

Test: (2020) Primary 5 Science (Term 4) - Nanyang

Points: 64 points

Name: _____

Score: _____

Date: _____

Signature: _____

Select multiple choice answers with a cross or tick:

Only select one answer

Can select multiple answers

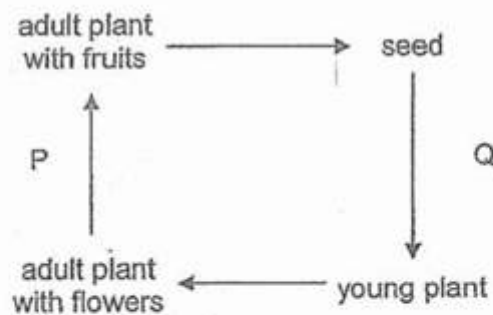
Question 1 of 61

Primary 5 Science (Term 4)

2 pts

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

The diagram below shows the life cycle of a flowering plant.



Which of the following shows the possible processes taking place at P and Q?

	P	Q
(1)	seed dispersal	pollination
(2)	fertilisation	pollination
(3)	seed dispersal	germination
(4)	fertilisation	germination

A) 1

B) 2

C) 3

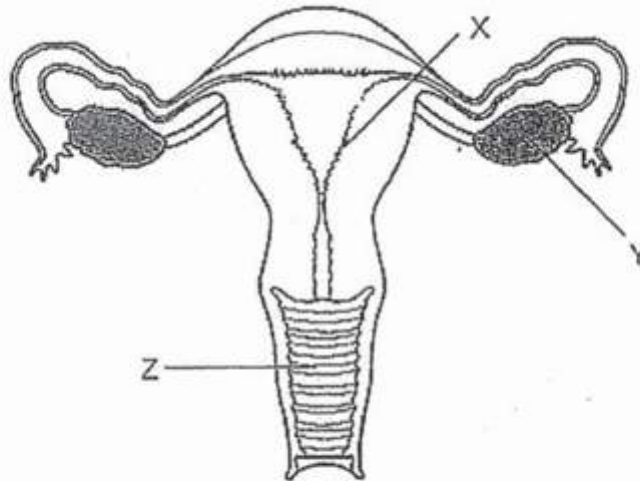
D) 4

Question 2 of 61

Primary 5 Science (Term 4)

2 pts

The diagram below shows the female reproductive system.



Which of the following statements about parts X, Y and Z are correct?

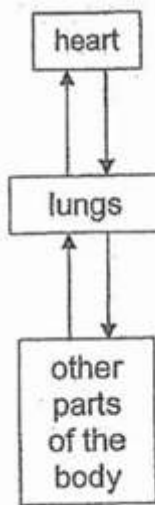
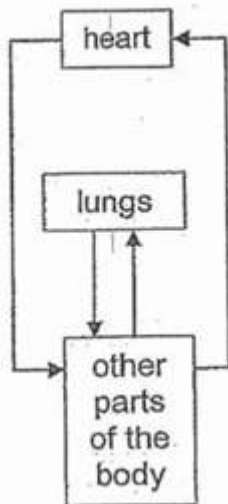
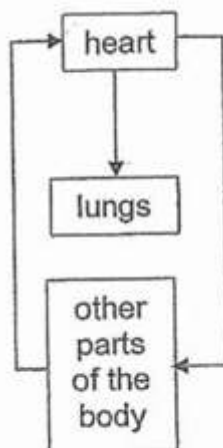
- A Fertilisation only takes place at part Y.
- B Male reproductive cells enter through part Z.
- C Part Y produces the female reproductive cells.
- D The fertilised egg will move out from part X to part Z to develop.

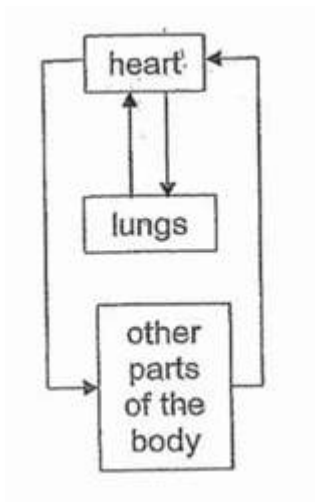
- A) A and C only
- B) A and D only
- C) B and C only
- D) B and D only

Question 3 of 61

Primary 5 Science (Term 4) 2 pts

Which of the following shows the correct direction of blood flow between the heart, lungs and other parts of the body?

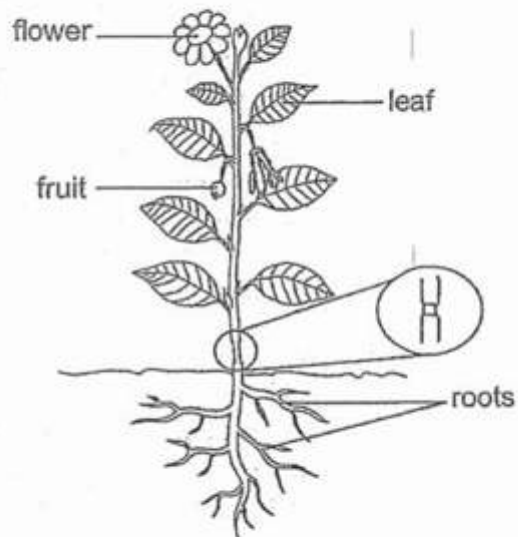
 A) B) C) D)


Question 4 of 61

Primary 5 Science (Term 4)

2 pts

The diagram below shows a plant with part of its stem removed.



Which of the following explains why the roots died after some time?

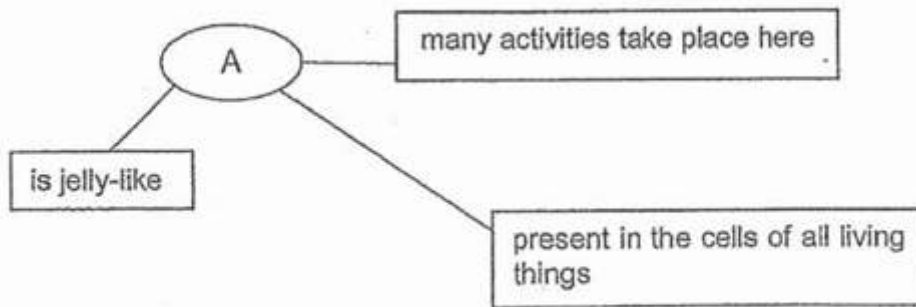
- A) Nectar in the flower could not be transported to the roots
- B) Food made in the leaves could not be transported to the roots
- C) Water absorbed by the leaves could not be transported to the roots
- D) Oxygen taken in by the leaves could not be transported to the roots

Question 5 of 61

Primary 5 Science (Term 4)

2 pts

Study the diagram below.



Which of the following correctly identifies cell part A?

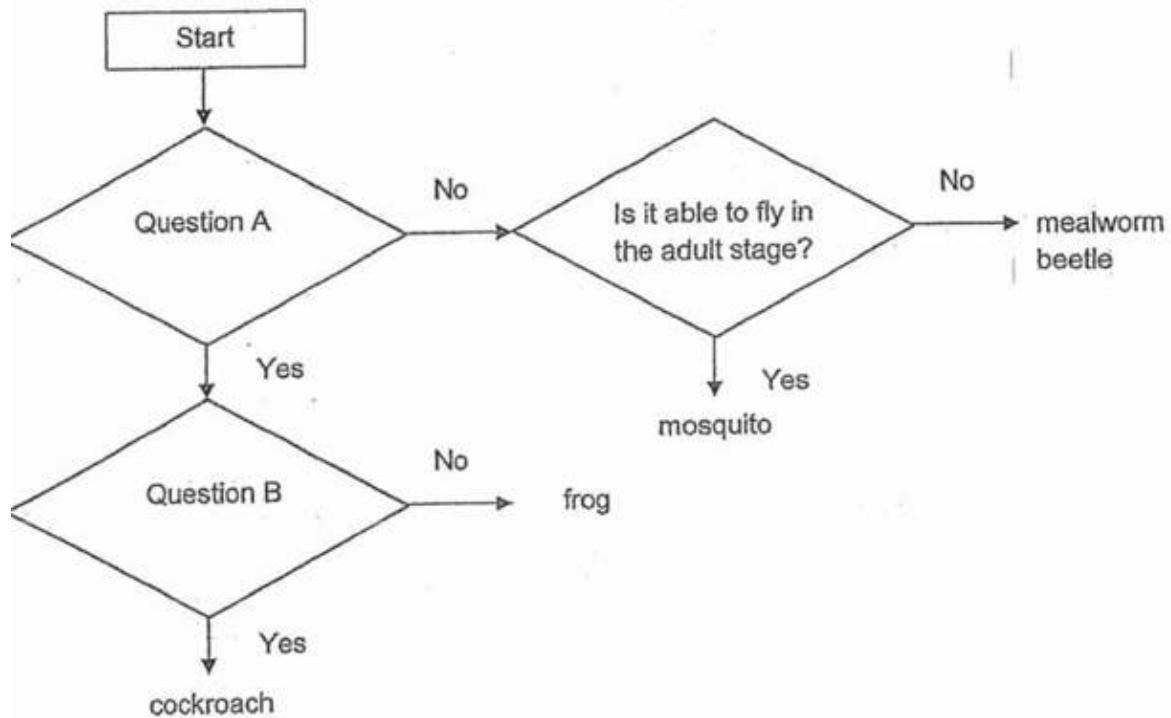
- A) cell membrane
- B) cytoplasm
- C) chloroplast
- D) nucleus

Question 6 of 61

Primary 5 Science (Term 4)

2 pts

Study the flowchart below carefully.



Which of the following correctly represent questions A and B?

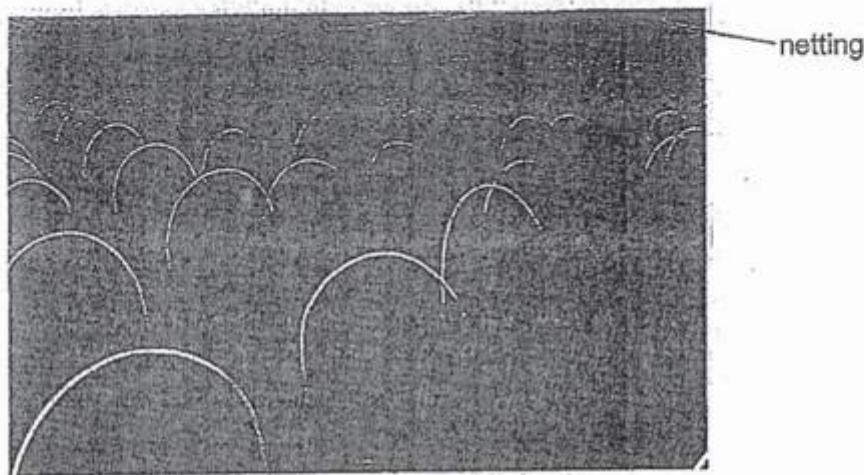
	Question A	Question B
(1)	Does the young resemble the adult?	Does it spend part of its life cycle in water?
(2)	Does the young resemble the adult?	Does it have wings in the adult stage?
(3)	Are there only 3 stages in the life cycle?	Does it have wings in the adult stage?
(4)	Are there only 3 stages in the life cycle?	Does it spend part of its life cycle in water?

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

Question 7 of 61

Primary 5 Science (Term 4) 2 pts

A farmer kept young plants in an enclosure covered with netting. The leaves of the plants were eaten by caterpillars so the farmer sprayed insecticide on the leaves.



A few months later, the farmer observed that the plants had produced many brightly-coloured flowers but very little fruits.

Which one of the following statements explains the farmer's observations?

- (1) The insecticide killed the caterpillars but pollination was not affected.
- (2) The insecticide killed the caterpillars so there was no pupa to pollinate the flowers.
- (3) The insecticide killed the caterpillars so there were no butterflies to pollinate the flowers.
- (4) The insecticide did not kill the caterpillars so they were able to pollinate the flowers.

-
- A) The insecticide killed the caterpillars but pollination was not affected
 - B) The insecticide killed the caterpillars so there was no pupa to pollinate the flowers
 - C) The insecticide killed the caterpillars so there were no butterflies to pollinate the flowers
 - D) The insecticide did not kill the caterpillars so they were able to pollinate the flowers

Question 8 of 61

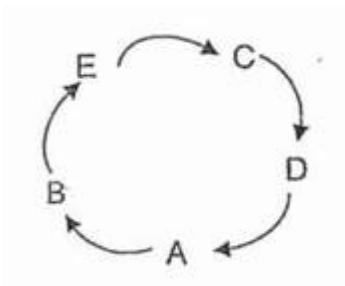
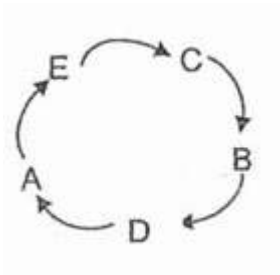
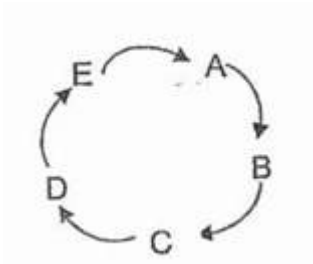
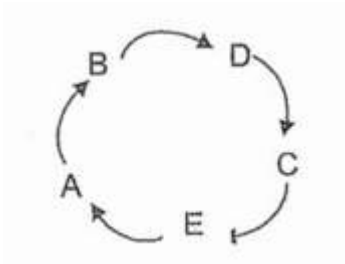
Primary 5 Science (Term 4)

2 pts

Danielle observed the characteristics of a green bean plant at each stage of its growth and her results are recorded in the table below.

Stage	Observations
A	fruits appear
B	roots appear
C	leaves appear
D	shoot appear
E	flowers appear

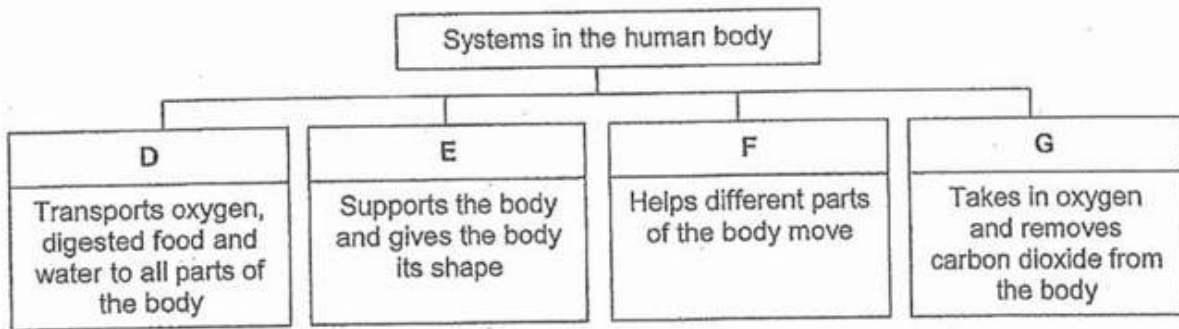
Which of the following shows the correct order of the stages in the life cycle of the green bean plant as observed by Danielle?

 A)

 B)

 C)

 D)


Question 9 of 61

Primary 5 Science (Term 4) 2 pts

Study the chart below.



Which of the following correctly identifies systems D, E, F and G?

	D	E	F	G
(1)	Circulatory system	Skeletal system	Muscular system	Respiratory system
(2)	Digestive system	Skeletal system	Muscular system	Circulatory system
(3)	Circulatory system	Muscular system	Skeletal system	Respiratory system
(4)	Digestive system	Muscular system	Skeletal system	Respiratory system

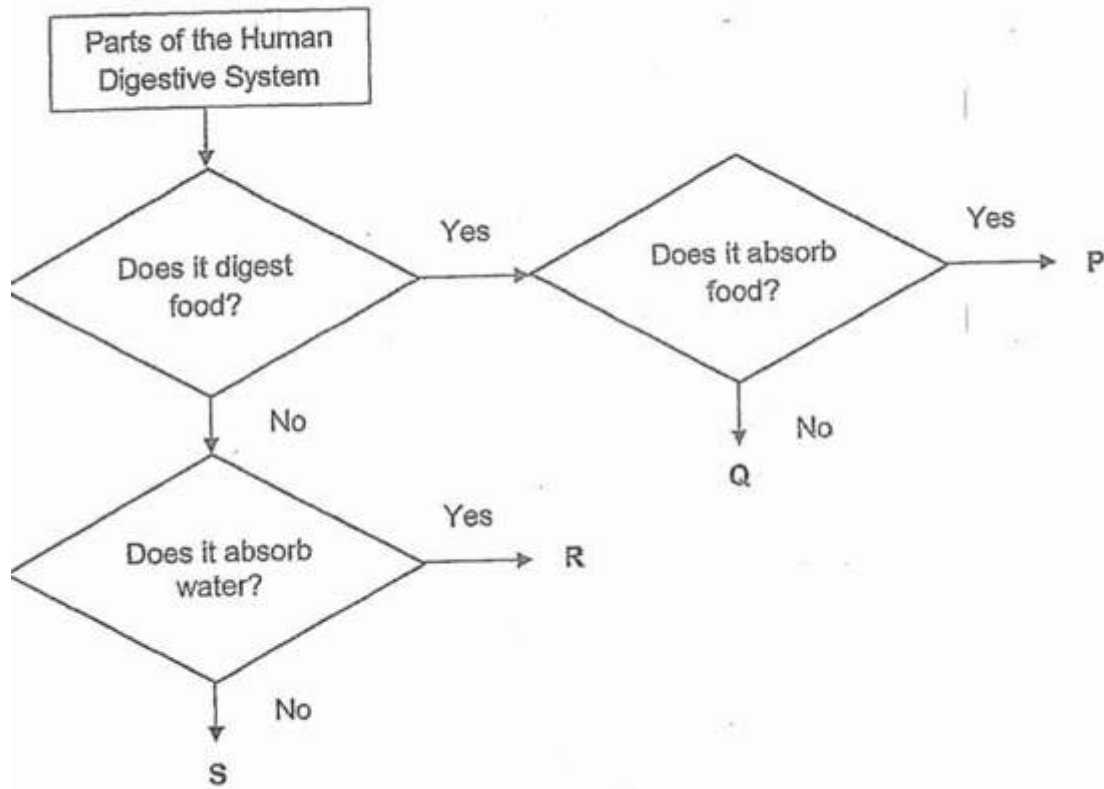
- A) 1
 B) 2
 C) 3
 D) 4

Question 10 of 61

Primary 5 Science (Term 4)

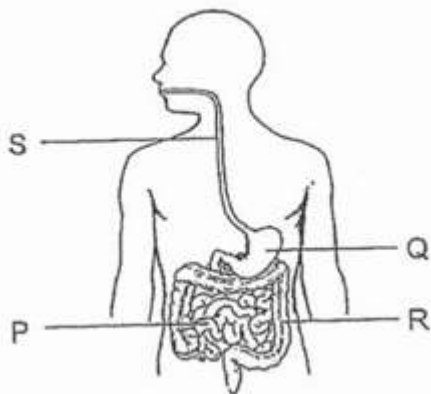
2 pts

Study the flowchart below carefully.

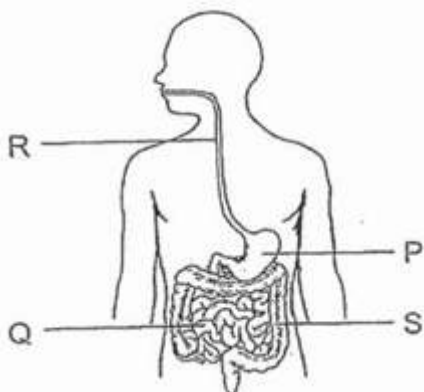


Which of the following correctly identifies parts P, Q, R and S?

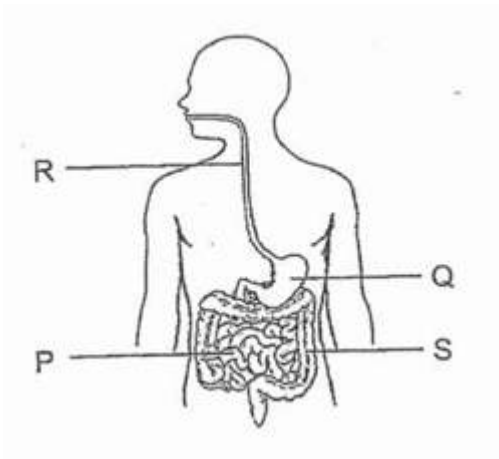
A)



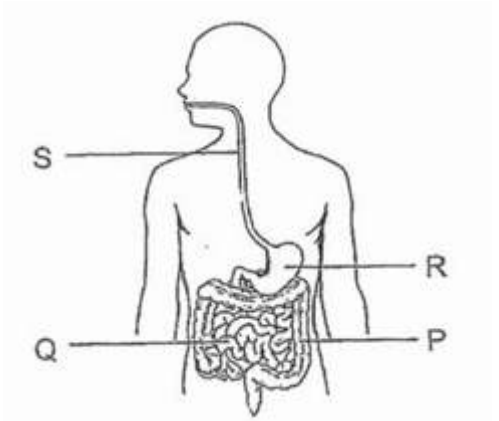
B)



C)



D)

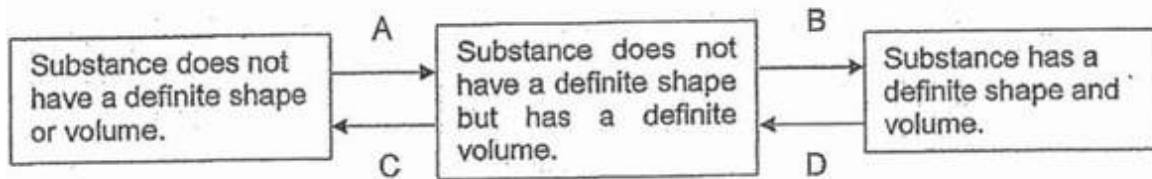


Question 11 of 61

Primary 5 Science (Term 4)

2 pts

A, B, C and D represent different processes involved in the change of state of water.



Which of the processes represent freezing and evaporation?

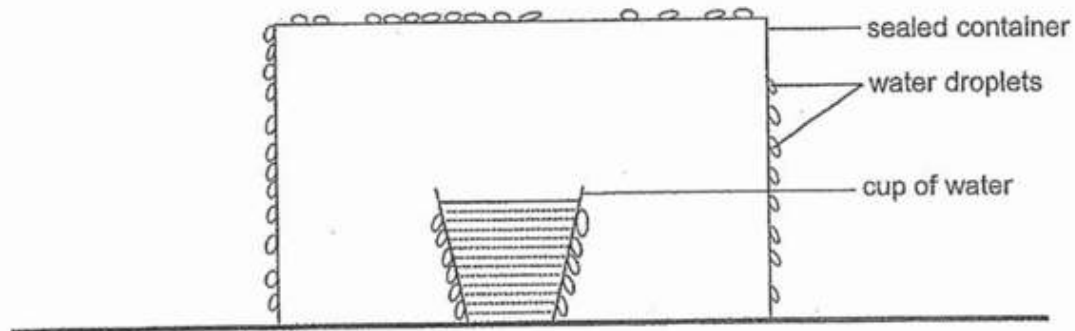
	Freezing	Evaporation
(1)	B	D
(2)	A	C
(3)	B	C
(4)	A	D

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

Question 12 of 61

Primary 5 Science (Term 4) 2 pts

A cup of water was placed in a sealed container. Water droplets started forming on the outer surface of the cup and sealed container as shown below.



Which of the following statements is true?

- A) There is no water vapour in the sealed container
- B) Water in the sealed container touched the outer surface of the cup and condensed
- C) The temperature of the water in the cup is higher than the temperature of the air in the sealed container
- D) The temperature of the air in the sealed container is lower than the temperature of air outside the sealed container

Question 13 of 61

Primary 5 Science (Term 4) 2 pts

Water is a limited natural resource and we must do our part to conserve it. However, many human activities have caused our water bodies to become polluted.

Which of the following will result in water pollution?

- A oil leaks from ships
- B throwing plastic bags into the sea
- C releasing industrial waste into lakes
- D using a bucket of water to wash the car instead of a hose

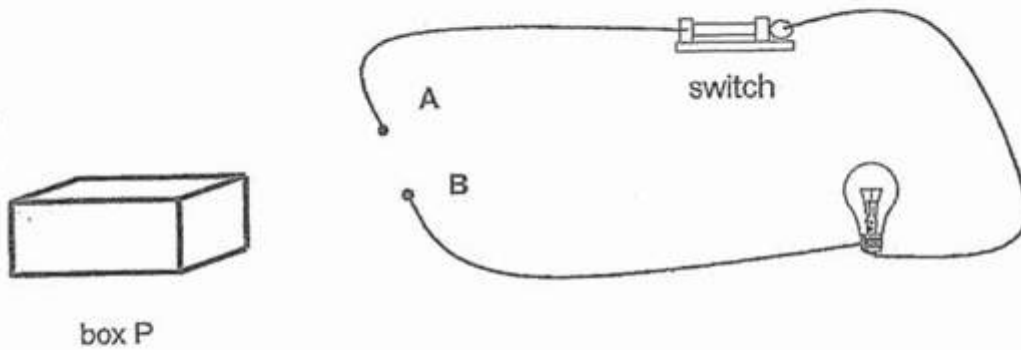
- A) A and C Only
- B) B and D only
- C) A, B and C only
- D) B, C and D only

Question 14 of 61

Primary 5 Science (Term 4)

2 pts

Jan set up an electrical circuit as shown below. Contact points A and B were connected to an object in box P and the bulb lit up. The wires were connected correctly.



Based on the observed results, which of following could the object in box P be?

- A Bulb
- B Battery
- C Iron rod

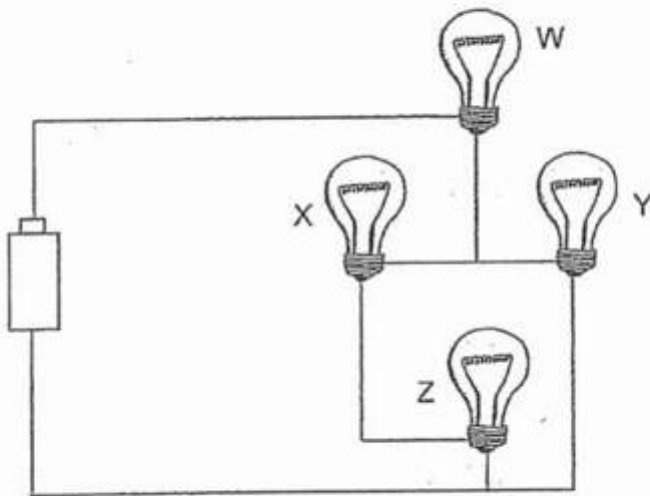
- A) A only
- B) B only
- C) A and B only
- D) A, B and C

Question 15 of 61

Primary 5 Science (Term 4)

2 pts

Study the electrical circuit below.



Which bulbs will remain lighted up when bulb Z fuses?

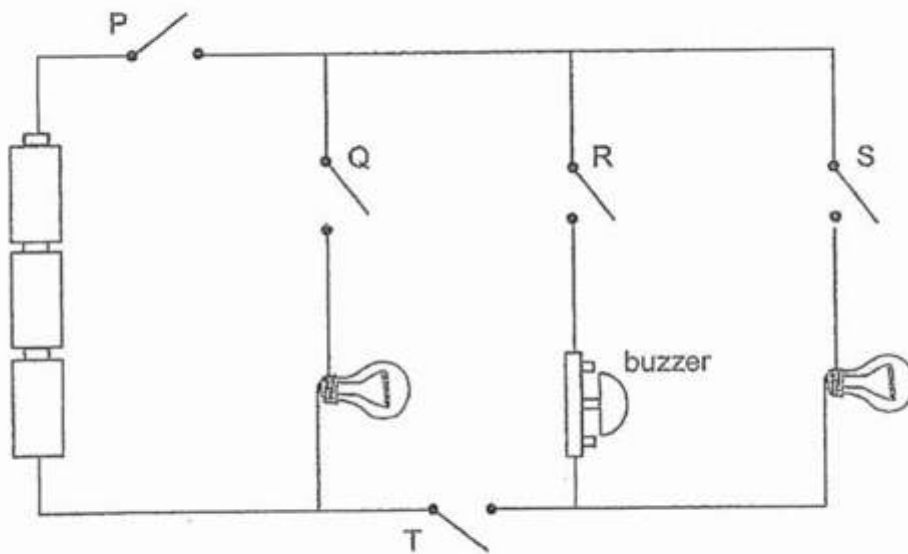
- A) W and X only
- B) W and Y only
- C) X and Y only
- D) W, X and Y

Question 16 of 61

Primary 5 Science (Term 4)

2 pts

Study the electrical circuit below.



Which switches have to be closed so that only the buzzer will ring?

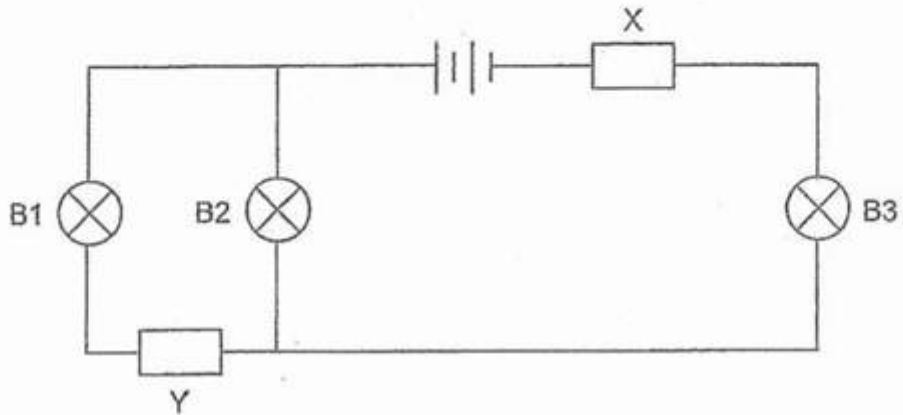
- A) P, R and T
- B) P, S and T
- C) Q, R and S
- D) S, R and T

Question 17 of 61

Primary 5 Science (Term 4)

2 pts

Study the circuit diagram below. X and Y are both electrical conductors and all three bulbs can light up.



Which one of the following correctly shows the results when either X or Y is replaced by an electrical insulator?

	Electrical insulator placed at	Bulbs that light up
(1)	X	None
(2)	X	B1 and B2
(3)	Y	B3
(4)	Y	B1, B2 and B3

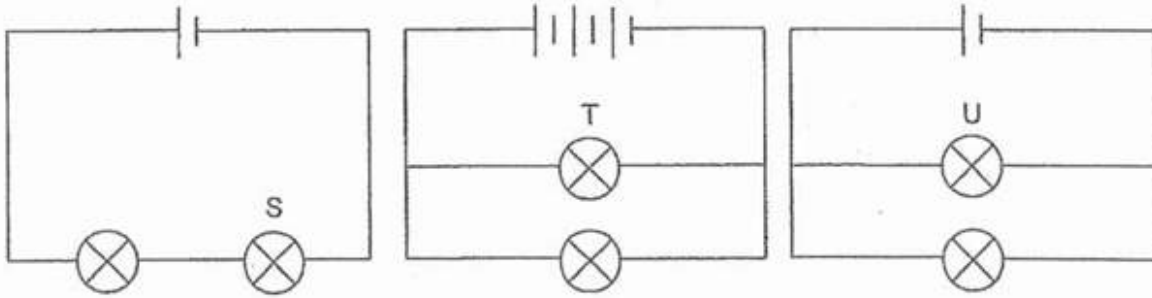
- A) 1
 B) 2
 C) 3
 D) 4

Question 18 of 61

Primary 5 Science (Term 4)

2 pts

Study the circuit diagrams below.



Arrange the bulbs, S, T and U, from the brightest bulbs to the dimmest bulbs.

	Brightest	→	Dimmest
(1)	S		T
(2)	T		U
(3)	T		S
(4)	U		S

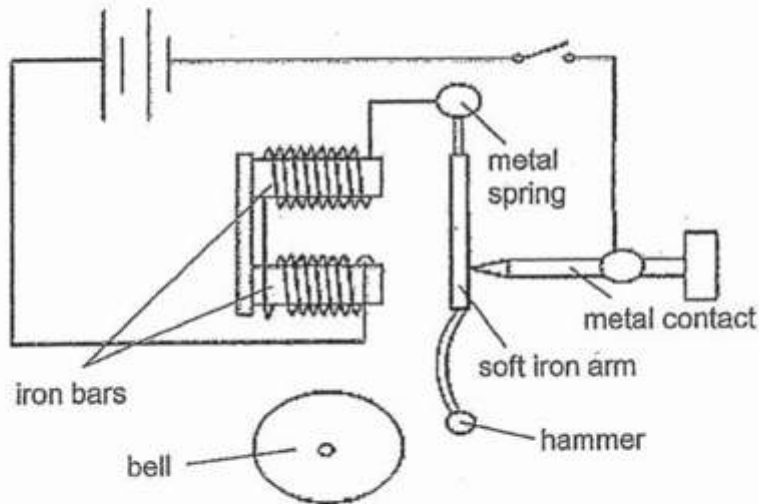
- A) 1
 B) 2
 C) 3
 D) 4

Question 19 of 61

Primary 5 Science (Term 4)

2 pts

The diagram below shows the set-up of an electrical doorbell.



Which one of the following statements is correct?

- A) When the switch is closed, the hammer will not hit the bell
- B) When the switch is closed, the hammer will hit the bell repeatedly
- C) When the switch is closed, electricity will flow through the iron bars
- D) When the switch is closed, electricity will not flow through the circuit at all

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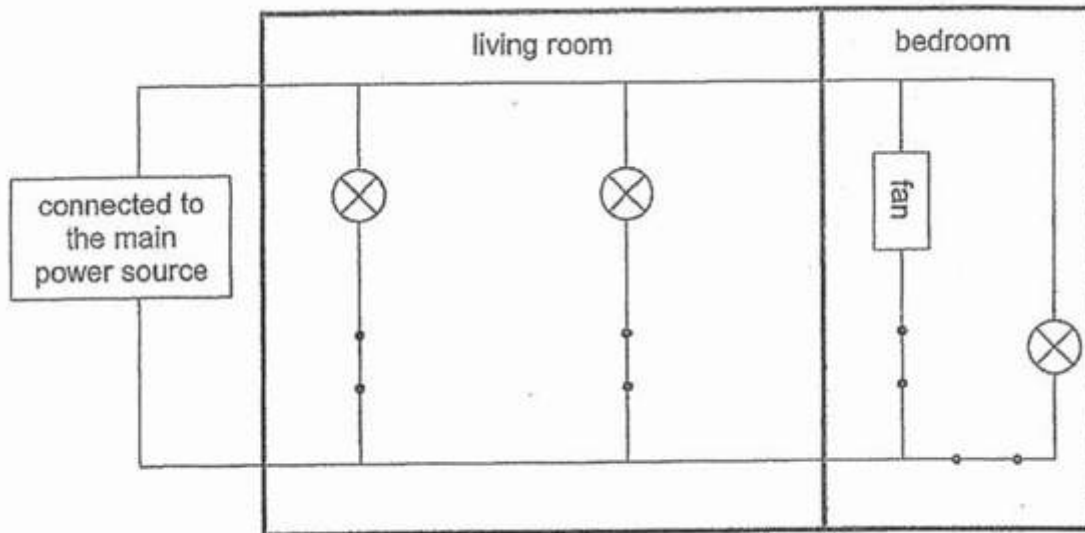
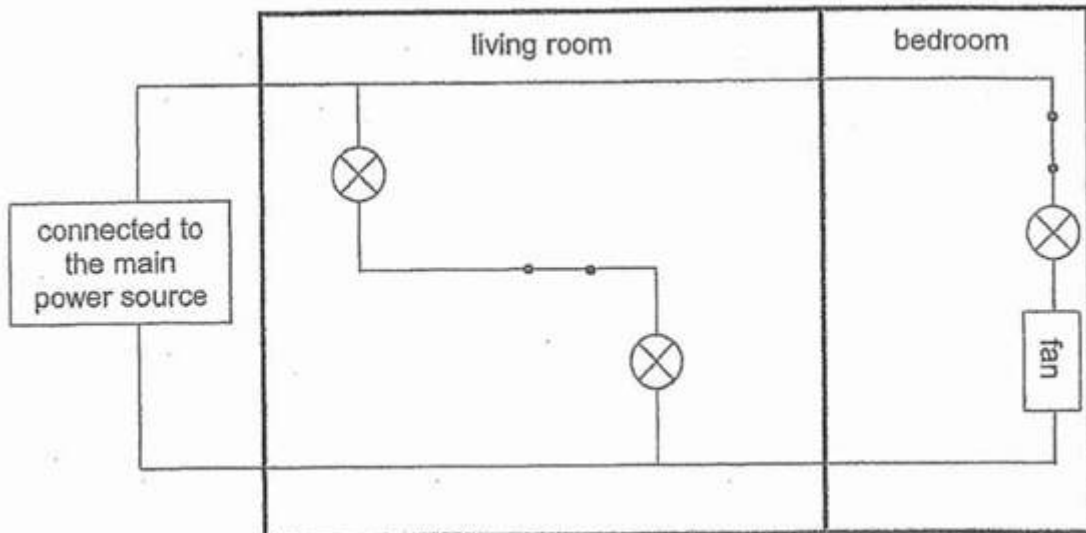
Primary 5 Science (Term 4)

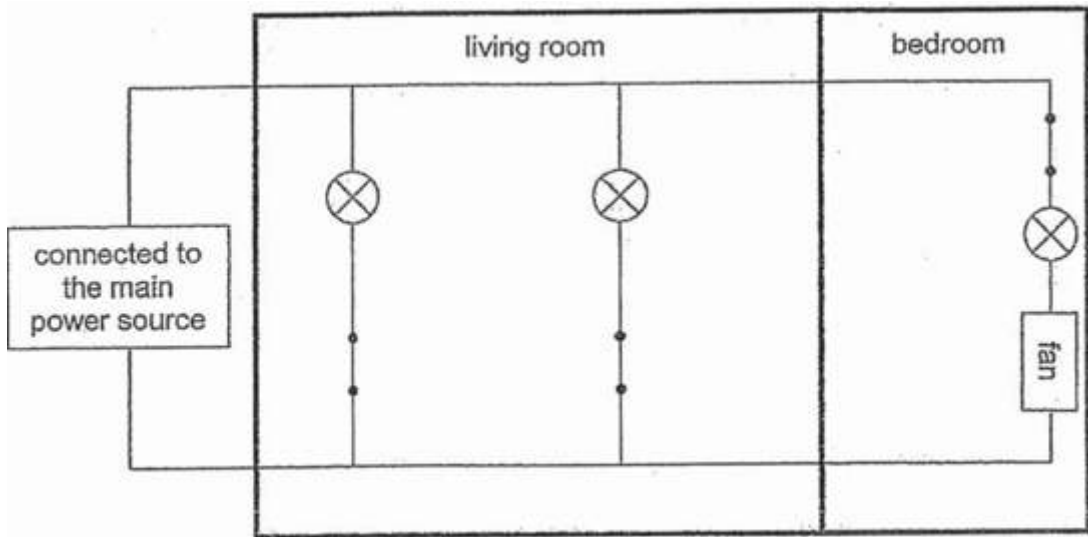
2 pts

An electrician is planning the electrical circuit of Mr Lim's new house according to his requests:

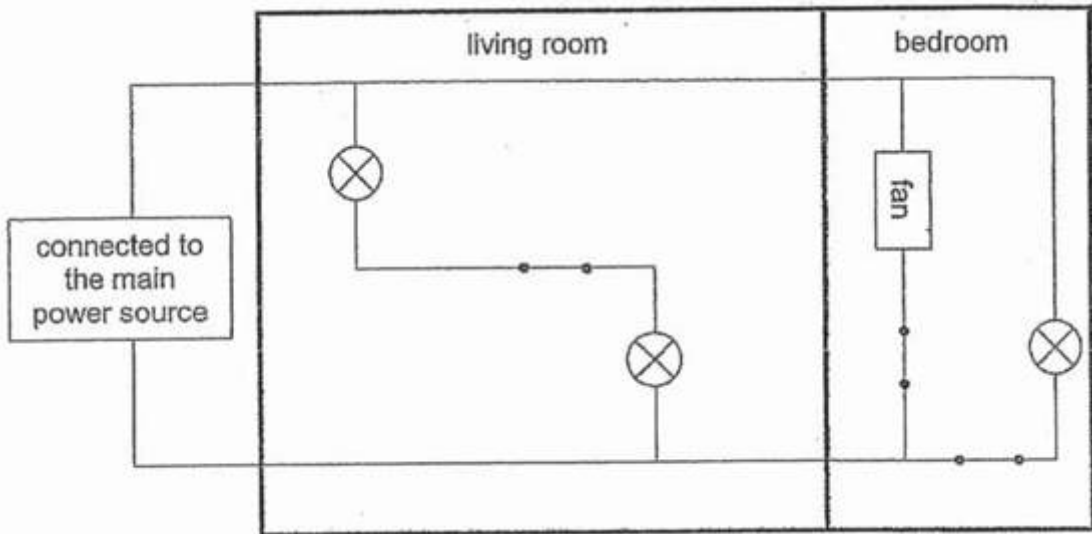
- The light in the living room should one controlled independently
- The light and fan in the bedroom should be switched on and off without affecting each other

Based on Mr Lim's requests, which one of the following circuit diagrams should the electrician use to wire up his house?

 A) B) C)



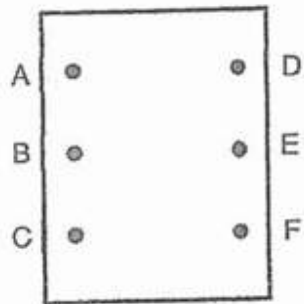
D)



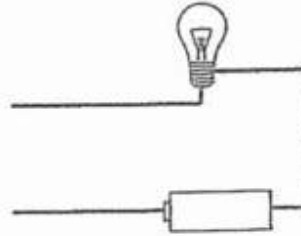
Question 21 of 61

Primary 5 Science (Term 4) 2 pts

Hong Kai made a circuit card with 6 fasteners, A, B, C, D, E and F. Only some of the fasteners are connected on the underside. He connected a circuit tester to 2 of the fasteners at a time and placed a tick whenever the pair of fasteners allowed the bulb to light up.



circuit card



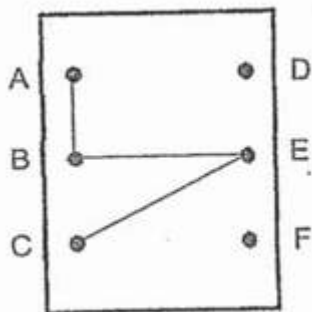
circuit tester

He obtained the following results.

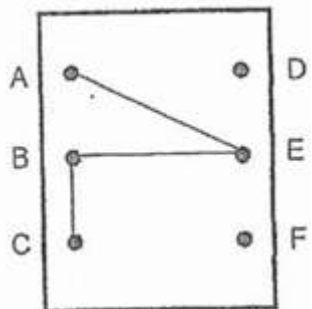
Fasteners tested	AB	BC	CA	EB	EF	FB
Did the bulb light up?	✓	✓	✓	✓		

Based on his results above, which one of the following connections is **not** possible?

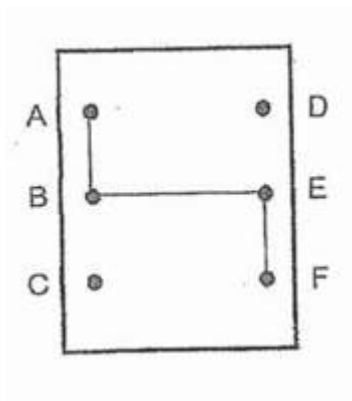
A)



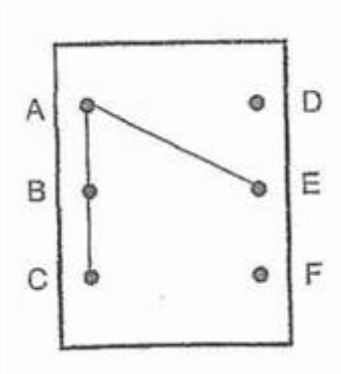
B)



C)



D)



Question 22 of 61

Primary 5 Science (Term 4)

2 pts

Which of the following actions show the safe handling of electrical parts?

A Do not touch switches with wet hands

B Replace wires when rubber insulation is damaged

C Connect as many plugs as possible to one socket

D connect the plug to the socket when the switch is turned off

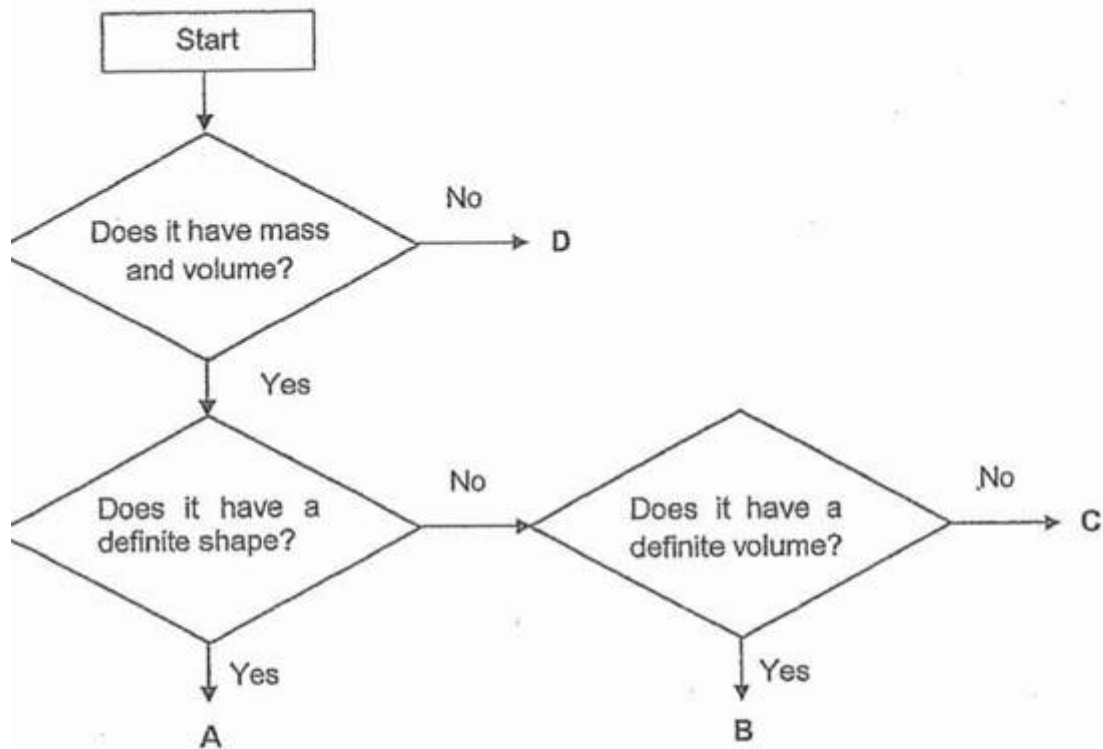
- A) A and C only
- B) A, B and D only
- C) B, C and D only
- D) A, B, C and D

Question 23 of 61

Primary 5 Science (Term 4)

2 pts

Study the flowchart below carefully.



Based on the flowchart, which one of the following best represents A, B, C and D?

	A	B	C	D
(1)	marble	water vapour	oil	shadow
(2)	marble	oil	water vapour	shadow
(3)	oil	marble	shadow	water vapour
(4)	shadow	water vapour	marble	oil

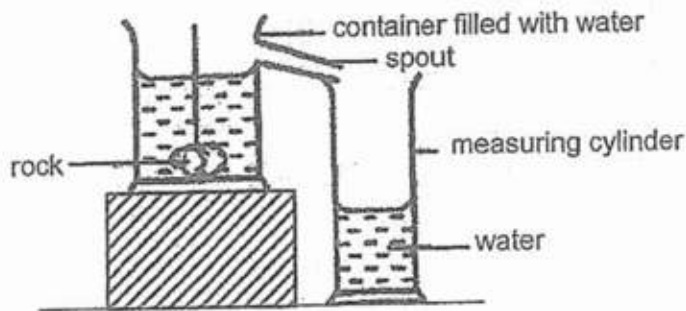
- A) 1
 B) 2
 C) 3
 D) 4

Question 24 of 61

Primary 5 Science (Term 4)

2 pts

The set-up below was used to find the volume of a rock.



Rearrange the following steps to show the correct sequence used to measure the volume of the rock.

- A Tie the rock to a string and lower it completely into the container.
- B Place your eye at the water level of the measuring cylinder to find the volume of the rock.
- C Fill the container with water until it starts to flow out from the spout.
- D Place an empty measuring cylinder under the spout.

- A) A ->C ->D ->B
- B) B ->C ->D ->A
- C) C ->D ->A ->B
- D) D ->A ->C ->B

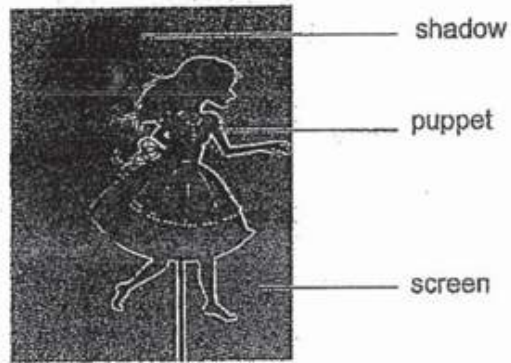
Question 25 of 61

Primary 5 Science (Term 4)

2 pts

Study the diagram below and answer questions 25 and 26.

The diagram below shows a puppet and its shadow cast on the screen behind it.



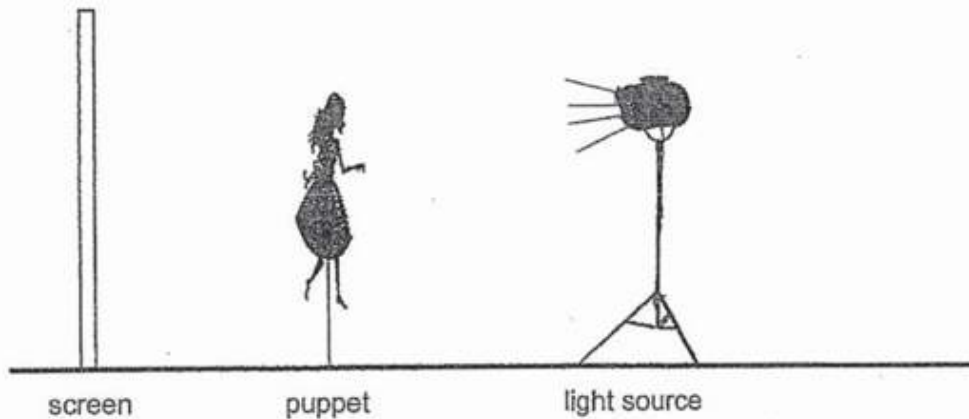
Which one of the following statements correctly explains how the shadow was formed?

-
- A) The screen gave out light which was blocked by the puppet
 - B) The screen blocked the path of light from reaching the puppet
 - C) The puppet blocked the path of light from reaching the screen
 - D) The puppet and screen were placed in a dark room with no light source

Question 26 of 61

Primary 5 Science (Term 4) 2 pts

The puppet master observed that the size of the shadow changed when the puppet was moved nearer or further from the light source.



Which of the following action(s) could allow the puppet master to form a smaller shadow of the puppet on the screen?

- A Move the puppet closer to the screen.
- B Move the screen away from the puppet.
- C Move the light source closer to the puppet.

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

Question 27 of 61

Primary 5 Science (Term 4) 2 pts

Gopal placed some ice cubes on a metal plate. After five minutes, he observed that the ice cubes melted and the metal plate felt cold

Which of the following statements explain Gopal's observation correctly?

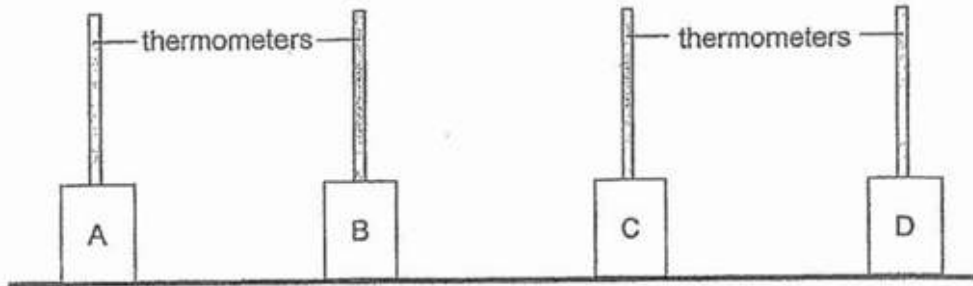
- A The metal plate lost heat to the ice cubes
- B The ice cubes lost heat to the surroundings
- C The metal plate gained heat from the ice cubes
- D The ice cubes gained heat from the surroundings

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

Question 28 of 61

Primary 5 Science (Term 4) 2 pts

Rosnie carried out an experiment to find out the effect of the Sun's heat on different materials. She used 4 identical empty cans made of different materials, A, B, C and D, for the set-ups shown below. The set-ups were placed under direct sunlight.



She recorded the temperature of the air in the cans over time, as shown in the table below.

Temperature of air in the cans (°C)				
Time (min)	A	B	C	D
0	25	25	25	25
5	28	28	27	29
10	31	30	29	33
15	34	32	30	36

Based on her results, which one of the materials is most suitable for making a cooler box to keep drinks cool for the longest time?

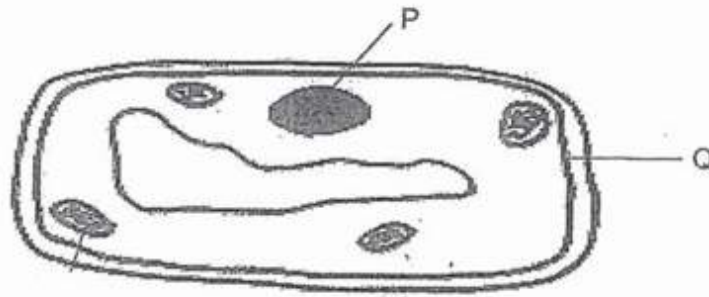
- A) A
 B) B
 C) C
 D) D

Question 29 of 61

Primary 5 Science (Term 4)

0 pts

The diagram below shows a plant cell.



- (a) (i) On the diagram above, label with an 'X' the part of the cell that helps to make food for the plant. [1]
- (ii) Besides the part labelled in (a)(i), label with a 'Y' another part of the cell that is present only in a plant cell. [1]

Please type "done" to proceed to the next question

Question 30 of 61

Primary 5 Science (Term 4)

0 pts

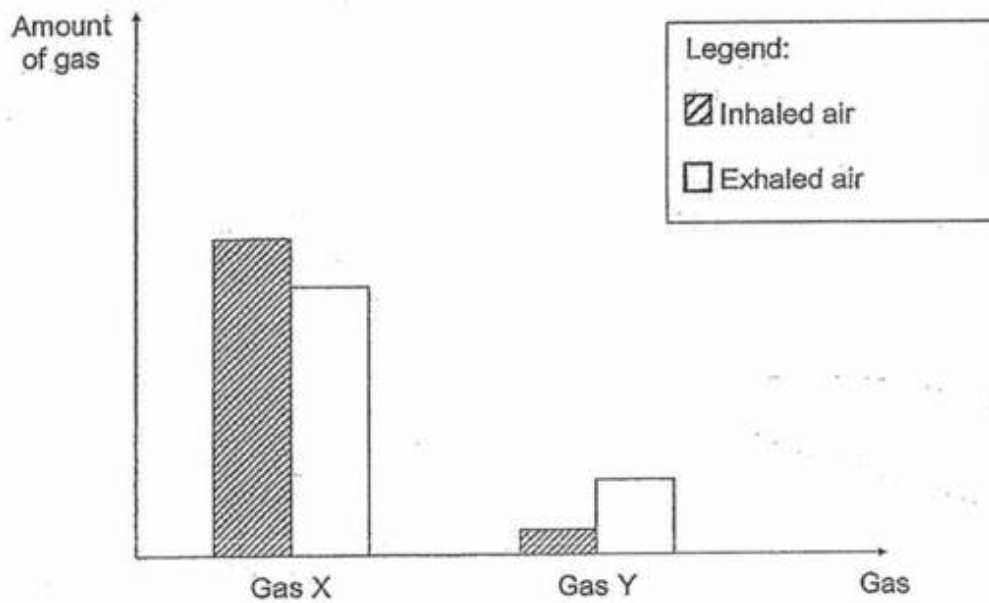
State the function of parts P and Q

Question 31 of 61

Primary 5 Science (Term 4)

1 pt

The bar graph below shows the amount of gases X and Y in inhaled air and exhaled air.



(a) Identify gases X and Y.

[1]

Gas X: _____

Question 32 of 61

Primary 5 Science (Term 4)

1 pt

Gas Y: _____

Question 33 of 61

Primary 5 Science (Term 4)

0 pts

Max went to the park to exercise. He noticed that his breathing rate increased during exercise.

b) Explain why Max's breathing rate increased when he exercised

Question 34 of 61

Primary 5 Science (Term 4) 0 pts

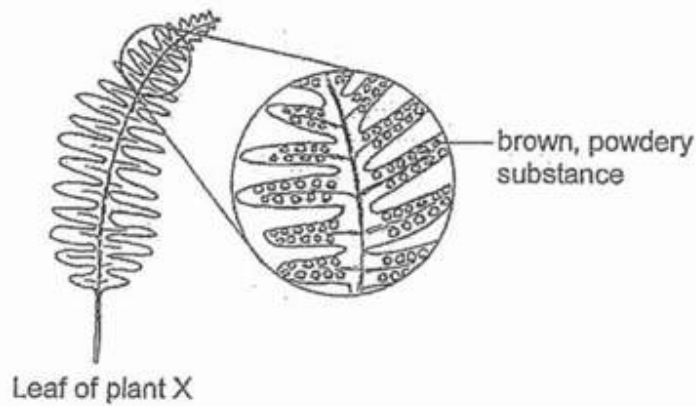
The respiratory system must work together with the circulatory system to ensure that oxygen is transported to all parts of the body and carbon dioxide is removed from various parts of the body

c) Describe how both system work together to remove carbon dioxide from various parts of the body

Question 35 of 61

Primary 5 Science (Term 4) 0 pts

Jerry studied a leaf of plant X as shown in the diagram below. He observed some brown, powdery substance on the underside of the leaf and concluded that plant X is non-flowering.



(a) What is the brown, powdery substance that Jerry observed on the underside of the leaf? [1]

Question 36 of 61

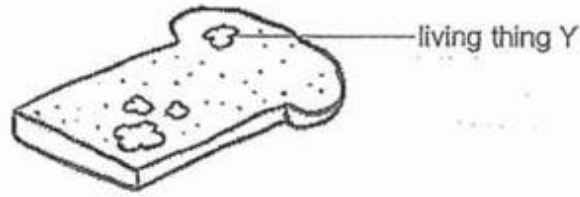
Primary 5 Science (Term 4) 0 pts

b) Explain why it is important for the brown, powdery substance to be small and light.

Question 37 of 61

Primary 5 Science (Term 4) 0 pts

Jerry then observed living thing Y that was found growing on a piece of bread as shown in the diagram below.



He placed plant X and living thing Y in a closed cupboard for a week and gave them the same amount of water daily. He recorded his observations as shown below.

Observations after a week	
Plant X	leaves turned yellow and some dropped off from the plant
Living thing Y	grew and covered a larger area on the bread

c) Given the same condition, explain why living thing Y grew well but not plant X?

Question 38 of 61



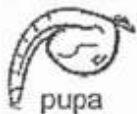
Primary 5 Science (Term 4) 0 pts

d) State the group of living thing Y belongs to and give one characteristic of this group

Question 39 of 61

Primary 5 Science (Term 4) 0 pts

A scientist kept some mosquitoes at different temperatures to study the average duration of each stage of its life cycle.

Stage	Average duration of stage (days)		
	25°C	30°C	35°C
 egg	2	2	1
 larva	11	9	4
 pupa	3	3	2

- (a) Based on the results above, how does temperature affect the time taken for mosquitoes to develop into the adult stage? [1]

Question 40 of 61

Primary 5 Science (Term 4) 0 pts

Singapore has an average daily temperature of 34 degree celcius. People are advised to remove stagnant water in their homes to prevent mosquitoes from breeding in them

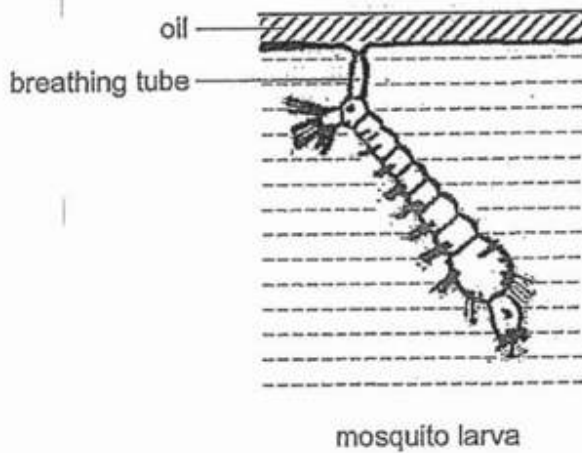
- b) Based on the results in the table and the information above, how often should stagnant water be removed in order to prevent the eggs from hatching into young.

Question 41 of 61

Primary 5 Science (Term 4)

0 pts

The diagram below shows a mosquito larva in water.



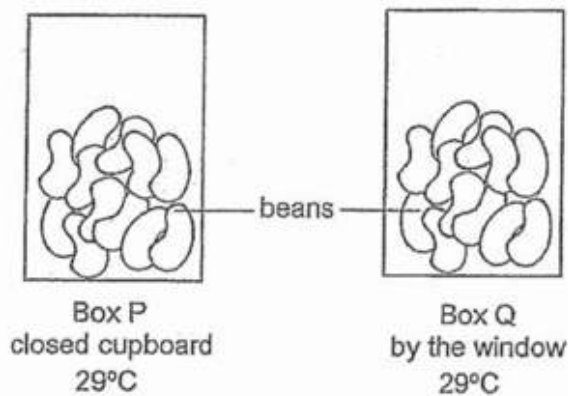
- (c) How is the mosquito larva affected when oil is sprayed on the stagnant water? Explain your answer. [2]

Question 42 of 61

Primary 5 Science (Term 4)

0 pts

Marcio put the same number of beans into 2 identical boxes, P and Q. He added the same amount of water to the beans in both boxes. Box P was left in a closed cupboard while box Q was left by the window. He observed the beans over 5 days.



- (a) What was the aim of Marcio's experiment? [1]

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Primary 5 Science (Term 4) 0 pts

b) What could be observed about the bears in box P and box Q over 5 days? Explain your answer

Question 44 of 61

Primary 5 Science (Term 4) 0 pts

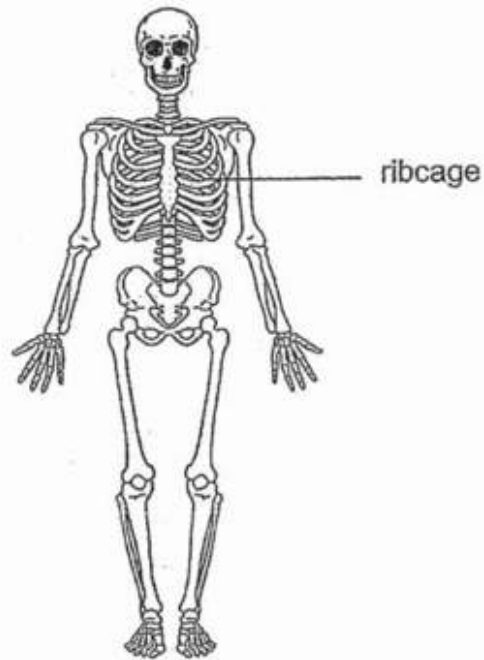
c) Why did Marcio put more than one bean in each of the bags?

Question 45 of 61

Primary 5 Science (Term 4)

0 pts

The diagram below shows the skeleton of a human.



The ribcage protects two organs. One is part of the circulatory system while the other is part of the respiratory system.

State the organs and their functions.

[2]

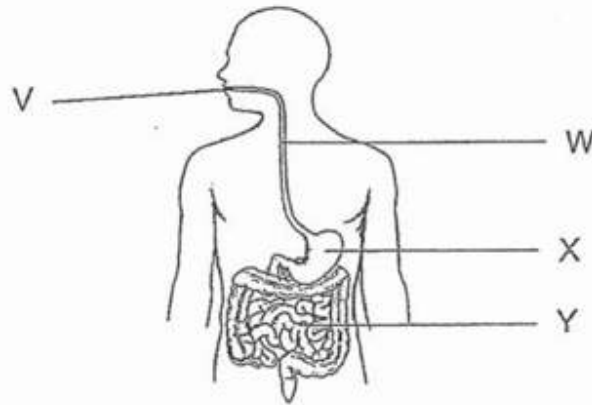
Organ in the circulatory system	
Function	

Organ in the respiratory system	
Function	

Question 46 of 61

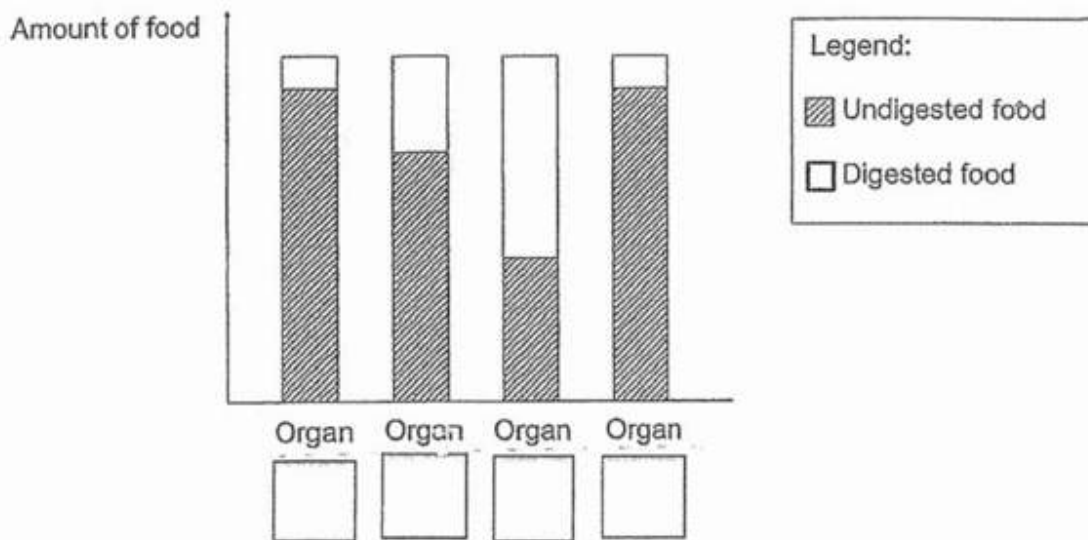
Primary 5 Science (Term 4) 0 pts

The diagram below shows the human digestive system with some organs labelled V, W, X and Y.



The graph below shows the amount of digested food and undigested food in various organs of the human digestive system after a boy ate a meal.

(a) Identify the four organs in the graph below using the letters V, W, X or Y. Each box should only contain one letter and each letter can only be used once. [2]



Question 47 of 61

Primary 5 Science (Term 4) 0 pts

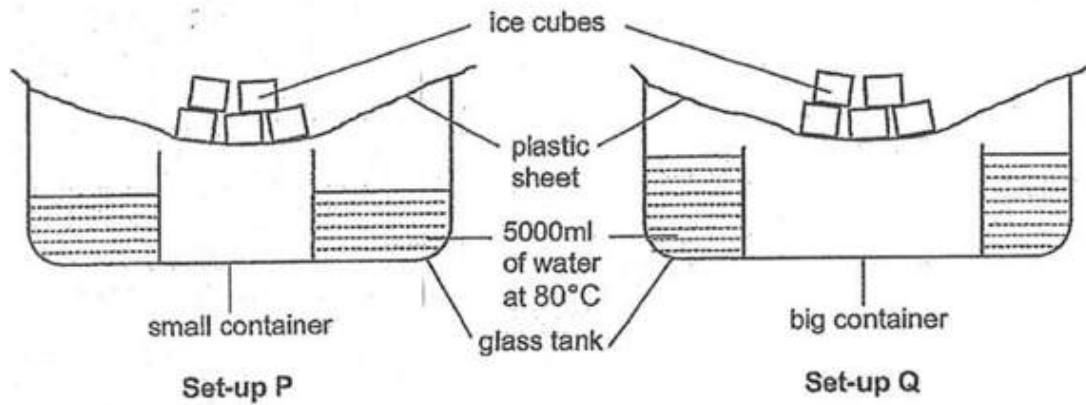
b) State a similarity and difference between the functions of organ V and organ Y

Question 48 of 61

Primary 5 Science (Term 4)

0 pts

Renee prepared two set-ups below to show her classmates how to make artificial rain.



(a) State the purpose of the ice cubes in the set-ups above.

[1]

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Primary 5 Science (Term 4)

0 pts

After a few hours, she noticed that some water was collected in both containers.

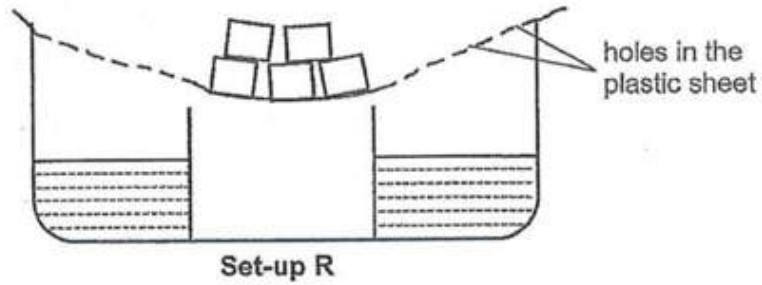
b) Which set-up would have more water collected in the container? Explain your answer

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Primary 5 Science (Term 4)

0 pts

Renee then prepared set-up R. Set-up R was similar to set-up P but with some holes in the plastic sheet.



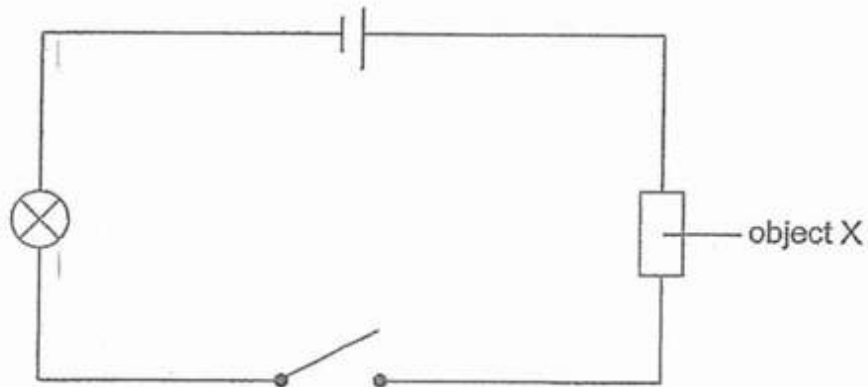
- (c) Would the amount of water collected in the container of set-up R be more than, less than or the same as the amount of water collected in the container of set-up P? Explain your answer. [2]

Question 51 of 61

Primary 5 Science (Term 4)

0 pts

Sophia set up an open circuit as shown below.



When she closed the circuit, the bulb did not light up.

- (a) What could be the two possible reasons that the bulb did not light up?

[2]

Question 52 of 61

Primary 5 Science (Term 4) 0 pts

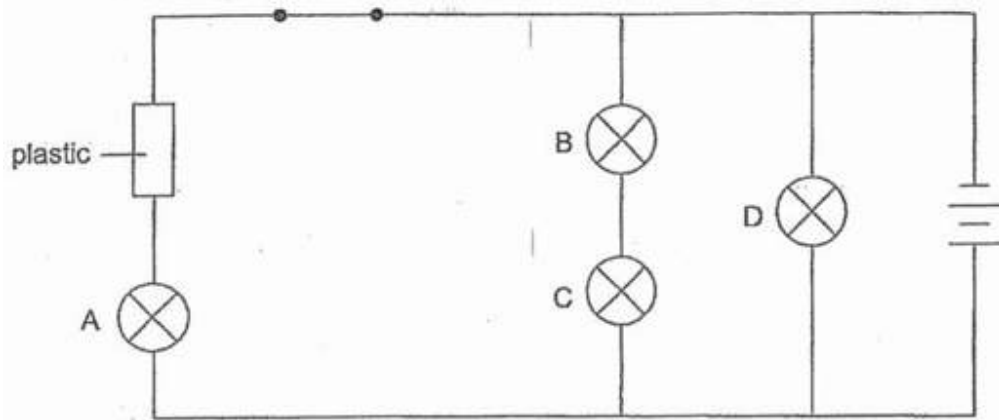
After Sophia made a change to the circuit, the bulb light up.

b) She then added two more batteries. The bulb fused after lighting up for a while. Why did bulb fuse?

Question 53 of 61

Primary 5 Science (Term 4) 1 pt

Study the circuit diagram below.



Bulbs A, B, C and D are identical.

Below are four statements based on the circuit above. Put a tick (✓) to indicate if each statement is true or false. [2]

Bulb C is dimmer than bulb D

- A) True
- B) False

Question 54 of 61

Primary 5 Science (Term 4) 1 pt

Bulb D will not light up if S1 is open

- A) True
- B) False

Question 55 of 61

Primary 5 Science (Term 4)

1 pt

Bulbs B and C will have equal brightness

- A) True
- B) False

Question 56 of 61

Primary 5 Science (Term 4)

1 pt

Bulb A did not light up

- A) True
- B) False

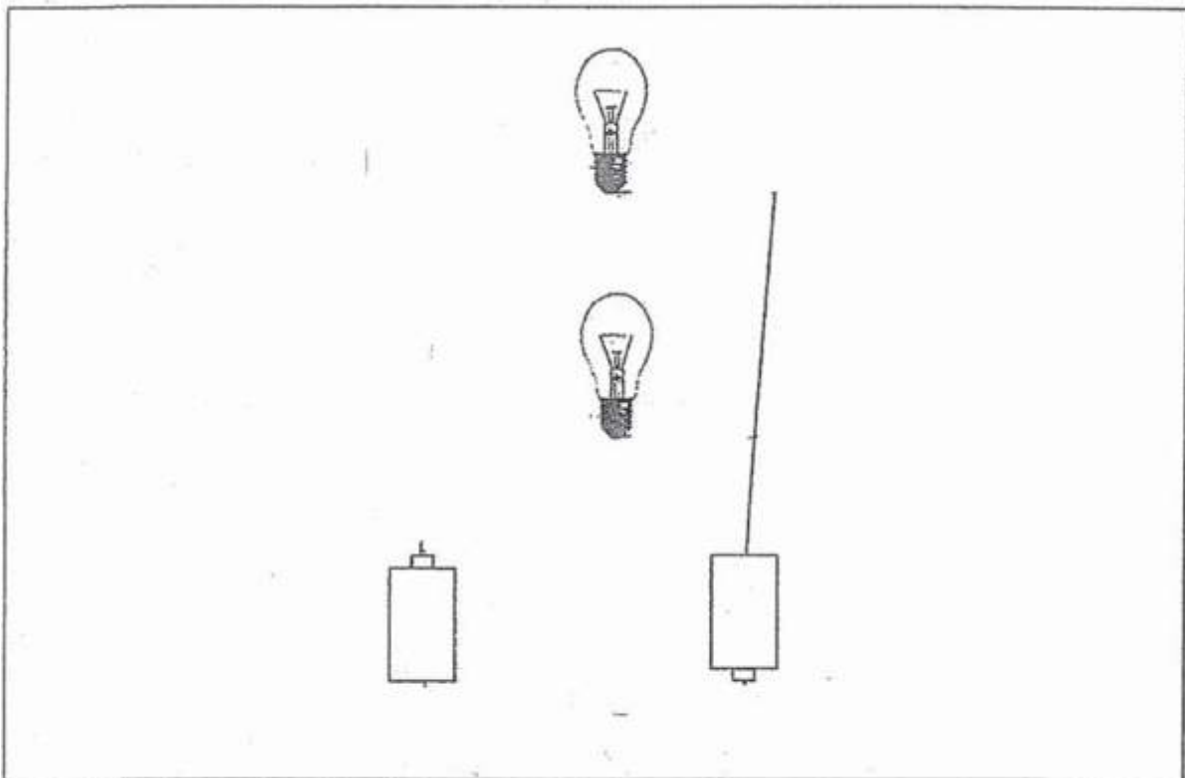
Question 57 of 61

Primary 5 Science (Term 4)

0 pts

The diagram below shows two identical batteries and two bulbs.

- (a) In the diagram below, draw wires to connect the bulbs and the batteries such that the two bulbs will light up with maximum brightness. [2]



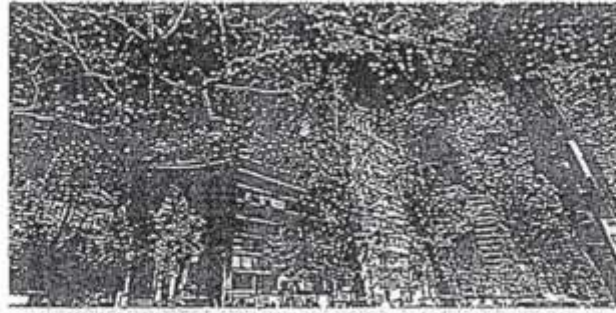
Please type "done" to proceed to the next question

Question 58 of 61

Primary 5 Science (Term 4)

0 pts

During festive seasons, some stretches of roads in Singapore will be decorated with lightings as shown in the diagram below.



The bulbs of festive lightings along the roads are arranged in parallel. Give two advantages of this arrangement. [2]

Question 59 of 61

Primary 5 Science (Term 4)

1 pt

Easter wanted to make a magnet using the electrical method.

a) Other than a battery, which of the following item(s) would she need?

- A) magnet
- B) steel rod
- C) nylon string
- D) copper wire

Question 60 of 61

Primary 5 Science (Term 4)

1 pt

She tested the electromagnet that she had made, and recorded her results in the table below.

	Aluminium pins	Steel pins
Number of pins attracted	0	3

She re-designed her electromagnet and tested it again. The number of steel pins attracted increased.

(b) State the number of aluminium pins that would most likely be attracted.

[1]

	Aluminium pins	Steel pins
Number of pins attracted		6

Question 61 of 61

Primary 5 Science (Term 4)

0 pts

c) Suggest two possible changes that Esther could have made to her re-designed electromagnet for it to attract 6 steel pins