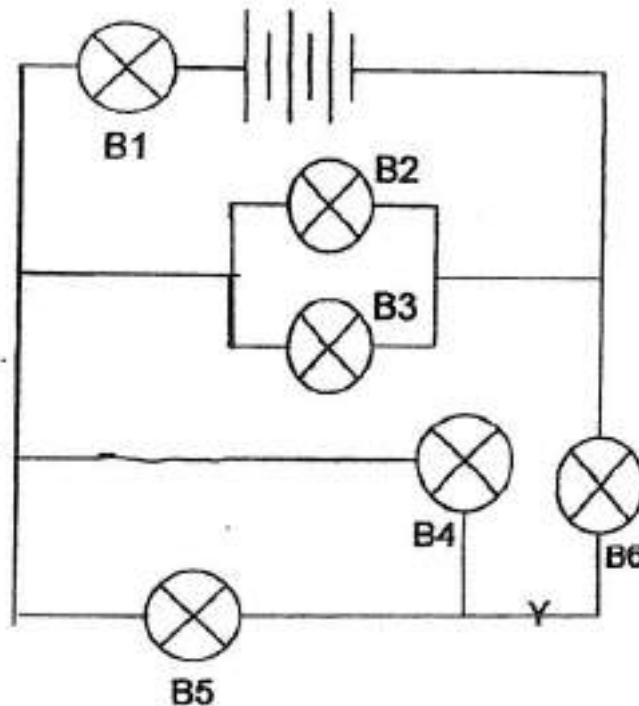
Tick if the bulbs light up	Tick if the buzzer sounds
B1	
B2	
B3	
B4	

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Devan connected six identical bulbs, B1, B2, B3, B4, B5 and B6, to three batteries in the circuit as shown below.



He wanted to add three switches, S1, S2 and S3, to the circuit so that only certain bulbs would light up when different switches were closed according to the table below.

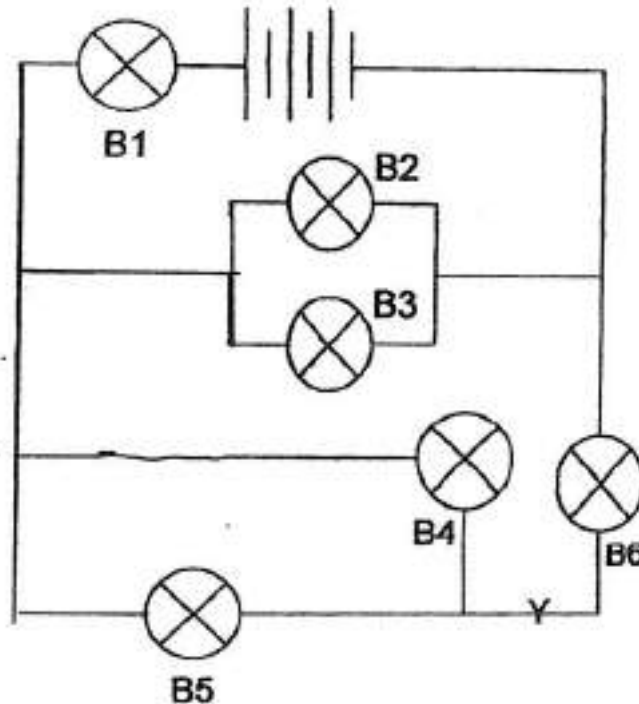
Switch(es) closed	Bulbs that will light up
S1, S2 and S3	all bulbs
S1 only	B1, B5 and B6 only
S2 only	B1, B4 and B6 only
S3 only	B1, B2 and B3 only

Mark the positions of the three switches in the circuit above using 'X' and label them as S1, S2 and S3. (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.*

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Switch(es) closed	Bulbs that will light up
S1, S2 and S3	all bulbs
S1 only	B1, B5 and B6 only
S2 only	B1, B4 and B6 only
S3 only	B1, B2 and B3 only

Devan added another bulb at the position marked 'Y'. When only S2 was closed, would B1, B4 and B6 be brighter, dimmer or remain the same? Explain your answer.

[2]