Anglo-Chinese School
(Primary)
A Methodist Institution
(Founded 1886)

END-OF-YEAR EXAMINATION 2025
SCIENCE
PRIMARY FIVE
BOOKLET A

Name: _____ ( ) **Class: Primary 5** ____

Date: 30 October 2025 **Total Time for Booklets A and B: 1 h 45 min**

INSTRUCTIONS TO CANDIDATES

1. Write your name, register number and class in the spaces provided.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers on the Optical Answer Sheet (OAS) provided.

This booklet consists of 22 printed pages including this cover page.

For each question from 1 to 30, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet.

(60 marks)

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1 The table shows the characteristics of four different living things, A, B, C and D. A tick (✓) indicates that the living thing has the characteristic.

Characteristic	A	B	C	D
It makes its own food.				✓
It reproduces from spores.		✓		✓
It can only be seen using a microscope.			✓	

Based on the table, which of the living things, A, B, C or D, could be fungi?

(1) A

(2) B

(3) C

(4) D

2 Jack carries out the following investigations on an animal.

A Observe if it has wings

B Find out if it can lay eggs

C Examine the number of body parts

D Count the number of legs the animal has

Which of these investigations will allow him to conclude if the animal is an insect or a mammal?

(1) A and C only

(2) B and D only

(3) B, C and D only

(4) A, B, C and D

3 Joe discovered that his waste is watery when it is passed out of his body. Which of the following organs is most likely not functioning properly?

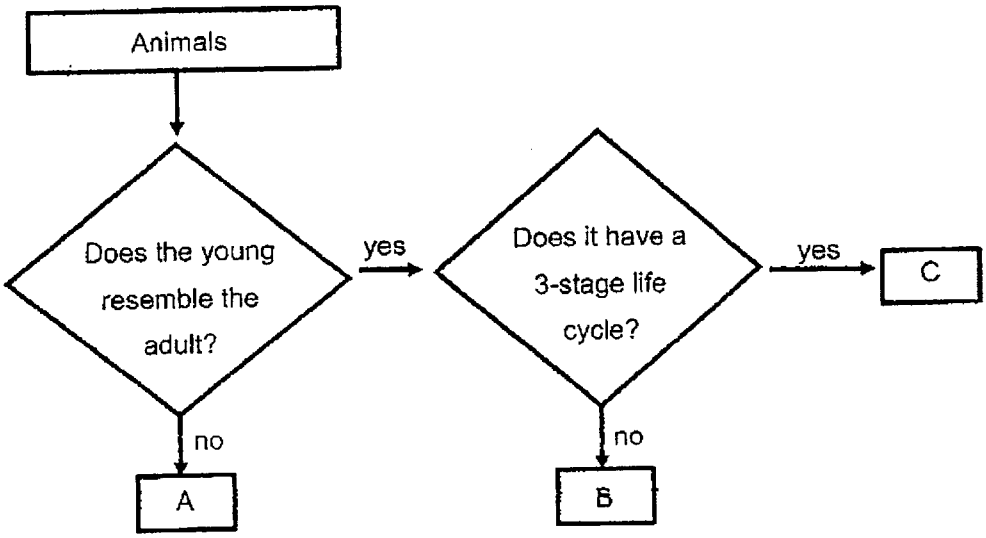
(1) Mouth

(2) Gullet

(3) Small intestine

(4) Large intestine

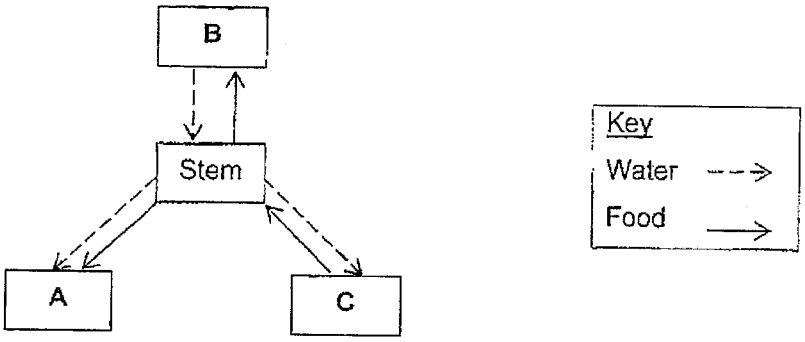
4 Study the flowchart as shown.



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

	A	B	C
(1)	mosquito	toad	butterfly
(2)	butterfly	frog	cockroach
(3)	cockroach	butterfly	mealworm beetle
(4)	mealworm beetle	cockroach	frog

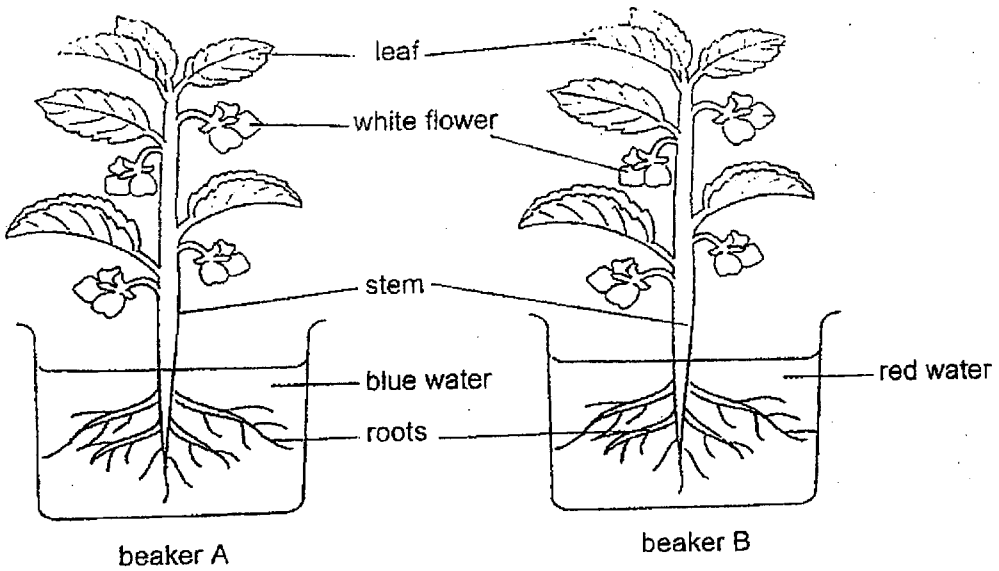
5 The diagram shows how water and food are transported in a plant.



Which of the following shows the correct parts of the plant?

	A	B	C
(1)	flowers	roots	leaves
(2)	roots	flowers	leaves
(3)	flowers	leaves	roots
(4)	leaves	roots	flowers

6 Two similar plants with white flowers were placed in two identical beakers. Beaker A is filled with blue water while beaker B is filled with red water.



The next day, the flowers of the plant in beaker A became blue and the flowers of the plant in beaker B became red.

Which conclusion can be drawn from the experiment?

(1) Plants need water to stay alive.

(2) The leaves transported the coloured water to the flowers.

(3) The water-carrying tubes carried the water from the roots to the flowers.

(4) The food-carrying tubes carried the water from the leaves to the flowers.

7 Muthu ate a bowl of rice before he went for a swim. Which two body systems worked with his circulatory system to enable him to have the energy to swim?

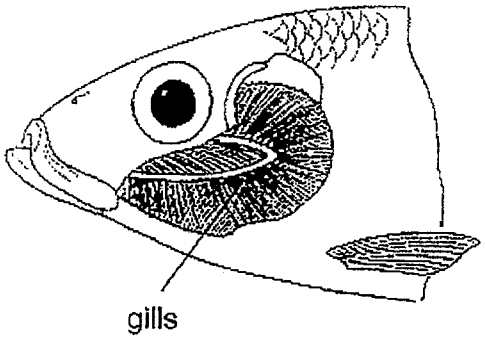
(1) Muscular and skeletal

(2) Digestive and skeletal

(3) Muscular and respiratory

(4) Digestive and respiratory

8 The diagram shows the gills of a fish.



Gills help the fish breathe in water. Which statement(s) about the gills is/are correct?

A It allows carbon dioxide to be removed from the body.

B It has a large surface area to take in dissolved oxygen.

C The blood vessels carry the carbon dioxide from the gills to the other body parts of the fish.

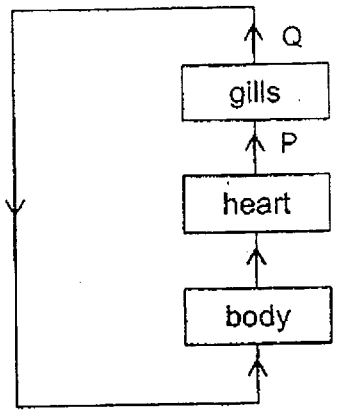
(1) A and B only

(2) A and C only

(3) B and C only

(4) A, B and C

9 The diagram shows how gases are transported in the circulatory system of a fish.



Which statement correctly describes the amount of gases found in the blood flowing at P and Q?

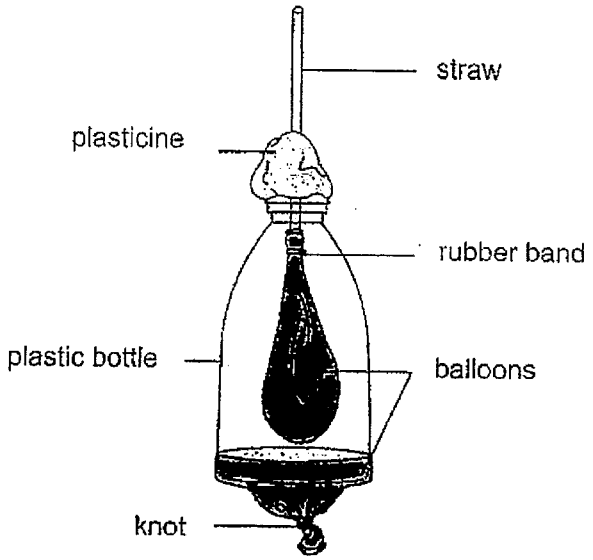
(1) P has less oxygen than Q.

(2) P has more oxygen than Q.

(3) P and Q contain the same amount of oxygen.

(4) P and Q contain the same amount of carbon dioxide.

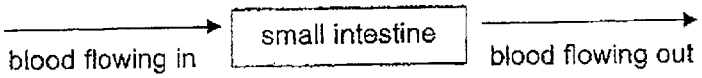
10 The diagram shows a model of the human respiratory system.



When the knot is pulled downwards, the balloon attached to the straw inflates. Which parts of the human respiratory system do the straw and the balloon attached to the straw represent?

	Straw	**Balloon attached to the straw**
(1)	Gullet	Lungs
(2)	Windpipe	Stomach
(3)	Windpipe	Lungs
(4)	Gullet	Windpipe

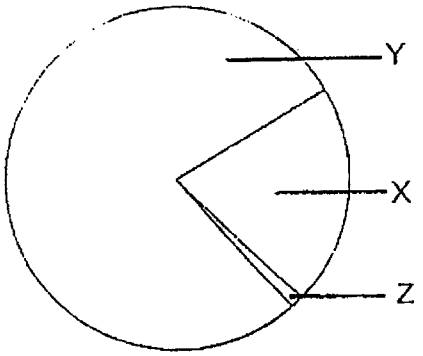
11 The diagram shows the blood flow at the small intestine of the human digestive system.



Six hours after a meal, the amounts of oxygen, carbon dioxide and digested food in the blood flowing in was compared with the blood flowing out of the small intestine. Which of the following shows the correct comparison?

	Amount of oxygen flowing out	**Amount of carbon dioxide flowing out**	**Amount of digested food flowing out**
(1)	more	less	more
(2)	more	more	less
(3)	less	more	more
(4)	less	less	less

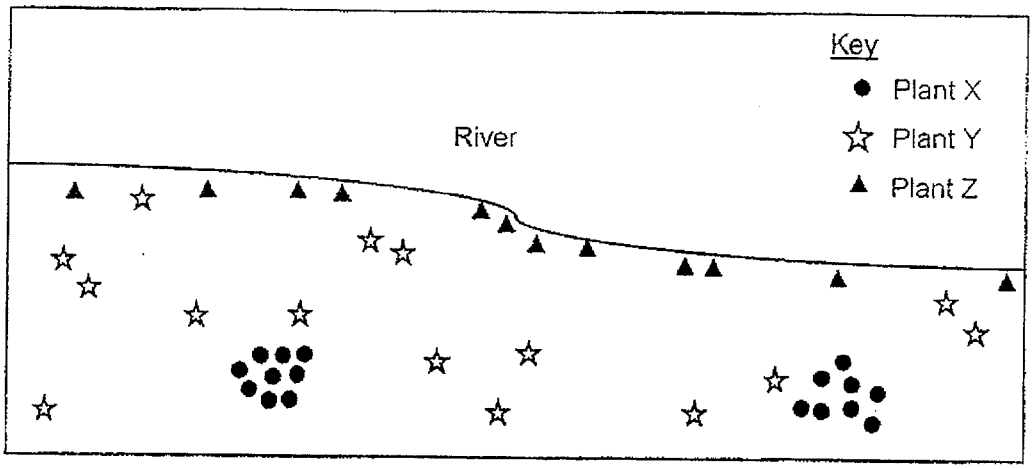
12 The amount of gases in the air, X, Y and Z is represented by the pie chart as shown.



Which of the following correctly identifies gases X, Y and Z?

	X	Y	Z
(1)	oxygen	other gases	nitrogen
(2)	oxygen	nitrogen	other gases
(3)	nitrogen	oxygen	other gases
(4)	other gases	nitrogen	oxygen

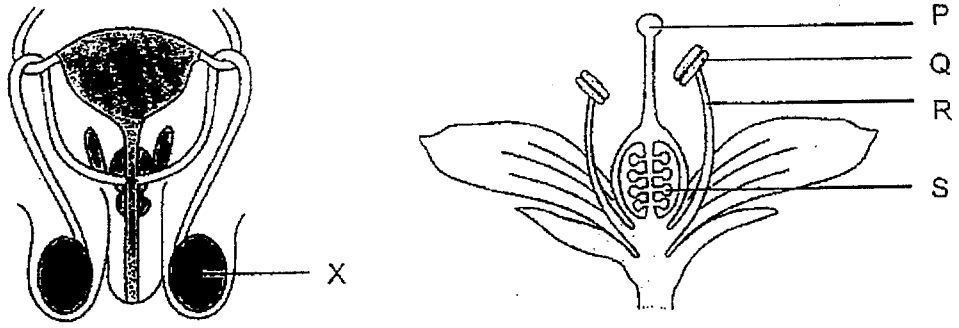
13 James was walking along the bank of a river and observed some plants growing in a particular pattern. He drew a diagram of his observations as shown.



Which of the following best represents the method of seed dispersal of plants X, Y and Z?

	Plant X	Plant Y	Plant Z
(1)	Wind	Animal	Splitting
(2)	Splitting	Water	Animal
(3)	Wind	Splitting	Water
(4)	Splitting	Animal	Water

14 The diagrams show the reproductive systems of a human and a plant.



Which part, P, Q, R or S, has a similar function as part X?

(1) P

(2) Q

(3) R

(4) S

15 Which of the following is not a characteristic that is passed on from parents to their offspring in human beings?

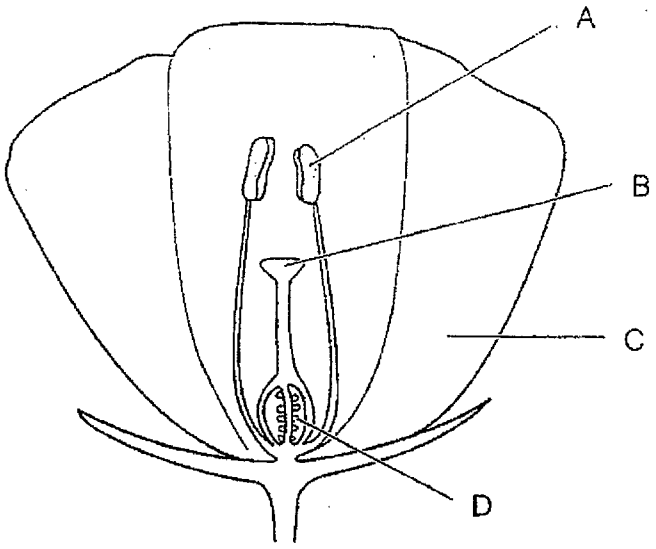
(1) Length of hair

(2) Type of eyelids

(3) Ability to roll tongue

(4) Presence of dimples

16 Amy conducted an experiment to find out which parts of a flower were necessary to develop into a fruit. She removed two parts of the flower and transferred some pollen grains from another flower of the same plant to the remaining parts of the flower.



After some time, the flower developed into a fruit. Which two parts of the flower had been removed?

(1) A and C only

(2) A and D only

(3) B and C only

(4) B and D only

17 Kumar prepared four set-ups of seeds in different conditions as shown. He then added an equal amount of water to each set-up.

Set-up	Conditions	Presence of oxygen
W	Cold and dark	Yes
X	Cold and dark	No
Y	Warm and dark	Yes
Z	Warm and bright	No

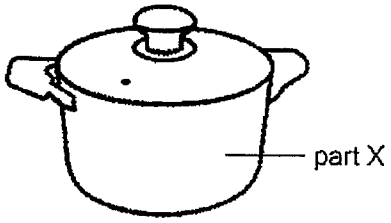
Which row shows the correct aim and set-ups of the experiment?

	Aim	Set-ups used
(1)	To find out if oxygen is needed for seeds to germinate	W and Z
(2)	To find out if warmth is needed for seeds to germinate	W and Y
(3)	To find out if warmth is needed for seeds to ~~germination~~ germinate	X and Z
(4)	To find out if the amount of light affects the germination of seeds	Y and Z

18 Arif tested the properties of four different materials, A, B, C and D, and recorded the results in the table.

Property	Materials			
	A	B	C	D
flexible			✓	✓
waterproof	✓	✓	✓	
good conductor of heat	✓	✓		✓
allows light to pass through		✓	✓	

Which of the following material(s) is/are most suitable to make part X of the cooking pot?



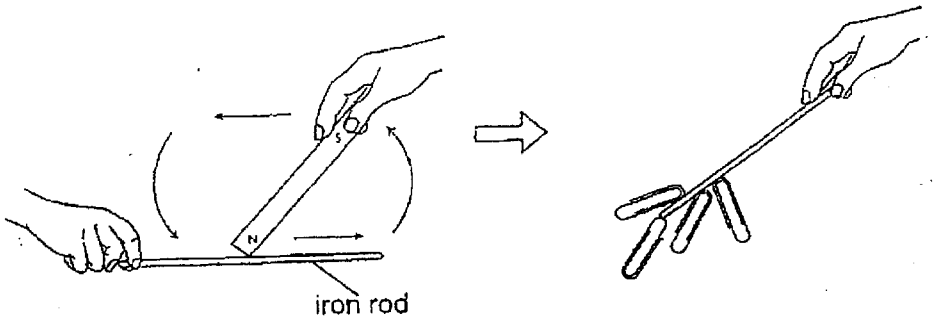
(1) A only

(2) A and D only

(3) B and C only

(4) C and D only

19 Robbie used the stroke method to make a temporary magnet out of an iron rod. The iron rod then attracted four paper clips as shown.



What should Robbie do if he wants the iron rod to attract more paper clips?

(1) Change the iron rod to a copper rod.

(2) Change the pole of the magnet after each stroke.

(3) Stroke the iron rod with the magnet more times in the same direction.

(4) Use a stronger magnet to stroke the iron rod in the opposite direction.

20 Fandi stepped on a ping-pong ball and made a dent in it. He placed the ping-pong ball into a cup of hot water to return the ball to its original shape. Which of the following best explains why the ball was able to return to its original shape?

(1) Air in the ping-pong ball can be compressed.

(2) Air in the ping-pong ball expands when heated.

(3) The ping-pong ball is a solid and has a definite shape.

(4) The hot water is a liquid and does not have a definite shape.

21 The table shows some substances and their boiling points.

Substance	Boiling point (°C)
X	130
Y	72
Z	55

Each substance is heated in a beaker of boiling water. When the water starts to boil, which substance(s) is/are most likely to remain in the liquid state?

(1) X only

(2) Y only

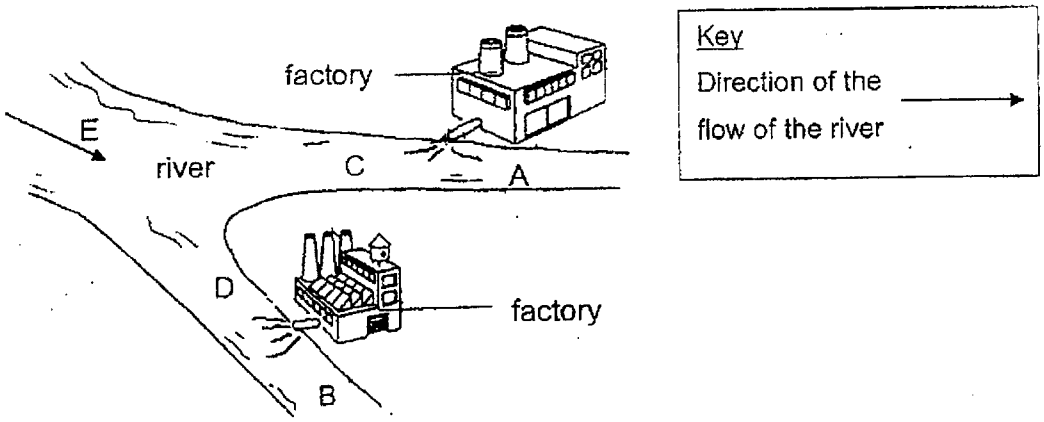
(3) X and Y only

(4) X, Y and Z

22 The table shows the weather conditions in a city on different days. In which weather conditons would wet clothes take the longest time to dry when hung outdoors?

	Windy	Surrounding Temperature (°C)
(1)	No	33
(2)	No	28
(3)	Yes	33
(4)	Yes	28

23 The government wants to identify the source of water pollution caused by two factories discharging chemical X into the river.



Water samples from different parts of the river were collected and tested. Which water samples, A, B, C, D and E, should be tested and compared to find out the source of water pollution?

(1) A and C only

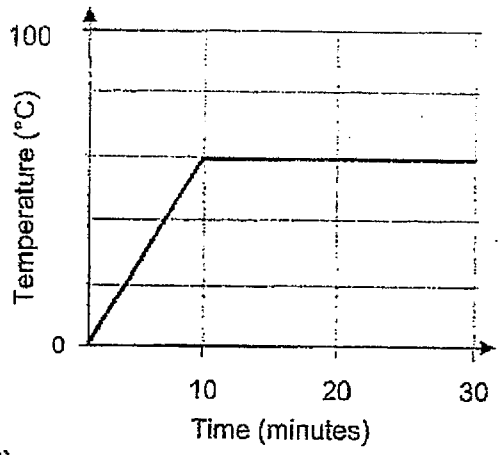
(2) C and D only

(3) A, B and E only

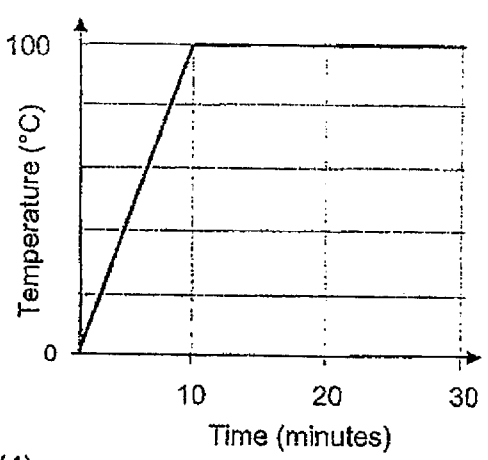
(4) C, D and E only

24 Aini heated a beaker of ice which took 10 minutes to melt. She then continued heating the water and it started boiling after another 20 minutes. Which graph shows the temperature change in the beaker?

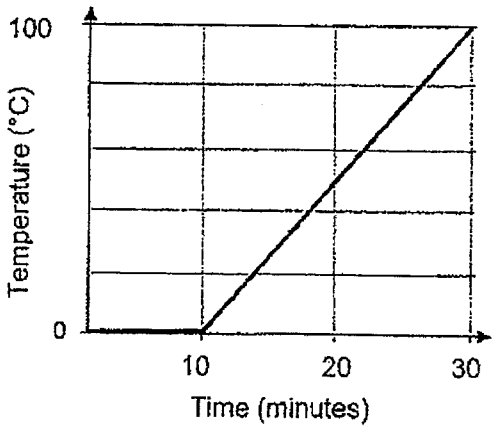
(1)



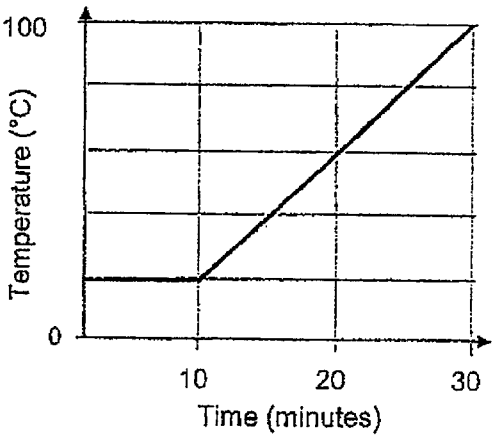
(2)



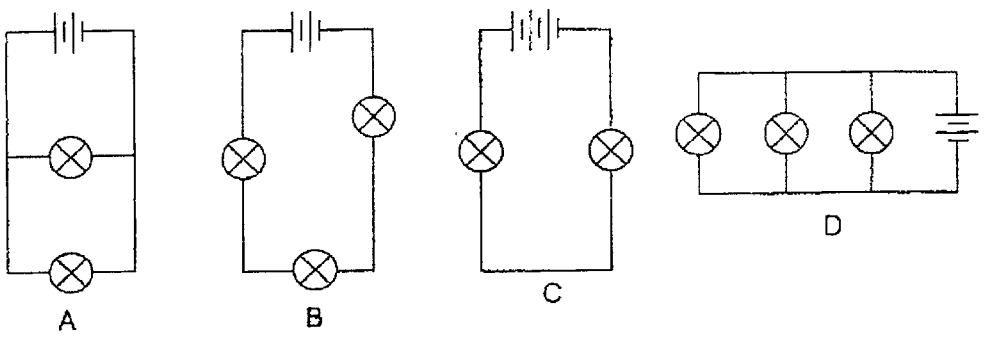
(3)



(4)



25 Stephen wanted to find out how the arrangement of the bulbs in a circuit affects their brightness. He set up four circuits as shown in the diagrams.



Which two circuits should he use to ensure a fair test?

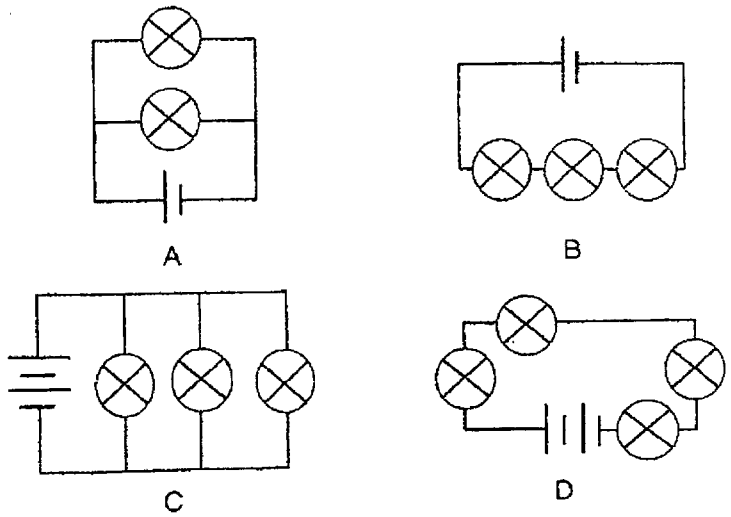
(1) A and C only

(2) A and D only

(3) B and C only

(4) B and D only

26 The diagrams show four different electrical circuits.



In which arrangement would the bulbs be the least bright?

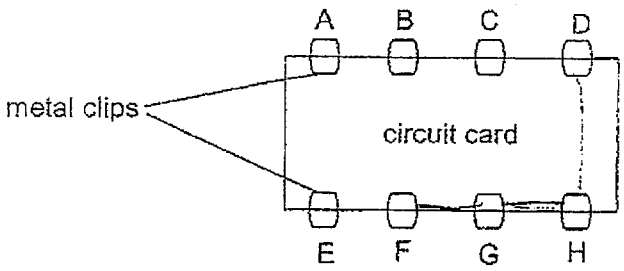
(1) A

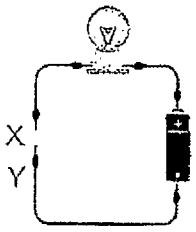
(2) B

(3) C

(4) D

27 Heidi used a circuit tester to test the circuit card below by connecting points X and Y to the different metal clips A to H.





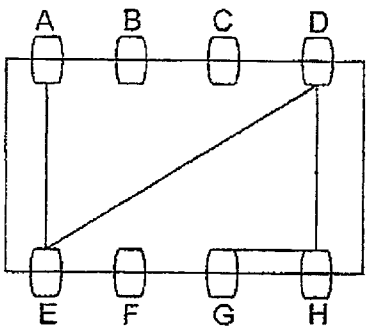
Circuit tester

The table shows the results of Heidi's test.

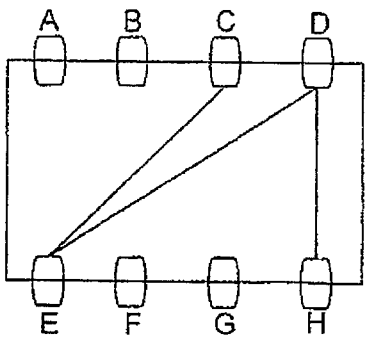
Metal clips tested	Did the bulb light up?
A and B	No
B and E	No
C and D	No
D and H	Yes
F and H	Yes
A and G	No

Which of the following correctly shows the connections of the circuit card that Heidi has tested?

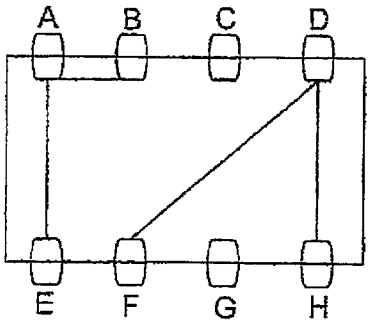
(1)



(2)



(3)



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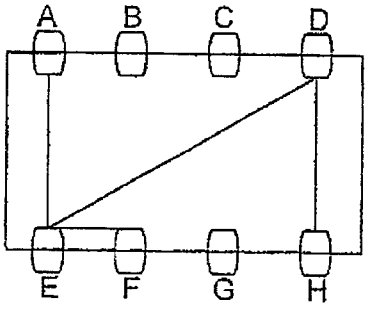
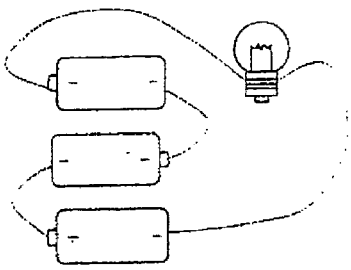
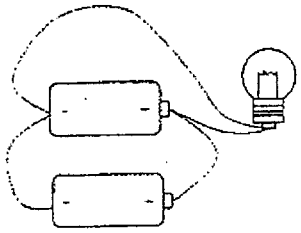


28 In which of the following arrangements will the bulb light up?

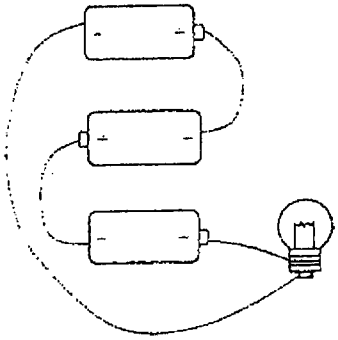
(1)



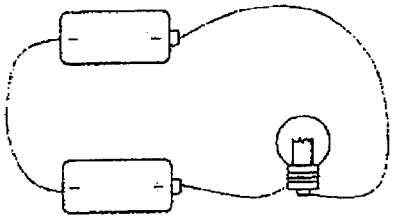
(2)



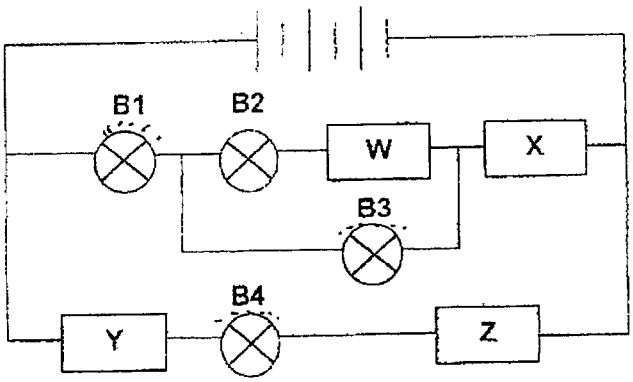
(3)



(4)



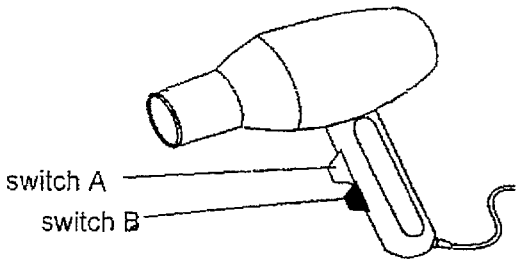
29 Four rods made of different materials, W, X, Y and Z, were placed in an electrical circuit as shown. All the bulbs and batteries used are identical and in working condition.



Only bulbs B1, B3 and B4 lit up in the circuit. Which row shows the correct materials which the rods are made of?

	W	X	Y	Z
(1)	glass	copper	iron	aluminium
(2)	iron	glass	wood	copper
(3)	wood	iron	copper	glass
(4)	copper	wood	aluminium	iron

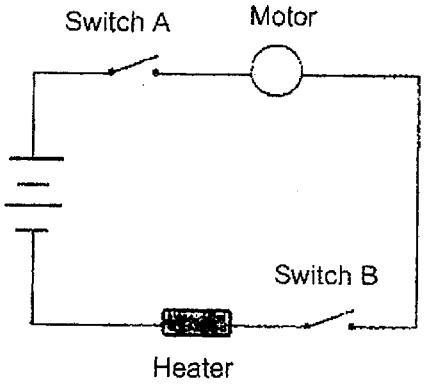
30 The diagram shows a hair dryer with two switches, A and B. Switch A activates the motor of the fan for the hair dryer to give out air. Switch B activates the heater for the hair dryer to give out hot air.



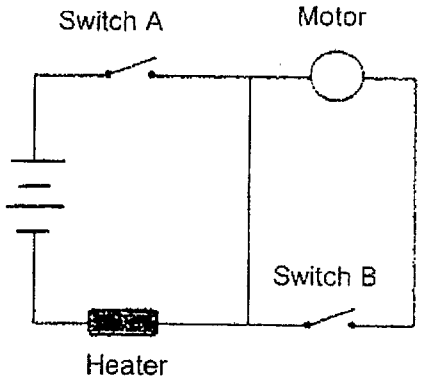
To use the hair dryer, the motor must first be activated to give out moving air. The heater can then be activated, if needed.

Which of the following circuits show how the switches, motor and heater of the hair dryer are connected?

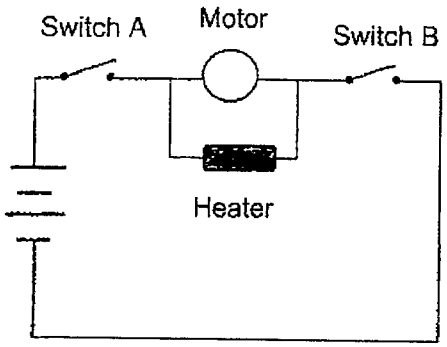
(1)



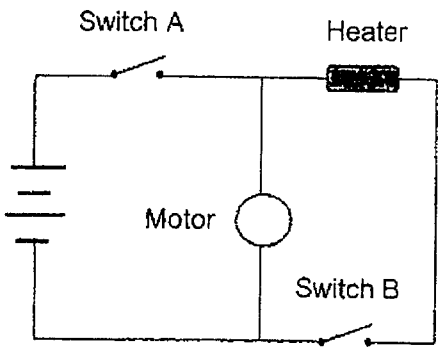
(2)



(3)



(4)



(Go on to Booklet B)

Anglo-Chinese School
(Primary)
A Methodist Institution
(Founded 1886)

END-OF-YEAR EXAMINATION 2025
SCIENCE
PRIMARY FIVE
BOOKLET B

Name: _____ ( ) Class: Primary 5 ____

Date: 30 October 2025 Total Time for Booklets A and B: 1 h 45 min

_____
Parent's/ Guardian's signature

INSTRUCTIONS TO CANDIDATES

1. Write your name, register number and class in the spaces provided.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.

BOOKLET	MAX MARKS	MARKS OBTAINED
A	60	
B	40	
Total	**100**	

This booklet consists of **14** printed pages including this cover page.

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

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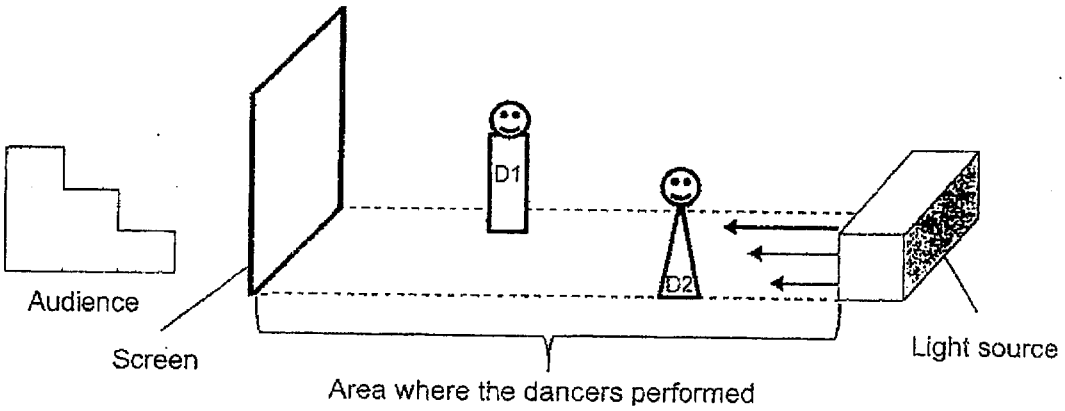
31 In a shadow theatre performance, Tim observed that the dancers of similar height could cast different shadow sizes as shown.

He wanted to find out if the size of the dancers' shadows is affected by the distance between the dancers and the light source. He then set up an experiment as shown below using 2 objects of similar height.



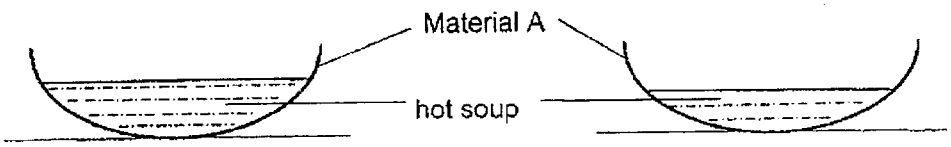
(a) Suggest a possible hypothesis for Tim's experiment. [1]

(b) Based on the above experiment, which object, D1 or D2, would have a taller shadow on the screen? [1]

(c) Give a reason why the audience is able to see the shadow performance on the other side of the screen. [1]

Score 3

32 Janet left two bowls made of material A filled with hot soup of 80 °C at the same location for 20 minutes. The bowl in set-up 1 had 400 ml of hot soup while the bowl in set-up 2 had 200 ml of hot soup.



Set-up 1 Set-up 2

(a) State what temperature is. [1]

(b) Janet observed that the hot soup in set-up 2 reached room temperature faster. Explain why. [2]

Janet conducted another experiment. A similar bowl, made of material B, was used in set-up 2 instead. Both bowls were filled with 400 ml of soup at 80 °C. Her results are shown in the table.

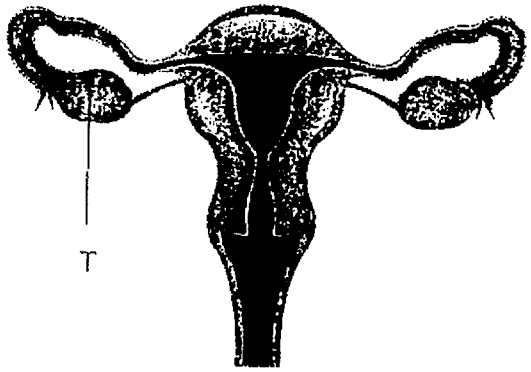
Time (min)	Temperature of the soup (°C)	
	Material A	Material B
0	80	80
5	65	72
10	50	70
15	32	65
20	25	50

(c) Which material, A or B, should Janet use to make a container to keep her drinks cool for a longer period? Explain why. [2]

[Please turn over]

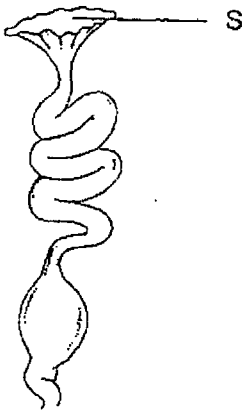
Score	
	5

33 The diagram shows the human female reproductive system.



(a) Name part T and state its function. [1]

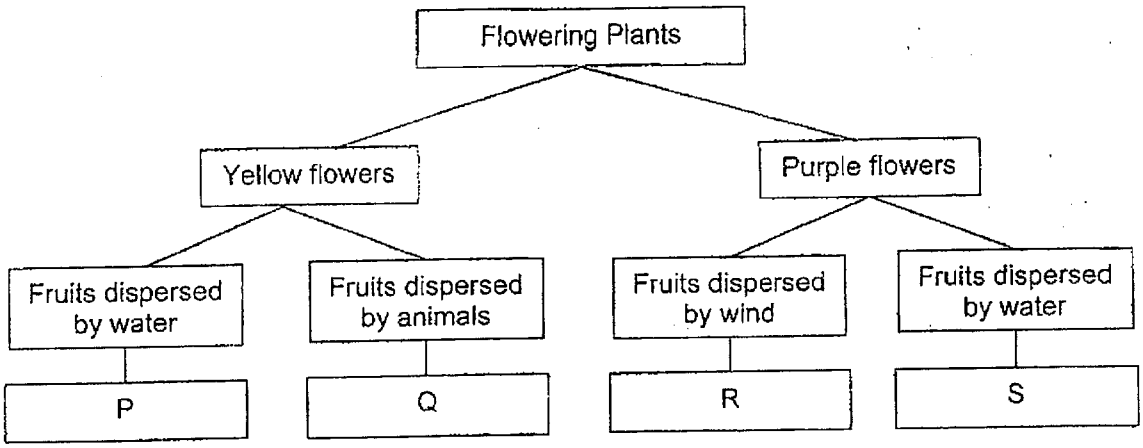
The diagram shows the reproductive system of animal X. Part S performs the same function as part T in the human female reproductive system. However, part S is sometimes damaged when animal X has a disease.



(b) Based on the diagrams provided, what advantage does the human female reproductive system have over the female reproductive system of animal X? Explain why. [2]

Score	/ 3

34 Imran found four flowering plants and classified their flowers and fruits based on his observation in the classification chart as shown.



(a) Based on the classification chart, list two similarities between P and S. [1]

_____

_____

(b) Imram found a fruit with a wing-like structure and observed that the tree it came from has purple flowers. Which letter (P, Q, R or S) should he classify this fruit under? Explain why. [1]

_____

_____

(c) Why is it an advantage for a seed to be dispersed from the parent plant? [1]

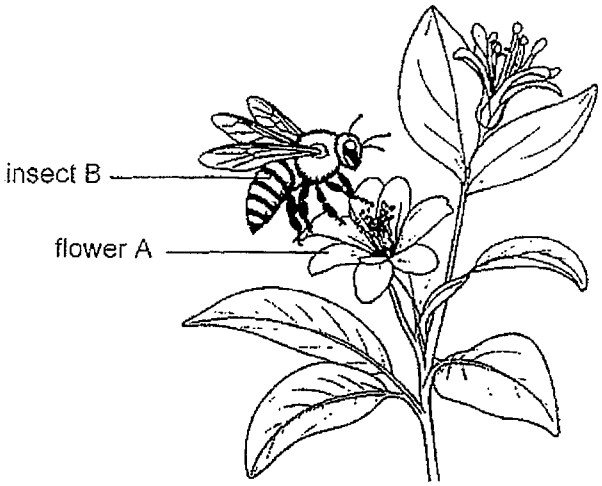
_____

_____

[Please turn over]

Score	/3

35 The diagram shows insect B carrying out a process of plant reproduction, X.

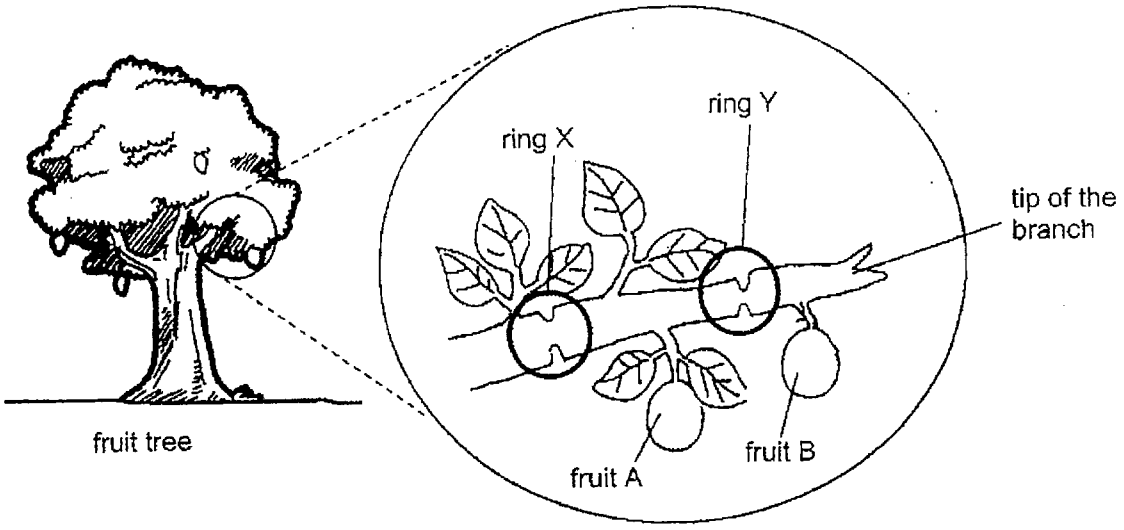


(a) Name and describe process X. [2]

(b) Suggest two characteristics of flower A that attract insect B. [1]

Score	/3

36 The farmer removed two rings of food-carrying tubes from a branch of a fruit tree as shown below.



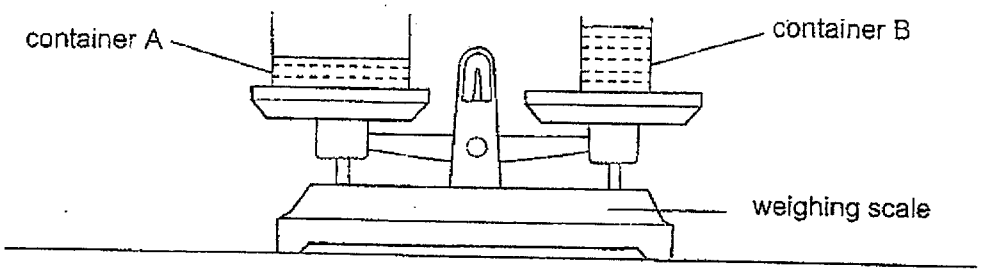
fruit tree

enlarged view of a branch

At the start, fruits A and B were of the same size. After a few weeks, the farmer observed that fruit A was bigger than fruit B. Explain the farmer's observation. [2]

37 **(a)** State one difference between evaporation and boiling. [1]

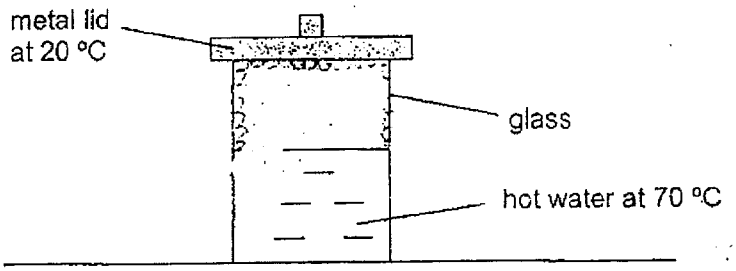
An equal amount of water was poured into two containers A and B, which have the same mass. The containers were then placed on a weighing scale and they balanced each other as shown. The set-up remained in the same room for a day.



(b) After one day, the balance was observed to tilt downwards in the direction of container B. Explain why. [2]

Score 3

38 Zi Ming placed a glass containing hot water at 70 °C on a table and covered the glass with a metal lid at 20 °C as shown. After ten minutes, he observed that some water droplets had formed.



(a) Draw in the diagram to show where the water droplets formed. [1]

(b) Explain how the water droplets were formed. [2]

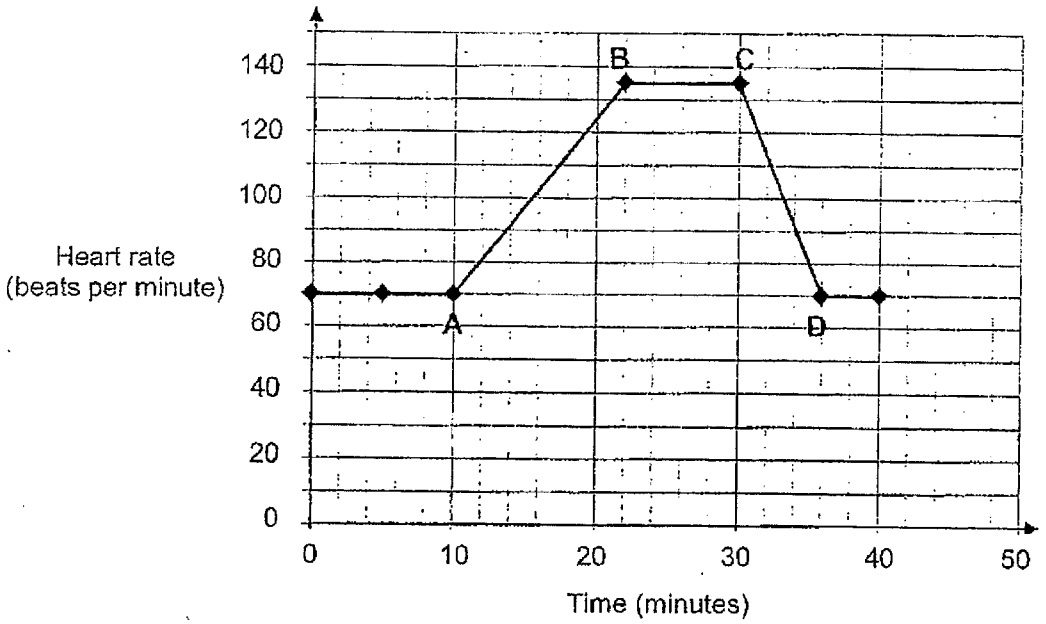
Zi Ming prepared another set-up identical to the one in the diagram above. However, he changed the metal lid to one that is at 60 °C.

(c) Would the number of water droplets collected be more, less or remain the same? Explain why. [2]

[Please turn over]

Score	/5

39 Krishnan went for a run and plotted the changes in his heart rate before, during, and after the run in the graph as shown.

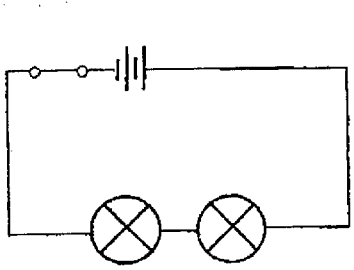


(a) At which point, A, B, C or D, on the graph did Krishnan start running? Suggest a reason why. [1]

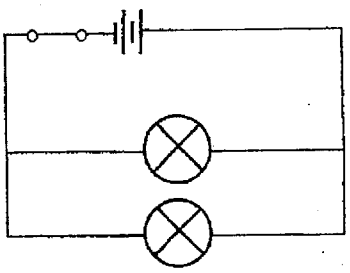
(b) Explain the changes in Krishnan's heart rate between A and B. [2]

Score	
	3

40 Harry set up two circuits, A and B, as shown below. The type of batteries and bulbs used in both circuits were identical. He measured the brightness of each bulb.



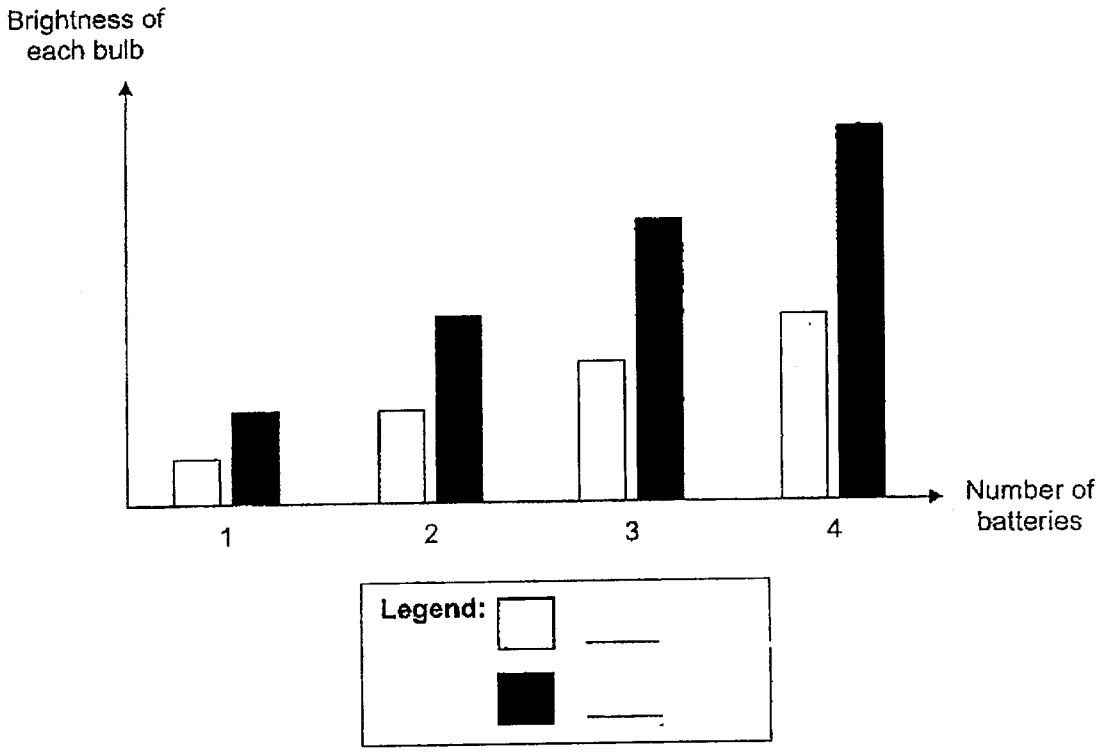
Circuit A



Circuit B

Harry repeated the experiment using different numbers of batteries. He plotted a bar graph below to show how the number of batteries in a circuit affects the brightness of each bulb.

(a) Indicate in the legend which circuits, A or B, the bar graphs represent. [1]



(b) When Harry added two more batteries to Circuit A, the bulbs lit up very brightly for a short while and then stopped lighting up. Explain why. [1]

_____

[Please turn over]

Score	/2

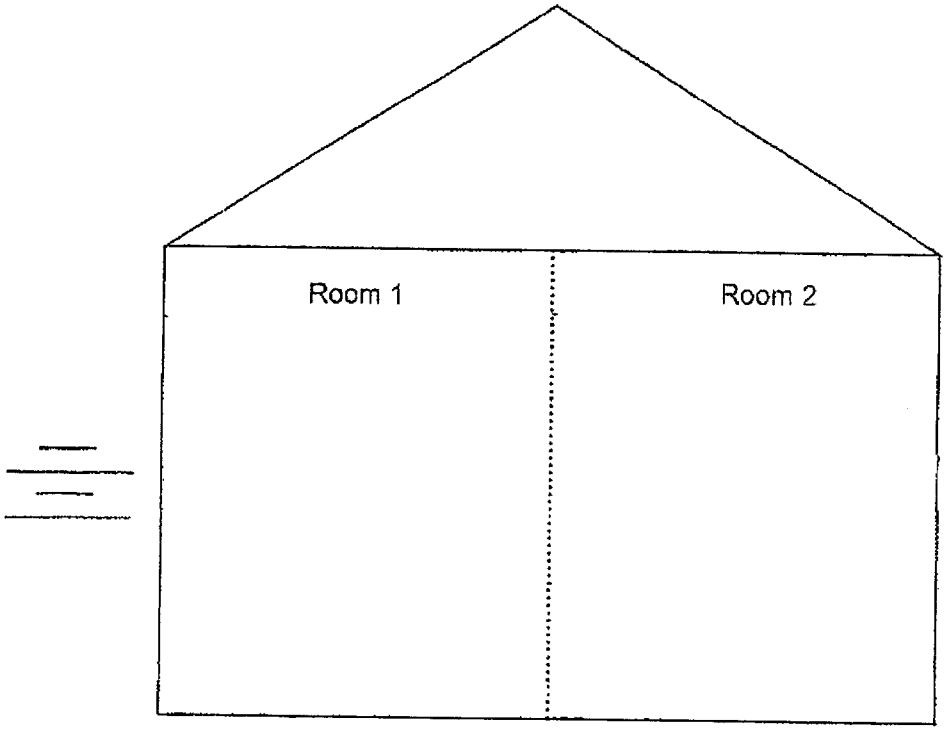
Harry then made a doll house, doll house A with two rooms for his sister by doing the following:

- He placed a light bulb in each room.
- He placed a switch in each room to control each of the bulbs.

(c) In the diagram below, draw a circuit diagram to show how Harry should connect the circuit with bulbs, wires and switches. The batteries located at the side of the doll house have already been drawn for you.

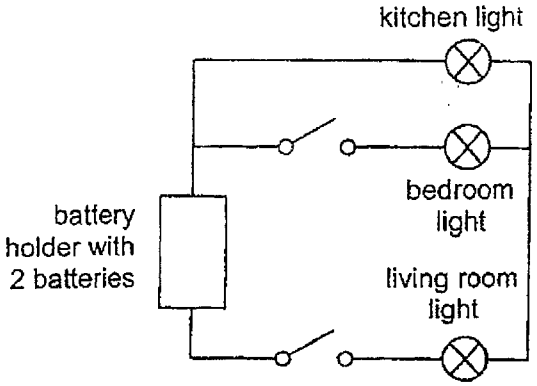
[2]

Doll House A



Score 2

Harry and his sister decided to construct a new doll house, doll house B with a kitchen, bedroom and living room. They designed a new electric circuit with a light bulb in each room as shown below.



Circuit for Doll House B

(d) State two problems that the new circuit has. [2]

1. _____

_____

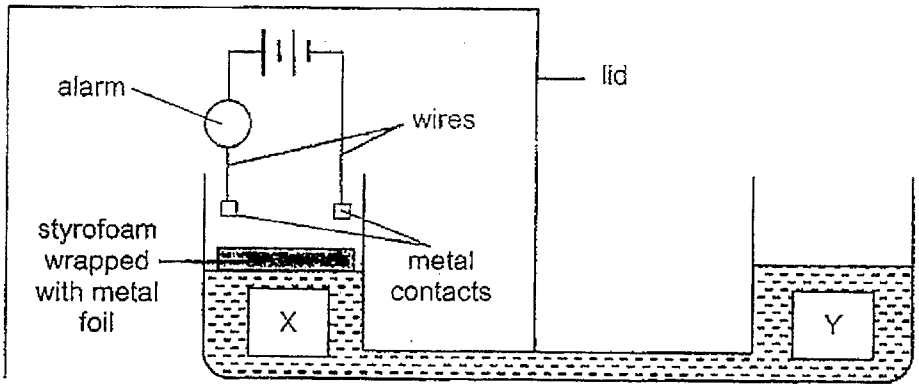
2. _____

_____

[Please turn over]

Score	/2

41 Sheila designed a flood warning system as shown in the diagram below. The system will sound an alarm when there is heavy rain. Part X and the electric circuit are kept covered while part Y is left uncovered outdoors.



(a) Based on the diagram above, explain how heavy rain would cause the alarm to sound. [2]

(b) Without using different apparatus, suggest a change to the alarm system to sound the alarm when it rains less heavily. Explain your answer. [2]

- End of Paper -

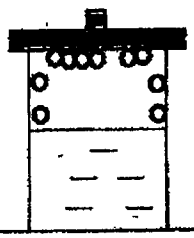
Score	/ 4

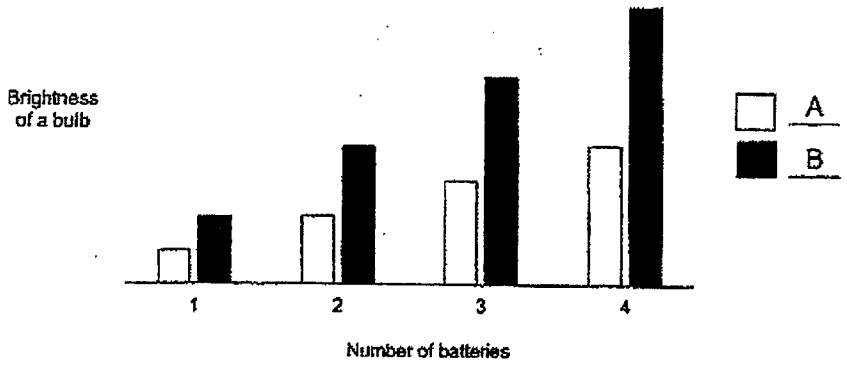
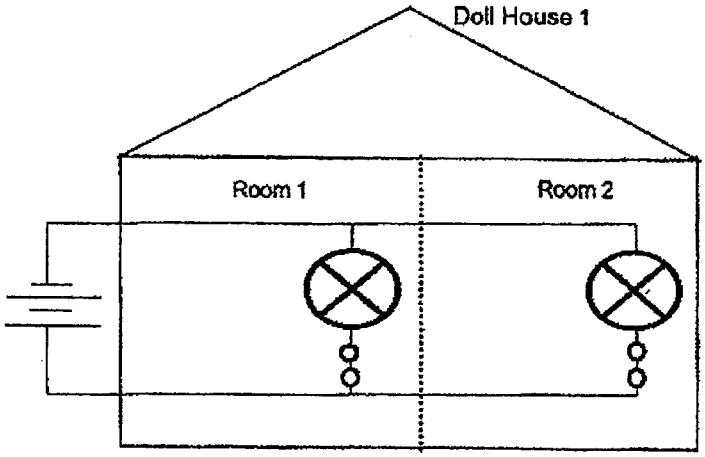
Name : _____ ( ) Class : P5 ____

ACS(P) 2025 P5 EYE Science Suggested Answers

No	Ans	No	Ans	No	Ans	No	Ans	No	Ans	No	Ans
1	2	6	3	11	3	16	1	21	1	26	2
2	3	7	4	12	2	17	2	22	2	27	4
3	4	8	1	13	4	18	1	23	3	28	3
4	2	9	/	14	2	19	3	24	3	29	1
5	1	10	3	15	1	20	2	25	4	30	4

QN.	ACCEPTABLE RESPONSES	MARKS
31a	The shorter/further the distance of the object from the light source, the smaller/bigger/larger the size of its shadow. OR The distance of the object from the light source does not affect the size of its shadow.	1
31b	D2.	1
31c	The screen is made of a translucent material OR As it allows same light to pass through, we can still see the shadow of the objects on the other side of the screen.	1
32a	Temperature is a measurement of how hot or cold an object is.	1
32b	E: There is less soup in set-up 2 than 1. R: Soup in set-up 2 needs to lose less heat energy (to surroundings) to reach room temperature compared to soup in set-up 1.	2
32c	C: Material B, E: The temperature of the soup in B decreases slower than that in A, R: B is a poorer conductor of heat and will slow down the transfer of heat from the surroundings to Janet's cool drinks, keeping them cool for longer compared to A.	2
33a	The ovary produces the female reproductive cells/ eggs.	1
33b	The human female reproductive system has two ovarys while animal X has only one ovary.	2

	When one ovary in the human female reproductive system is damaged, the other ovary can still produce egg.	
34a	Both are flowering plants, and their fruits are dispersed by water.	1
34b	R. The wing-like structure helps the fruit to travel further in the air. OR R. The wing-like structure helps the fruit to be dispersed by wind.	1
34c	To reduce overcrowding and competition for water/ space/ sunlight/ mineral salts.	1
35a	Pollination, The transfer of pollen grains from the anther to the _____ of the flower.	2
35b	(Any two) Brightly coloured petals, Presence of nectar, Sweet scent	1
36	[Fruit B] E & R: As the food - carrying tubes at Y were removed, food made by the leaves near Y could not be transported to and stored in fruit B. [Fruit A] R: Food made by leaves between X and Y was transported to and stored in fruit A which made it bigger than B.	2
37a	Evaporation happens at the surface of the liquid but boiling happens throughout the liquid, OR Evaporation occurs at and temperature but boiling occurs at a _____ temperature, OR There are bubbles observed during boiling but not evaporation.	1
37b	The exposed surface area of B is smaller than A, therefore the rate of evaporation is faster in B. More water was left in B, making the mass of B greater than A (and tilting downwards to the side of B).	2
38a	Draw water droplets under the lid and inside both sides of glass (All three sides should have water droplets. 	1
38b	The hot water evaporates to form water vapour, which rises and touches the cooler surface of the lid and sides of the glass, loses heat and condenses to form water droplets.	2

38c	There would be __less__ water droplets (collected). Water vapour loses less heat to the metal lid; So there is less __condensation__ on the metal lid of 60°C and so less water droplets will be collected.	2
39a	Point __B__. His heart rate starts to __increase__.	1
39b	The heart needed to pump blood faster so more digested food and __more__ oxygen, can be transported to the legs/muscles/body to release more __energy__.	2
40a		1
40b	There was too much current flow, which caused the filament of the bulb to __fuse__.	1
40c	Key Concepts: o Bulbs in parallel o Switch to control each bulb (switch can be closed/open) 	2
40d	__kitchen__ light cannot be turned on by itself. If bulb in __living__ room fuses, the other bulbs will not light up.	2

41a	During heavy downpour, the water level will rise causing the styrofoam covered in metal foil to rise and touch the contacts. A closed circuit is formed and current will flow through the alarm and it rings.	2
41b	Move the contacts of the circuit/ Ensure amount of the water at the start/ at X is greater. So that the styrofoam will need to only rise up a shorter distance to touch the contacts and close the circuit.	2

END