# Anglo-Chinese School (Junior)

**END-OF-YEAR EXAMINATION (2025)**

**PRIMARY 5**

**SCIENCE**

**BOOKLET A**

**Thursday** **30 October 2025** **1 hr 45 min**

Name: _____ (  ) Class: 5.(  )

**INSTRUCTIONS TO PUPILS**

1 Do not turn over this page until you are told to do so.

2 Follow all instructions carefully.

3 There are 30 questions in this booklet.

4 Answer all questions.

5 Use a 2B pencil to shade your answers on the Optical Answer Sheet (OAS).

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**This booklet paper consists of 18 printed pages.**

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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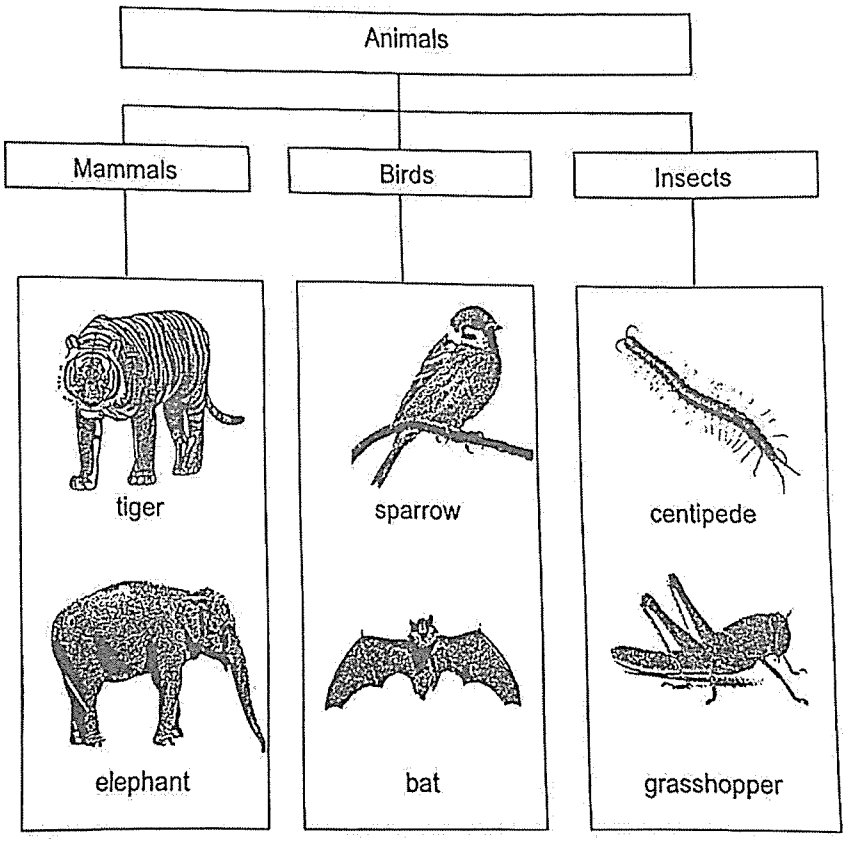
1. Which of the following characteristics is true for all living things?

   (1) They can make their own food.
   (2) They give birth to their young alive.
   (3) They need air, food and water to survive.
   (4) They can move from place to place by themselves.

2. Study the classification chart.




Which of the following two animals are placed in the **incorrect** group?

(1) tiger and bat
(2) bat and centipede
(3) centipede and sparrow
(4) elephant and grasshopper

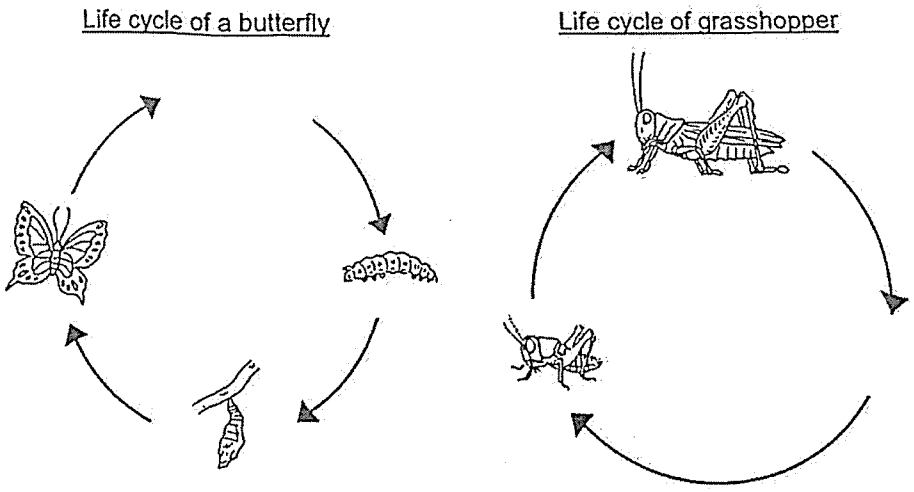
3. The table shows the different characteristics of living things, X, Y and Z.
A tick (✓) shows that the living thing has that characteristic.

| Characteristic | X | Y | Z |
|---|---|---|---|
| Able to make food | | ✓ | |
| Reproduce by spores | | ✓ | |
| Can be used to make bread | ✓ | | |
| Can only be seen with a microscope | ✓ | | ✓ |

Which of the following correctly represents X, Y and Z?

| | X | Y | Z |
|---|---|---|---|
| (1) | bacteria | mould | yeast |
| (2) | yeast | fern | bacteria |
| (3) | bacteria | fern | mould |
| (4) | yeast | mould | bacteria |

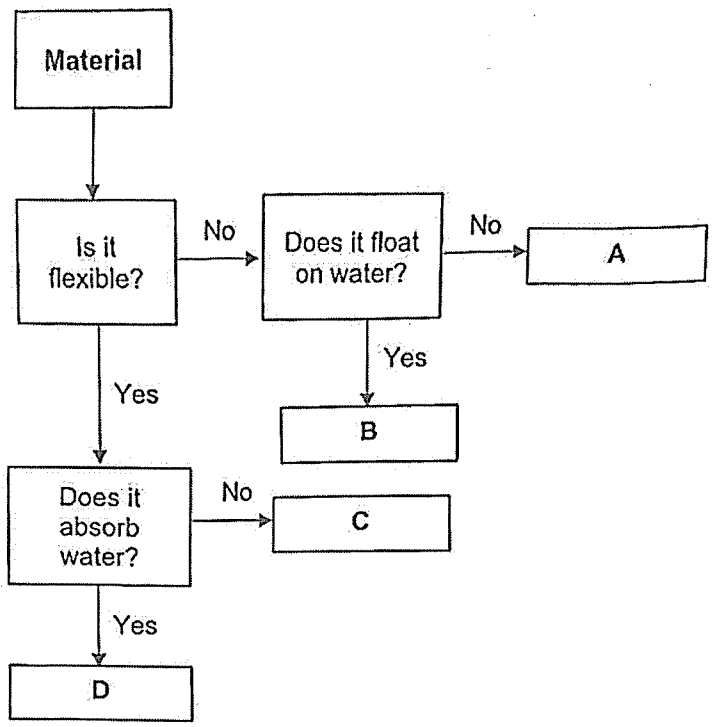
4. The diagram shows the life cycle of a butterfly and a grasshopper.



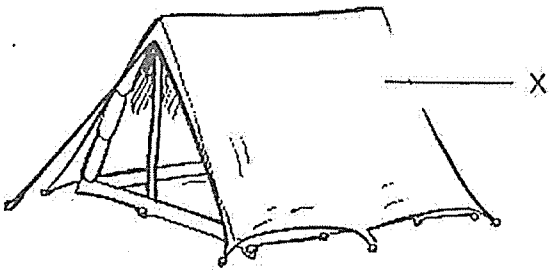

What is the similarity between the two life cycles?

(1) Both start with the egg stage.
(2) Both animals at the adult stage can fly.
(3) Both spend part of their life cycle in water.
(4) Both have the same number of stages in their life cycle.

5. Study the flowchart.

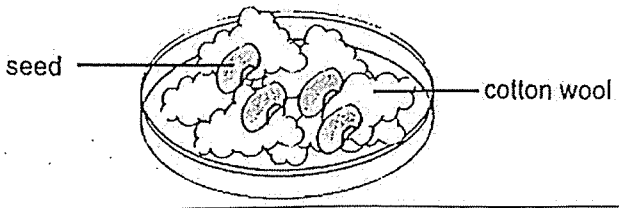



Which material, A, B, C or D, is most suitable for making part X of the camping tent shown?




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

6. Munirah conducted an experiment to find out if warmth is needed for seeds to germinate. The table shows the conditions of the four set-ups.

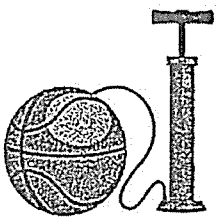



| Set-up | Conditions | |
|---|---|---|
| A | dry cotton wool | in the refrigerator |
| B | wet cotton wool | in the refrigerator |
| C | dry cotton wool | near the window |
| D | wet cotton wool | near the window |

Which two set-ups should Munirah use to carry out her experiment?

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

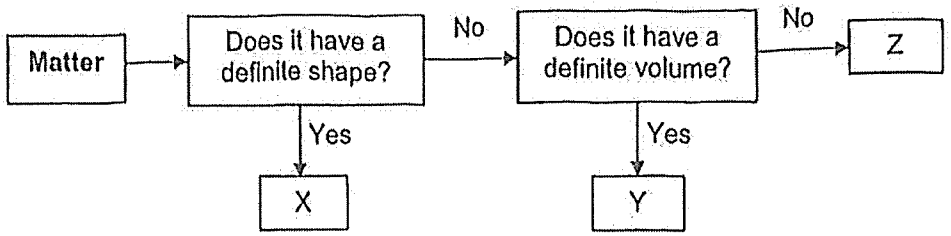
7. Lionel tried to pump more air into a fully inflated ball.



What would happen to the volume and mass of air in the ball if he were to pump another 50 $cm^3$ of air into the ball?

| | Volume of air | Mass of air |
|---|---|---|
| (1) | Increased | Increased |
| (2) | Increased | No change |
| (3) | No change | No change |
| (4) | No change | Increased |

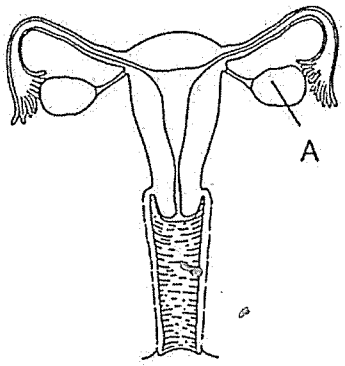
8. Study the flow chart.



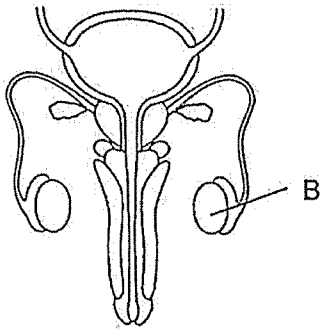

Which of the following most likely represent matter X, Y and Z?

| | X | Y | Z |
|---|---|---|---|
| (1) | eraser | milk | water vapour |
| (2) | milk | eraser | water vapour |
| (3) | eraser | water vapour | milk |
| (4) | water vapour | milk | eraser |

9. The diagrams show the human reproductive systems P and Q.




System P




System Q

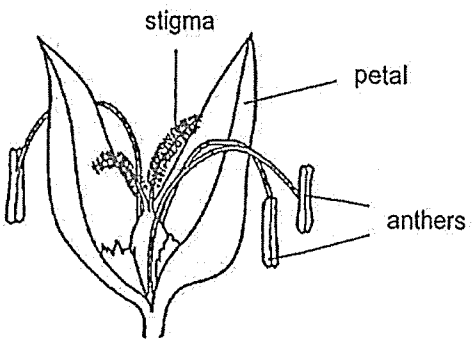
Which one of the following statements about the systems is correct?

(1) Baby develops at part A.
(2) Fertilisation occurs inside System Q.
(3) Parts A and B produce reproductive cells.
(4) Part B produces the female reproductive cells.

10. Which seed W, X, Y or Z is most likely dispersed by the splitting method?

| | Seed | Characteristics | | |
|---|---|---|---|---|
| (1) | W | Small | Light | It has hooks. |
| (2) | X | Small | Light | It has a wing-like structure. |
| (3) | Y | Small | Light | The fruit is hard and dry when ripe. |
| (4) | Z | Big | Heavy | The fruit has a fibrous husk. |

11. Hannah observed a flower and recorded her observation on her notepad as shown.




- flower has no scent
- some pollen grains found on stigma
- anthers dangling outside the petals

Based on her observations, which two of the following inferences could Hannah make?

A The flower is dying.
B Pollination has taken place.
C The flower is pollinated by wind.
D The flower is pollinated by insects.

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

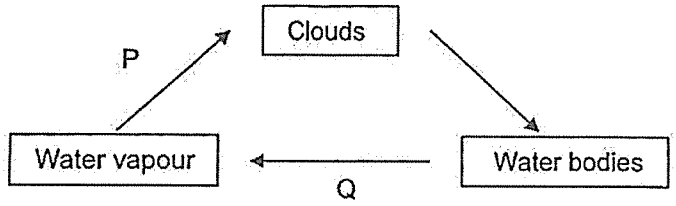
12. The table shows the boiling and melting points of three substances, A, B and C.

| Substances | Melting Point (°C) | Boiling Point (°C) | State of substance at room temperature (25°C) |
|---|---|---|---|
| A | 10 | 30 | X |
| B | 5 | 60 | Y |
| C | 1 | 20 | Z |

Based on the table, which one of the following best describes X, Y and Z?

| | X | Y | Z |
|---|---|---|---|
| (1) | Liquid | Liquid | Gas |
| (2) | Liquid | Solid | Gas |
| (3) | Gas | Solid | Solid |
| (4) | Solid | Gas | Liquid |

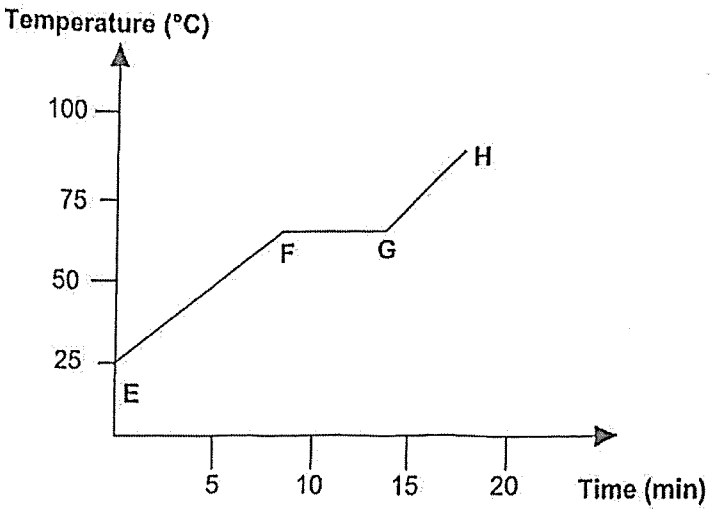
13. The diagram shows the processes that take place in the water cycle.




What are the processes, P and Q?

| | P | Q |
|---|---|---|
| (1) | Evaporation | Evaporation |
| (2) | Evaporation | Condensation |
| (3) | Condensation | Evaporation |
| (4) | Condensation | Condensation |

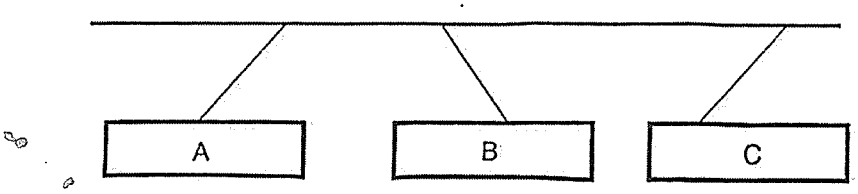
14. The graph shows the change in temperature of substance M as it is being heated under a flame for 20 minutes.




Which part(s) of the graph show(s) that substance M is melting?

(1) EF
(2) FG
(3) GH
(4) EF and GH

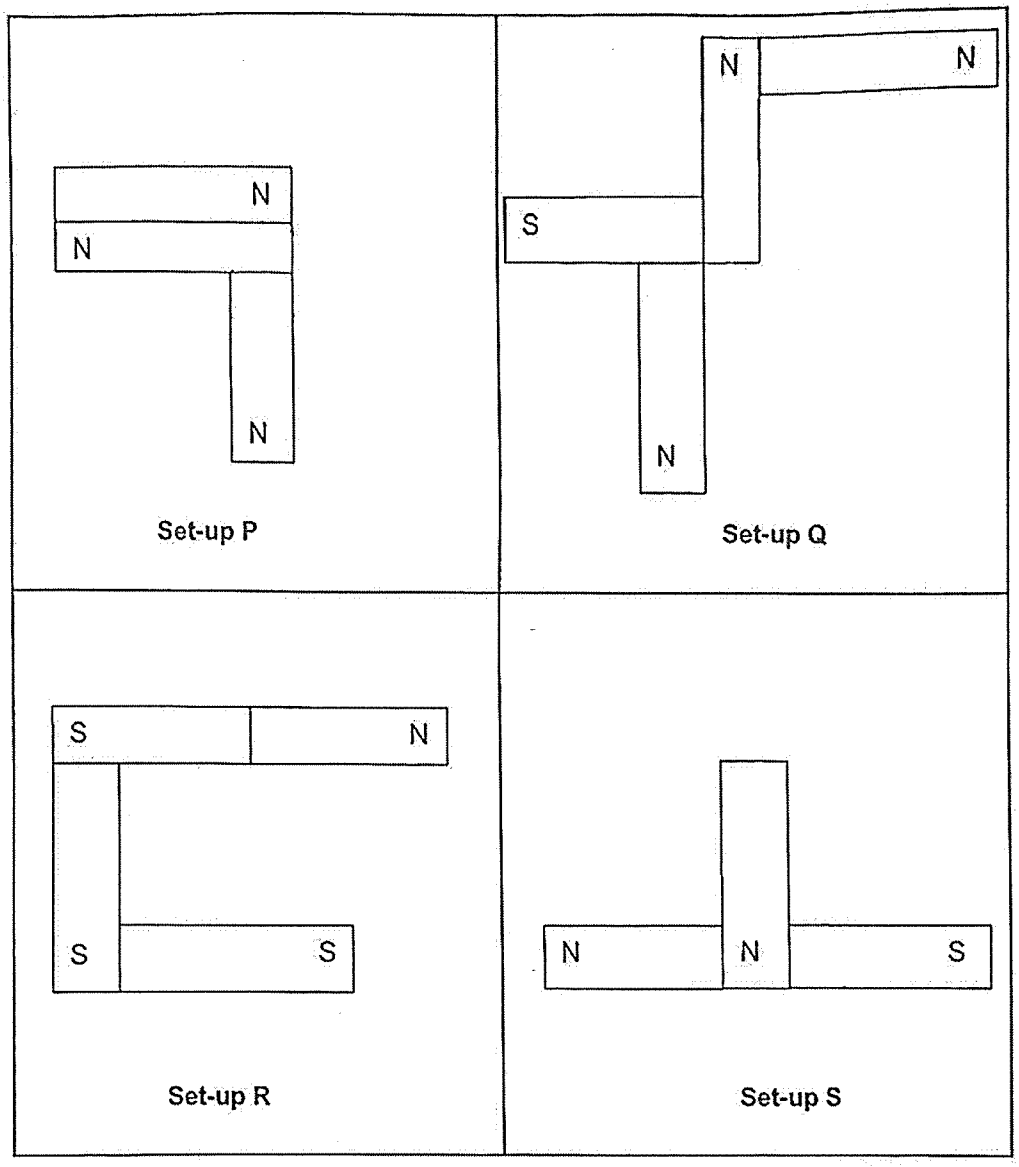
15. The diagram shows how some objects interacted with one another.




Which one of the following best represents objects A, B and C?

| | A | B | C |
|---|---|---|---|
| (1) | magnet | iron nail | magnet |
| (2) | iron nail | steel bar | steel pin |
| (3) | magnet | magnet | steel bar |
| (4) | iron nail | steel pin | magnet |

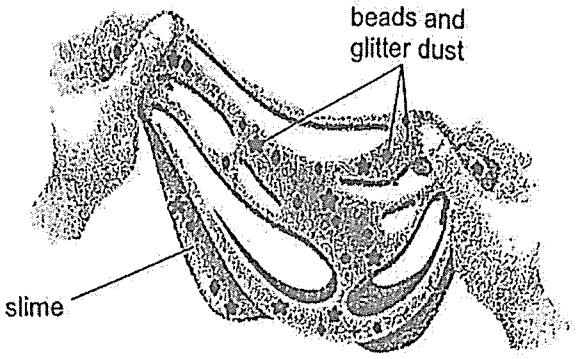
16. The diagrams show the arrangements of some bar magnets.




Which set-ups are **not** possible?

(1) P and Q
(2) P and S
(3) Q and R
(4) R and S

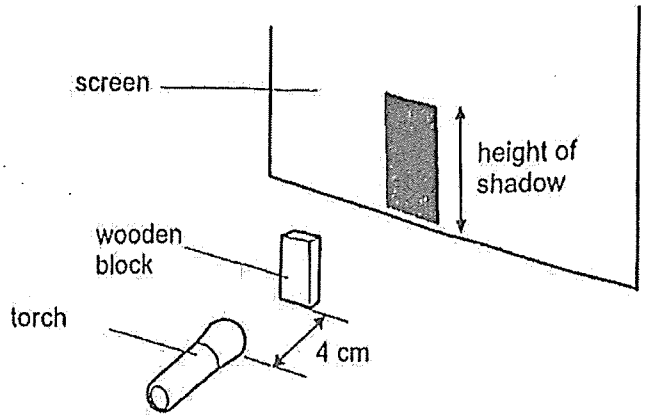
17. Sharon played with some slime as shown. She can see the beads and glitter dust inside the slime.




Which of the following shows the correct properties of the slime?

| | allows light to pass through | reflects light |
|---|---|---|
| (1) | No | Yes |
| (2) | No | No |
| (3) | Yes | No |
| (4) | Yes | Yes |

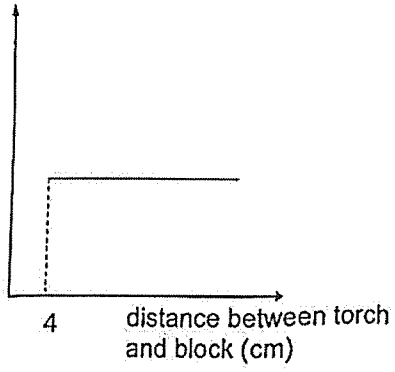
18. A wooden block is placed 4 cm from a torch.



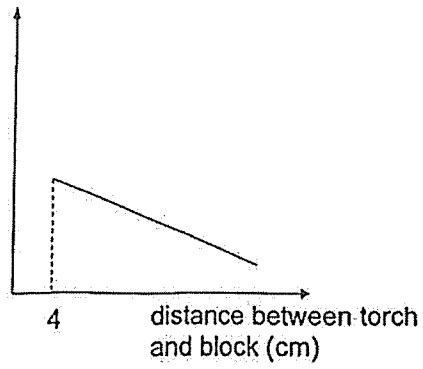

The wooden block is then moved towards the screen.

Which graph shows how the height of the shadow changes as the distance between the torch and the wooden block increases?

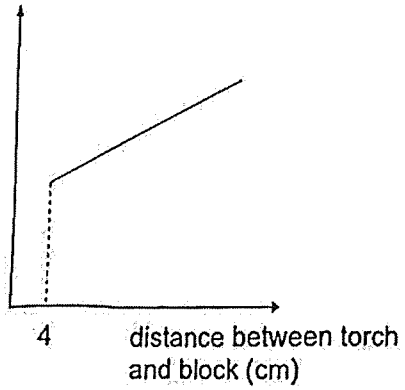
(1) height of shadow (cm)



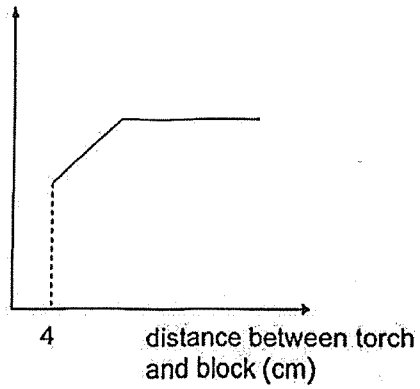

(3) height of shadow (cm)



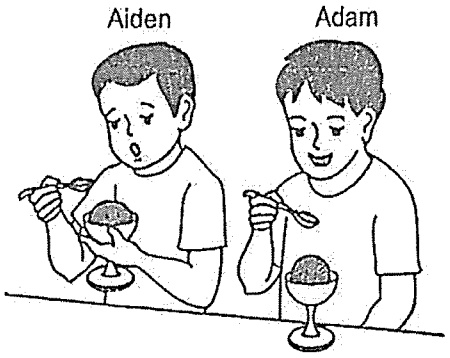

(2) height of shadow (cm)




(4) height of shadow (cm)



19. Aiden and Adam were each given an identical scoop of ice cream in identical cups at the same time at a restaurant, as shown. Aiden's ice cream soon began to melt.




Which statement explains why Aiden's ice cream is melting faster than Adam's?

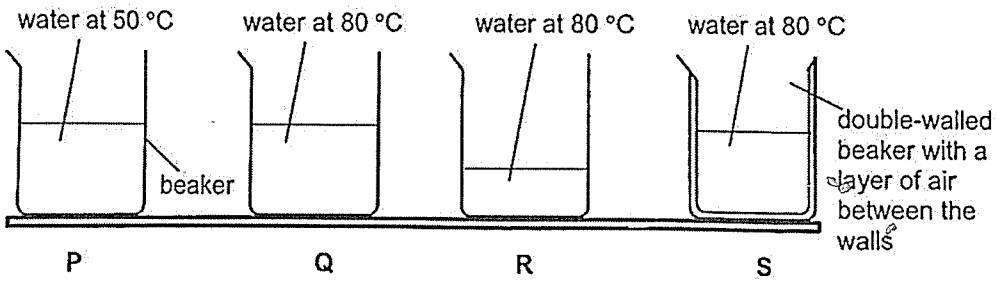
(1) Aiden's ice cream had a larger exposed surface area.

(2) Aiden's ice cream was gaining more heat from the cup.

(3) Aiden's ice cream was losing more heat than Adam's ice cream.

(4) Temperature of Aiden's ice cream was lower than the surroundings.

20. Four beakers of water at 30 °C were heated with identical Bunsen burners. The picture shows the temperature of water after they were heated.




Which beaker of water took the longest time to reach the temperature shown?

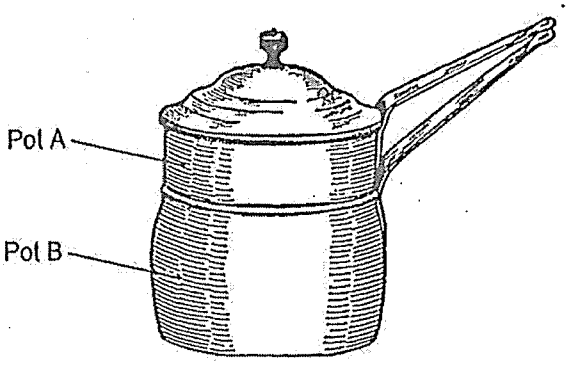
(1) P

(2) Q

(3) R

(4) S

21. Two metal pots which were stacked together got stuck after a while.




What can be done to separate the metal pots?

A Place pot B over the fire.

B Pour hot water into pot A.

C Pour cold water into pot A.

D Place pot B in a tub of cold water.

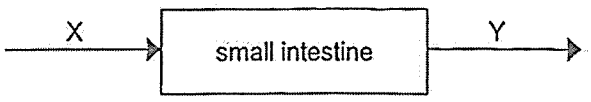
(1) A only

(2) A and C only

(3) B and D only

(4) C and D only

22. The diagram represents the flow of blood towards and away from the small intestine through blood vessels X and Y.




Which of the following shows the **incorrect** amount of substances in the blood at X and Y?

| | X | |
|---|---|---|
| (1) | More oxygen | Less oxygen |
| (2) | More waste materials | Less waste materials |
| (3) | Less carbon dioxide | More carbon dioxide |
| (4) | Less digested food | More digested food |

23. The table shows the types of gases in air that are taken in and given out by a human.

| Gas | Air taken in (%) | Air given out (%) |
|---|---|---|
| carbon dioxide | less than 1 | 4 |
| nitrogen | 78 | 78 |
| oxygen | 21 | 16 |
| water vapour | less than 1 | 2 |

Based on the information given, which statement is not correct?

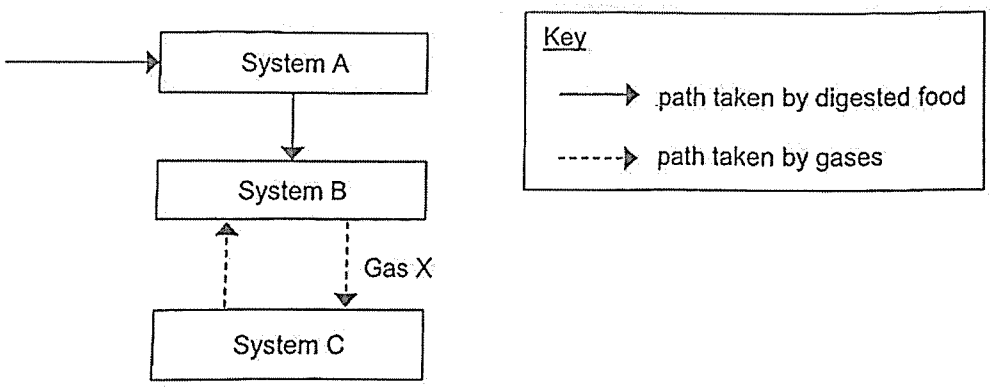
(1) Water is lost through breathing.

(2) Not all the oxygen that enters the lungs goes into the blood.

(3) Carbon dioxide produced by the body is released into the air.

(4) Only three types of gases enter the human respiratory system

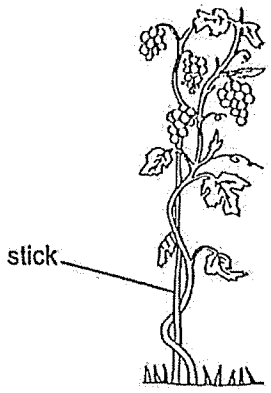
24. The diagram shows how digested food and various gases are transported in the human body.




Which systems do A, B and C represent and what is gas X?

| | System A | System B | System C | Gas X |
|---|---|---|---|---|
| (1) | circulatory | respiratory | digestive | oxygen |
| (2) | digestive | circulatory | respiratory | oxygen |
| (3) | digestive | circulatory | respiratory | carbon dioxide |
| (4) | circulatory | digestive | respiratory | carbon dioxide |

25. Study the plant.

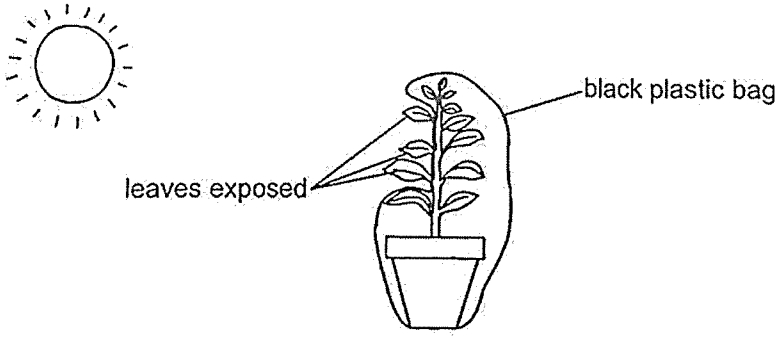



Which statement(s) is/are true about the plant?

A It has a weak stem
B It does not have roots.
C It reproduces by seeds
D It has smooth edged leaves.

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

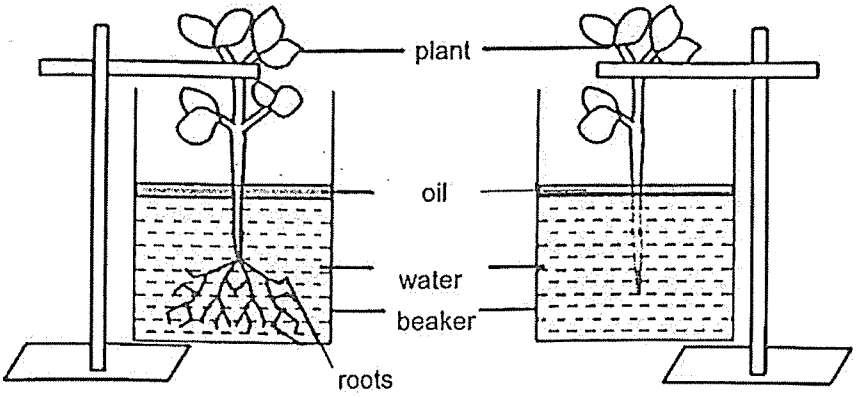
26. Ali wrapped and tied a black plastic bag around part of a plant as shown.




Food produced by the exposed leaves is transported _____(A)_____ by _____(B)_____.

| | (A) | (B) |
|---|---|---|
| (1) | upwards only | water-carrying tubes |
| (2) | downwards only | food-carrying tubes |
| (3) | upwards and downwards | food-carrying tubes |
| (4) | downwards only | both water and food-carrying tubes |

27. Aaron set up an experiment as shown to find out whether plants take in water through their roots.




Set-up W Set-up Y

Aaron's teacher commented that the experiment is not a fair one. Which of following explains why the teacher said so?

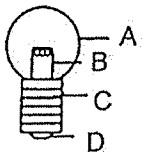
(1) Set-up Y should not have oil.

(2) Both the set-ups should use different types of plants.

(3) Both the plants should have the same number of leaves.

(4) Plants in both set-ups should have the same amount of roots.

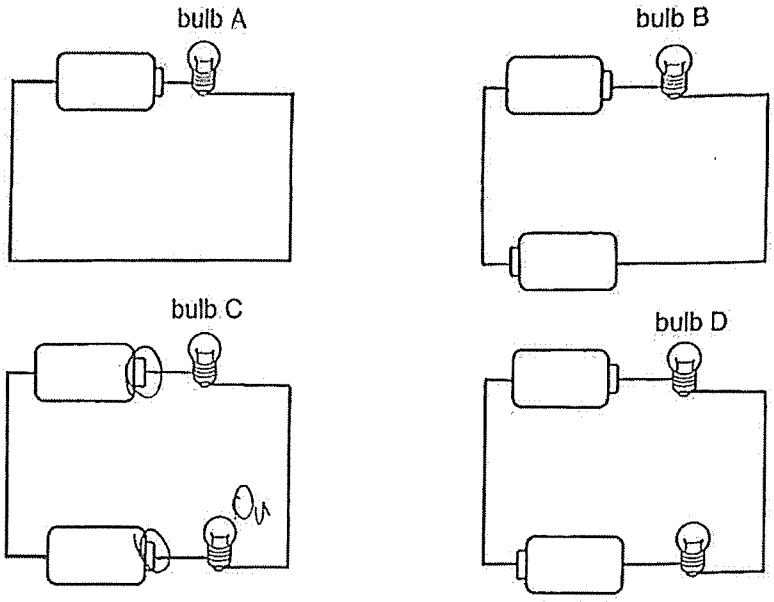
28. Andy was given a light bulb as shown.




Which of the following shows the correct classification of the parts labelled A to D?

| | Insulator | Conductor |
|---|---|---|
| (1) | A | B, C and D |
| (2) | A and B | C and D |
| (3) | C and D | A and B |
| (4) | B, C and D | A |

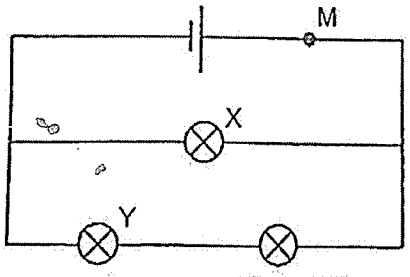
29. Study the circuits. All the bulbs and batteries are new and identical.



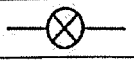

Which of the following two bulbs have the same brightness?

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

30. Study the circuit as shown.




Which of the following components, when added at M, causes the correct change in brightness of bulbs X and Y?

| | Component added at M | Brightness of X | Brightness of Y |
|---|---|---|---|
| (1) |  | Increase | Remain the same |
| (2) |  | Increase | Increase |
| (3) |  | Decrease | Decrease |
| (4) |  | Increase | Remain the same |

**End of Booklet A**

# Anglo-Chinese School (Junior)

END-OF-YEAR EXAMINATION (2025)

PRIMARY 5

SCIENCE

BOOKLET B

**Thursday** **30 October 2025** **1 hr 45 min**

Name: _____ (  ) Class: 5.(  ) Parent's Signature:_____

**INSTRUCTIONS TO PUPILS**

1 Do not turn over this page until you are told to do so.

2 Follow all instructions carefully.

3 There are 11 questions in this booklet.

4 Answer all questions.

5 The marks are given in the brackets [ ] at the end of each question or part question.

| Booklet | Possible Marks | Marks Obtained |
|---|---|---|
| A | 60 | |
| B | 40 | |
| Total | 100 | |

**This booklet consists of 14 printed pages.**

For questions 31 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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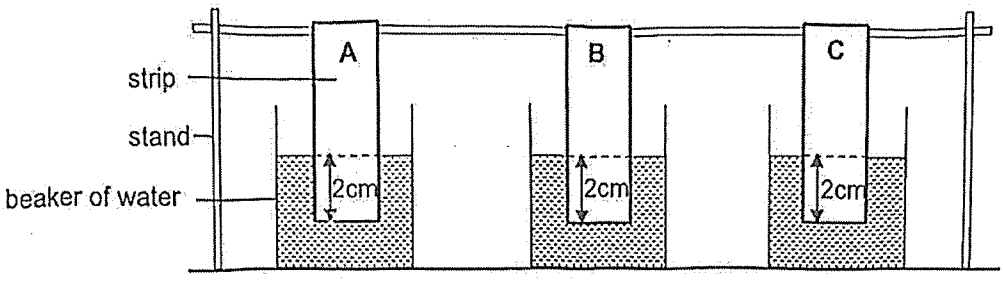
31. Alia set up an experiment with three strips of similar size but made of different materials, A, B and C as shown.




Her results are shown in the table below.

| Material | Volume of water in the beaker (ml) | |
|---|---|---|
| | At the start | After five minutes |
| A | 200 | 130 |
| B | 200 | 200 |
| C | 200 | 100 |

(a) Arrange the materials, A, B and C, starting from the one that is most absorbent. [1]

most _____ , _____ , _____

(b) Alia chose material B to make a raincoat. Explain her choice based on the results and the property of material. [2]

_____

_____

(Go on to the next page)

SCORE / 3

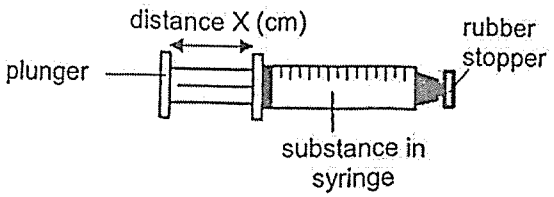
32. (a) Classify the following into matter and non-matter. [1]

| | | |
|---|---|---|
| oxygen | sand | light |

| Matter | Non-matter |
|---|---|
| | |

Amy filled two identical syringes with substances P and Q. She put an equal volume of each substance into each syringe.

She then pushed the plunger in as far as she could and measured distance X as shown.




Amy recorded her results in the table.

| Substance | Distance X (cm) | |
|---|---|---|
| | Before pushing plunger | After pushing plunger |
| P | 8 | 8 |
| Q | 8 | 2 |

(b) Which substance, P or Q is likely to be a gas? Explain your answer. [2]

_____

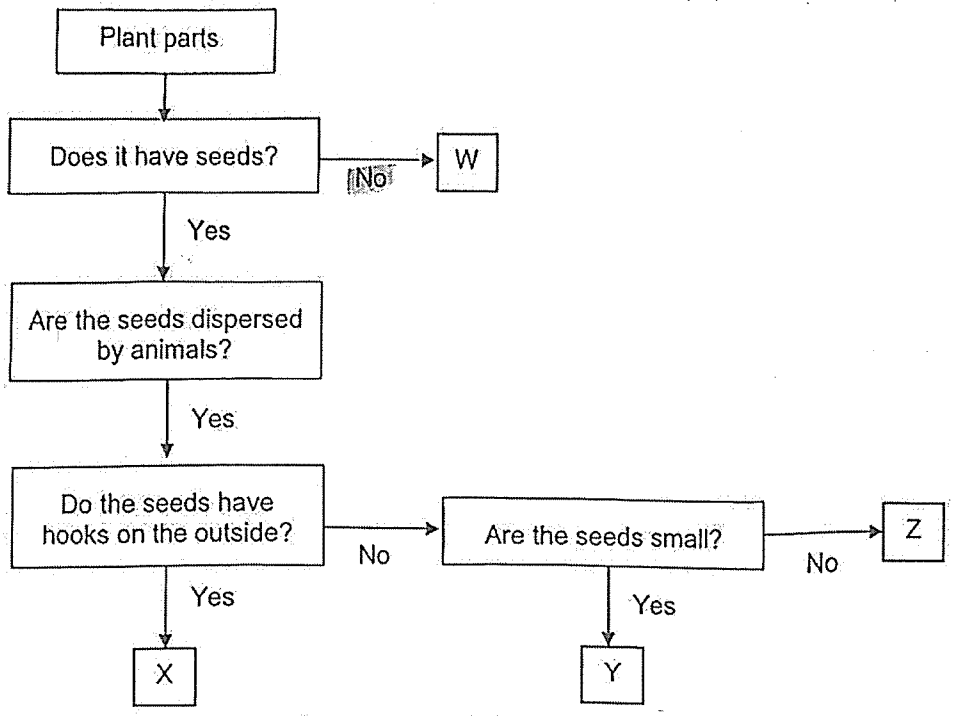
_____

(Go on to the next page)

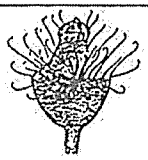


| SCORE | / 3 |
|---|---|

33. Study the flowchart shown.




(a) Based on the chart above and the diagram of the plant parts below, write the letters W, X, Y or Z in the boxes below. [2]

| Plant part | Letter |
|---|---|
|  | |
|  | |
|  | |
|  | |

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SCORE 2

(b) State one characteristic of Z that enables it to be dispersed by animals. [1]

_____

(c) Describe how X is dispersed by animals. [1]

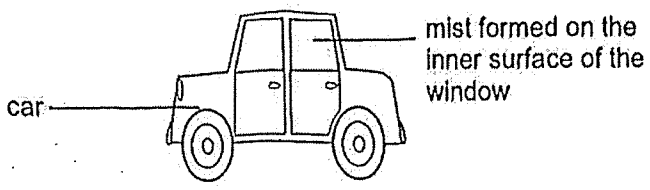
_____

_____

(Go on to the next page)

| SCORE | |
|---|---|
| | 2 |

34. Ben was driving a car along the road. He noticed that the windows of his car had become misty. The temperature of the surrounding air outside the car was 10 °C and the temperature inside the car was 26 °C.




(a) Name the state of mist. [1]

_____

(b) Explain how the mist was formed. [2]

_____

_____

_____

(c) How will the amount of mist formed change when he decreased the temperature in the car? Explain why. [1]

_____

_____

(d) Ben stopped the car and wound down only one of the car windows. After some time, the mist disappeared.

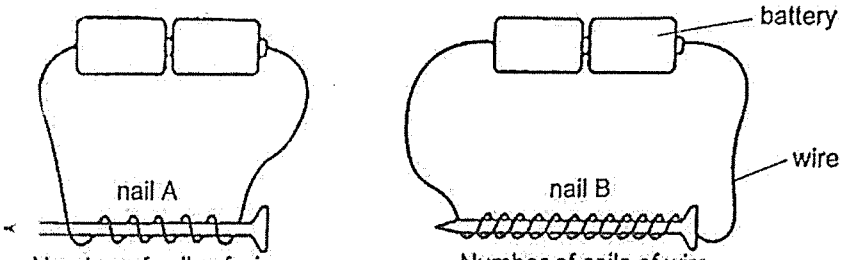
Name the process that caused the mist to disappear. [1]

_____

(Go on to the next page)

| SCORE | / 5 |
|---|---|

35. Brenda conducted an experiment using identical nails A and B, and new identical batteries as shown.




Number of coils of wire around the nail: 5

Number of coils of wire around the nail: 12

She recorded the number of steel pins attracted to the nails in the table.

| Nail | Number of steel pins attracted |
|---|---|
| A | 7 |
| B | 15 |

(a) State the aim of her experiment. [1]

_____

_____

(b) Brenda made two changes to the set-up with nail A to find out how the number of batteries affects the number of steel pins attracted. State the two changes she made. [2]

Change 1:

_____

_____

Change 2:

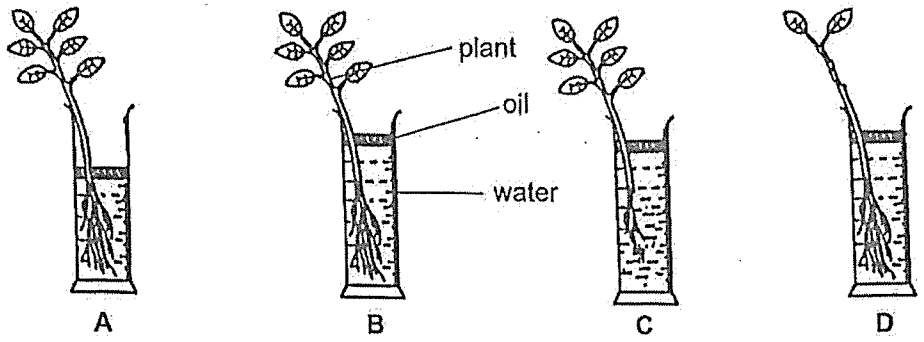
_____

_____

(Go on to the next page)

| SCORE | / 3 |
|---|---|

36. Ahmad wanted to find out how the number of leaves affects the volume of tap water taken in by the roots of the plant. He prepared four set-ups, A, B, C, and D, with the same plant in identical jars, each containing the same volume of oil on the surface as shown.




He measured the amount of water left in each jar after a week.

(a) Which two set-ups, A, B, C or D, should Ahmad compare to conclude his experiment? Explain your answer. [1]

_____

_____

(b) State another variable that Ahmad needs to keep constant for the set-ups chosen in (a) to ensure a fair test. [1]

_____

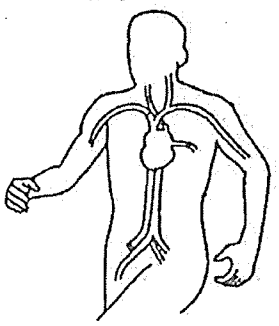
(c) State another function of the roots that is not shown in this experiment. [1]

_____

(Go on to the next page)

| SCORE | / 3 |
|---|---|

37. The diagram shows a human body system.



(a) Identify the system and state the function of the system. [1]

_____

_____

(b) Name two parts of this system. [1]

_____

(c) Describe how the respiratory system works together with the above system to supply oxygen to all parts of our body. [2]

_____

_____

_____

_____

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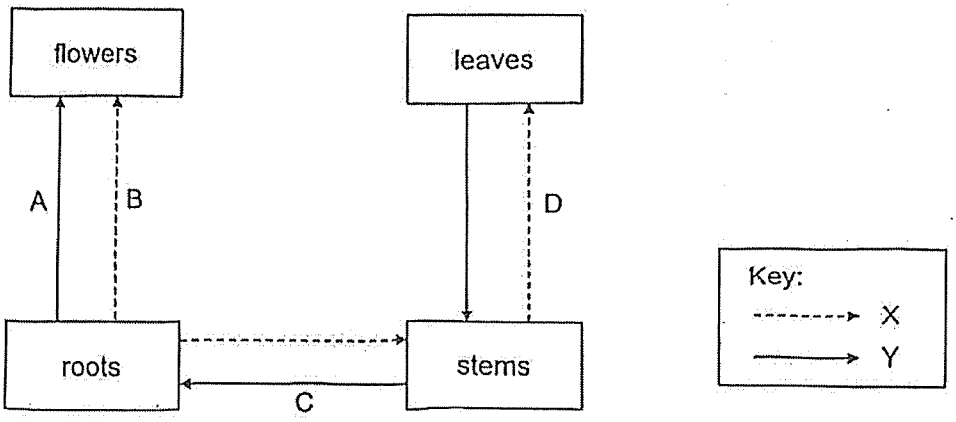
| SCORE | / 4 |
|---|---|

38. The diagram shows how substances are transported in a plant. The arrows represent the movement of substances X and Y.




(a) Which two arrows, A, B, C or D, are wrongly drawn? [1]

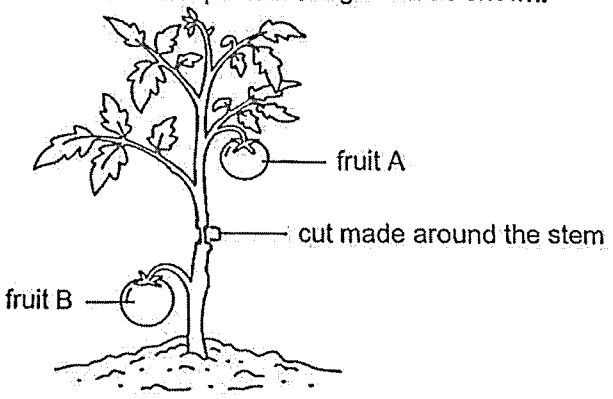
_____

(b) Identify substances X and Y. [1]

X: _____

Y: _____

(c) Agnes made a cut around the stem of a plant in the garden as shown.




She watered the plant daily. After some weeks, she found that fruit A was much bigger in size than fruit B. Explain her observation. [2]

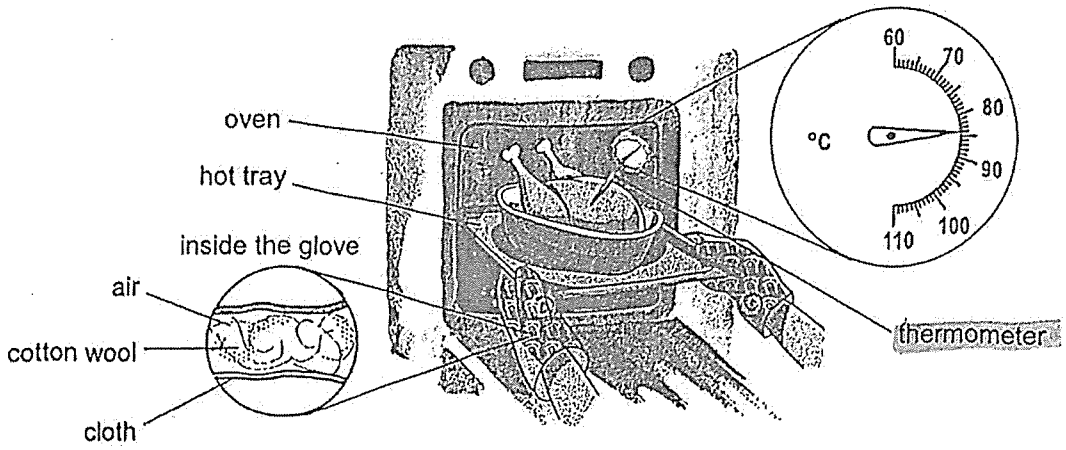
_____

_____

(Go on to the next page)

| SCORE | / 4 |
|---|---|

39. Alyssa prepared a chicken at room temperature and heated the oven to 180 °C. She placed the chicken in the oven to cook. After the chicken was cooked for one hour, she inserted a thermometer into the chicken to check the temperature as shown.




(a) State the temperature shown on the thermometer. [1]

_____

(b) State why the temperature of the chicken is not 180 °C even after one hour in the oven. [1]

_____

(c) Alyssa wore oven gloves to remove the hot tray from the oven at 180 °C. Explain how the gloves protected Alyssa's hand from being burnt. [2]

_____

_____

_____

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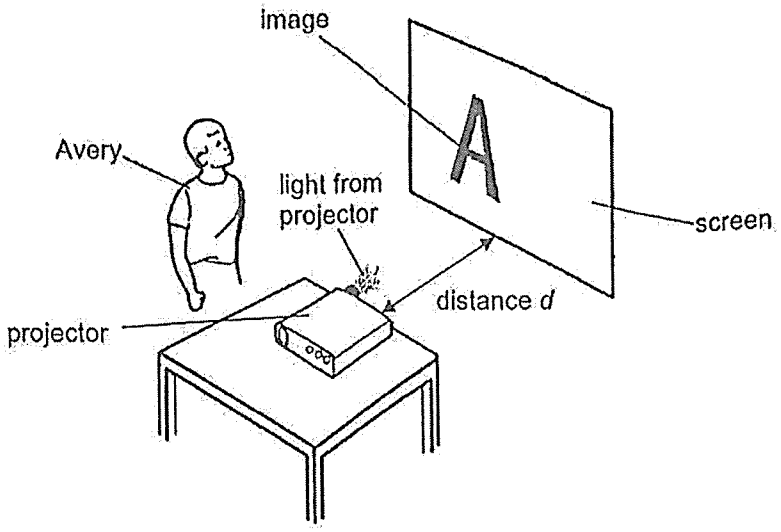
| SCORE | 2 / 4 |
|---|---|

40. A projector projects an image on the screen in a dark room as shown.




Avery moved the projector away from the screen at different distances and recorded the height of the image in the table.

| Distance *d* (cm) | Height of image (cm) |
|---|---|
| 60 | 16 |
| 90 | 30 |
| 120 | 44 |

(a) State the effect of increasing distance *d* on the height of image on the screen. [1]

_____

(b) State a property that the screen must have for the image to be projected on it. [1]

_____

(c) Explain how Avery is able to see the image on the screen. [1]

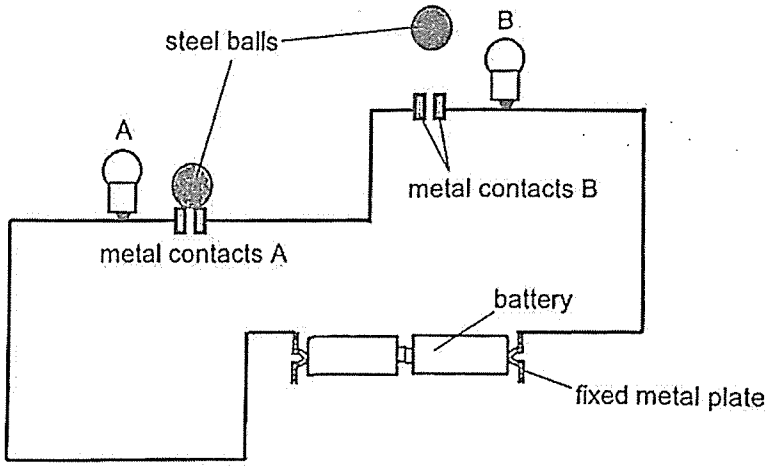
_____

_____

(Go on to the next page)

SCORE ___/3

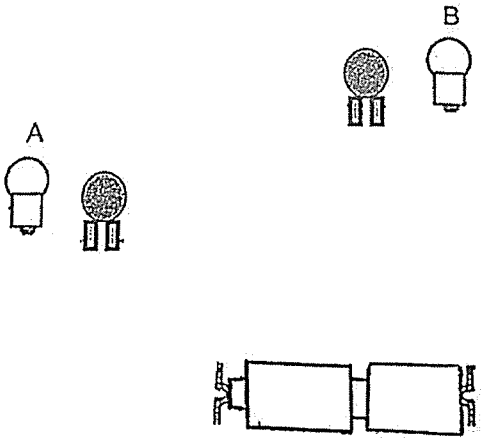
41. Aditya set up the circuit in a toy using identical bulbs and batteries as shown. The circuit components were in working condition.
When the steel balls are placed on the metal contacts, both bulbs A and B should light up.




However, when the steel balls were on the metal contacts, the bulbs did not light up.

(a) Use a pencil to complete the circuit below. [3]

- Correct the mistake(s) by drawing the two batteries and wires
- Connect the bulbs such that if one bulb fuses the other remains lit

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| SCORE | |
|---|---|
| | 3 |

(b) Aditya replaced the steel balls with two similar-sized plastic balls. State what he would observe about the bulbs. Explain your answer. [1]

_____

_____

**End of Paper**



| SCORE | / 1 |
|---|---|

ACS(J) P5 EOYE 2025 Suggested Answers
Booklet A

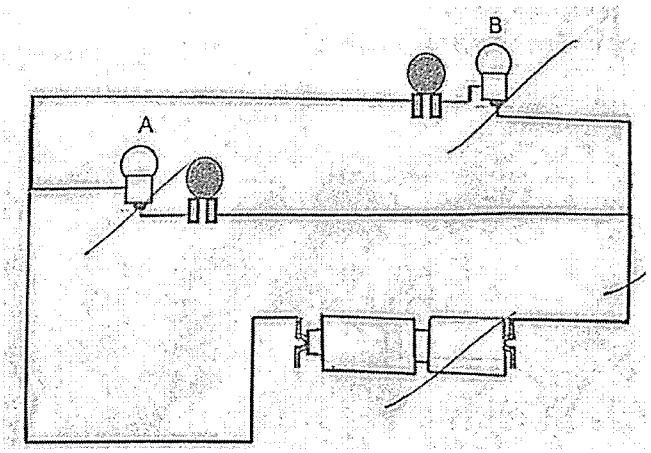
| | | | | | |
|---|---|---|---|---|---|
| Q1 | 3 | Q11 | 3 | Q21 | 2 |
| Q2 | 2 | Q12 | 1 | Q22 | 2 |
| Q3 | 2 | Q13 | 3 | Q23 | 4 |
| Q4 | 2 | Q14 | 2 | Q24 | 3 |
| Q5 | 3 | Q15 | 3 | Q25 | 2 |
| Q6 | 4 | Q16 | 2 | Q26 | 3 |
| Q7 | 4 | Q17 | 4 | Q27 | 3 |
| Q8 | 1 | Q18 | 3 | Q28 | 1 |
| Q9 | 3 | Q19 | 2 | Q29 | 2 |
| Q10 | 3 | Q20 | 4 | Q30 | 3 |

Booklet B

| No. | Suggested Answers | | Remarks |
|---|---|---|---|
| 31a | C, A, B | | |
| 31b | Claim: | B | |
| | Evidence: | The volume of water in the beaker after five minutes is the most and remained unchanged. | |
| | Reason: | B is waterproof and does not absorb any water. | |
| | Link: | The raincoat can keep the user dry. | |
| | | | |
| 32a | Matter | Oxygen, Sand | |
| | Non-matter | Light | |
| 32bi | Claim: | Q | |
| | Evidence: | Distance X decreases for substance Q after pushing the plunger but remains the same for P. | |

| | | | |
|---|---|---|---|
| | Reason: | Q can be compressed but not P. | |
| | Link: | Only gas can be compressed. | |
| | | | |
| 33a | X<br>Y<br>Z<br>W | | |
| 33b | It is sweet and juicy. | | |
| 33c | When an animal passes through X, its hook-like structure clings onto the animal's fur/hair. When the animal moves further away from the parent plant, X drops and is dispersed further away from the parent plant. | | |
| | | | |
| 34a | Liquid | | |
| 34b | The warmer water vapour in the car comes into contact with the cooler inner surface of the window, loses heat and condenses into water droplets that appear as mist. | | |
| 34c | The amount of mist formed will decrease. The temperature difference between the water vapour and the inner surface of the window will decrease so less water vapour will condense slower, forming less mist. | | |
| 34d | Evaporation | | |
| | | | |
| 35a | She wants to find out how the number of coils of wire around the nail affects the number of steel pins attracted. | | |
| 35b | Increase the number of coils of wire around the nail to 12.<br><br>Add more batteries (connected in series) | | |
| | | | |
| 36a | Set-ups B and D. There is only one changed variable, number of leaves, the rest of the variables | | |

| | | |
|---|---|---|
| | are kept the same. | |
| 36b | The amount of light exposed to the plants in set-ups B and D. | |
| 36c | The roots hold the plant firmly to the ground. | |
| | | |
| 37a | Circulatory system. It transports digested food and oxygen through the blood to all parts of the body. It transports carbon dioxide through the blood away from the body for removal. | |
| 37b | Blood vessels, Heart | **Do Not Accept**<br>Blood |
| 37c | **1st Marking Point: Respiratory System**<br>The nose in the respiratory system takes in air containing oxygen from the surrounding. The air moves down the windpipe and into the lungs where gaseous exchange takes place and oxygen is absorbed into the bloodstream.<br><br>**2nd Marking Point: Circulator System**<br>The oxygenated blood then flows to the heart where it pumps the blood to all parts of the body. | |
| | | |
| 38a | A and B | |
| 38b | X: Water<br>Y: Food | |
| 38c | The food made by the leaves could not be transported to fruit B as the food-carrying tubes were removed. More food is then transported to fruit A and more food stored in the fruit A. | |
| | | |
| 39a | 84℃ | |
| 39b | The chicken is a poor conductor of heat and heat flows slowly to the chicken. | |
| 39c | The air, cotton wool and cloth are poor conductors of heat. Her hands gained heat from the hot tray slower and are not burnt. | |

| | | |
|---|---|---|
| | | |
| 40a | The height of the image on the screen increases. | |
| 40b | Opaque | |
| 40c | Light from the projector is reflected off the screen and into Avery's eyes. | |
| | | |
| 41a |  | |
| 41b | The bulbs would not light up. Plastic is an electrical insulator so there is an open circuit where electric current cannot flow through the bulbs. | |