# CATHOLIC HIGH SCHOOL

## END-OF-YEAR EXAMINATION (2024)

## PRIMARY THREE

## SCIENCE

## BOOKLET A

Name: _____ (  )

Class: Primary 3 - _____

Date: 24 October 2024

24 questions

48 marks

Total Time for Booklets A and B: 1 hour 30 minutes

**INSTRUCTIONS TO CANDIDATES**

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Shade your answers in the Optical Answer Sheet (OAS) provided.

This booklet consists of 15 printed pages, excluding the cover page.

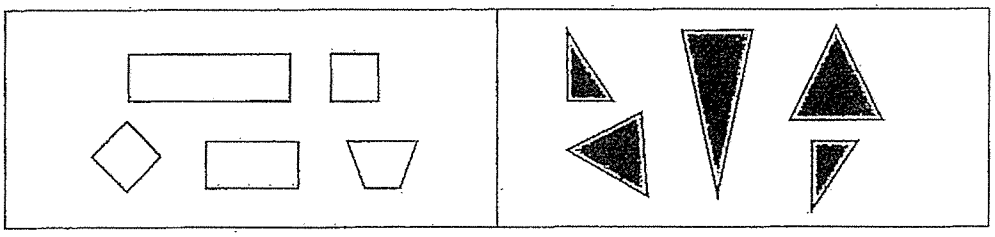
**Booklet A** (24 × 2 marks)

For each question from 1 to 24, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade your answer on the Optical Answer Sheet. (48 marks)

1 Which is a characteristic of all living things?

(1) They feed on plants.
(2) They need sunlight to grow.
(3) They reproduce by laying eggs.
(4) They can grow from young to adult.

2 Study the diagram.

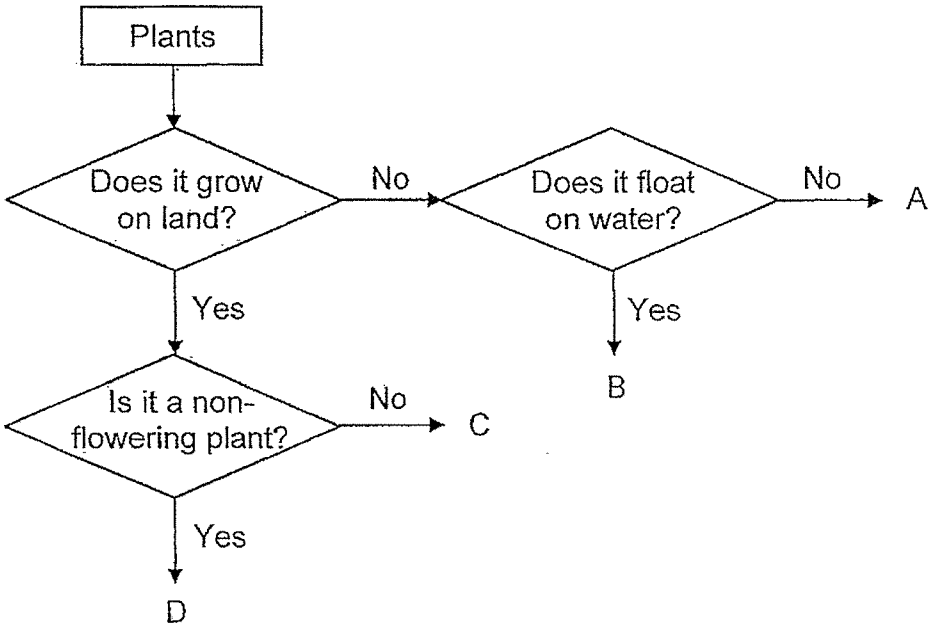


The objects are classified according to their _____.

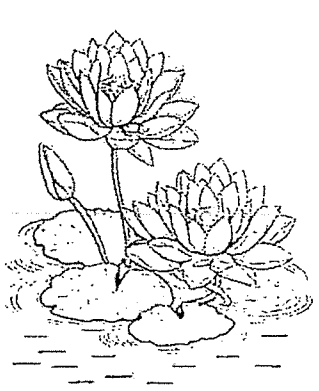
A sizes
B colours
C number of sides

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

3 Study the diagram.




Which letters, A, B, C or D, represent the water lily and the hibiscus plant?



water lily

hibiscus plant

| | Water lily | Hibiscus plant |
|---|---|---|
| (1) | A | C |
| (2) | A | D |
| (3) | B | C |
| (4) | B | D |

4 Jennifer made the following statements about an insect and a reptile.

A Both breathe through gills.

B Both have hair on their bodies.

C Both reproduce by laying eggs.

D Both have two pairs of wings each.

Which statement(s) about the insect and the reptile is/are correct?

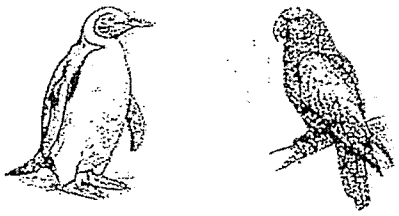
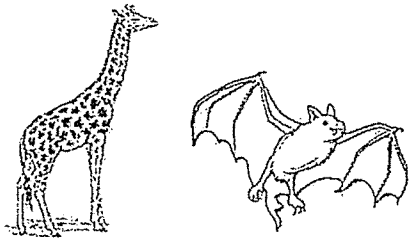
(1) A only

(2) C only

(3) A and C only

(4) B and D only

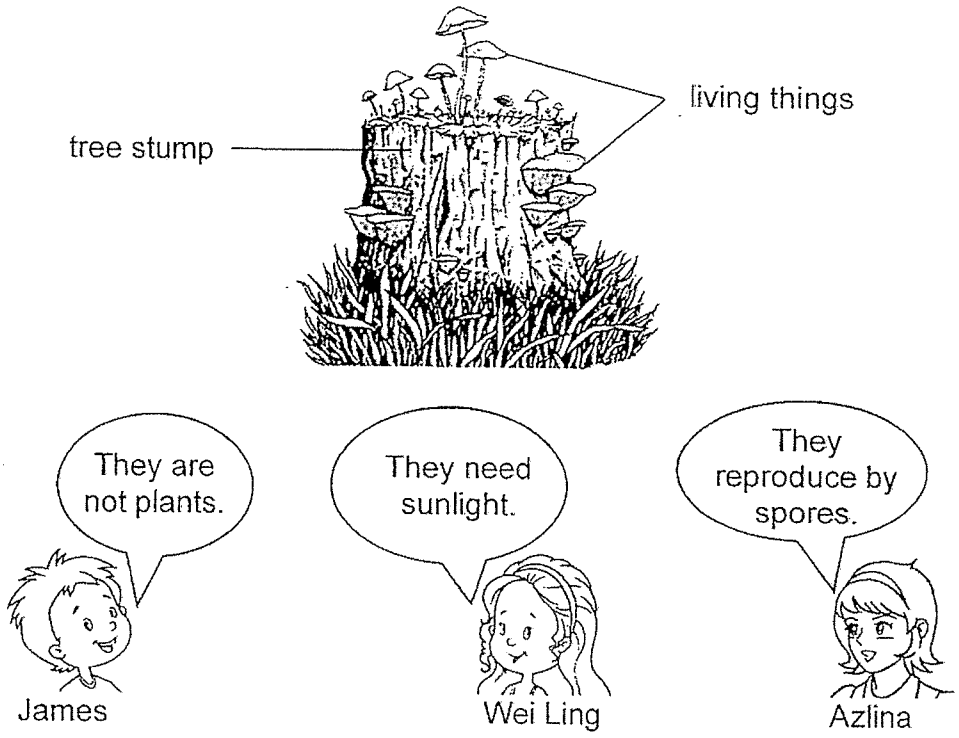
5 Study the two groups of animals.

| Group G | Group H |
|---|---|
|  |  |

Which of the following correctly describes animal groups G and H?

| | Group | Has feathers | Has hair | Lays eggs |
|---|---|---|---|---|
| (1) | H | yes | no | no |
| (2) | H | no | yes | yes |
| (3) | G | yes | no | yes |
| (4) | G | no | yes | no |

6 Three pupils found some living things growing on a tree stump.



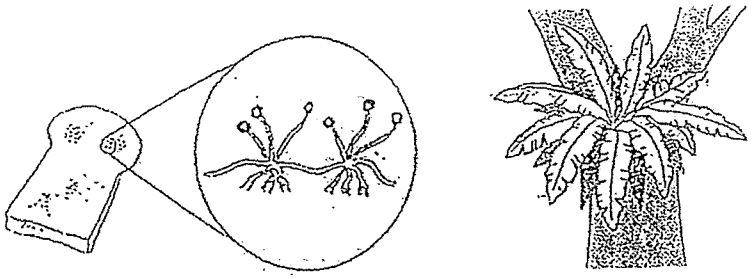

Which pupil(s) was/were correct?

(1) Azlina only
(2) Wei Ling only
(3) Azlina and James only
(4) Azlina and Wei Ling only

7 Which statement about bacteria is **not** correct?

(1) Bacteria can make its own food.
(2) Some bacteria can be useful to our body.
(3) Some bacteria can grow on our food and spoil it.
(4) Bacteria can only be seen through a microscope.

8 Study the diagrams.



bread mould fern

How are the living things shown above similar?

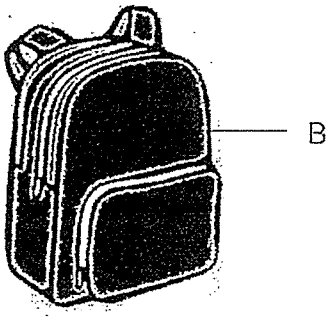
(1) Both make their own food.

(2) Both reproduce by spores.

(3) Both are non-flowering plants.

(4) Both feed on other living things.

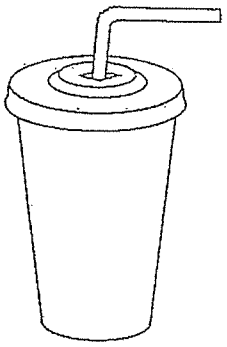
9 The bag is used to hold textbooks and prevent them from getting wet when it rains.



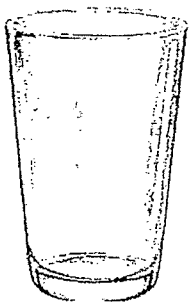

Based on the properties shown, which material is most suitable for making part B of the bag? A tick (✓) in the box shows that the material has that property.

| | Material | Properties | | |
|---|---|---|---|---|
| | | strong | flexible | waterproof |
| (1) | P | × | ✓ | ✓ |
| (2) | Q | ✓ | × | × |
| (3) | R | ✓ | ✓ | ✓ |
| (4) | S | ✓ | ✓ | × |

10 Young children are usually given plastic cups rather than glass cups when drinking.



plastic cup



glass cup

Which properties of plastic make it a more suitable material for young children to use than glass?

A It is light.

B It is waterproof.

C It floats on water.

D It does not break easily.

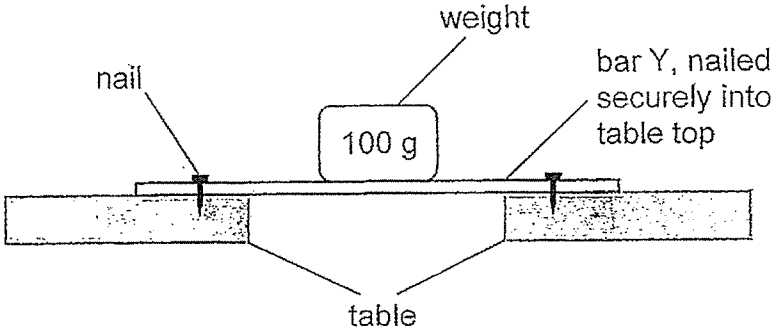
(1) A and C only

(2) A and D only

(3) B and C only

(4) B and D only

11 Justin set up an experiment as shown in the diagram.




He kept on adding the weights to the centre of bar Y until the bar broke.
What was Justin trying to find out in the experiment?

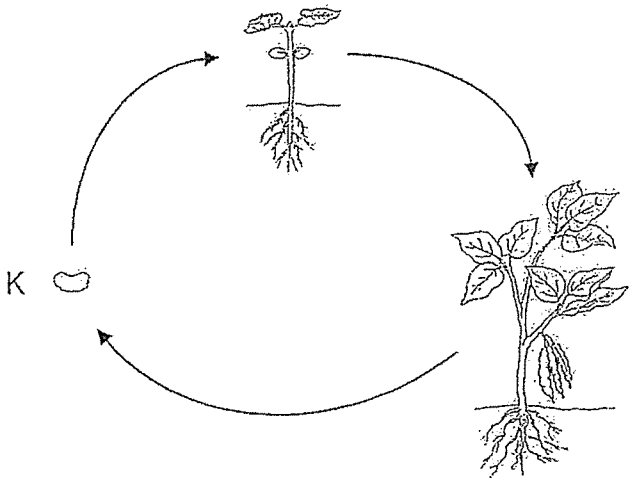
(1) To find out the strength of the material of the bar.

(2) To find out the transparency of the material of the bar.

(3) To find out whether the material of the bar is magnetic.

(4) To find out whether the material of the bar is waterproof.

12 The diagram shows the life cycle of a plant.




What is the stage marked K?

(1) egg

(2) seed

(3) adult plant

(4) young plant

13 Which statement about the life cycle of a plant is **not** correct?

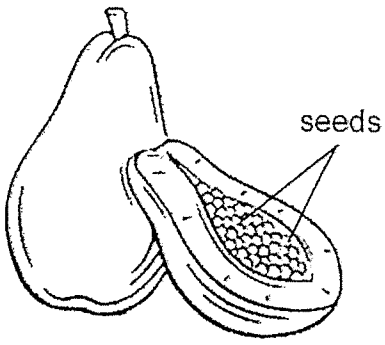
(1) Plants have a three-stage life cycle.

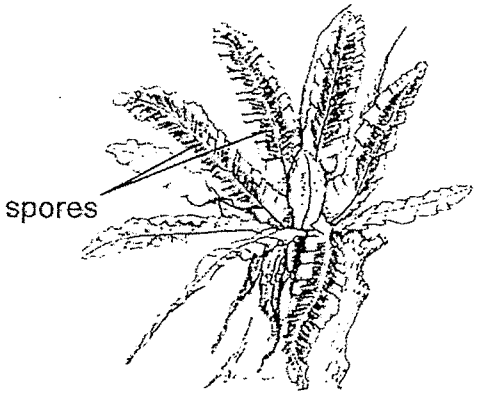
(2) The start of the life cycle is the seed stage.

(3) The life cycle of the plant ensures the continuity of its kind.

(4) Plants go through a repeated pattern of change in their life cycle.

14 Three pupils made the following statements about the seeds of a fruit and the spores of a fern.




Which pupil(s) is/are correct?

A Both could make food.

B Both would grow into flowers.

C Both would grow into young plants.

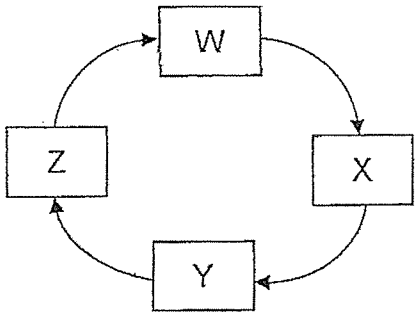
(1) B only

(2) C only

(3) A and C only

(4) A, B and C

**15** Each letter in the diagram represents a stage in the life cycle of an insect.




Which statement is correct if W represents the adult stage?

(1) At stage X, it eats a lot.

(2) At stage Y, it stops feeding.

(3) At stage Z, it continues to develop.

(4) At stage Z, it moults several times.

**16** The following observations were made on the life cycle of an animal.

- The young looks like the adult
- There are three stages in its life cycle.

Which animal was most likely observed?

(1) frog

(2) beetle

(3) mosquito

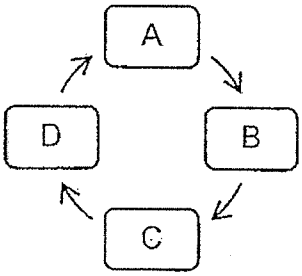
(4) grasshopper

17 A, B, C and D are the various stages in the life cycle of a butterfly.

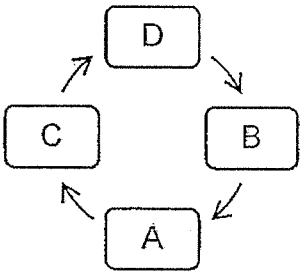
A B C D

Which of the following correctly shows the life cycle of a butterfly?

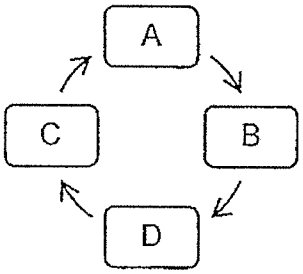
(1)



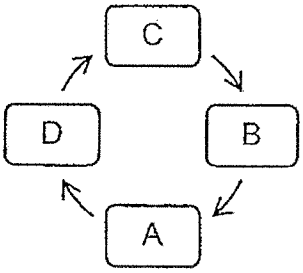

(2)




(3)




(4)



18 The table shows the number of days animals R and S spend at each stage of its life cycle before developing into an adult.

| | Number of days spent at each stage of its life cycle | |
|---|---|---|
| Stage of life cycle | animal R | animal S |
| egg | 4 | 6 |
| larva | 7 | 4 |
| pupa | 6 | 8 |

Amir made the following statements about animals S and R.

A Animal R lives longer than Animal S.

B Animal S spends less days as a pupa than animal R.

C Animals R and S have four stages in their life cycles.

D Animal R spends more days as a larva than animal S.

Which statements about animals R and S are correct?

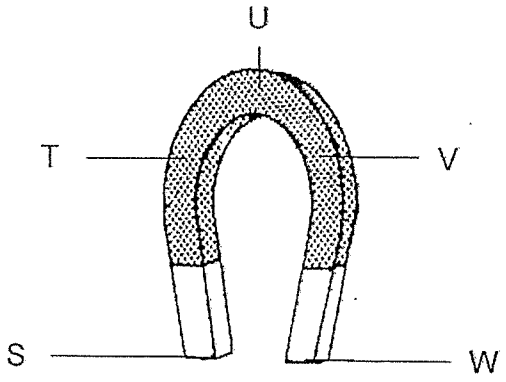
(1) A and B only

(2) A and C only

(3) B and D only

(4) C and D only

**19** The diagram shows a horseshoe magnet.




Which part(s) of the horseshoe magnet can attract the most number of paper clips?

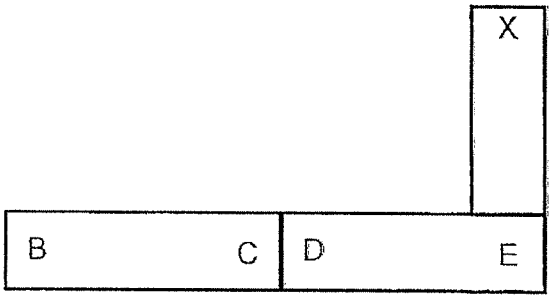
(1) U only

(2) T and V only

(3) S and W only

(4) T, U and V only

**20** Three magnets are arranged as shown. The poles are labelled.




Which poles will be attracted to the 'X' pole of the magnet?

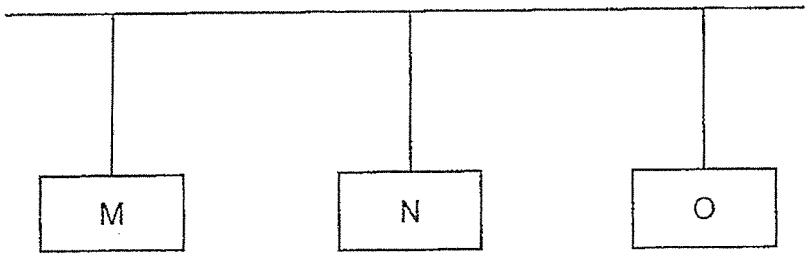
(1) B and D only

(2) B and E only

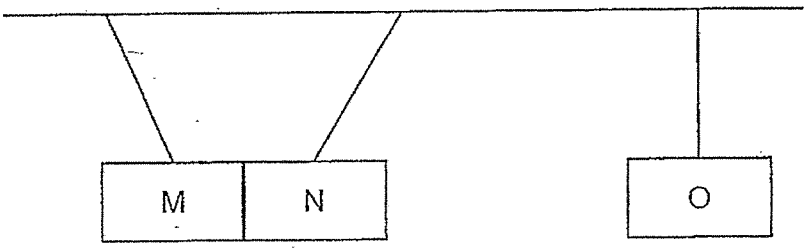
(3) C and D only

(4) C and E only

21 Bars M, N and O were hung equal distances from each other as shown.




When bar M was slightly pushed, the following observations were made.

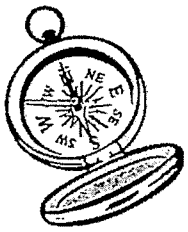



Which conclusion about bars M, N and O is correct?

| | M | N | O |
|---|---|---|---|
| (1) | magnetic material | non-magnetic material | magnet |
| (2) | non-magnetic material | magnet | magnetic material |
| (3) | magnetic material | magnet | non-magnetic material |
| (4) | magnet | non-magnetic material | magnetic material |

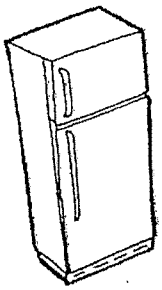
22 Which of the following does **not** make use of magnets to work?

(1)



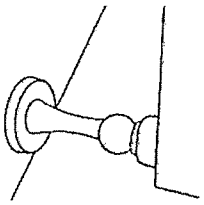
compass

(2)



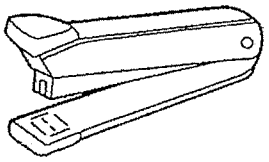
refrigerator door

(3)



door stopper

(4)



stapler

23 Four identical iron nails, P, Q, R and S, were made into magnets using the stroke method. The table shows the number of paper clips attracted by each iron nail.

| **Nail** | P | Q | R | S |
|---|---|---|---|---|
| **Number of paper clips attracted** | 8 | 2 | 5 | 4 |

Which nail was stroked the most number of times?

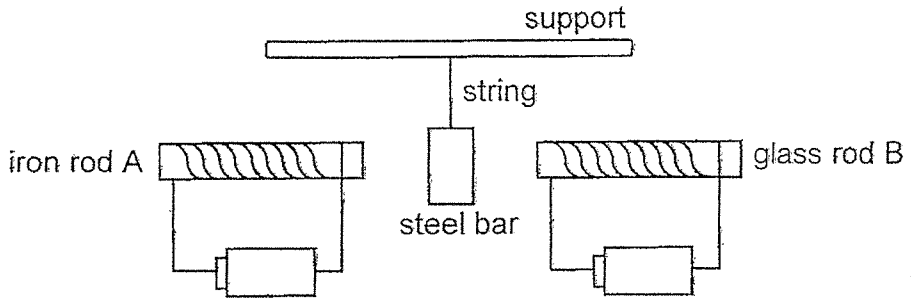
(1) P

(2) Q

(3) R

(4) S

24 Luke set up an experiment as shown. Iron rod A and glass rod B were of the same size and the batteries used were of the same strength.




What would Luke observe about the steel bar?

(1) It would move towards iron rod A.

(2) It would move towards glass rod B.

(3) It would remain in the same position.

(4) It would swing from iron rod A to glass rod B.

**End of Booklet A**

# CATHOLIC HIGH SCHOOL

## END-OF-YEAR EXAMINATION (2024)

## PRIMARY THREE

## SCIENCE

## BOOKLET B

Name: _____ (  )

Class: Primary 3 - _____

Date: 24 October 2024

Parent's Signature: _____

| | |
|---|---|
| Booklet A | 48 |
| Booklet B | 32 |
| Total | 80 |

10 questions

32 marks

Total Time for Booklets A and B: 1 hour 30 minutes

**INSTRUCTIONS TO CANDIDATES**

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answers in this booklet.

This booklet consists of 11 printed pages, excluding the cover page.

## Booklet B (32 marks)

For questions 25 to 34, write your answers in this booklet.
The number of marks available is shown in brackets [ ] at the end of each question or part question. (32 marks)

**25** Three things, X, Y and Z, were found in a garden. A tick (✓) shows the characteristic that the thing has and a (X) shows the characteristic that the thing does not have.

| Thing | Needs air | Makes its own food | Reproduces |
|---|---|---|---|
| X | ✓ | ✓ | ✓ |
| Y | ✓ | X | ✓ |
| Z | X | X | X |

(a) Based on the information in the table, state two characteristics of Y. [2]

_____

_____

Study the diagram.

(b) State a characteristic of living things that is shown in the diagram. [1]

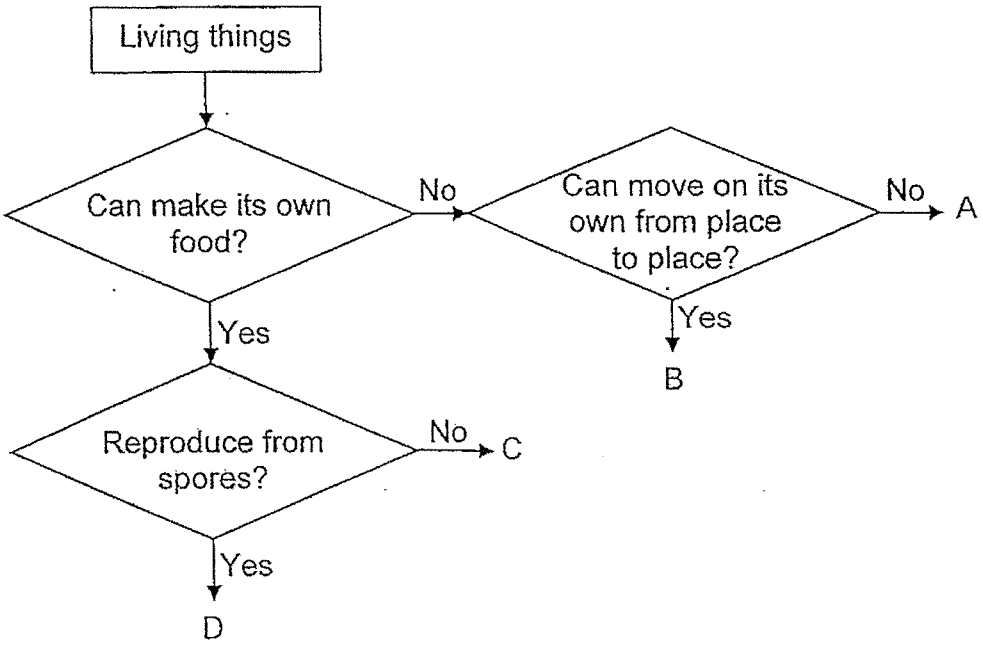
_____

_____

(Go on to the next page)

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

**26** Study the diagram.




(a) State a similarity and a difference between C and D. [2]

Similarity

_____

Difference

_____

(b) Which group, A, B, C or D, would mushrooms belong to? [1]

_____

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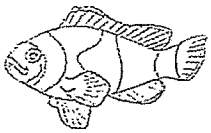
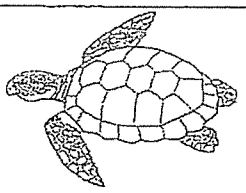
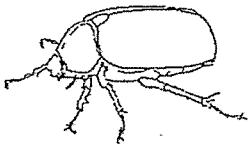
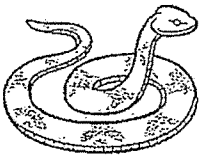
SCORE 3

27 Study the three groups of animals.

| Group X | Group Y | Group Z |
|---|---|---|
|  butterfly |  clownfish |  turtle |
|  beetle |  guppy |  snake |

Shanti caught an animal that has gills.

(a)(i) Which group, X, Y or Z, would this animal belong to? [1]

_____

(ii) Give a reason. [1]

_____

_____

(b) State one characteristic of the turtle that allows it to be classified in group Z. [1]

_____

_____

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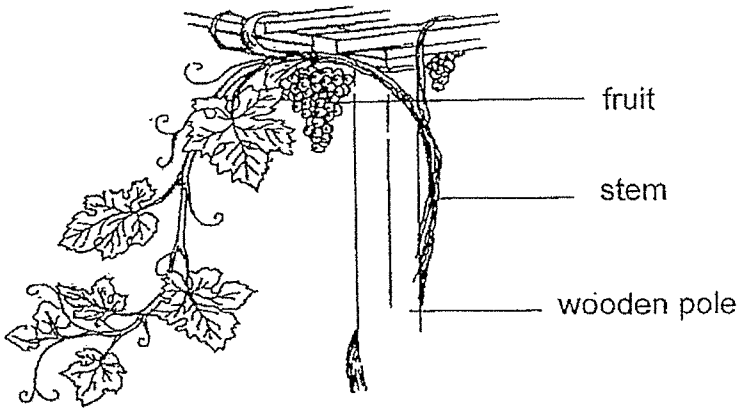
| SCORE | 3 |
|---|---|

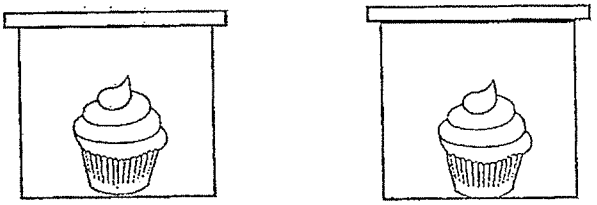
28 The diagram shows a plant growing in the garden.




(a) Put a tick (✓) in the box(es) if the statement is correct. [1]

| | Statement | Tick (✓) |
|---|---|---|
| (i) | It is a flowering plant. | |
| (ii) | It can make food. | |
| (iii) | It does not need sunlight. | |

Lydia had two similar muffins, R and S. She added some water on one muffin and placed it in container R. The other muffin was placed in container S. Both containers were sealed with a lid and left in the Science Room over a period of ten days.



container R container S

(b) Based on the information, which muffin would turn more mouldy after ten days? Explain why. [2]

_____

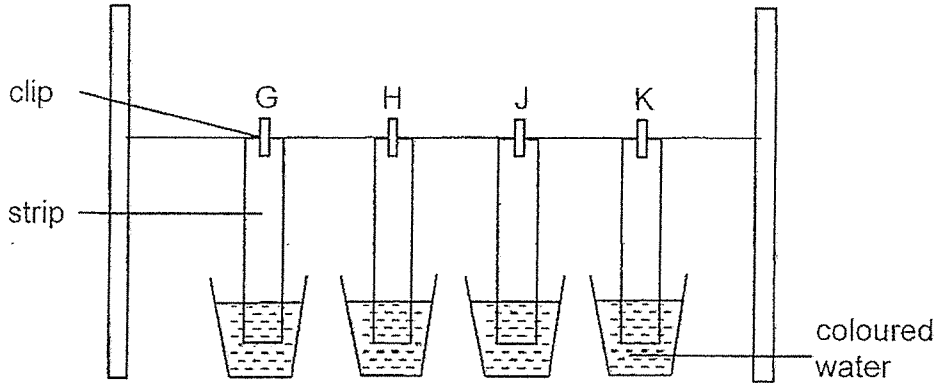
_____

_____

(Go on to the next page)

SCORE 3

29 Priya dipped four strips of different materials, G, H, J and K, into four cups of coloured water of equal amounts as shown.




After ten minutes, she took the four strips out of the cups. The results are as shown.

| Material | G | H | J | K |
|---|---|---|---|---|
| Height at which the coloured water travelled (cm) | 0 | 12 | 3 | 7 |

(a) State the changed variable in the experiment. [1]

_____

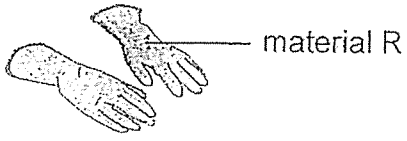
(b) Based on Priya's results, which material, G, H, J or K, would be most suitable for making a bath towel that could dry the body as fast as possible? Explain why. [2]

_____

_____

_____

Priya's father wore a pair of gloves made of material R to wash his car.




(c) List two properties of material R. [1]

_____

(Go on to the next page)

SCORE 4

30 Janice planted an equal number of red beans in five similar pots. The table shows the amount of water given to each pot daily and the average height of the young plant after two weeks.

| Pot | Amount of water given daily (ml) | Average height of young plant after two weeks (cm) |
|---|---|---|
| A | 5 | 6 |
| B | 10 | 10 |
| C | 15 | 14 |
| D | 20 | 19 |
| E | 25 | 23 |

(a) State what happened to the average height of the young plant after two weeks as the amount of water given daily increased. [1]

_____

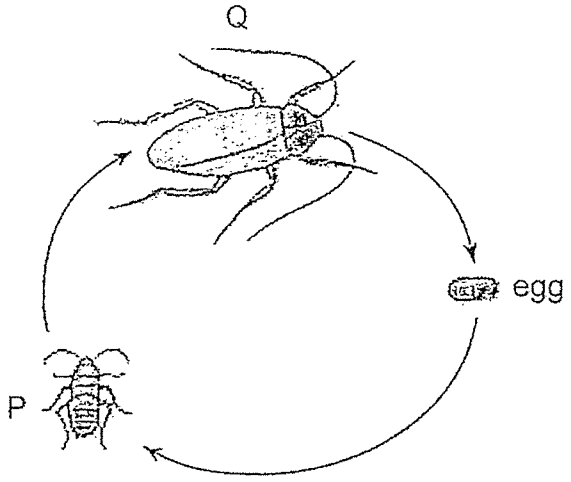
(b) Based on the information in the table, state the least amount of water that had to be given daily for the red beans to grow to at least 20 cm in two weeks. [1]

_____

(Go on to the next page)

SCORE 2

31 The diagram shows the life cycle of an insect.




(a) Name stage P. [1]

_____

(b) As the insect grows from stage P to Q, it moults several times. Give a reason why moulting takes place. [1]

_____

_____

(c) Explain how laying many eggs each time helps insects in their survival. [1]

_____

_____

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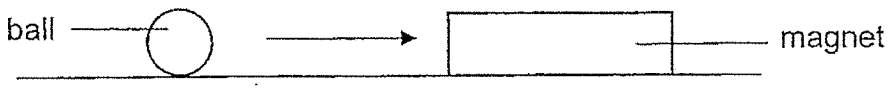
| SCORE | /3 |
|---|---|

32 Jason placed a magnet near a ball as shown.




He observed that the ball moved towards the magnet in the direction as shown by the arrow.

(a) Based on Jason's observation, name one material the ball could be made of. [1]

_____

(b) Explain your answer in (a). [1]

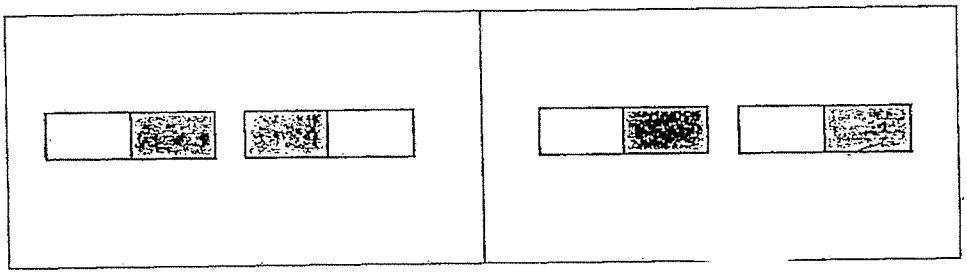
_____

_____

(c) Jason suspended the magnet freely and it came to rest in a certain direction. State the direction. [1]

_____

(d) Draw arrows in the diagrams to show how the magnets interact. [1]



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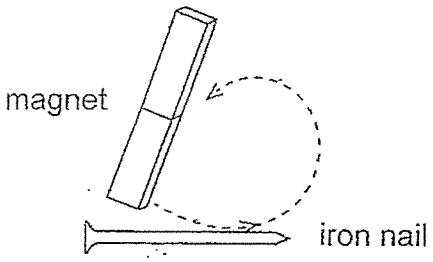
SCORE 4

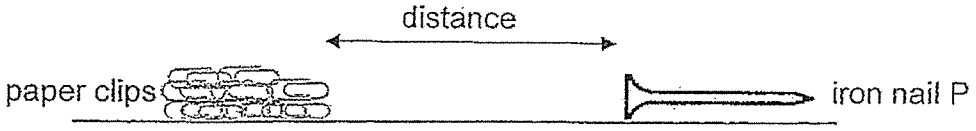
33 Jelene made four iron nails, P, Q, R and S, into magnets by stroking them with the same magnet but with different number of strokes.




(a) Order the following statements on how an iron nail is made into a magnet using the stroke method by numbering the steps, 1, 2 and 3. [2]

| Statement | Step |
|---|---|
| Repeat the strokes in the same direction. | |
| Stroke the iron nail with one pole of the magnet. | |
| Test the magnetised iron nail by placing it near some steel clips. | |

Jelene then placed iron nail P at a distance from some paper clips as shown. She counted the number of paper clips attracted to the iron nail.




This was repeated with iron nails, Q, R and S, keeping the distance between the iron nail and paper clips the same. The results are recorded as shown.

| Iron nail | P | Q | R | S |
|---|---|---|---|---|
| **Number of paper clips** | 5 | 8 | 3 | 6 |

(Go on to the next page)

SCORE 2

*Continue from Question 33*

(b)(i) Based on the results in the table, arrange the iron nails according to their strength from the weakest to the strongest. [1]

_____, _____, _____, _____

**weakest** **strongest**

(ii) Give a reason why the iron nail you have chosen was the strongest. [1]

_____

_____

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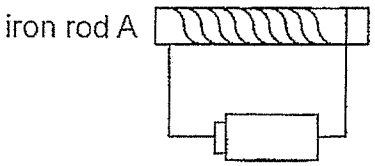
| SCORE | 2 |
|---|---|

34 Study the set-up.




(a) Name the magnet shown in the set-up. [1]

_____

(b) Suggest two ways to increase the strength of the magnet in the set-up. [2]

_____

_____

_____

**End of Booklet B**

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

YEAR : 2024
LEVEL : PRIMARY 3
SCHOOL : CATHOLIC HIGH SCHOOL
SUBJECT : SCIENCE
TERM : END OF YEAR EXAMINATION

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Q1 | 4 | QQ2 | 3 | Q3 | 3 | Q4 | 2 |
| Q5 | 3 | Q6 | 3 | Q7 | 1 | Q8 | 2 |
| Q9 | 3 | Q10 | 2 | Q11 | 1 | Q12 | 2 |
| Q13 | 2 | Q14 | 2 | Q15 | 4 3 | Q16 | 4 |
| Q17 | 4 | Q18 | 4 | Q19 | 3 | Q20 | 1 |
| Q21 | 3 | Q22 | 4 | Q23 | 1 | Q24 | 1 |

| | |
|---|---|
| Q25 | A) It needs air<br>It reproduces<br>It does not make its own food<br>B) living things respond to changes around them. |
| Q26 | a) similarity: Both C and D can make their own food<br>Difference: D reproduces from spores but C does not reproduce from spores.<br>b) Group A |
| Q27 | a) (i) Group Y<br>(ii) the animals in group y are fishes with gills.<br>b) the turtle has dry skin with scales. |
| Q28 | a) (i) tick<br>(ii) tick<br>(iii) no tick<br>b) the muffin with water added would turn more mouldy. There was more moisture for the fungi to grow faster. |
| Q29 | a) type of material<br>b) (C) Material<br>(E)The height at which the coloured water travelled was the furthest.<br>(R)Material H absorbed the most water. |
| Q30 | a) The average height of the young plant after two weeks increased.<br>b) 25ml |

Q29. c) waterproof and flexible

| | |
|---|---|
| Q31 | a) Nymph / young<br>b) P grows bigger<br>c) some eggs may die or get eaten by other animals so laying more eggs ensure some eggs may hatch and grow into adults |
| Q32 | a) Iron/steel<br>b) the material is magnetic as it could be attracted to the magnet<br>c) north south<br>d) <> >< |
| Q33 | a) 2,1,3<br>b) (i) R , P , S , Q<br>(ii) It attracted the most number of paper clips |
| Q34 | a) electromagnet<br>b) increase the number of batteries and the number of turn of wire around iron rod A. |



END