

Test: Primary 6 Science (Term 1) - St Nicholas

Points: 60 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 70

Primary 6 Science (Term 1) 2 pts

Section A (28 x 2 marks = 56 Marks)

Which of the following statements about fungi are incorrect?

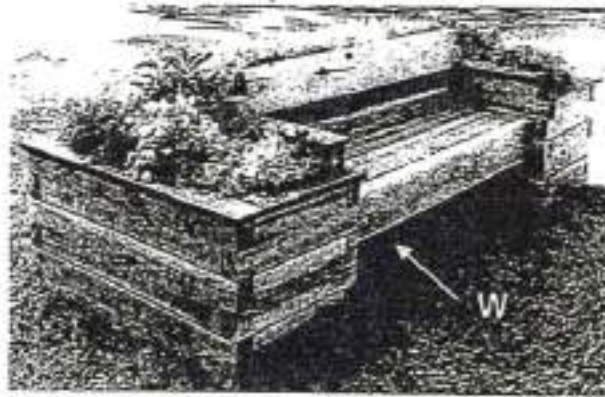
- A Fungi contain chlorophyll
B Fungi are non-flowering plants
C Fungi rely on other organisms for food
D Fungi do not need sunlight, air and Water to grow

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

Question 2 of 70

Primary 6 Science (Term 1) 2 pts

Halim placed his new wooden bench on an empty patch of grass in his garden. After a few weeks, he noted that the grass under the bench in area W was not growing well.



Which one of the following best explains why the grass was not growing well?

- A) The grass patch did not receive enough water
- B) The grass patch did not receive enough oxygen
- C) The grass patch did not receive enough sunlight
- D) The grass patch did not receive enough carbon dioxide

Question 3 of 70

Primary 6 Science (Term 1) 2 pts

Kyle wanted to find out if light was needed for seeds to germinate. Which of the following variables should he keep constant for the experiment?

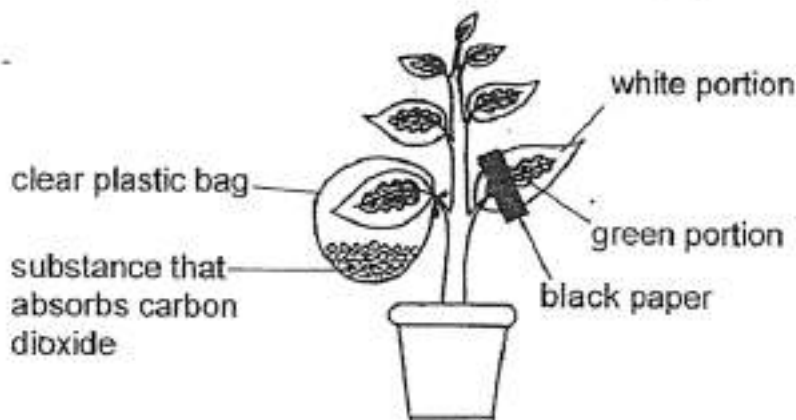
- A The height of the seedlings
- B The temperature of the surroundings.
- C The amount of water given to the seeds.
- D The amount of oxygen given to the seeds.
- E The amount of light used in the experiment.
- F The number of seeds used in the experiment.

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

Question 4 of 70

Primary 6 Science (Term 1) 2 pts

Camellia used the set-up below to investigate the conditions needed for photosynthesis to take place. The set-up was placed in a sunny garden. The white portion of the leaf does not have any traces of chlorophyll.



Which of the following could be possible aims of the experiment?

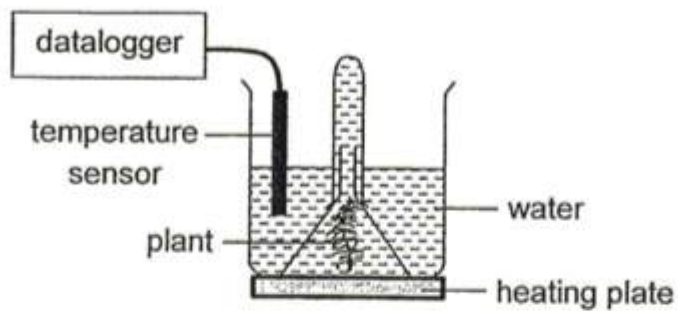
- A Whether oxygen is needed for photosynthesis to take place.
- B Whether sunlight is needed for photosynthesis to take place.
- C Whether chlorophyll is needed for photosynthesis to take place.
- D Whether carbon dioxide is needed for photosynthesis to take place.

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

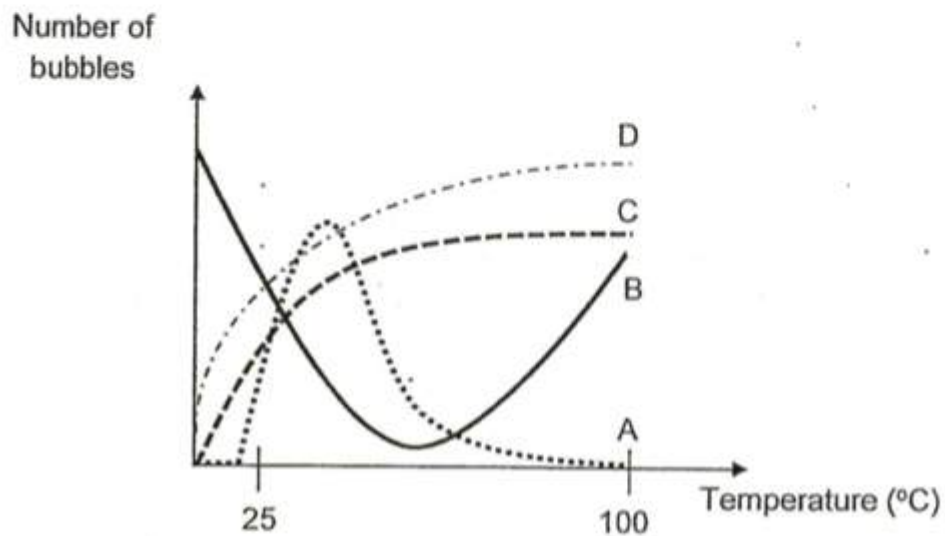
Question 5 of 70

Primary 6 Science (Term 1) 2 pts

Roshini set up an experiment as shown below. She recorded the number of bubbles produced by the plant when the temperature of the water was increased.



Which one of the following graphs A, B, C, D shows how the number of bubbles observed by Roshini change with temperature?

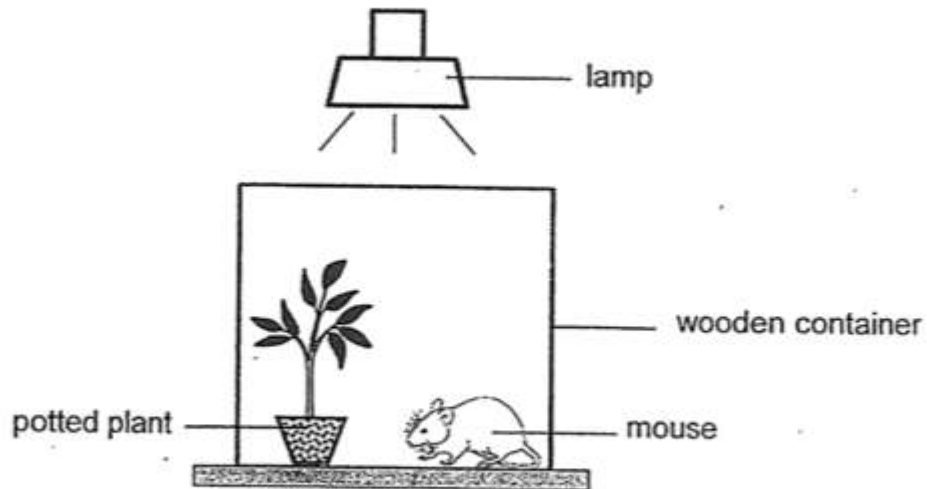


- A) A
- B) B
- C) C
- D) D

Question 6 of 70

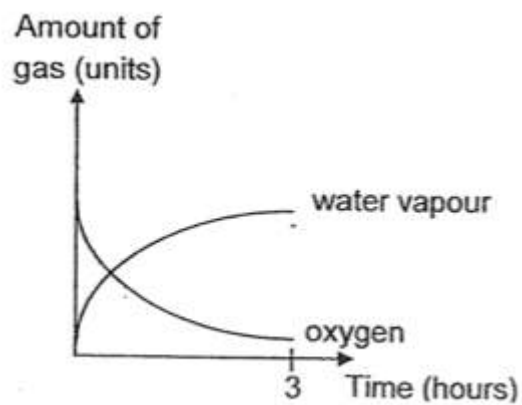
Primary 6 Science (Term 1) 2 pts

Study the diagram below.

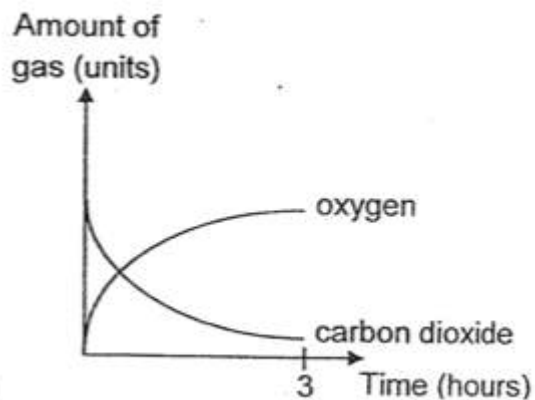


Which one of the following graphs shows the most likely changes in the amount of gases in the container over three hours?

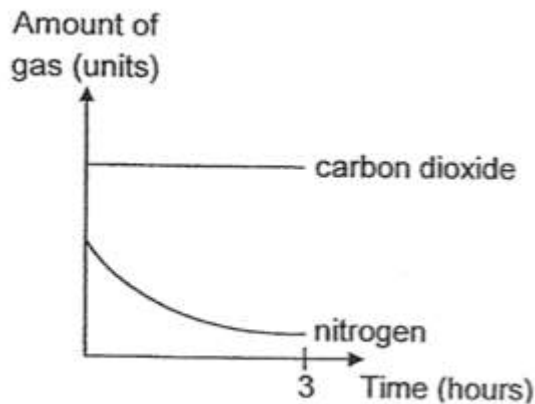
A)



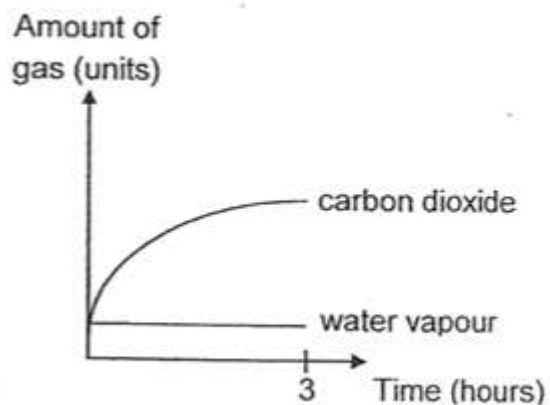
B)



C)



D)



Question 7 of 70

Primary 6 Science (Term 1) 2 pts

A bottle of cold juice was wrapped with several layers of cloth. After an hour, the cloth was removed and the juice was still cold. Which of the following are possible reasons for such an observation?

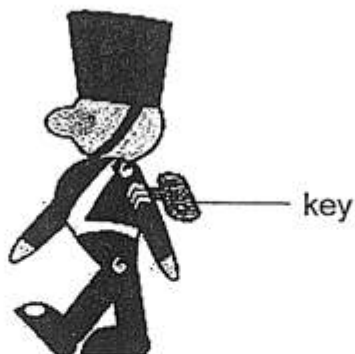
- A The cloth is a poor conductor of heat
- B The juice lost heat slowly to the surrounding
- C The juice gained heat from the surrounding slowly
- D The cloth trapped many layers of air, and less heat from the surrounding is able to reach the juice

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

Question 8 of 70

Primary 6 Science (Term 1) 2 pts

Jaydan conducted an experiment with a wound-up toy soldier as shown below. After a few turns, he released it on the floor and measured the distance travelled by the toy soldier.



Which of the following are possible aims of his experiment?

- A To find out if the mass of the toy soldier affects the distance moved by it.
- B To find out if the surface the toy soldier travels on affects the distance travelled by it.
- C To find out if the number of turns of the key affects the distance travelled by the toy soldier.
- D To find out if the number of turns of the key affects the amount of potential energy of the toy soldier.

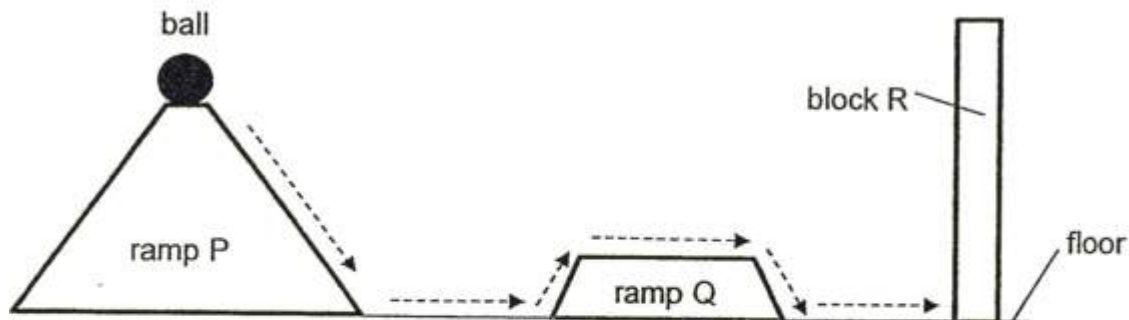
-
- A) A and B only
 - B) A and C only
 - C) D and B only
 - D) C and D only

Question 9 of 70

Primary 6 Science (Term 1)

2 pts

A ball was released from the highest point of ramp P. The arrow shows the path of the ball before it was stopped by block R.



Based on the path travelled by the ball, which one of the following statements is true?

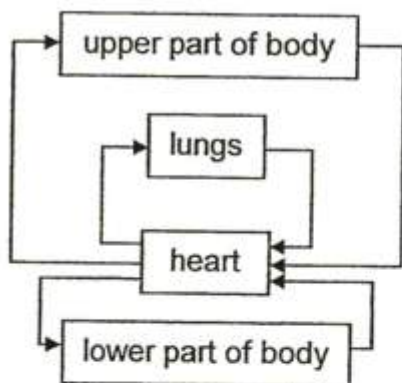
- (1) All the kinetic energy would be used up when the ball hit block R.
- (2) When the ball was released from ramp P, it gained potential energy.
- (3) The ball had the most kinetic energy when it is at the highest point of ramp P.
- (4) Kinetic energy was converted to potential energy when the ball travelled up ramp Q.

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

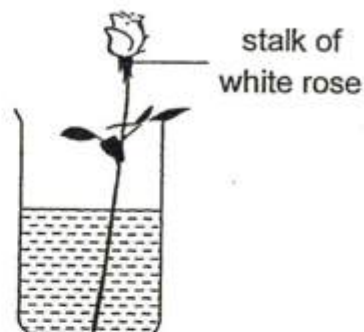
Question 10 of 70

Primary 6 Science (Term 1) 2 pts

Study the diagram below.



human circulatory system



container of water
with blue dye

Three students made the following comments about the diagram above.

- Nelly: Blood circulates around the body just like how the blue dye moves in the plant.
- Carol: Blood circulates around the body as there is a heart to pump the blood around.
- Yvonne: Blood circulates around the body but the blue dye in the beaker only moves upwards to the leaves and flower through the stem.

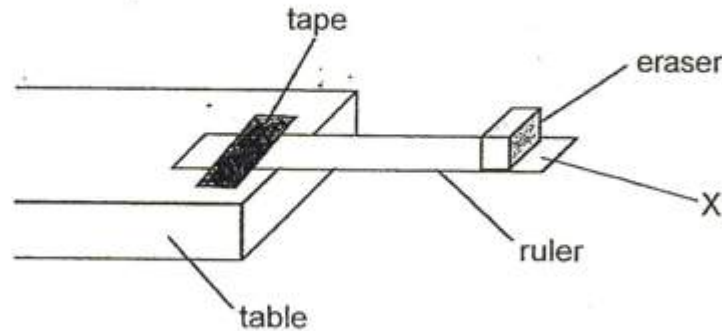
Which of the following student(s) has/have made the correct statement(s)?

- A) Carol only
- B) Nelly and Yvonne only
- C) Carol and Yvonne only
- D) Nelly, Carol and Yvonne

Question 11 of 70

Primary 6 Science (Term 1) 2 pts

Mica placed a ruler at the edge of the table and held it down firmly with a tape as shown below. She then placed an eraser near the edge of the ruler and pressed the ruler down at X before letting it go. She observed that the eraser was thrown off the ruler.

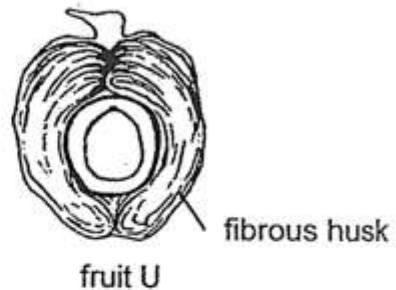
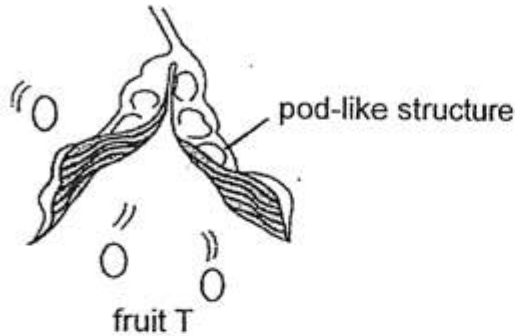
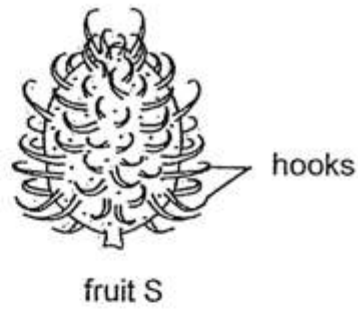
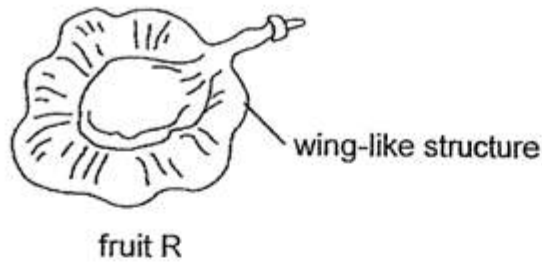


The eraser was thrown off as it had obtained its energy from the _____.

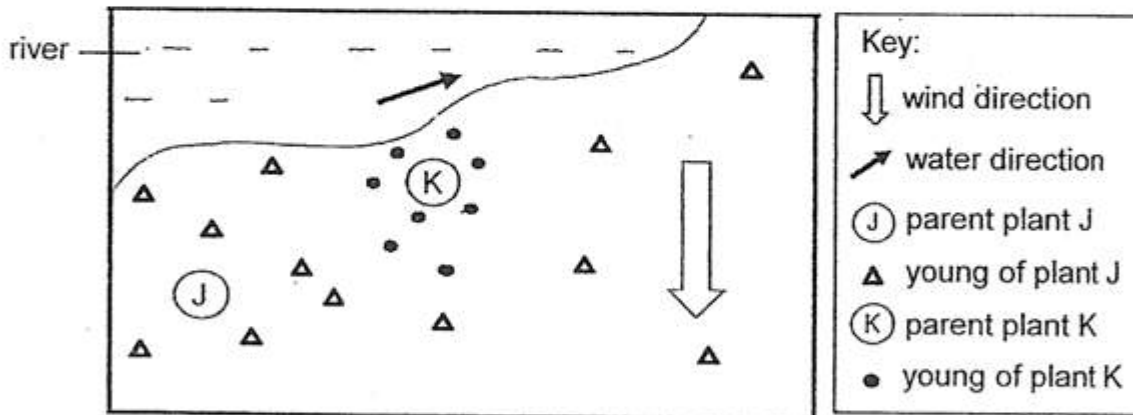
- A) bent ruler
- B) edge of the table
- C) Mica's hand place at position X
- D) compressed air around the eraser

Question 12 of 70 Primary 6 Science (Term 1) 2 pts

The diagram below show some fruits.



Study the dispersal patterns of plants J and K below.



Based on the dispersal pattern above, which of the fruits belong to parent plants J and K?

	Parent plant J	Parent plant K
(1)	Fruit R	Fruit U
(2)	Fruit S	Fruit T
(3)	Fruit T	Fruit S
(4)	Fruit U	Fruit T

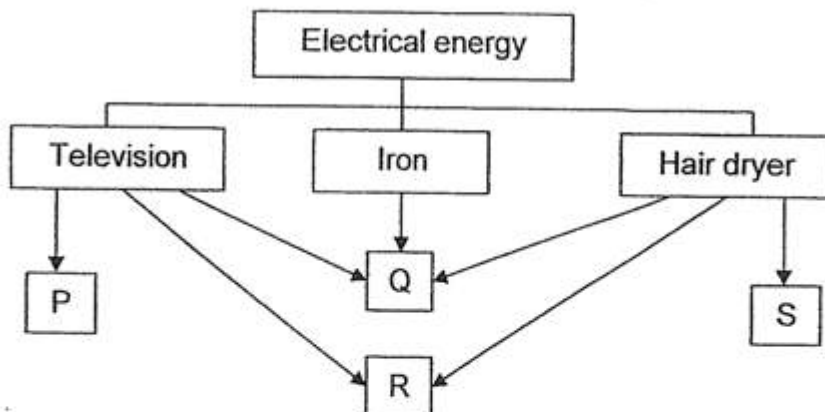
A) 1

- B) 2
 C) 3
 D) 4

Question 13 of 70

Primary 6 Science (Term 1) 2 pts

The table below shows how some electrical appliances convert electrical energy to other forms of energy.



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

	P	Q	R	S
(1)	Sound energy	Light energy	Heat energy	Sound energy
(2)	Sound energy	Heat energy	Light energy	Kinetic energy
(3)	Heat energy	Sound energy	Light energy	Heat energy
(4)	Light energy	Heat energy	Sound energy	Kinetic energy

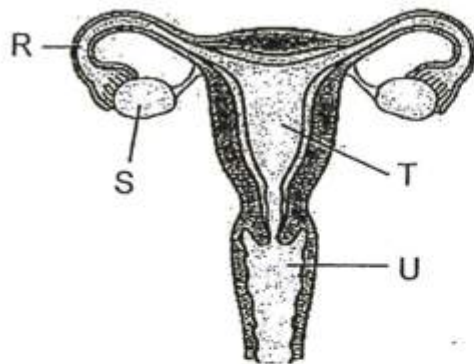
- A) 1
 B) 2
 C) 3
 D) 4

Question 14 of 70

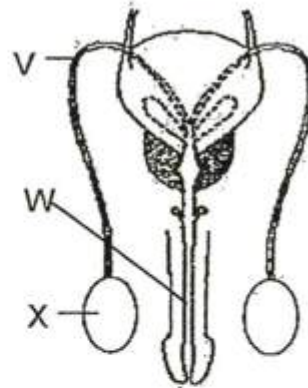
Primary 6 Science (Term 1)

2 pts

The diagram below shows the human male and female reproductive systems.



female reproductive system



male reproductive system

Which of the following statement(s) is/are false?

- A Part X stores the eggs.
- B Sperms are produced by part S.
- C The fertilised egg develops in part T.
- D The sperm usually swims up to fertilise the egg at part R.

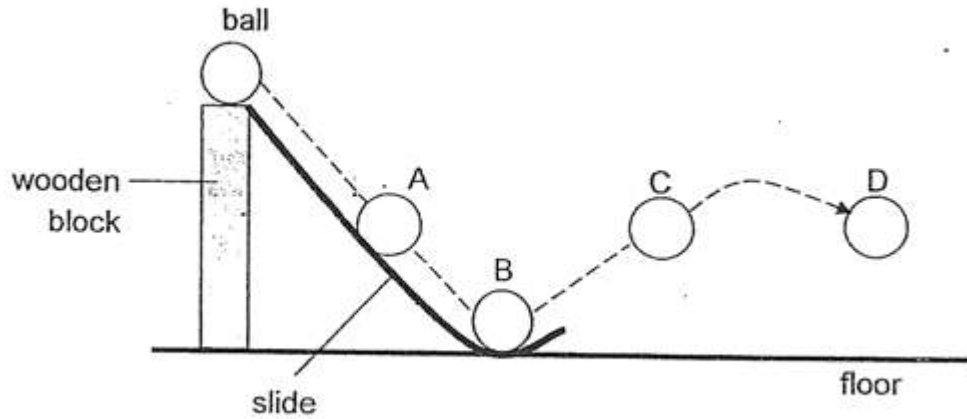
- A) C only
- B) A and B only
- C) C and D only
- D) A,B and C only

Question 15 of 70

Primary 6 Science (Term 1)

2 pts

The diagram below shows the movement of a ball rolling down a slide.



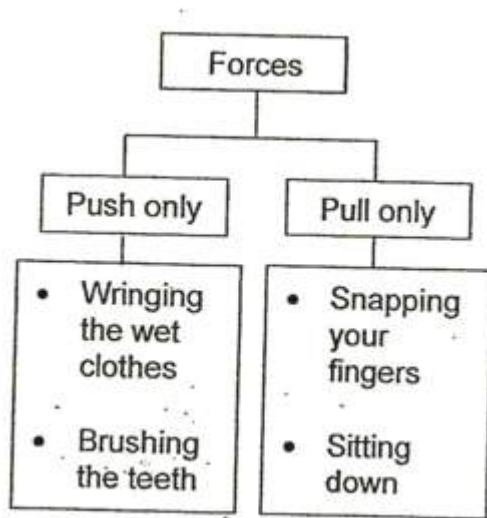
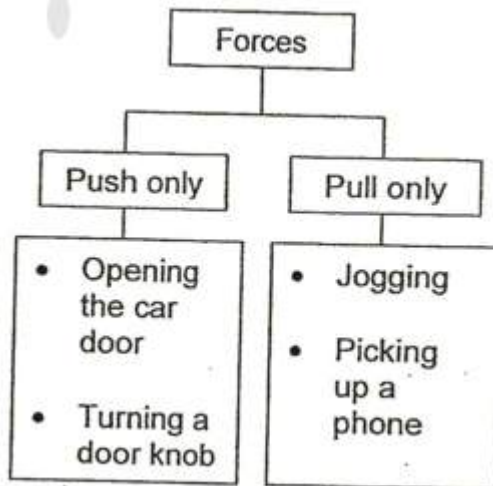
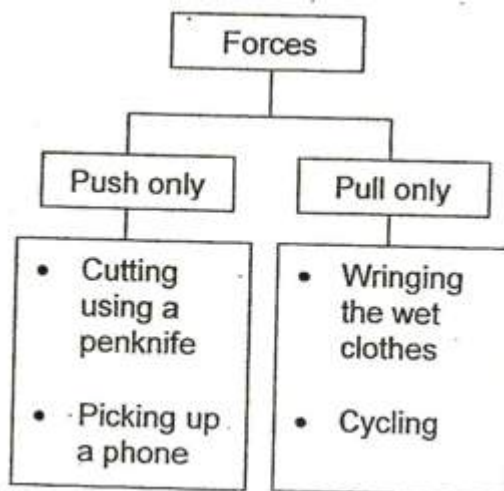
At which point(s) is gravitational force acting on the ball?

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

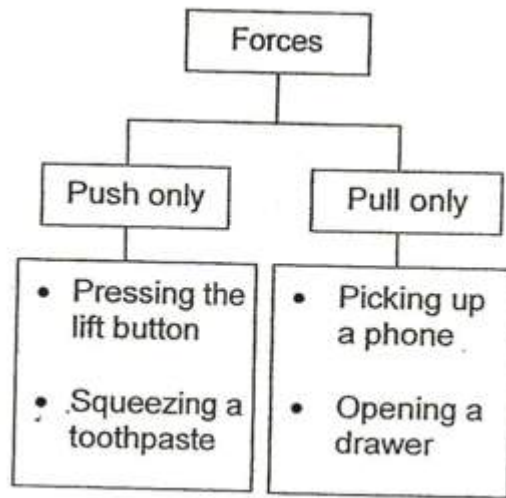
Question 16 of 70

Primary 6 Science (Term 1) 2 pts

Which of the following actions are correctly classified?

 A) B) C)

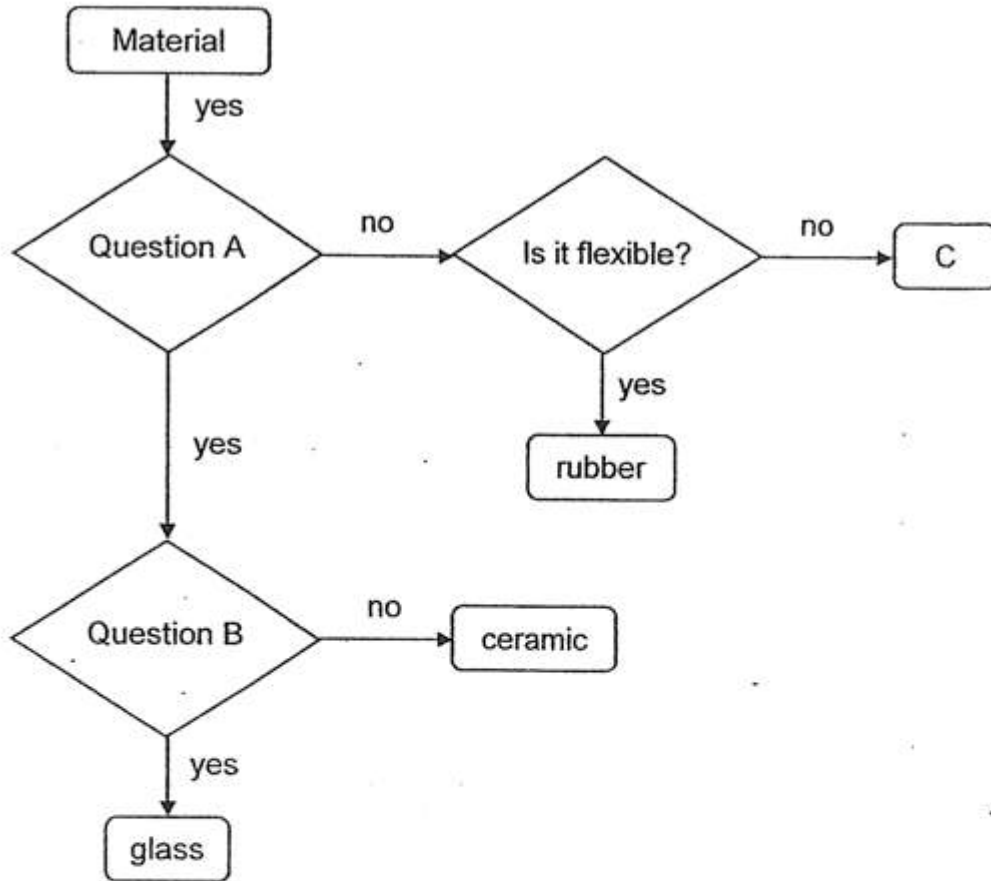
D)



Question 17 of 70

Primary 6 Science (Term 1) 2 pts

Study the chart below.



Which one of the following is correct?

	Question A	Question B	C
(1)	Is it magnetic?	Does it conduct electricity?	wood
(2)	Is it fragile?	Does it allow light to pass through?	wood
(3)	Does it allow light to pass through?	Is it magnetic?	metal
(4)	Does it conduct electricity?	Is it fragile?	metal

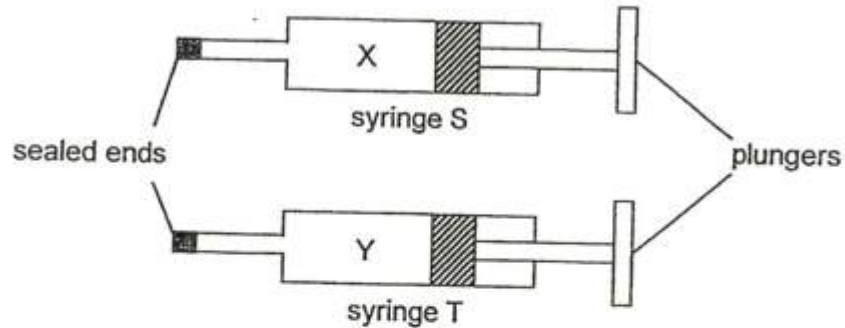
- A) 1
- B) 2
- C) 3
- D) 4

Question 18 of 70

Primary 6 Science (Term 1)

2 pts

Two syringes S and T contain substances X and Y respectively. One end of each syringe is sealed as shown below.



The plunger in syringe T could be pushed in slightly while the plunger in syringe S could not be pushed in at all.

Which of the following substances are most likely to be X and Y?

	Substance X	Substance Y
(1)	Air	Milk
(2)	Milk	Water
(3)	Milk	Sand
(4)	Sand	Milk

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

Question 19 of 70

Primary 6 Science (Term 1) 2 pts

The diagram below shows a bag of leaves and a bag of flour.



1 kg of flour



1 kg of leaves

Which of the following statement(s) about the above objects is/are true?

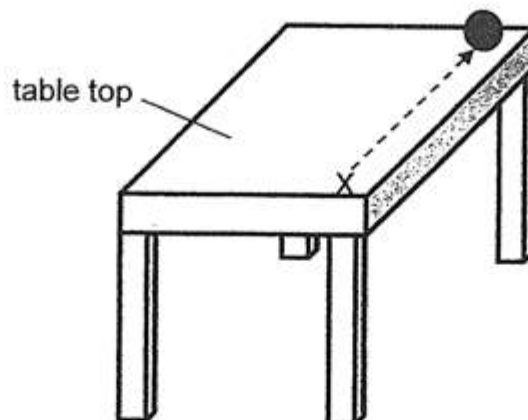
- A The bag of leaves has a greater mass than the bag of flour.
- B The bag of flour has the same volume as the bag of leaves.
- C The bag of flour and the bag of leaves have the same mass.
- D The bag of leaves takes up less space than the bag of flour.

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

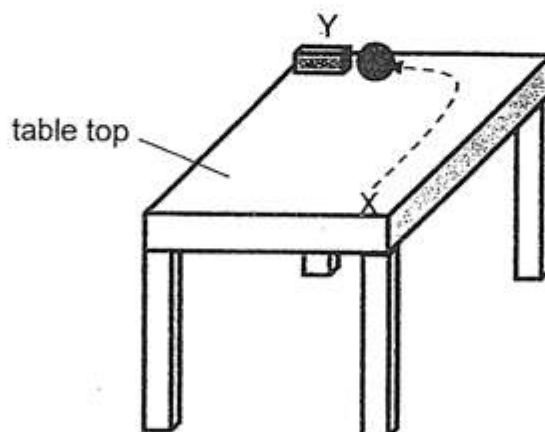
Question 20 of 70

Primary 6 Science (Term 1) 2 pts

When a steel ball was pushed at X on a flat table top, it moved along a straight line shown by the arrow in the diagram below.



The experiment was repeated with an object placed at position Y. The steel ball then travelled along a curved path as shown by the arrow below.



Which of the following statement(s) is/are explanation(s) for his observations above?

- A Gravitational force causes the steel ball to change direction.
- B Frictional force acts on the steel ball and causes the ball to change its direction.
- C The object at position Y is a magnet and it exerts a magnetic force on the steel ball.

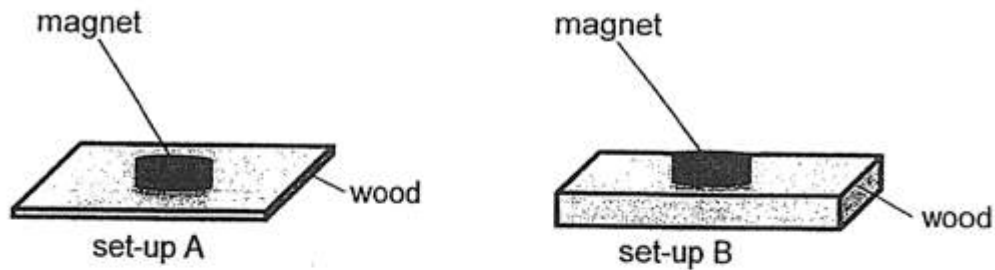
- A) A only
- B) C only
- C) A and B only
- D) B and C only

Question 21 of 70

Primary 6 Science (Term 1)

2 pts

Su Ann placed a magnet on two planks of wood of different thickness as shown below.



She placed the set-ups above some paper clips and made the following observations.

<p>Diagram of set-up A: A magnet is placed on a thin wooden plank. Below the magnet, several paper clips are hanging from it, indicating an attractive magnetic force passing through the wood.</p>	<p>Diagram of set-up B: A magnet is placed on a thick wooden plank. Below the magnet, several paper clips are lying on the surface of the wood, indicating that the magnetic force did not pass through the wood to attract them.</p>
set-up A	set-up B
Observation: paper clips moved towards the wood.	Observation: paper clips did not move.

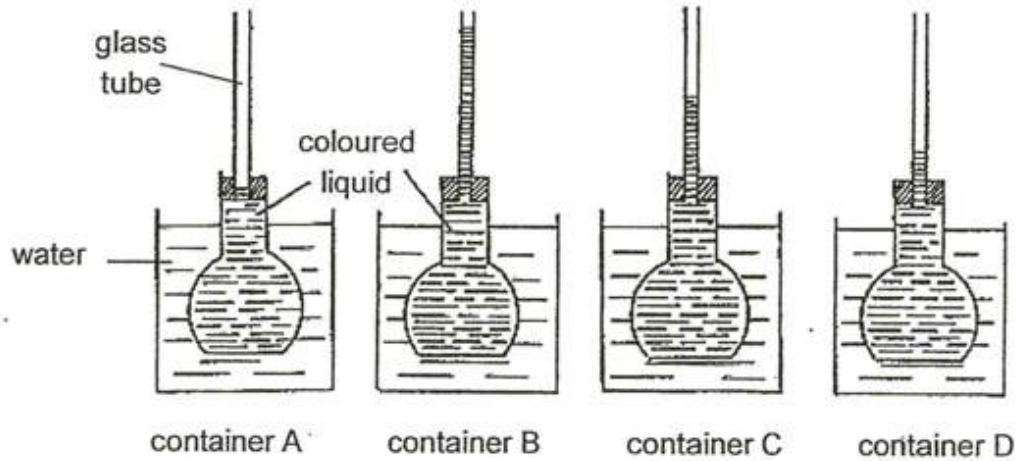
What conclusion could Su Ann draw from the observations made?

- A) Magnetic force can only pass through wood
- B) Wood can be used to test if paper clips are magnetic objects
- C) The paper clips are made of steel which is a magnetic material
- D) Magnetic force can only pass through wood of a certain thickness

Question 22 of 70

Primary 6 Science (Term 1) 2 pts

Four identical flasks containing the same amount of coloured liquid are placed into four identical containers of water for the same period of time. The diagram below shows the heights of the coloured liquids in the glass tubes after some time.



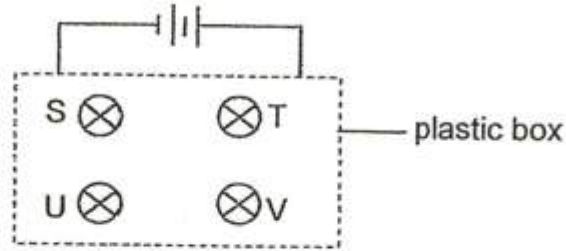
Based on the results above, which container of water is the hottest?

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

Question 23 of 70

Primary 6 Science (Term 1) 2 pts

Bulbs S, T, U and V were connected in a hidden circuit of a plastic box as shown below. All the light bulbs lit up when the circuit was closed.

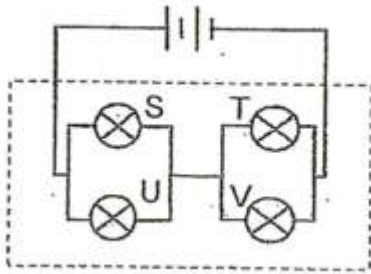


The table below shows what was observed when one light bulb was removed from the circuit.

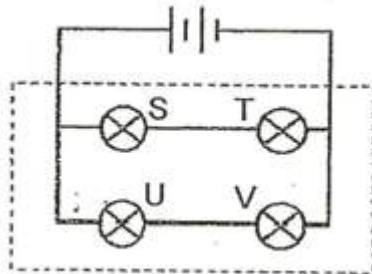
Bulb removed	Bulb(s) lit
S	T, U and V
T	none
U	S, T and V
V	none

Which one of the following correctly shows how the bulbs are connected in the plastic box?

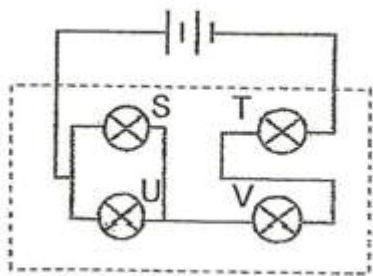
A)



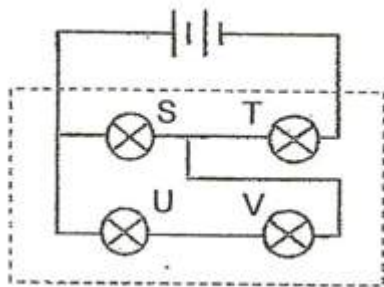
B)



C)



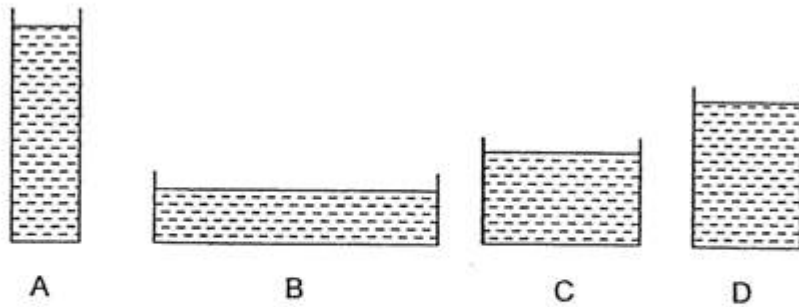
D)



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Primary 6 Science (Term 1) 2 pts

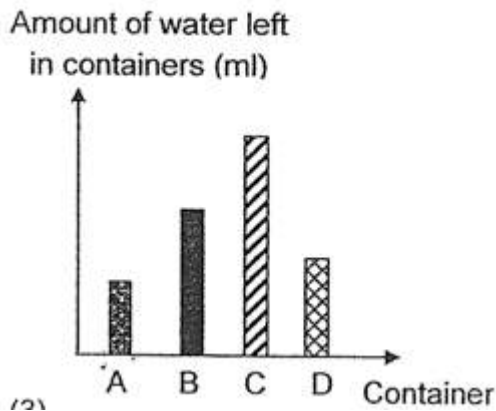
1000 ml of water was poured into each container A, B, C and D as shown below.



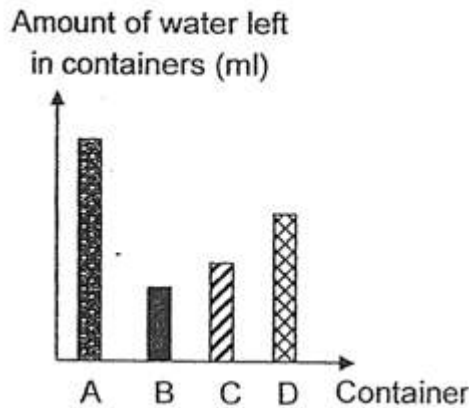
All four containers were placed under a fan for a day. At the end of the day, the amount of water left in each container was measured and recorded in a bar graph.

Which one of the following graphs shows the results?

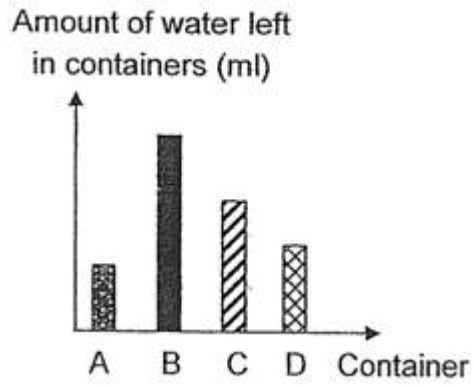
A)



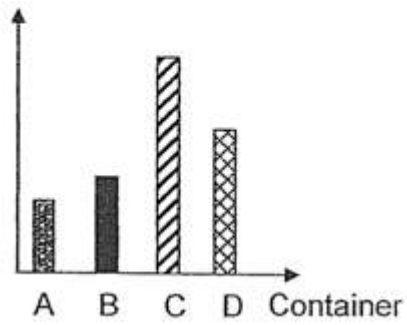
B)



C)



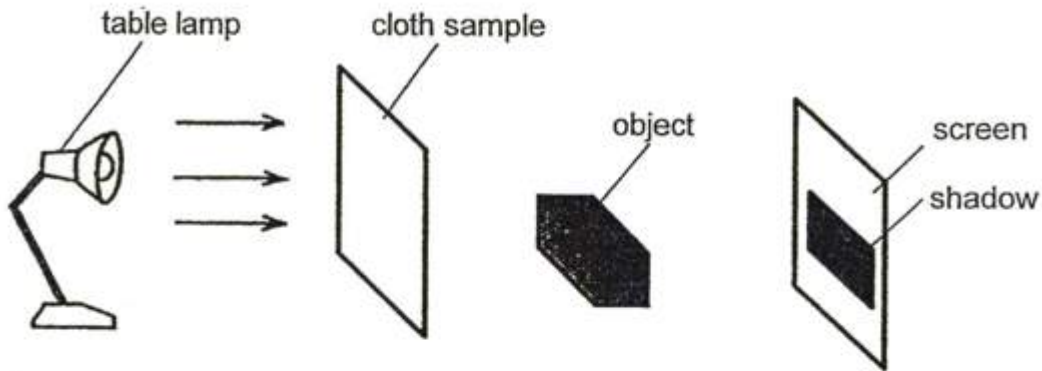
D) Amount of water left in containers (ml)



Question 25 of 70

Primary 6 Science (Term 1) 2 pts

Study the set-up below.



Different samples of cloths A, B, C and D were placed in front of the lamp one at a time. The shadows observed on the screen were recorded in the table below.

Cloth	Shadow observed on the screen
A	
B	
C	
D	

Which of the above cloth is most suitable for making curtains to block out all sunlight?

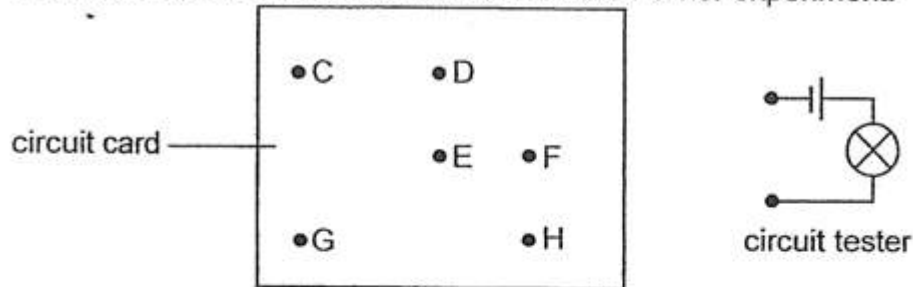
- A) A
 B) B
 C) C
 D) D

Question 26 of 70

Primary 6 Science (Term 1)

2 pts

Pema connected a circuit card to a circuit tester in her experiment.

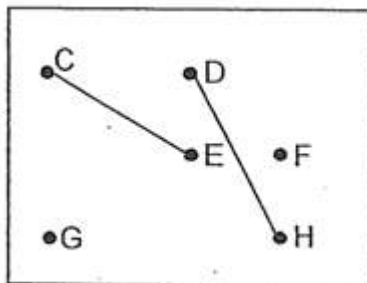


She recorded the results as shown in the table below.

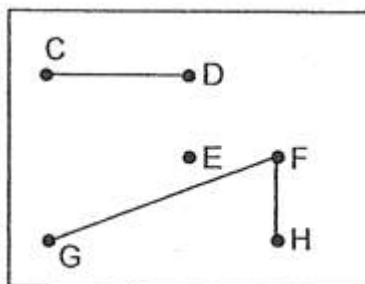
Points joined to the circuit tester	Did the bulb light up?
C and D	No
D and H	Yes
C and E	Yes
G and F	No

Based on the results in the table above, which one of the circuit cards shows the connection of wires correctly?

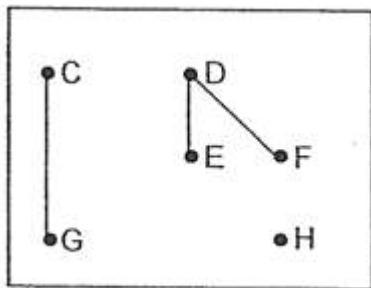
A)



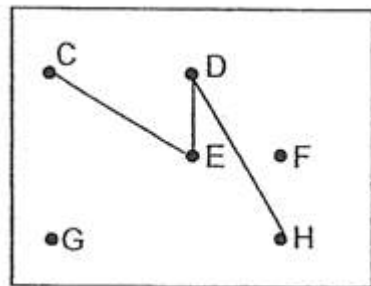
B)



C)



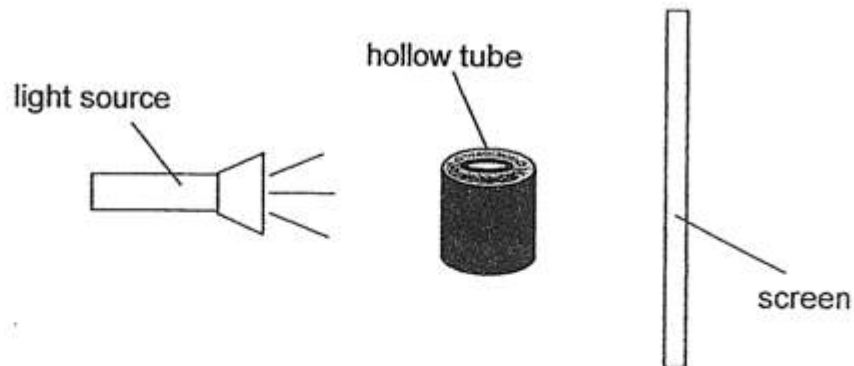
D)



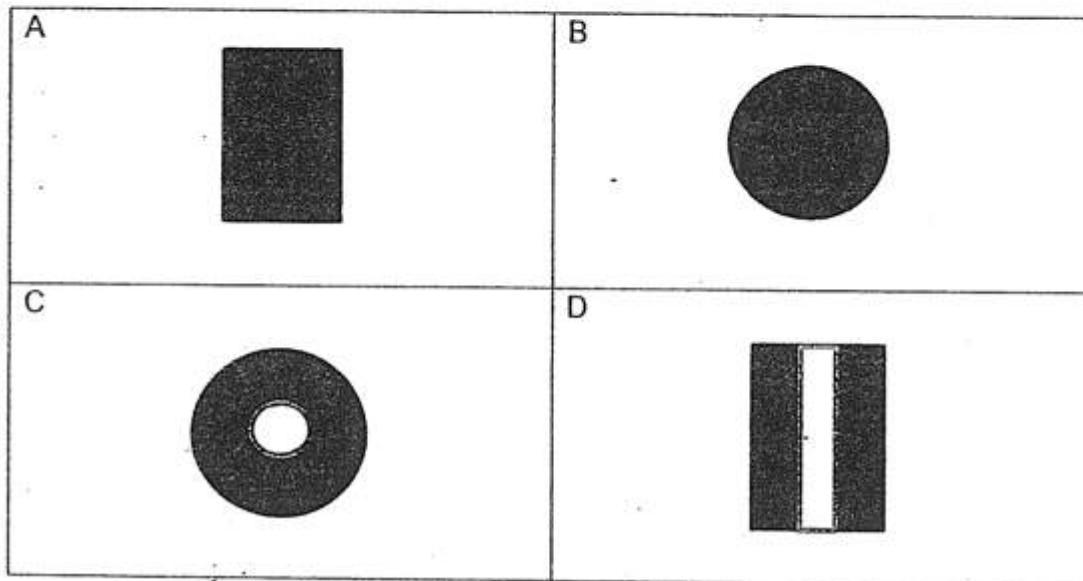
Question 27 of 70

Primary 6 Science (Term 1) 2 pts

- Study the set-up below. The hollow tube was rotated in different positions to cast different shadows on the screen.



Which of the following shadow(s) is/are not possible to be cast on the screen?

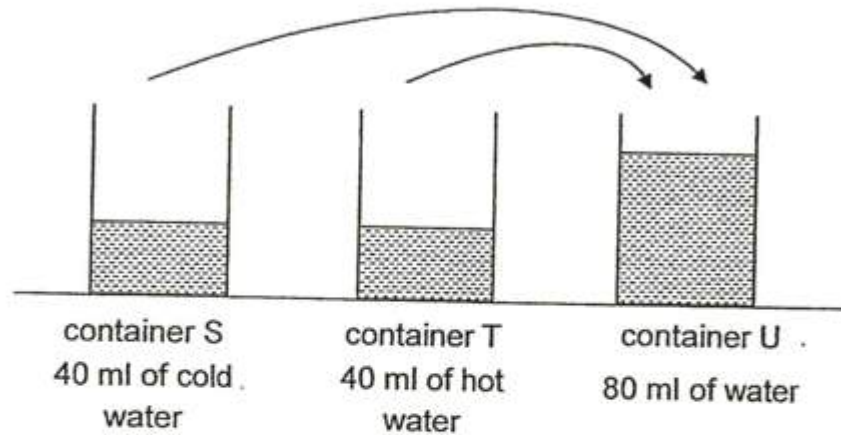


- A) D only
 B) A and C only
 C) B and C only
 D) B and D only

Question 28 of 70

Primary 6 Science (Term 1) 2 pts

Study the set-up below. The water in containers S and T were poured into container U as shown. The temperature of water in container U was then recorded.



What is the likely temperature of the water in container S, T and U?

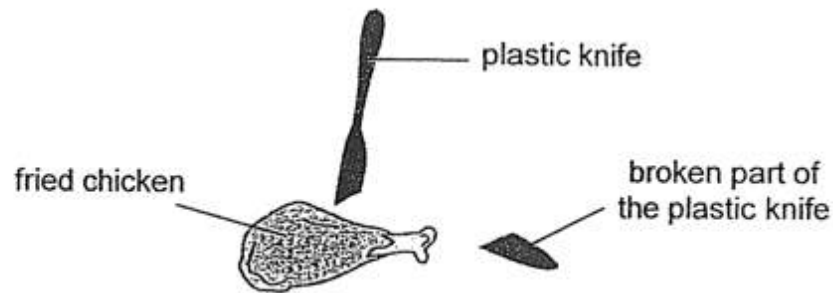
Temperature of water (°C)		
Container S	Container T	Container U
(1) 5	80	85
(2) 15	100	70
(3) 15	75	20
(4) 80	20	60

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

Question 29 of 70

Primary 6 Science (Term 1) 0 pts

- Jia Ling tried to cut a piece of fried chicken using a plastic knife. As she was cutting the chicken, the knife broke.



Jia Ling then used a knife made from material B. This time, the knife did not break.

- (a) Based on the observation above, compare the strength of the two knives. [1]
-

Question 30 of 70

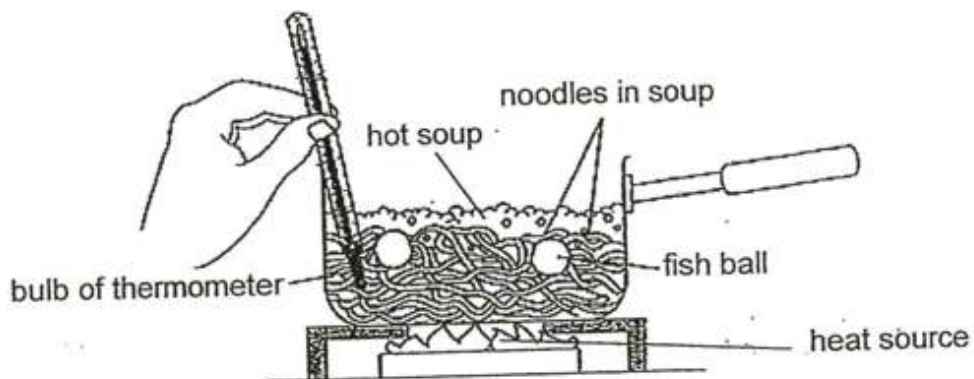
Primary 6 Science (Term 1) 1 pt

- b) Suggest a possible material for B
-

Question 31 of 70

Primary 6 Science (Term 1) 0 pts

Sally put some frozen fish balls and some noodles at room temperature into a metal pot containing hot soup.



Three minutes later, Sally took out one fish ball and found that the temperature at the centre of the fish ball was lower than the soup.

(a) Give a reason for the observation above.

[1]

Question 32 of 70

Primary 6 Science (Term 1) 0 pts

b) What could Sally do to ensure that the fish ball has the same temperature as the hot soup? Explain your answer

Question 33 of 70

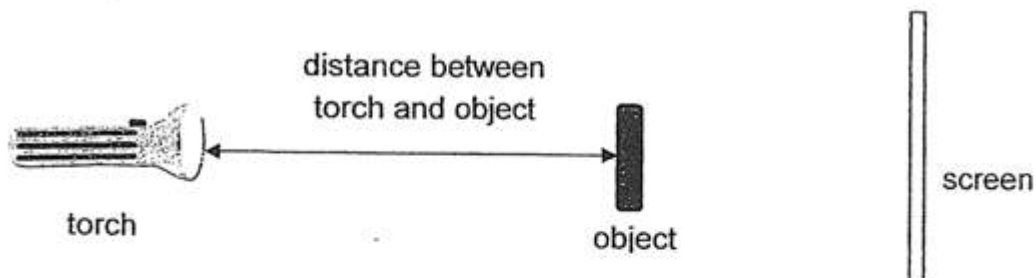
Primary 6 Science (Term 1) 0 pts

c) Sally was careful to ensure that the bulb of the thermometer did not touch the bottom of the pot while measuring the temperature of the soup. Give a reason for this.

Question 34 of 70

Primary 6 Science (Term 1) 0 pts

- Kai Ling placed an object between a torch and a screen as shown below.



She moved the object nearer to the torch and recorded the length of the shadow on the screen in the table below.

Distance between torch and object (cm)	Length of shadow (cm)
30	11
20	17
10	20
5	24

- (a) From the results shown above, what is the relationship between the length of the shadow and the distance between torch and object? [1]

Question 35 of 70

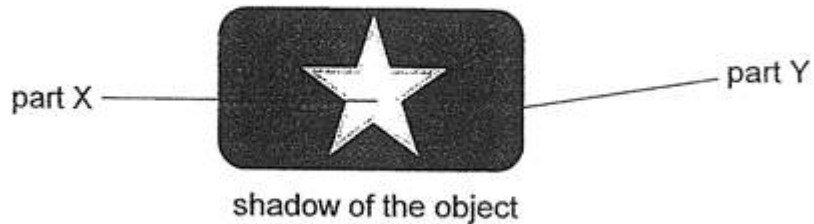
Primary 6 Science (Term 1) 1 pt

- b) Based on the results shown in the table, what is the length of the shadow and the distance between the torch and object?

Question 36 of 70

Primary 6 Science (Term 1) 0 pts

The diagram below shows a shadow cast on the screen.

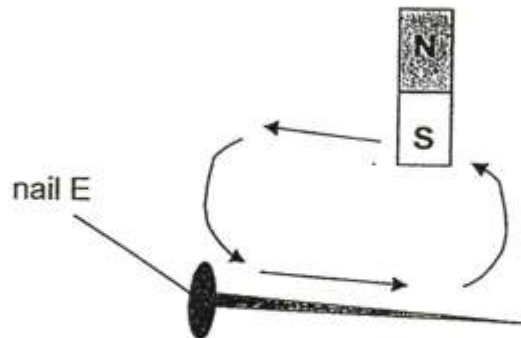


(c) Explain why part X of the shadow is lighter than part Y of the shadow.

Question 37 of 70

Primary 6 Science (Term 1) 0 pts

Samuel had two nails E and F. He used a bar magnet and stroked nail E 50 times in the direction as shown below. He then repeated the process with nail F.



Samuel placed the nails near some iron pins and observed that nail F attracted 10 pins but no pins was attracted to nail E.

(a) Give a possible reason why nail E was unable to attract any pins. [1]

Question 38 of 70

Primary 6 Science (Term 1) 0 pts

Samuel continued to stroke nail F with the same magnet and recorded the number of pins nail F can attract. The results are shown in the table below.

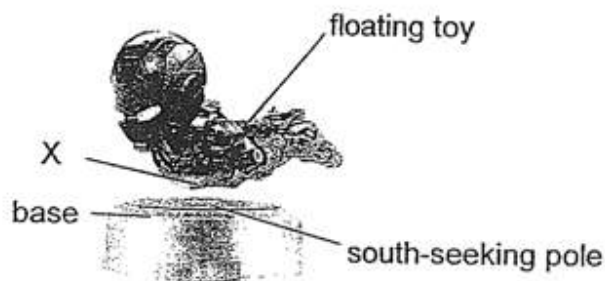
Number of strokes	Number of pins attracted
First 50	10
additional 10	6
additional 10	5

- (b) Based on the results, what could Samuel have done differently this time round? [1]

Question 39 of 70

Primary 6 Science (Term 1) 0 pts

A 'floating' toy is shown below.



A magnet is attached at part X of the toy to enable it to 'float'.

- (c) Based on the diagram above, what could be the pole at point X of the toy?[1]

Question 40 of 70

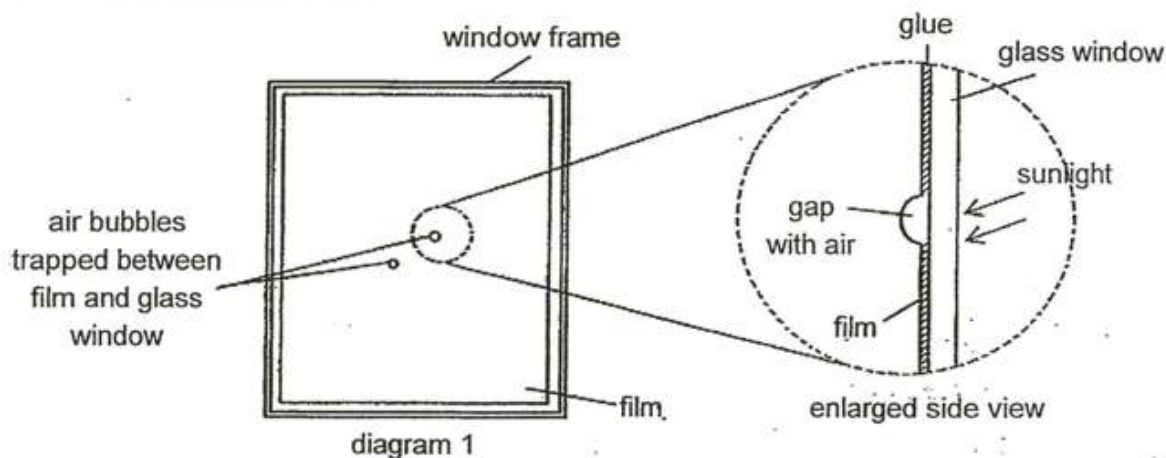
Primary 6 Science (Term 1) 0 pts

c) What changes can we make to the toy if we want it to float higher?

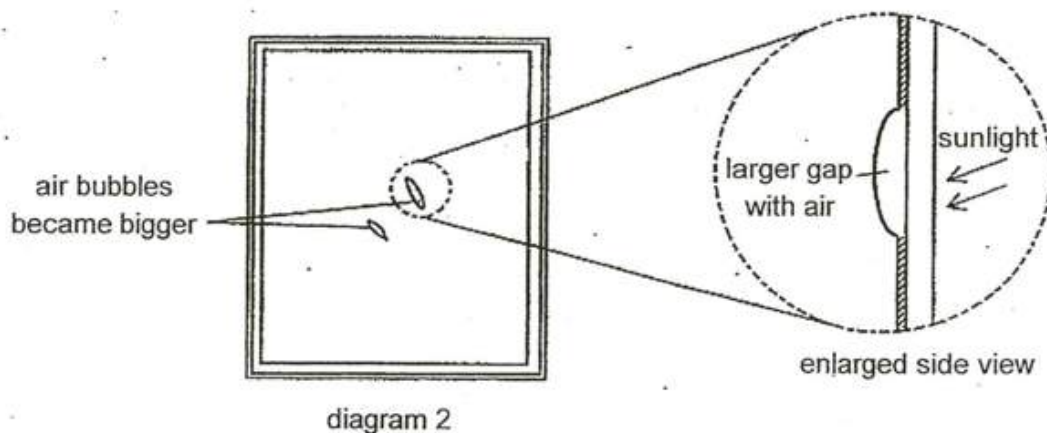
Question 41 of 70

Primary 6 Science (Term 1) 0 pts

Joanna pasted a film onto a glass window to reduce the amount of sunlight entering a room. Diagram 1 shows some air bubbles trapped between the film and the glass window after pasting.



After some weeks, the air bubbles become larger as shown in Diagram 2.



(a) Explain why the air bubbles became bigger in diagram 2.

[1]

Question 42 of 70

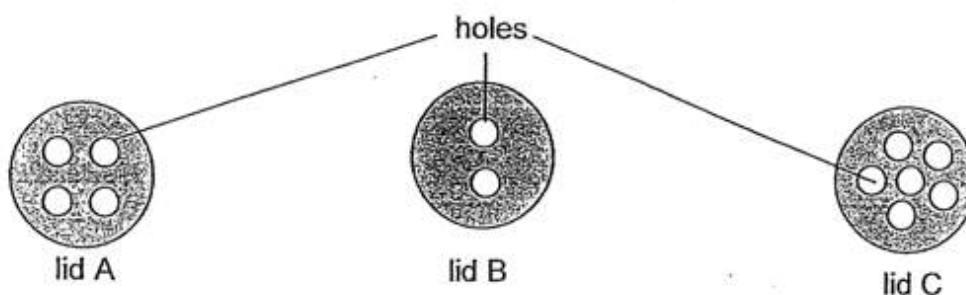
Primary 6 Science (Term 1) 0 pts

b) Joanna used a small pin to poke a small hole on the film where the air bubble is. Suggest why this will help her to prevent the air bubble from getting bigger

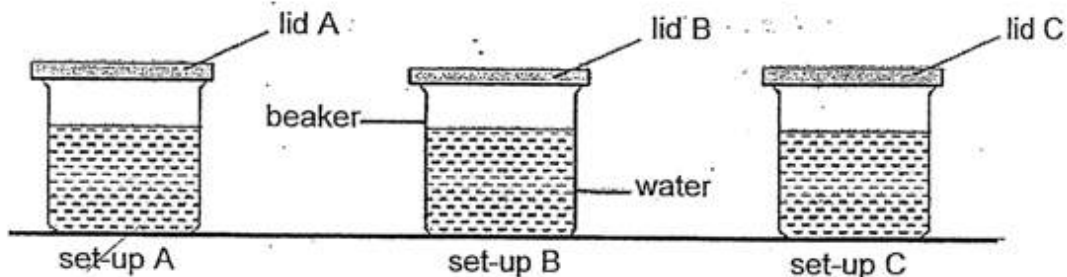
Question 43 of 70

Primary 6 Science (Term 1) 0 pts

Susan set up an experiment to study the rate of evaporation of water. She prepared 3 opaque plastic lids with different number of holes that were of the same size as shown below.



She then placed each plastic lid over a beaker of water as shown below. The set-ups were then left next to a window for three days..



(a) In which set-up would there be the least amount of water at the end of the experiment? Give a reason for your answer. [2]

Question 44 of 70

Primary 6 Science (Term 1) 0 pts

Susan observed that there were water droplets formed on the inner surfaces of the lids.

b) On which lid would she observed the most amount of water droplets formed. Explain your answer

Question 45 of 70

Primary 6 Science (Term 1) 0 pts

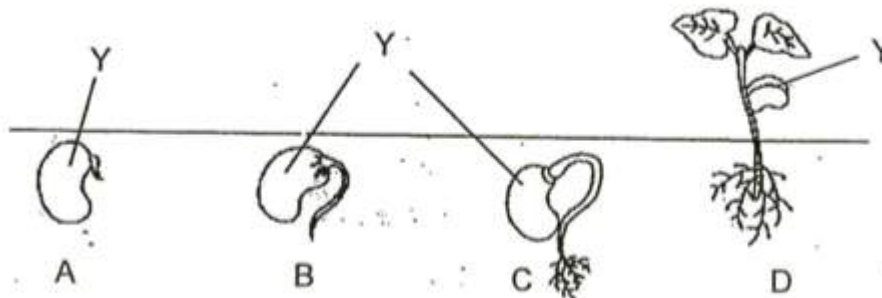
c) Explain how water droplets were formed on the inner surfaces of the lids

Question 46 of 70

Primary 6 Science (Term 1) 0 pts

Section B(44 marks)

The diagram below shows the different stages of growth of organism P.



(a) Identify part Y in the diagram above and state its function.

Question 47 of 70

Primary 6 Science (Term 1) 1 pt

Match the options below:

Mariam measured and recorded the mass of part Y as the seedling goes through the stages A to D above. Match the stages to the corresponding mass by writing the stage letters A, B, C or D in the table below. [1]

Stage	Mass of part Y (units)
-------	------------------------

1. [] A	A. 2.3
2. [] C	B. 2.1
3. [] B	C. 1.6
4. [] D	D. 1.2

Question 48 of 70

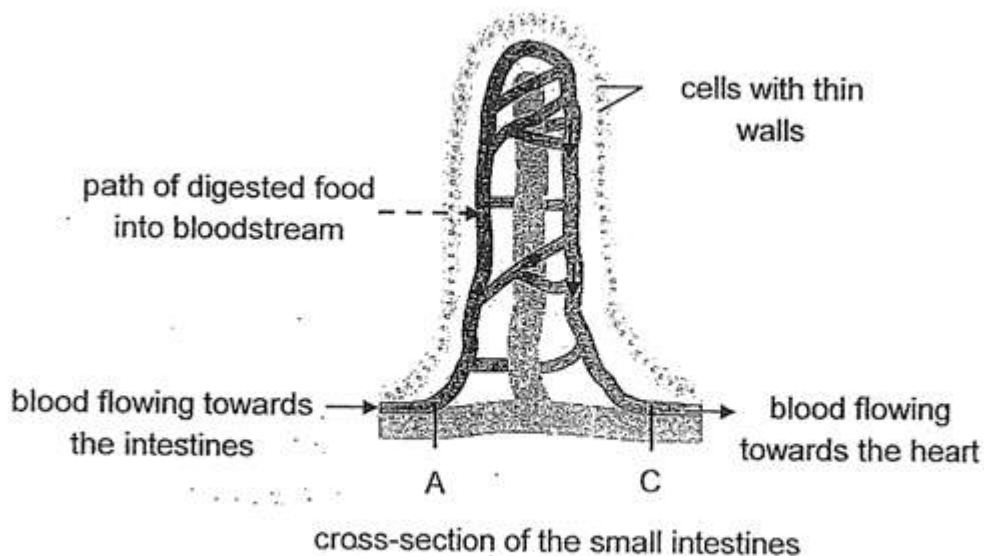
Primary 6 Science (Term 1) 0 pts

c) What would happen to Part Y in stage D after some time? Explain why.

Question 49 of 70

Primary 6 Science (Term 1) 0 pts

The diagram below shows the blood flow in one section of the small intestines.



- (a) State the difference between the amount of oxygen present in the blood vessels at A and C. [1]

Question 50 of 70

Primary 6 Science (Term 1) 0 pts

- b) Give a reason why it is important for the walls of the small intestines to be made up cells with very thin walls

Question 51 of 70

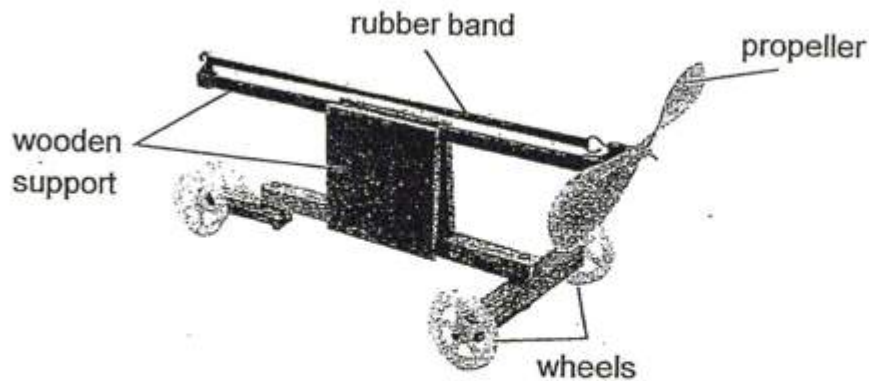
Primary 6 Science (Term 1) 0 pts

- c) Other than transporting oxygen and food to other parts of the body, state another function of the circulatory system

Question 52 of 70

Primary 6 Science (Term 1) 0 pts

James made a toy car as shown below.



James turned the propeller a few times and released the toy on the floor. It moved across the floor before coming to a stop.

(a) What was the source of energy that enabled the toy to move?

[1]

Question 53 of 70

Primary 6 Science (Term 1) 0 pts

b) Why did the toy eventually come to a stop?

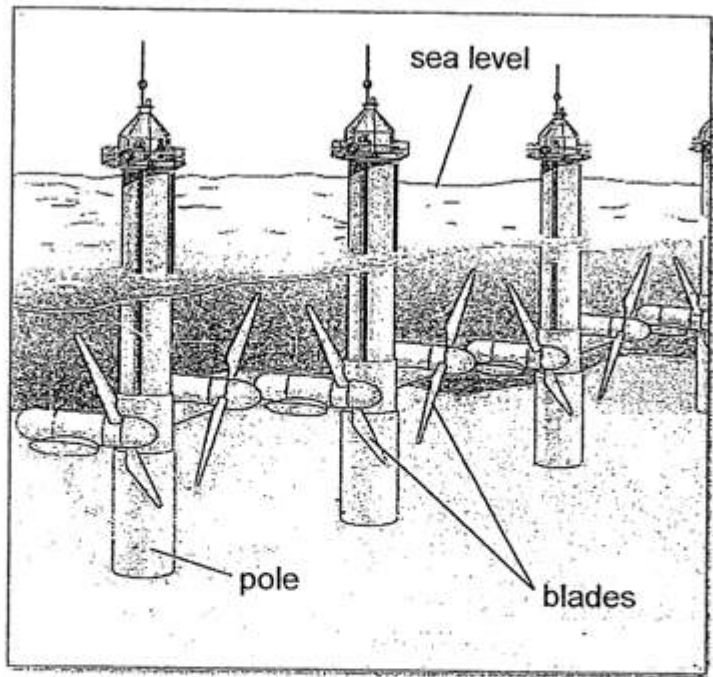
Question 54 of 70

Primary 6 Science (Term 1) 0 pts

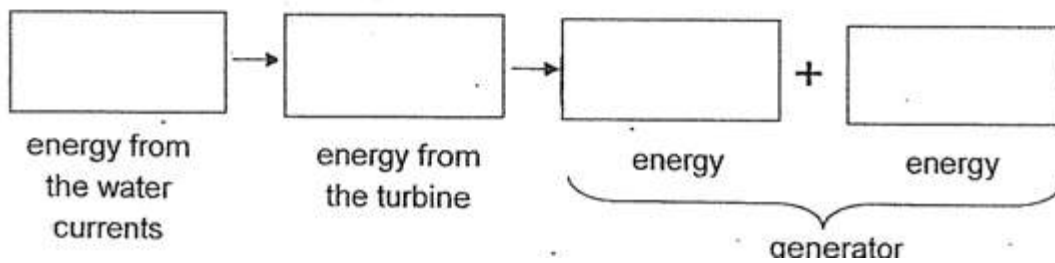
c) Using the same set-up, what could James do to make the toy car move further? Explain your answer

Question 55 of 70 Primary 6 Science (Term 1) 0 pts

The diagram below shows tidal turbine generators which use water currents in the sea to turn the blades of the turbines to generate electricity.



(a) Write down the energy conversion which took place in a tidal turbine generator. [1]



Question 56 of 70 Primary 6 Science (Term 1) 0 pts

b) The blades of the tidal turbine generator is usually made of a lighter material. Explain how this will enable it to generate more electricity

Question 57 of 70

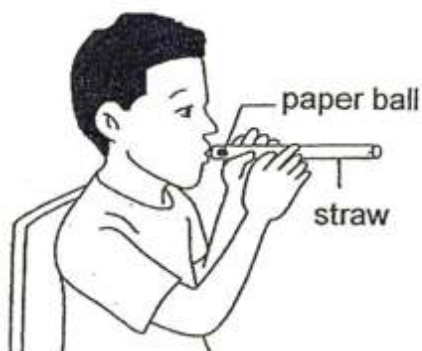
Primary 6 Science (Term 1) 0 pts

c) State one advantage of using renewable energy sources to generate electricity

Question 58 of 70

Primary 6 Science (Term 1) 0 pts

Chee Yong carried out an experiment with three similar straws X, Y and Z of different lengths. He put a paper ball into the straw and blew it while holding the straw horizontally. He then measured and recorded the distance moved by the paper ball after each try.



His results are shown below.

	Distance moved by paper ball (cm)		
	straw X (length = 30 cm)	straw Y (length = 20 cm)	straw Z (length = 10 cm)
1 st try	130	99	71
2 nd try	135	95	78
3 rd try	128	90	75

- (a) Based on the results above, what can you conclude about the distance moved by the paper ball and the length of the straw? [1]
-

Question 59 of 70

Primary 6 Science (Term 1) 0 pts

b) What is/are force(s) involved in the experiment above?

Question 60 of 70

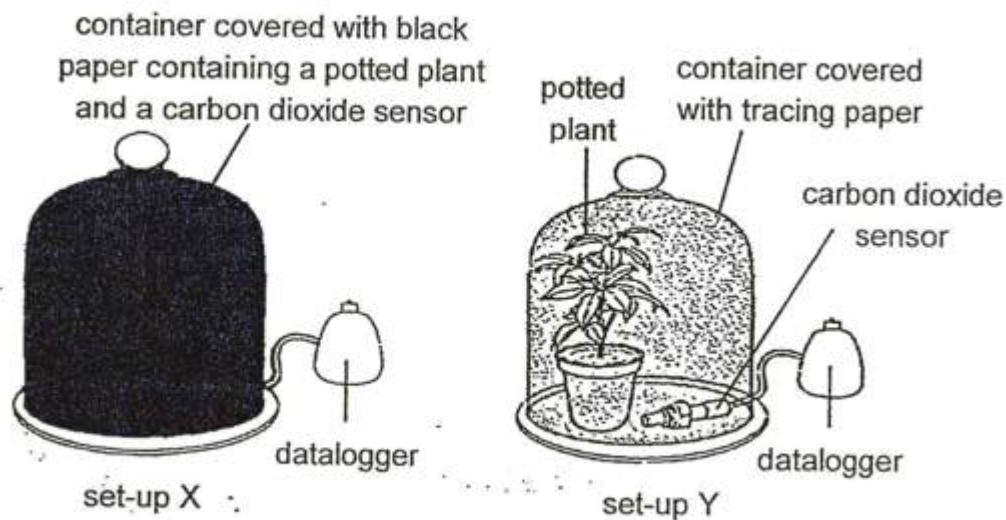
Primary 6 Science (Term 1) 0 pts

c) Explain why the same paper ball must be used for the experiment

Question 61 of 70

Primary 6 Science (Term 1) 0 pts

Hua Yong set up an experiment shown below.



(a) Describe the control set-up needed for his experiment.

[1]

Question 62 of 70

Primary 6 Science (Term 1) 0 pts

b) What could be possible hypothesis for his experiment?

Question 63 of 70

Primary 6 Science (Term 1) 0 pts

c) Explain how Hua Yong can use the set-ups above to measure the rate of photosynthesis

Question 64 of 70

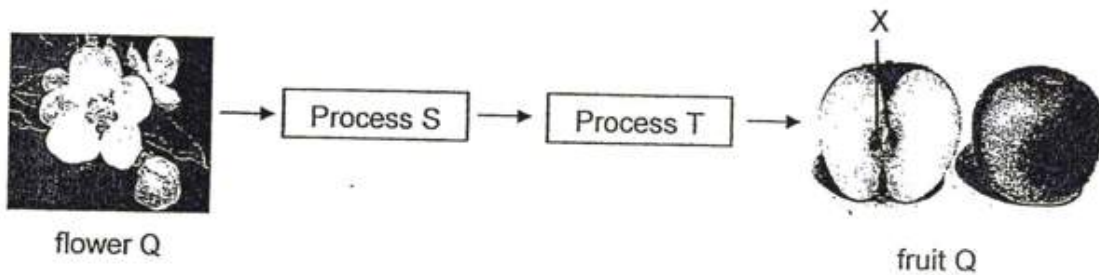
Primary 6 Science (Term 1) 0 pts

What variable(s) did he change?

Question 65 of 70

Primary 6 Science (Term 1) 0.5 pts

The diagram below shows how a fruit is formed from the flower Q. The fruit has been cut open.



(a) State processes S and T.

[1]

Process S: _____

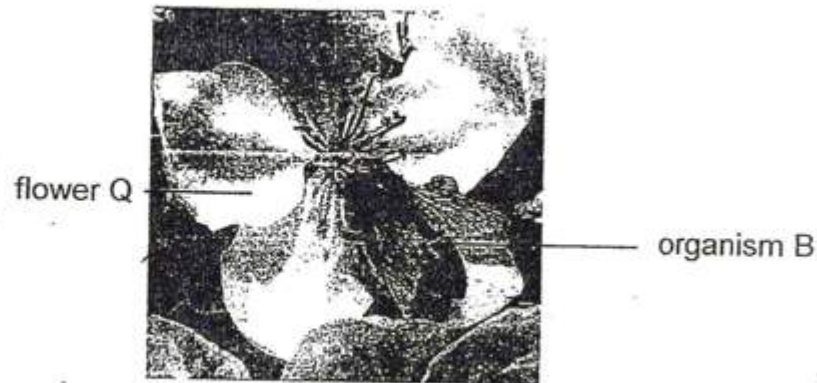
Question 66 of 70

Primary 6 Science (Term 1) 0.5 pts

Process T: _____
_____**Question 67 of 70**

Primary 6 Science (Term 1) 0 pts

The picture shows an organism B, interacting with flower Q.



(b) Describe how organism B helps in process S.

_____**Question 68 of 70**

Primary 6 Science (Term 1) 0 pts

c) State the part of the flower that X developed from.

_____**Question 69 of 70**

Primary 6 Science (Term 1) 0 pts

d) Fruit Q tastes sweet. Explain why new plants grown from part x will also bear sweet testing fruits

Question 70 of 70

Primary 6 Science (Term 1) 0 pts

e) Process T also takes place in animals. Describe what happens during process T in animals.
