

Name : _____ ()

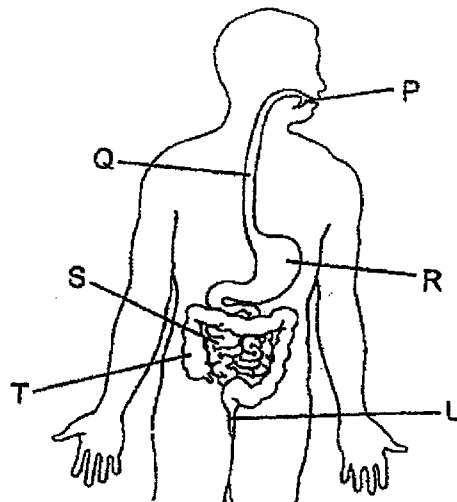
Class : Primary 5 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL**Primary 5****End-Year Assessment****SCIENCE****BOOKLET A****28 October 2025****Total Time for Booklets A and B: 1 hour 45 minutes****28 questions****56 marks****Do not open this booklet until you are told to do so.
Follow all instructions carefully.****This paper consists of 17 printed pages.**

Section A (28 x 2 marks = 56 marks)

For each question from 1 to 28, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). **Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet provided.**

1. Study the diagram below.



Which of the following shows how food passes through the digestive system before the digested food enters the blood?

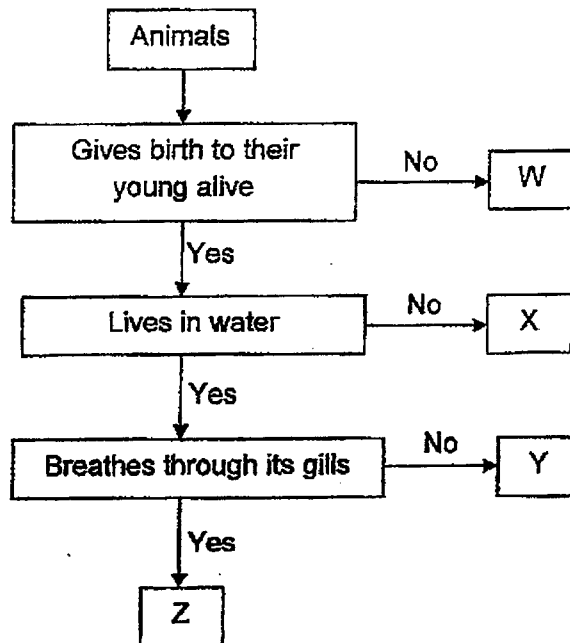
- (1) $P \rightarrow R \rightarrow S \rightarrow T$
 - (2) $P \rightarrow T \rightarrow S \rightarrow U$
 - (3) $P \rightarrow Q \rightarrow R \rightarrow T$
 - (4) $P \rightarrow Q \rightarrow R \rightarrow S$
2. Which of the following characteristics can be used to differentiate between insects and birds?

- A Number of legs
- B Presence of wings
- C Number of body parts
- D Method of reproduction

Which statements are correct?

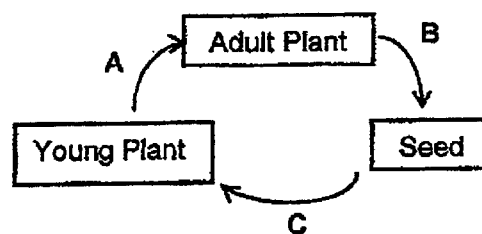
- (1) A and B only
- (2) A and C only
- (3) B and C only
- (4) C and D only

3. The flow chart below shows some characteristics of 4 animals.



Which letter W, X, Y or Z represents a whale?

- (1) W
 - (2) X
 - (3) Y
 - (4) Z
4. The diagram shows the life cycle of a flowering plant.



Which process(es) A, B and/or C require(s) water in order to be carried out?

- (1) A only
- (2) B only
- (3) C only
- (4) A, B and C

5. Jason wanted to carry out an experiment to find out if overcrowding affects the growth of plants. He listed the following variables.

- A height of plants
- B amount of water
- C number of seeds
- D amount of sunlight

Which of the above variables will need to be kept constant to ensure a fair test?

- (1) A and B only
- (2) B and D only
- (3) B, C and D only
- (4) A, B and D only

6. Sarah observed some plants in a garden.



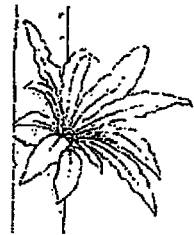
A



B

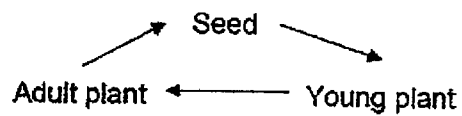


C



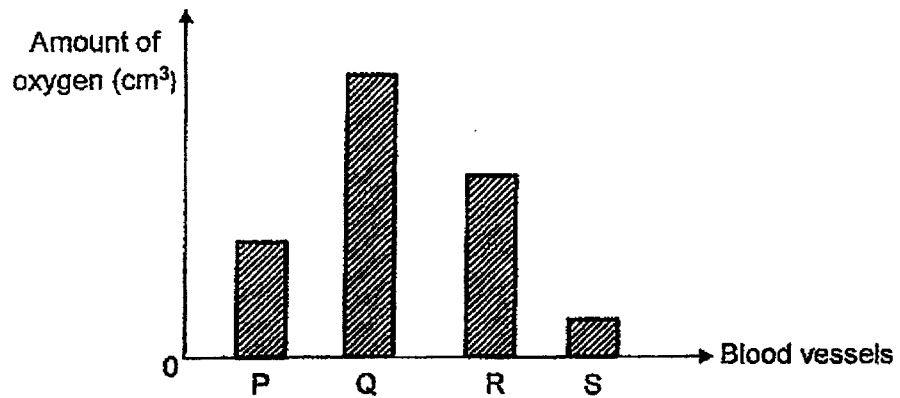
D

Which of the above plant A, B, C or D does not undergo the life cycle shown below?



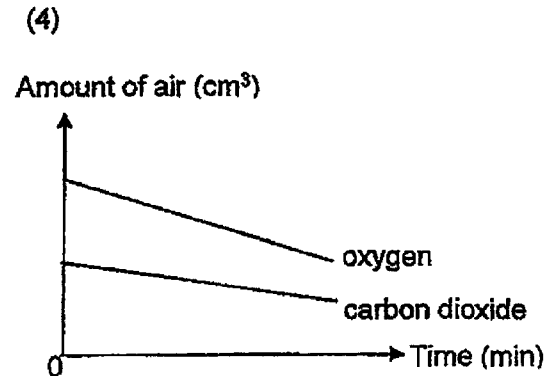
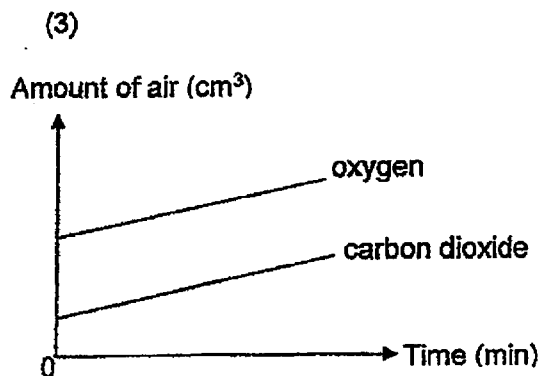
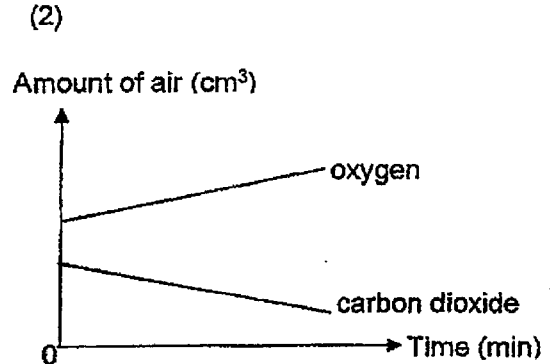
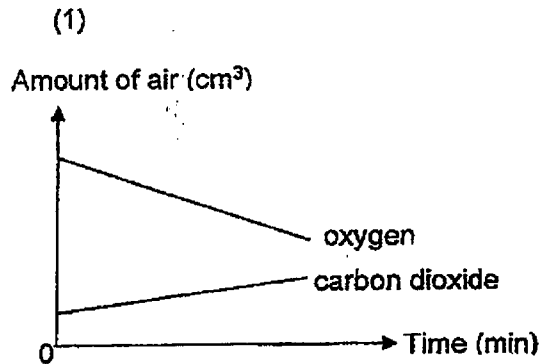
- (1) A
- (2) B
- (3) C
- (4) D

7. Blood is taken from different blood vessels in the human circulatory system. The amount of oxygen in the blood is shown in the graph below.



Which blood vessel carries blood from the lungs to the heart?

- (1) P
 - (2) Q
 - (3) R
 - (4) S
8. An MRT train broke down and many passengers were trapped in the cabins. Which of the following graph best shows the composition of the air inside the cabins after one hour?



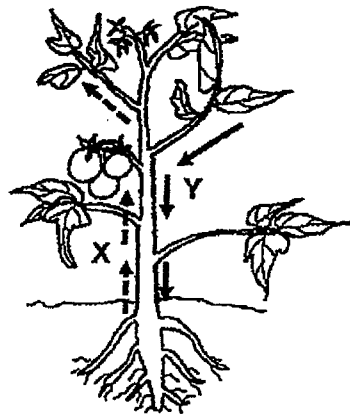
9. Which of the following statement(s) is/are correct about the plant transport system and the human circulatory system?

- A Both systems transport food and water only.
- B Both systems have tubes to transport different substances.
- C Both systems need an organ to pump the substances in the tubes to different parts.X

Which of the above statement(s) A, B and/or C is/are correct?

- (1) A only
- (2) B only
- (3) A and B only
- (4) B and C only

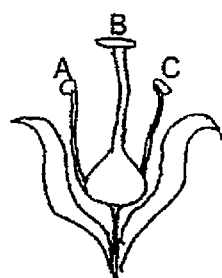
10. The diagram below shows how some substances X and Y are transported in the plant.



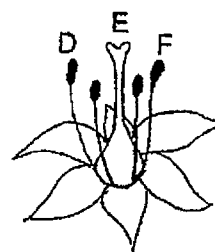
Which of the following correctly identifies substances X and Y?

	X	Y
(1)	food	oxygen
(2)	water	food
(3)	water	oxygen
(4)	food	water

11. The diagram below shows two different types of flowers G and H.



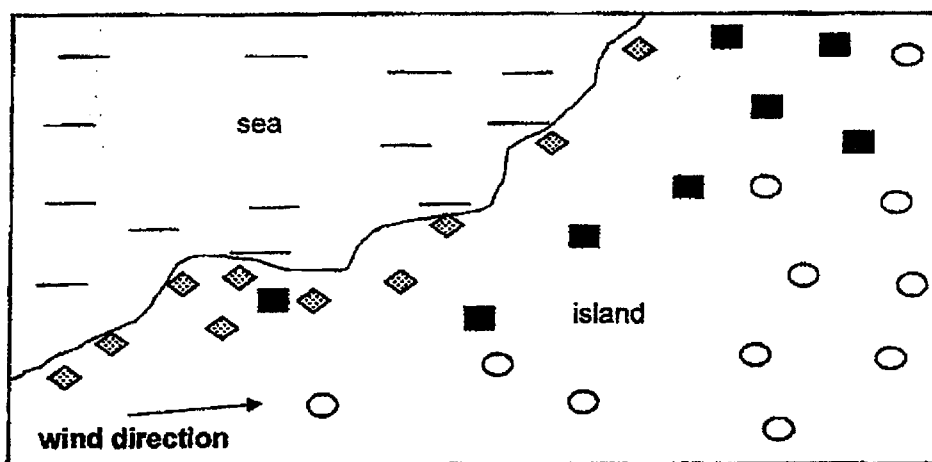
flower G



flower H

Pollination takes place when the pollen grains are transferred from _____.

- (1) A to B and C to E
 - (2) A to E and D to B
 - (3) B to A and E to F
 - (4) C to B and F to E
12. The diagram below shows a part of an island where three types of plant (represented by $\diamond$, $\circ$, $\blacksquare$) are growing.



Based on the diagram above, how are the fruits or seeds of each type of plant most likely dispersed?

	Plant $\diamond$	Plant $\circ$	Plant $\blacksquare$
(1)	splitting action	water	wind
(2)	water	wind	animal
(3)	water	animal	splitting action
(4)	wind	animal	water

13. Andrea conducted an experiment by planting the same number of seeds at three different temperatures. She then recorded the number of seeds that had germinated in the table below.

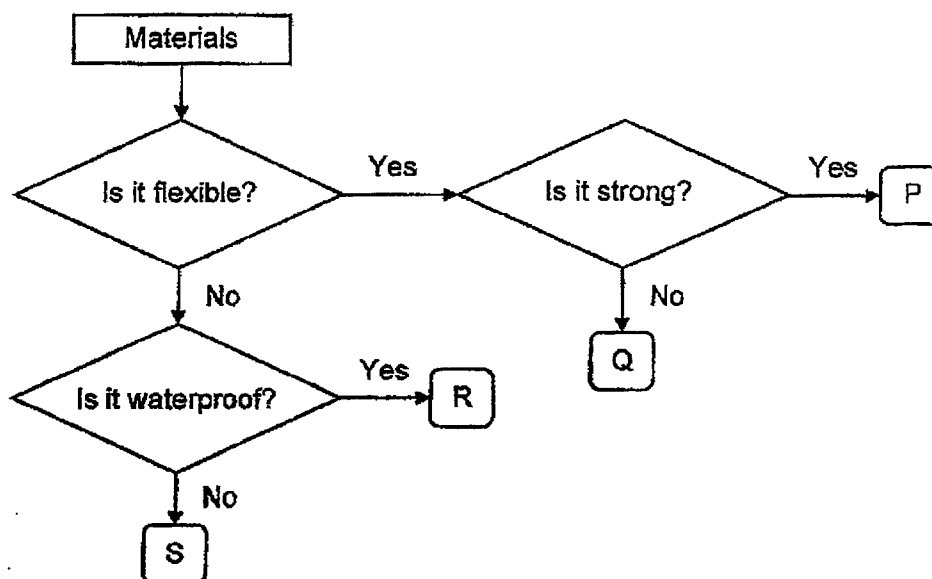
Temperature (°C)	Number of seeds germinated				
	Day 1	Day 3	Day 5	Day 7	Day 9
10	0	0	0	1	0
20	0	1	1	2	3
30	0	0	3	6	10

Based on the results above, which of the following statements are true?

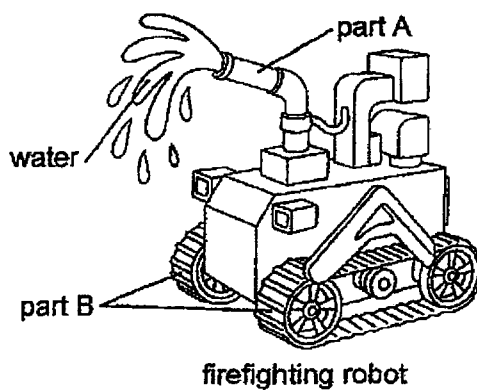
- A Germination takes place fastest at 20 °C.
- B Germination cannot take place at 10 °C.
- C More seeds will germinate at 20 °C after Day 9.
- D When the temperature increases from 10 °C to 20 °C, more seeds will be germinated.

- (1) A and B only
- (2) A and D only
- (3) B and C only
- (4) B and D only

14. Study the chart below.

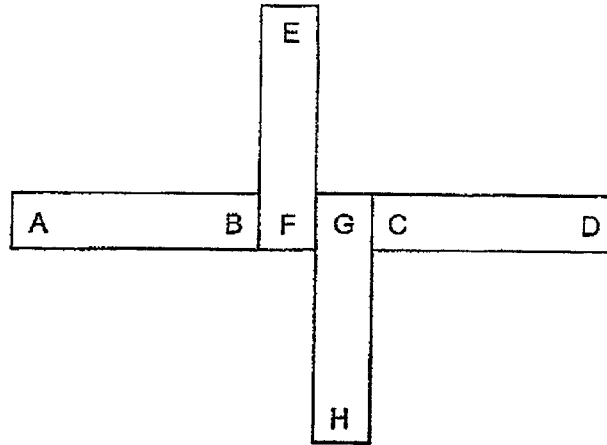


Which of the materials P, Q, R or S is the most suitable to be made into parts A and B of the firefighting robot shown below?



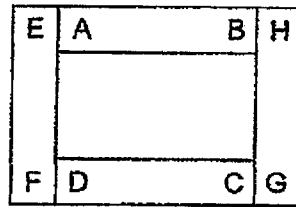
	Part A	Part B
(1)	P	R
(2)	Q	S
(3)	R	P
(4)	S	Q

15. The diagram below shows 4 identical magnets placed together.

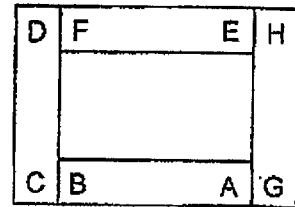


Which of the following arrangements is not possible?

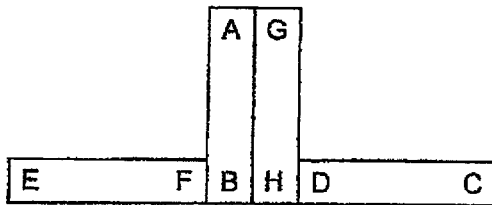
(1)



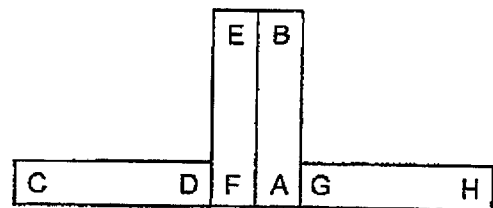
(2)



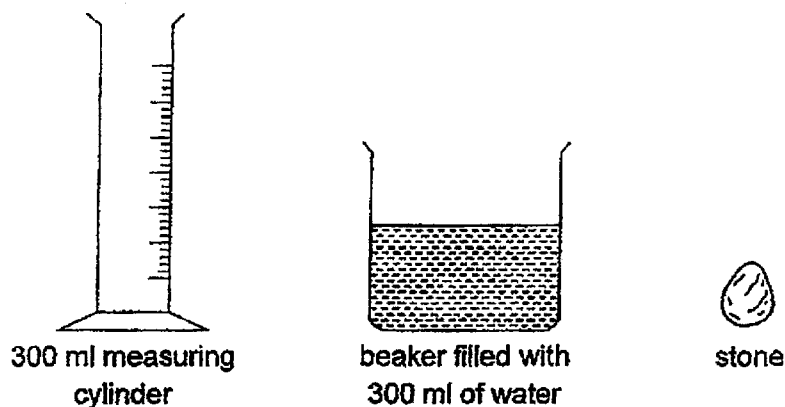
(3)



(4)



16. Siti wants to find the volume of a stone using the following apparatus.



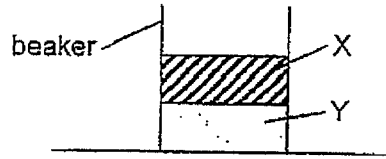
She wrote down some possible steps for her experiment as shown below.

- A Read the final water level in the measuring cylinder at eye level.
- B Place the stone gently into the measuring cylinder without spilling any water.
- C Find the difference between the final water level and the water level at the start.
- D Pour 150 ml of water from the beaker into the measuring cylinder without spilling.

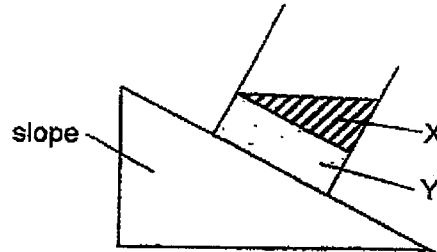
Which of the following shows the correct sequence of the above steps so that she can achieve the aim of the experiment?

	First step	→ Last step		
(1)	B	A	C	D
(2)	B	D	A	C
(3)	D	A	B	C
(4)	D	B	A	C

17. The diagram below shows a beaker containing equal amounts of 2 substances X and Y.



The same beaker was then placed on a slope and the following result was observed.

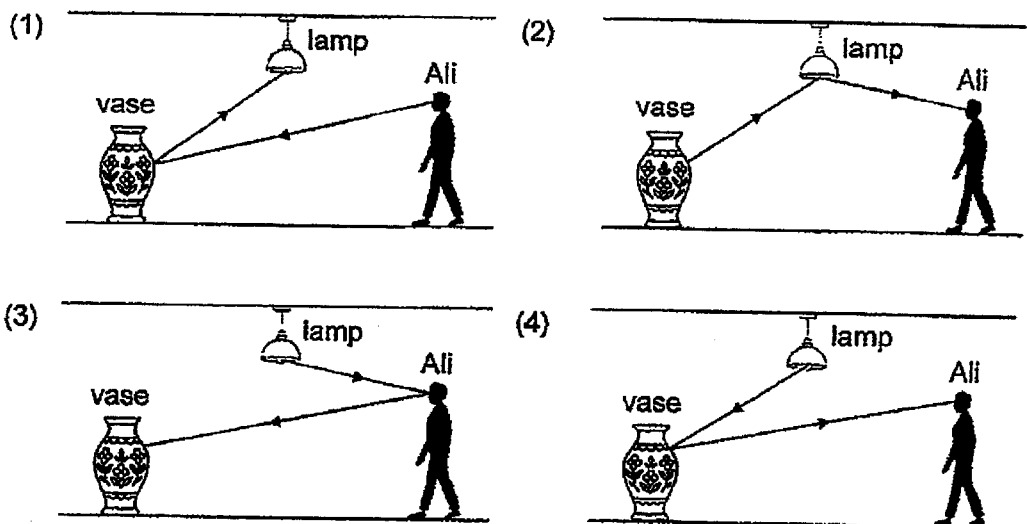


Based on the results above, which of these statements are correct?

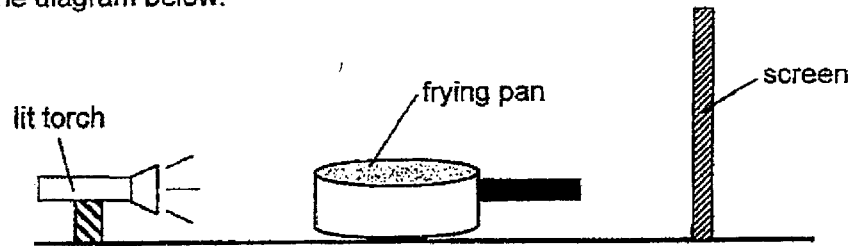
- A Both X and Y occupy space.
- B Both X and Y can be compressed.
- C X does not have a definite shape but Y has a definite shape.
- D X has a definite volume but Y does not have a definite volume.

- (1) A and C only
- (2) B and D only
- (3) A, C and D only
- (4) B, C and D only

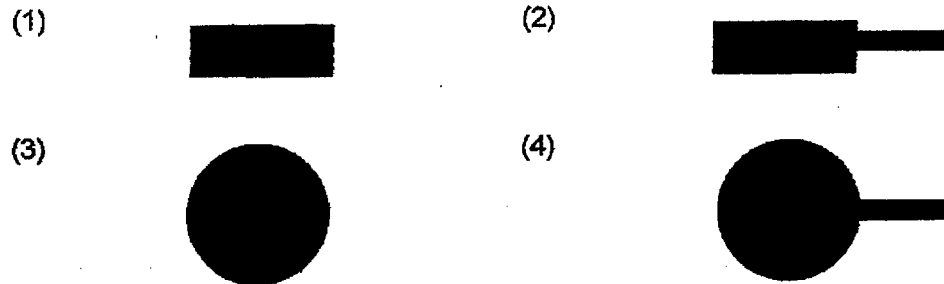
18. Which of the following correctly shows the path of light that enables Ali to see the vase clearly when the lamp is switched on?



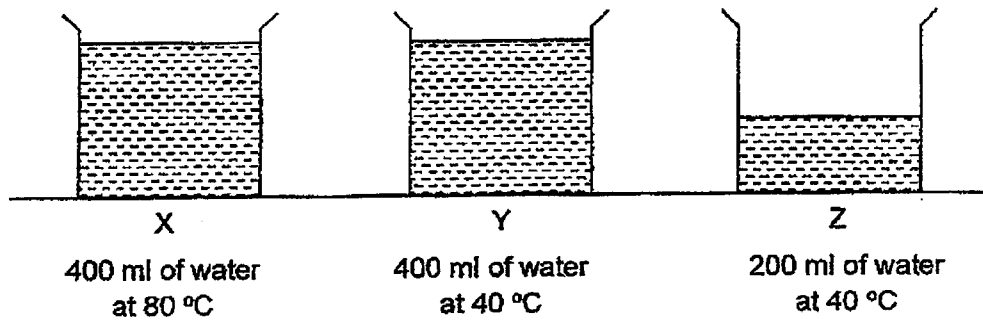
19. Study the diagram below.



The frying pan was rotated at different positions between the torch and the screen. Which of the following shadows of the pan is **not** possible?



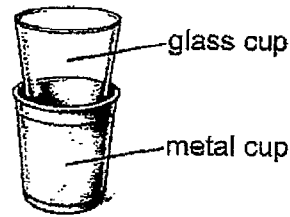
20. The diagram below shows 3 containers X, Y and Z filled with different amounts of water at different temperatures.



Which of the following statements is true?

- (1) Water in containers X and Y have the same amount of heat.
- (2) Water in container X will reach room temperature the fastest.
- (3) Water in container Z has lesser heat than water in container Y.
- (4) Water in all 3 containers will reach room temperature at the same time.

21. The diagram below shows a glass cup stuck inside a metal cup.



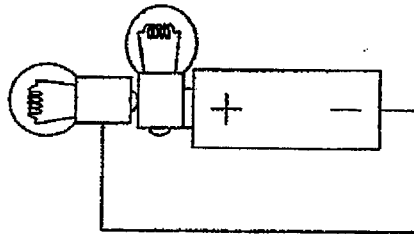
Which of the following actions will enable the 2 cups to be separated most easily?

- (1) Pour some hot water into the glass cup only.
- (2) Wrap the top of the glass cup with a hot towel.
- (3) Place the metal cup into a container of hot water.
- (4) Place the metal cup into a container of ice cubes.

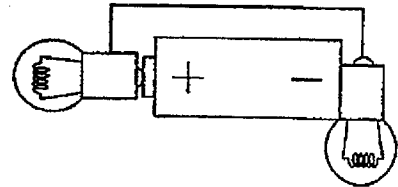
22. An experiment was conducted using 2 identical bulbs and a battery.

In which of the following arrangements will both bulbs be lit?

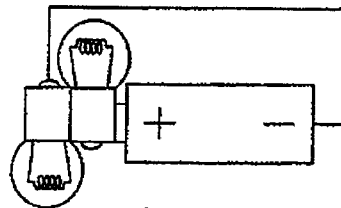
(1)



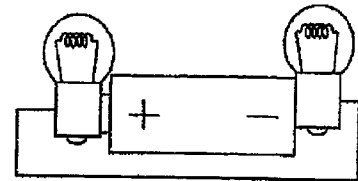
(2)



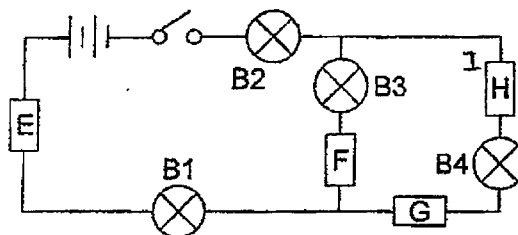
(3)



(4)



23. Jan set up the circuit below to investigate the electrical conductivity of materials E, F, G and H. All the components in the circuit are in working condition.



He observed that only bulb B4 did not light up when the switch was closed. Based on the observation, which of the materials E, F, G or H are definitely electrical conductors?

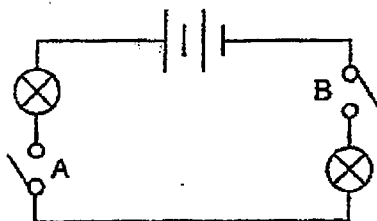
- (1) E and F only
- (2) G and H only
- (3) E, F and G only
- (4) F, G and H only

24. Arif conducted an experiment with an electric circuit. He recorded the results in the table below.

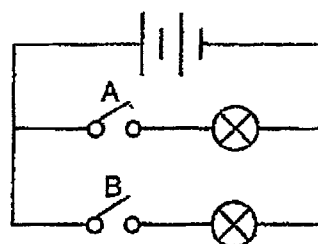
Switch A	Switch B	Number of bulbs lit
close	close	2
close	open	1
open	close	0

Based on the results, which of the following circuit did he use?

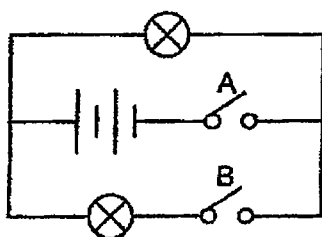
(1)



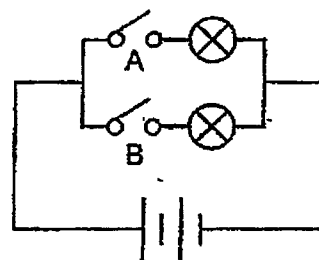
(2)



(3)



(4)



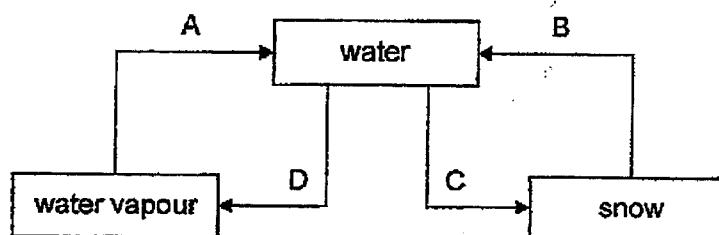
25. The table below shows the melting and boiling points of substances W, X, Y and Z.

Substance	Melting Point (°C)	Boiling Point (°C)
W	30	60
X	23	190
Y	43	92
Z	5	35

Which of the substances will be in the liquid state at 80 °C?

- (1) W and Z only
- (2) X and Y only
- (3) W, X and Z only
- (4) X, Y and Z only

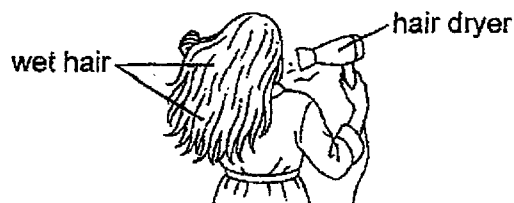
26. Study the diagram below.



Based on the diagram, which of the process(es) A, B, C and/or D involve(s) heat loss as it changes from one state to another?

- (1) B only
- (2) C only
- (3) A and C only
- (4) B and D only

27. The diagram below shows Joy using a hair dryer.



Which of the following actions would allow her hair to dry faster?

- A Decrease the windspeed of the hairdryer.
- B Increase the temperature of the wind from the hairdryer.
- C Tie her wet hair into a bun before using the hairdryer.
- D Use a towel to wipe and absorb some moisture from her wet hair before blow drying.

- (1) A and C only
- (2) B and D only
- (3) B, C and D only
- (4) A, B, C and D

28. Which of the following about evaporation and boiling of water are correct?

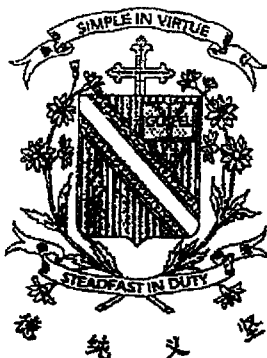
- A Both can only take place under sunlight.
- B Both can take place at any temperature.
- C Both involve the same change in the states of water.
- D Both involve heat gain of water from the surroundings or a heat source.

- (1) A and B only
- (2) C and D only
- (3) A, C and B only
- (4) B, C and D only

END OF BOOKLET A

Name : _____ ()

Class : Primary 5 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL**Primary 5****End-Year Assessment****SCIENCE****BOOKLET B****28 October 2025****Total Time for Booklets A and B: 1 hour 45 minutes****13 questions
44 marks****Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.****This booklet consists of 15 printed pages.**

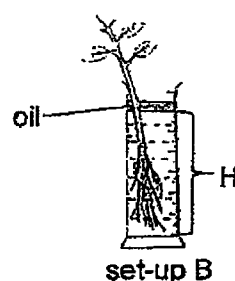
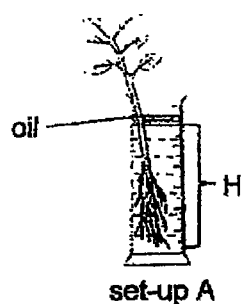
Booklet A	56
Booklet B	44
Total	100

Parent's Signature/Date

Section B (44 marks)

For questions 29 to 41, write your answers in this booklet. The number of marks available is shown in the brackets at the end of each question or part question.

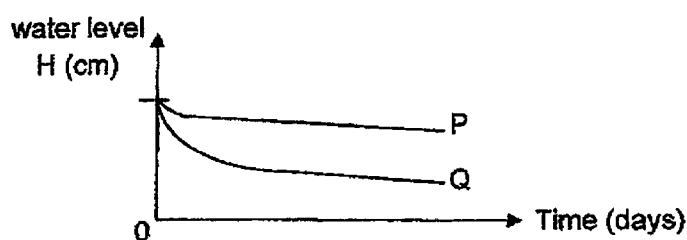
29. Beng Seng conducted an experiment in a classroom using set-ups A and B as shown below. He removed some leaves from one of the plants and then recorded the water level H , over a few days.



- (a) Suggest a control set up for the above experiment. [1]

- (b) What is the purpose of the layer of oil in this experiment? [1]

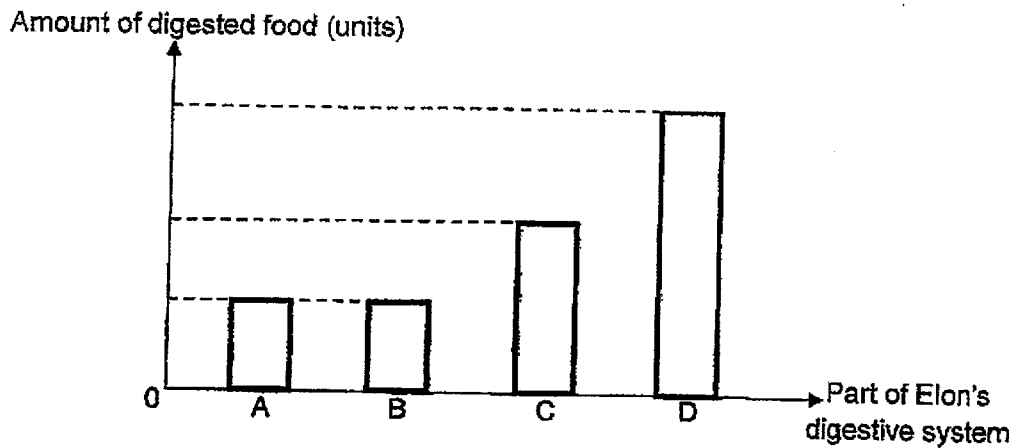
The results of the experiment are shown in the graph below.



- (c) Which graph P or Q shows the results obtained for plant B? Explain why. [1]



30. Elon ate some chicken rice during recess. The graph below shows the amount of digested food in parts A to D of his digestive system before the digested food was absorbed into the bloodstream.



- (a) Based on the graph above, which part A, B, C or D is most likely the small intestine? Explain your answer. [2]

- (b) Suggest why the amount of digested food remained the same as it moved from part A to B. [1]



31. Tricia conducted an experiment to find out how the number of jumps she does affects her heart rate. She recorded the results in the table below.

	Heart rate (beats per minute)			
	At rest	After 20 jumps	After 40 jumps	After 60 jumps
First try	60	79	100	130
Second try	64	30	105	135
Third try	68	85	98	145

- (a) Explain why her heart rate increased with more jumps. [2]

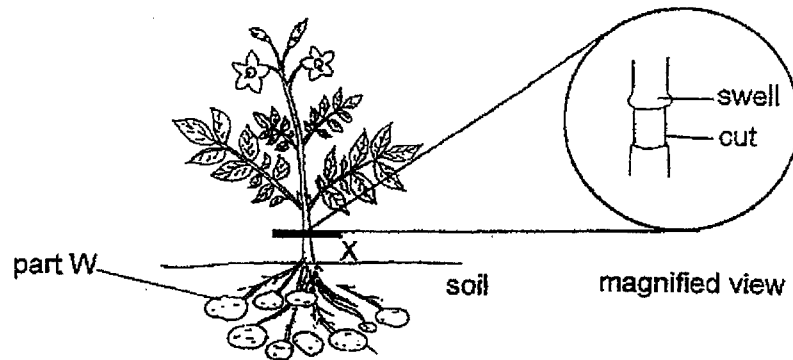
- (b) With reference to the results in the table, she realised that one of the heart rates had been recorded **incorrectly**.

Circle the incorrect reading in the table above.

[1]



32. Study the diagram below.



A cut was made at X and the food-carrying tubes were removed. It was observed that there was a swell above the cut after a few days.

(a) Explain the swell above the cut.

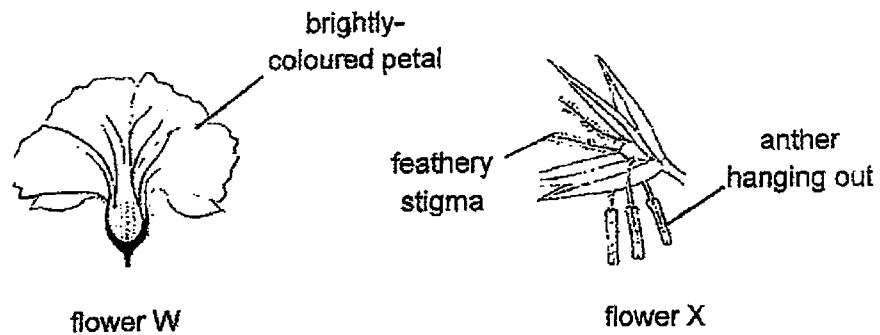
[2]

(b) What would be observed about the size of part W after 2 weeks?

[1]



33. The diagram below shows two flowers W and X.

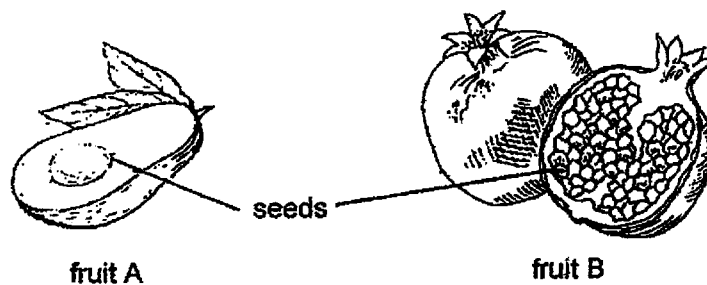


- (a) Based on the characteristics of the flowers, **circle** the method of pollination of flower W and X in the table below. [1]

Flower	Method of pollination
W	By (wind / animal)
X	By (wind / animal)

- (b) Explain the method of pollination of **flower X** based on the characteristics of its stigma and anthers. [2]

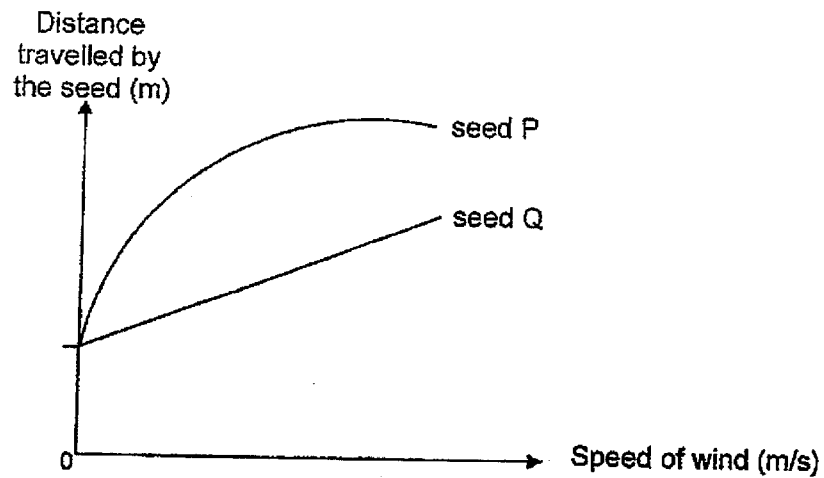
The diagram below shows two types of fruits A and B.



- (c) Which fruit A or B is likely produced from flower W? Explain why. [1]



34. Pam observed how seeds P and Q were dispersed by the wind. She plotted the graph to show the relationship between the speed of the wind and the distance travelled by the seeds.

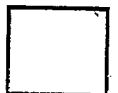


- (a) Based on the graph above, how does the speed of the wind affect the distance travelled by seeds P and Q?

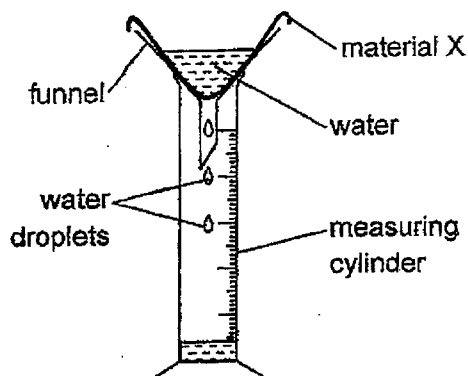
[1]

- (b) Suggest a reason why the graph of seed P is higher than seed Q.

[2]



35. In the diagram below, a thin layer of material X was placed on a funnel. Water was then poured into the funnel and left to stand for 3 minutes.



The volume of water collected in the measuring cylinder was recorded in the table below. The experiment then was repeated with materials Y and Z.

Material	X	Y	Z
Volume of water collected (ml)	140	0	280



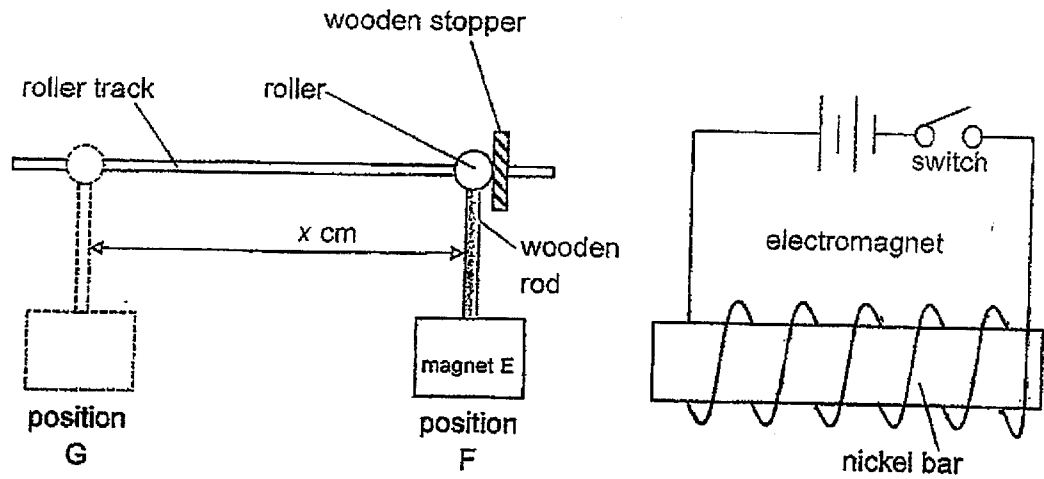
boy wearing a raincoat

Based on the results, which material X, Y or Z should be chosen to make the raincoat shown above? Explain your answer.

[2]



36. Study the diagram below. When the switch in the circuit was closed, magnet E was observed to have moved a distance of x cm from position F to position G.



- (a) Explain how magnet E moved from position F to position G when the switch was closed.

[2]

- (b) Without adding or replacing any items in the set-up above, suggest one change to be made to the circuit so that distance x can be decreased.

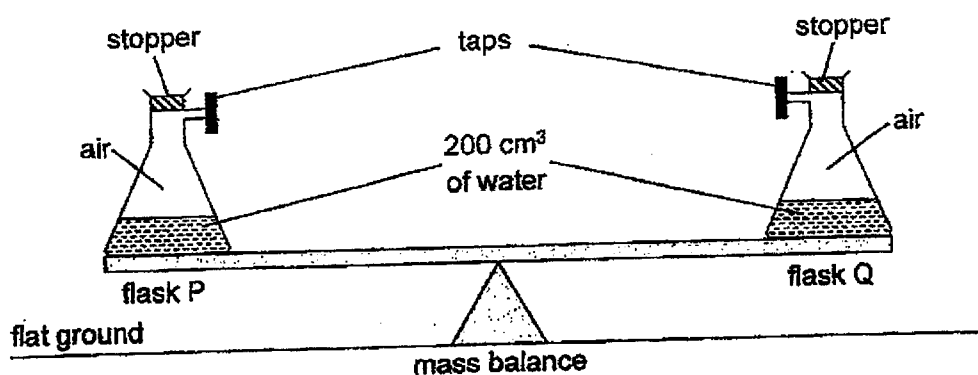
[1]



37. (a) What is mass?

[1]

The diagram below shows 2 similar flasks P and Q placed on a mass balance. Each flask has a capacity of 500 cm^3 and contains 200 cm^3 of water. A tap is connected to each flask to allow air to be pumped in or removed.



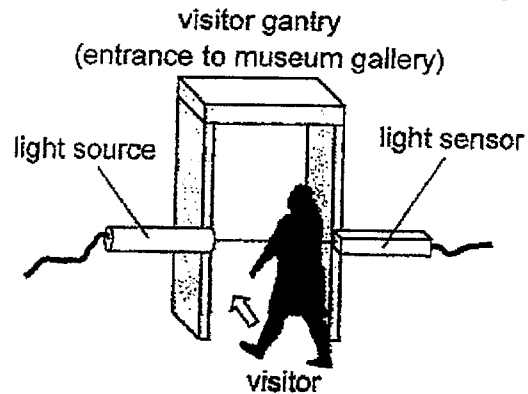
100 cm^3 of air was then pumped into flask P only.

(b) What will most likely be observed on the mass balance above? Explain your answer.

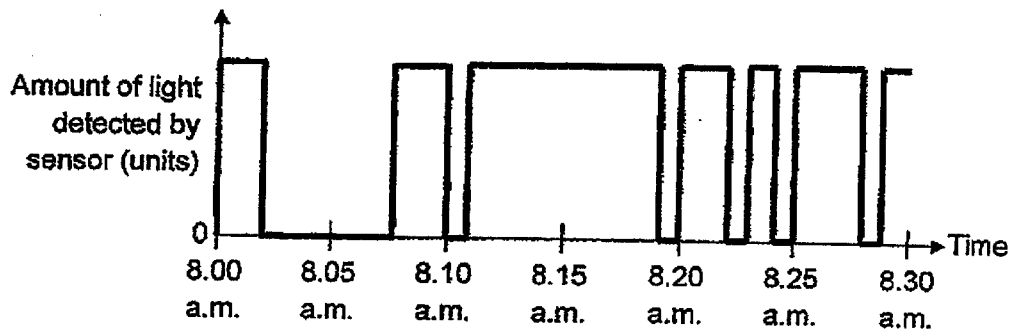
[2]



38. The diagram below shows a gantry that was set-up to count the number of visitors entering a museum gallery. Only one visitor can enter through the gantry at a time.



The graph below shows the readings from the sensor from 8.00 a.m. to 8.30 a.m.



- (a) State the property of light that enables the gantry to work as above. [1]

- (b) Based on the graph, give a reason why the decrease in the amount of light detected reached 0 units at certain times. [1]

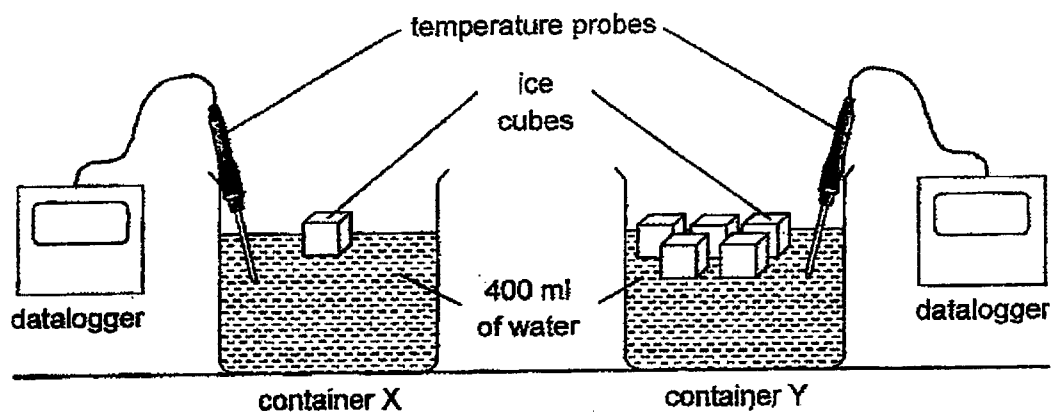
- (c) Based on the graph, did the visitor walked slower or faster through the gantry between the 8.00 a.m. to 8.10 a.m. as compared to another visitor at other times? Explain your answer. [1]



39. (a) What is the difference between heat and temperature?

[1]

Chang filled 2 identical containers X and Y with equal amounts of water. He then placed different number of similar ice cubes into each container at the same time.



The temperature of water was recorded every 1 minute in the table below.

Time (min)	Temperature of water ($^{\circ}\text{C}$)	
	in container X	in container Y
0	30	30
1	27	22
2	25	18
3	23	15
4	22	14
5	21	13
6	21	13

- (b) What is the aim of the experiment?

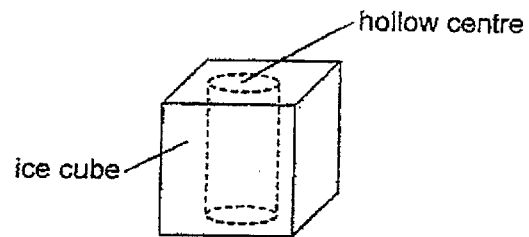
[1]

- (c) What can be concluded from the results above?

[1]



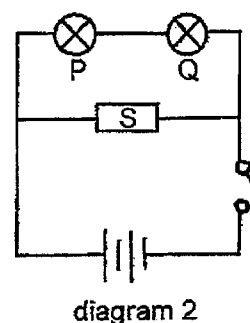
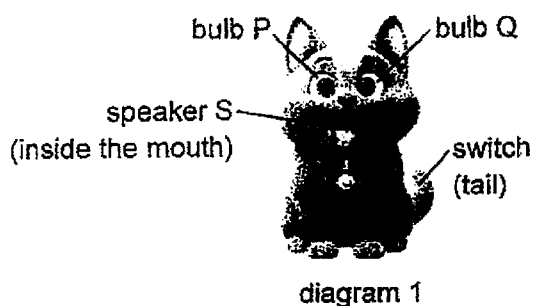
Chang then conducted another similar experiment using ice cubes with a hollow centre as shown below.



- (d) Would the decrease in temperature of water be faster, slower or unchanged? Explain your answer. [2]

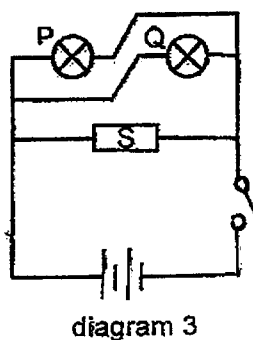


40. Diagram 1 shows the front view of Toby's robot cat. He sets up an electric circuit in the toy using bulbs P and Q, a speaker S and some batteries as shown in diagram 2. All the circuit components are in good working conditions.



- (a) Based on diagram 2, will the bulbs and speaker work when the switch is closed? Explain your answer. [1]

Toby rearranged the components in the toy robot cat as shown in diagram 3 below.



- (b) State the type of arrangement of the bulbs in diagram 3. [1]

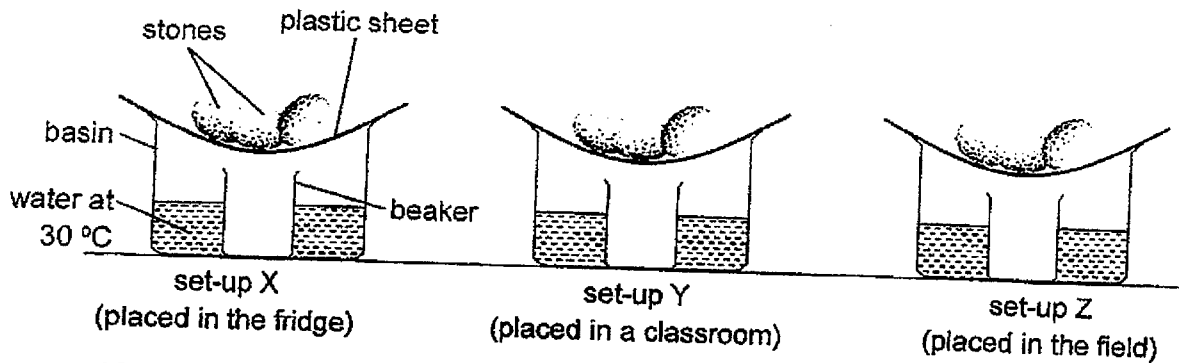
- (c) State 2 advantages of the arrangement of the bulbs in diagram 3 as compared to that in diagram 2. [2]

Advantage 1: _____

Advantage 2: _____

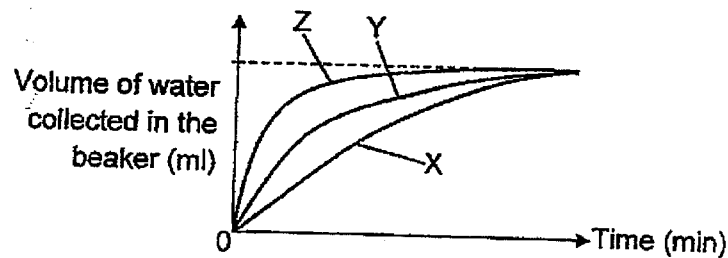


41. Muthu conducted an experiment to find out if temperature of the surroundings affects the rate of evaporation of water. In the diagram below, he used 3 similar set-ups X, Y and Z and placed them at different locations.



After some time, he observed that water was collected in the beakers.

The graph below shows the changes in the volume of water collected over time.



- (a) Based on the graph, state the relationship between the temperature of the surroundings and the rate of evaporation of water. [1]

- (b) Explain how water was collected in the beakers. [2]

- (c) Without changing the location, state 2 changes to set-up Y that allows water to be collected faster in the beaker. [2]

Change 1: _____

Change 2: _____

END OF PAPER



YEAR : 2025
 LEVEL : PRIMARY 5
 SCHOOL : CHIJ ST NICHOLAS GIRLS' SCHOOL
 SUBJECT : SCIENCE
 TERM : END OF YEAR EXAMINATION

(BOOKLET A)

Q1	4	Q2	2	Q3	3	Q4	4	Q5	2
Q6	4	Q7	2	Q8	1	Q9	2	Q10	2
Q11	4	Q12	2	Q13	2	Q14	3	Q15	4
Q16	4	Q17	1	Q18	4	Q19	3	Q20	3
Q21	3	Q22	2	Q23	1	Q24	3	Q25	2
Q26	3	Q27	2	Q28	2				

(BOOKLET B)

Q29	a)	Prepare a similar container with the same amount of water inside the oil inside but without the plant.																										
	b)	To prevent water from evaporating so any decrease in water level is only due to the plant absorbing water.																										
	c)	P. P has a lesser amount of leaves and water set-up B has fewer leaves than set-up A, meaning it would need a lesser amount of water.																										
Q30	a)	D. D had the greatest amount of digested food. The small intestine digests the most food and absorbs it into the bloodstream, so D is most likely the small intestine.																										
	b)	B is the gullet and no digestion takes place in B as it does not move digestive juices.																										
Q31	a)	Her body needs more energy so the heart pumps faster to transport more oxygen and digested food to all parts of the body for more respiration.																										
	b)	<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">Heart rate (beats per minute)</th> </tr> <tr> <th>At rest</th> <th>After 20 jumps</th> <th>After 40 jumps</th> <th>After 60 jumps</th> </tr> </thead> <tbody> <tr> <td>First try</td> <td>60</td> <td>79</td> <td>100</td> <td>130</td> </tr> <tr> <td>Second try</td> <td>64</td> <td>30</td> <td>105</td> <td>135</td> </tr> <tr> <td>Third try</td> <td>68</td> <td>85</td> <td>98</td> <td>145</td> </tr> </tbody> </table>					Heart rate (beats per minute)				At rest	After 20 jumps	After 40 jumps	After 60 jumps	First try	60	79	100	130	Second try	64	30	105	135	Third try	68	85	98
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Q32	a)	The food made by the leaves could not get transported below the cut. So, the food was accumulated above the cut instead.																										
	b)	The size of part W after two weeks would decrease.																										

Q33	a)	<table><tr><th>Flower</th><th>Method of pollination</th></tr><tr><td>W</td><td>By (wind / <u>animal</u>)</td></tr><tr><td>X</td><td>By (<u>wind</u> / animal)</td></tr></table>	Flower	Method of pollination	W	By (wind / <u>animal</u>)	X	By (<u>wind</u> / animal)
	Flower	Method of pollination						
	W	By (wind / <u>animal</u>)						
X	By (<u>wind</u> / animal)							
	b)	Anthers are hanging out so there is a higher chance of wind carrying the pollen grains and getting caught by the feathery stigma more easily in the wind						
	c)	B. B has many seeds. Flower W had many ovules in the ovary. The ovules would become seeds after fertilization, so fruit B is likely produced from flower W.						
Q34	a)	As the speed of wind increases, the distance travelled by the seed increases.						
	b)	Seed P has a bigger wing-like structure and stay afloat longer in the air and travel a further distance.						
Q35		Y. When Y was tested, there was no water collected after three minutes, showing that is waterproof. A raincoat needs to be waterproof so the person wearing it would not get wet, so material Y should be chosen to make the raincoat shown above.						
Q36	a)	There is a closed circuit and electric current could flow through, magnetizing the nickel bar which repelled magnet E because their like poles are facing each other.						
	b)	Remove one battery from the circuit.						
Q37	a)	Mass is the amount of matter in an object.						
	b)	Flask P would tilt down. Air has mass. So, when it was pumped into flask P, the mass of flask P would increase and higher than the mass of flask Q, so flask P would tilt down.						
Q38	a)	Light travels in a straight line.						
	b)	A person is opaque. When a person enters, no light would be detected as the person is blocking it.						
	c)	Slower. The period of time where no light was detected was longer than other periods, concluding that the person walked slower.						
Q39	a)	Heat is a form of energy and temperature is a measurement of how hot or cold an object is.						
	b)	To find out if the number of the ice cubes affects how fast the temperature of the water changes.						
	c)	The greater the number of ice cubes, the faster the temperature of water decreases. <i>are in contact with water</i>						
	d)	Faster. The ice cubes has a greater surface ^{area} so water can lose heat faster to the ice cubes.						
Q40	a)	Yes. When the switch was closed, it formed a closed circuit and electric current could flow through the bulbs and speaker S, so they would work when switch is closed.						
	b)	Parallel						

	c)	Advantage 1: If one of the bulb fuses, the other one would still be able to light up. Advantage 2: The bulbs would be brighter.
Q41	a)	As the temperature of the surrounding increases, the rate of evaporation of water increases.
	b)	The warmer water vapour in the basin came into contact with the cooler surface of the plastic sheet, lost heat to form tiny water droplet which dripped into the beaker. <i>and condensed</i>
	c)	Change 1: Replace the stones with ice. Change 2: Increase the temperature of water at the start of experiment.

3
END

