



NANYANG PRIMARY SCHOOL

2024
PRIMARY 3
END-OF-YEAR EXAMINATION

SCIENCE
(BOOKLET A)

Total Time for Booklets A and B: 1 h 30 min

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not open this booklet until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. For each question from 1 to 22, four options are given.
Indicate your choice in this booklet.
Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet provided.

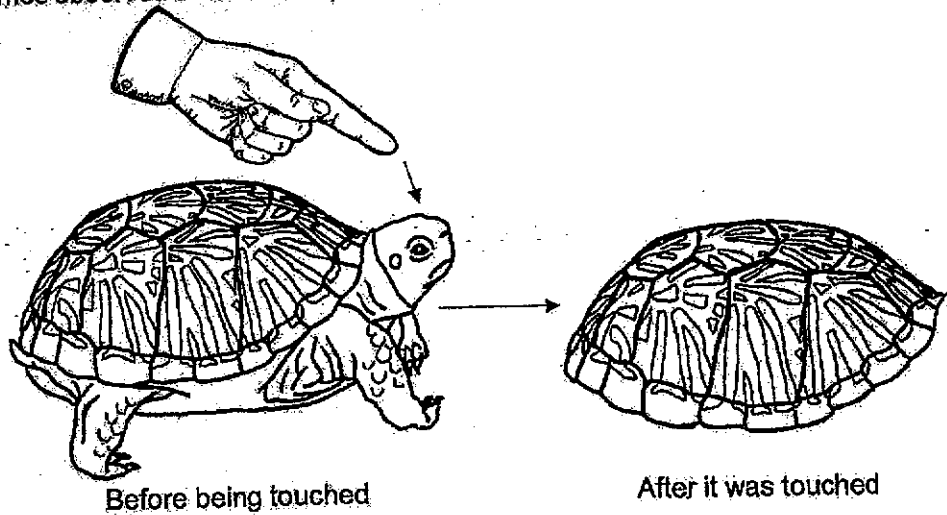
Name: _____ ()

Class: Primary 3/4 ()

Booklet A consists of 13 printed pages including this cover page.





Section A: Multiple Choice Questions [44 marks]

1. James observed that the terrapin moved into its shell immediately after being touched.



Based on the diagram above, which of the following characteristics of living things did the terrapin display?

- (1) Living things can grow.
 - (2) Living things can reproduce.
 - (3) Living things need food, air and water to survive.
 - (4) Living things can respond to changes in the environment.
2. The diagram below shows two groups of plants.

| Flowering plants | | Non-flowering plants | |
|---|---|--|---|
|  |  |  |  |
| Orchid | Sunflower | Papaya tree | Bird's nest fern |

Which of the following plants has been grouped wrongly?

- (1) Orchid
- (2) Sunflower
- (3) Papaya tree
- (4) Bird's nest fern

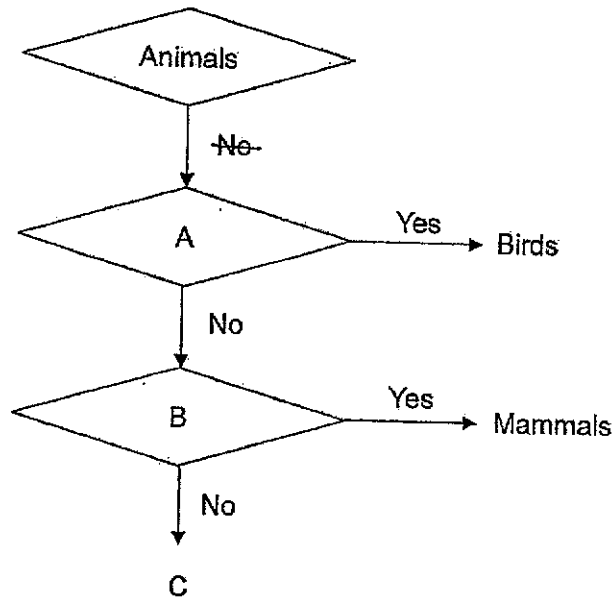
3. The table below shows the characteristics of four animals, R, S, T and U.

| Characteristics | R | S | T | U |
|---------------------------------|-----|-----|-----|-----|
| Does it lay eggs? | No | Yes | Yes | Yes |
| Does it have hair on its body? | Yes | No | No | No |
| Does it have a pair of feelers? | No | Yes | No | No |
| Does it have dry scaly skin? | No | No | Yes | No |
| Does it have scales? | No | No | No | Yes |

Which of the following statements is incorrect?

- (1) Animal U is a bird.
- (2) Animal T is a reptile.
- (3) Animal S is an insect.
- (4) Animal R is a mammal.

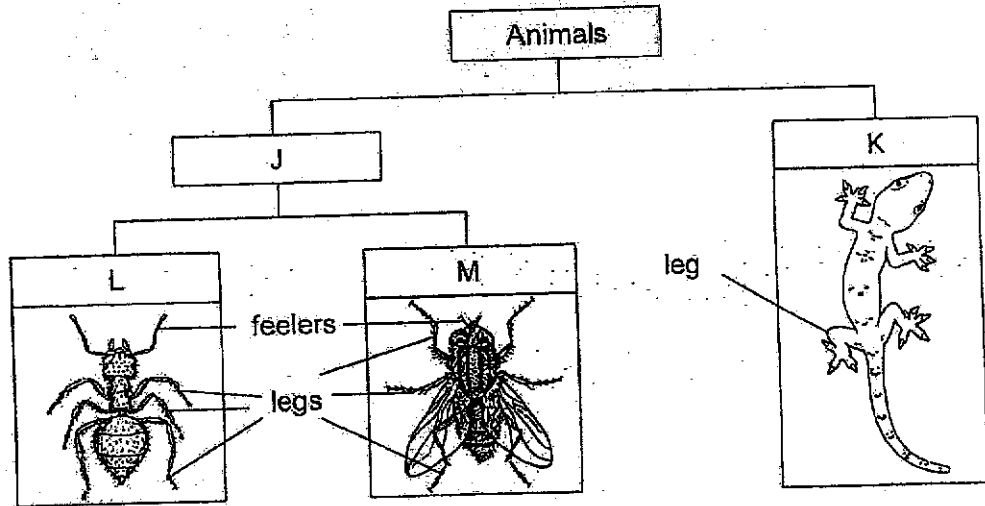
4. Study the flowchart below.



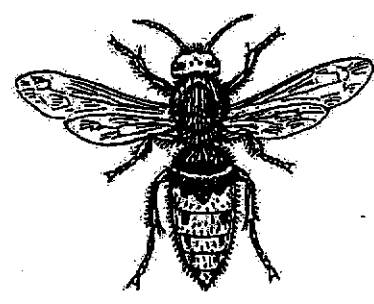
Which of the following correctly represents questions A, B and animal group C?

| | Question A | Question B | Animal group C |
|-----|-------------------------------------|--|----------------|
| (1) | Does it have a shell-like covering? | Does it lay eggs? | Amphibians |
| (2) | Does it have a beak? | Does it give birth to its young alive? | Amphibians |
| (3) | Does it have hair? | Does it give birth to its young alive? | Reptiles |
| (4) | Does it have feathers? | Does it lay eggs? | Reptiles |

5. Study the classification chart below.



There is another animal, P, shown below.



Which of the following shows the correct headings for J, K and which group should animal P be placed in?

| | J | K | P |
|-----|--------------------------------|------------------------|---|
| (1) | has feelers | does not have feelers | M |
| (2) | does not have three body parts | has three body parts | L |
| (3) | has six legs | does not have six legs | L |
| (4) | has wings | does not have wings | M |

6. Four students made the following statements about bacteria.

Sue: Bacteria can grow.

Ava: Bacteria is not a living thing.

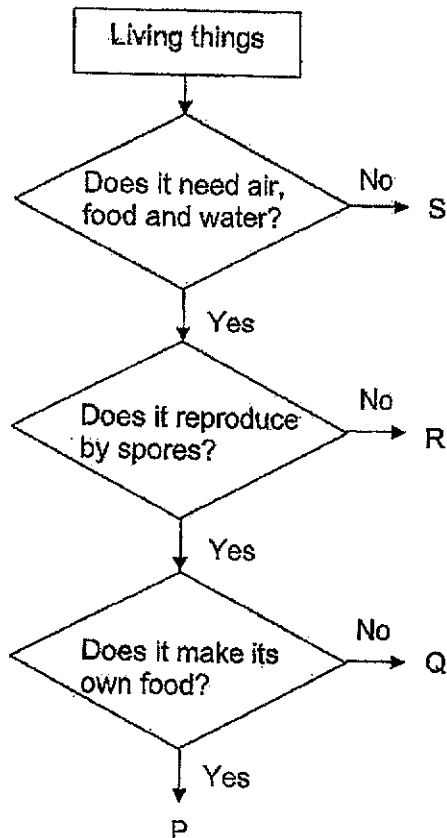
Zoe: Bacteria only exist in one shape and size.

Max: Bacteria can only be seen under a microscope.

Which students have made the correct statements?

- (1) Sue and Ava
- (2) Ava and Zoe
- (3) Zoe and Max
- (4) Sue and Max

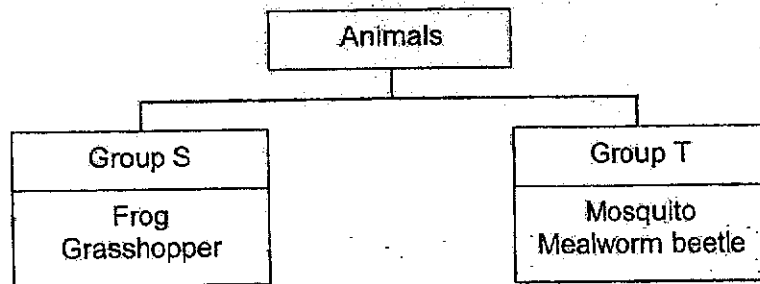
7. Study the flowchart.



Which one of the following represents a mushroom?

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

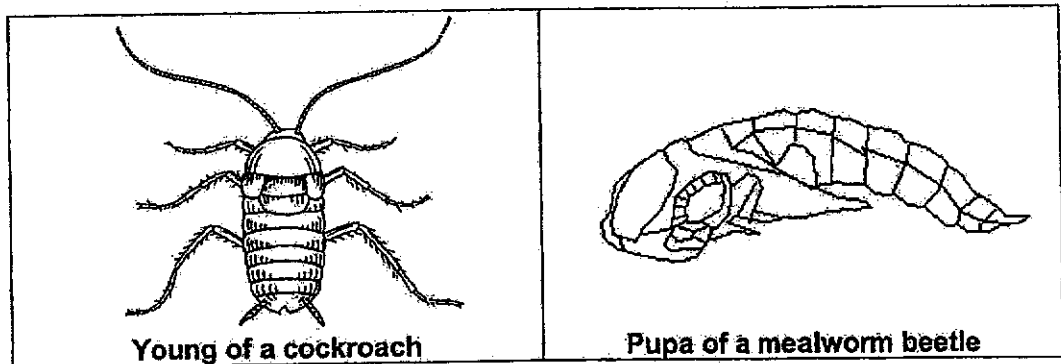
8. Study the classification chart below.



Which of the following shows how the above animals are grouped?

| | Group S | Group T |
|-----|---------------------------------|---|
| (1) | 3-stage life cycle | 4-stage life cycle. |
| (2) | spend entire life cycle on land | spend part of its life cycle on land and in water |
| (3) | adult has no wings | adult has wings |
| (4) | young looks like its adult | young does not look like its adult |

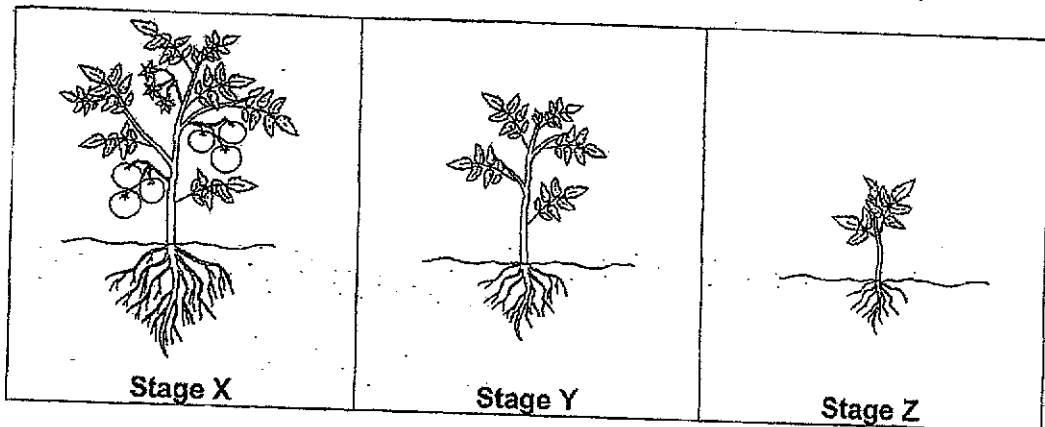
9. The diagram below shows the young of two animals.



Which of the following statements correctly states the similarity between the young of both animals?

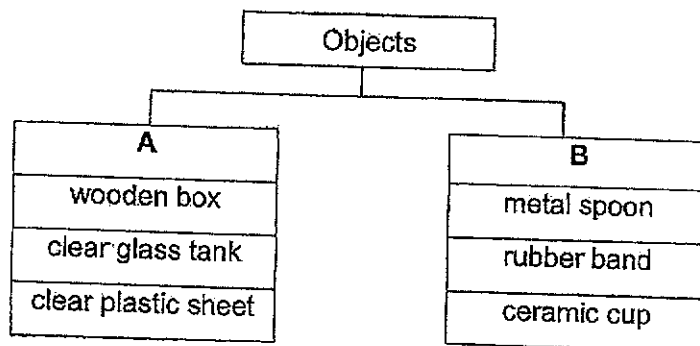
- (1) They eat a lot.
- (2) They do not have wings.
- (3) They look like their adults.
- (4) They develop into an adult from a pupal case.

10. The diagram below shows the different stages in the life cycle of a tomato plant.



Which of the following statements is **wrong**?

- (1) This plant reproduces from spores.
 - (2) The fruit at Stage X can grow into a new plant.
 - (3) Stage Y is not an adult plant yet as it does not have flowers.
 - (4) The plants at Stages X, Y and Z need air, food and water to survive.
11. The table below shows how some objects are classified.



Which object is placed **wrongly** in the table?

- (1) rubber band
- (2) ceramic cup
- (3) wooden box
- (4) clear glass tank

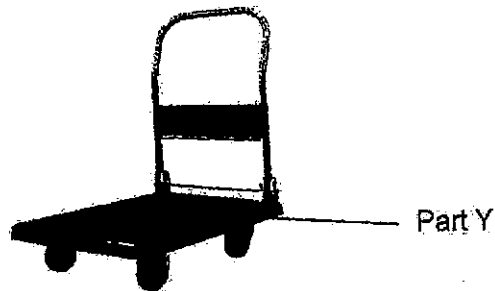
12. Study the properties of the two objects in the table below. A tick (✓) represents the property of material that the object has.

| Properties of material | Object A | Object B |
|------------------------|----------|----------|
| strong | ✓ | ✓ |
| flexible | | ✓ |
| waterproof | ✓ | ✓ |

Which of the following can object A and object B be?

| | Object A | Object B |
|-----|--------------|----------------|
| (1) | metal tap | water hose ✓ |
| (2) | metal cup | wooden chair ✗ |
| (3) | paper plate | ceramic bowl |
| (4) | tissue paper | cotton T-shirt |

13. Josh wanted to choose a material to make Part Y of a trolley as shown below. A trolley is used to transport heavy things.



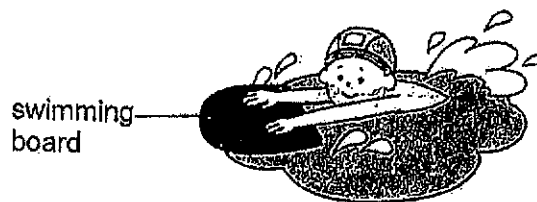
Which one of the following properties of material is the most important when choosing a material to make Part Y?

- (1) strength
- (2) waterproof
- (3) ability to float or sink in water
- (4) how much light can pass through it

14. The table below shows the properties of four materials W, X, Y and Z. A tick (✓) shows that the material has the property.

| Properties | W | X | Y | Z |
|-------------------------------|---|---|---|---|
| Is it flexible? | ✓ | | | |
| Is it waterproof? | ✓ | | ✓ | ✓ |
| Is it able to float on water? | | ✓ | ✓ | |

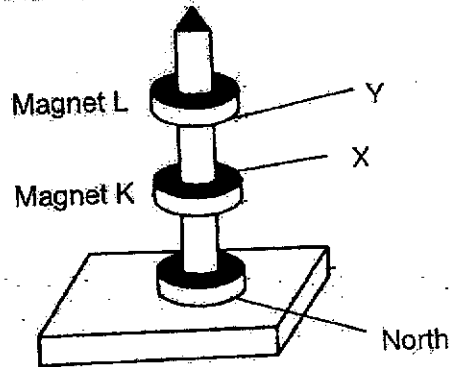
Jacob uses a swimming board to help him swim in the swimming pool.



Which one of the following materials will be most suitable to make the swimming board as shown above?

- (1) W
 - (2) X
 - (3) Y
 - (4) Z
15. Which of the following statements is true about magnets?
- (1) A magnet only has one pole.
 - (2) Magnets come in different shapes.
 - (3) A magnet is usually made of glass.
 - (4) All magnets have the same magnetic strength.

16. Study the diagram below.



Which poles of a magnet are X and Y?

| | X | Y |
|-----|-------|-------|
| (1) | South | South |
| (2) | South | North |
| (3) | North | South |
| (4) | North | North |

17. Objects W and X were made of different materials. They were placed next to magnet A to interact with one another.

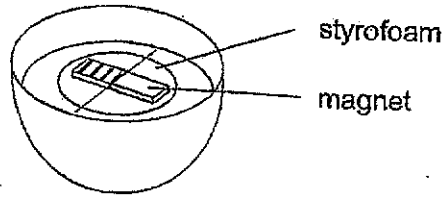
| Object placed near to magnet A | Observation |
|--|---|
| <p>W magnet A</p> | Object W did not move from the original position. |
| <p>X magnet A</p> | Object X moved towards magnet A. |

Which of the following statement(s) correctly describes about object W and object X?

- A Object W is a magnet.
- B Object X is made of a magnetic material.
- C Object W is not made of a magnetic material.

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

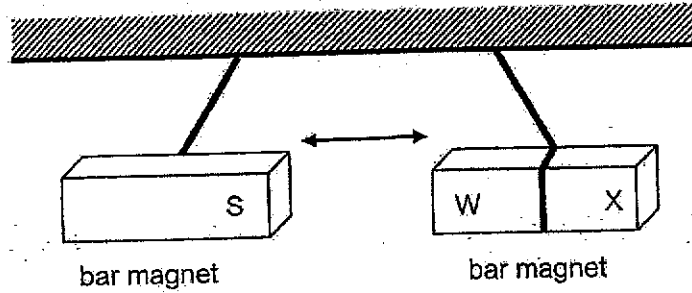
18. Li Ting attached a bar magnet onto a piece of styrofoam and placed it into a container of water shown in the picture below. The magnet was able to move freely in the water.



In which direction would the magnet come to a rest after some time?

| | | | |
|-----|--|-----|--|
| (1) | | (2) | |
| (3) | | (4) | |

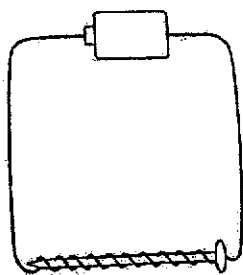
19. Kai Yang suspended a bar magnet which came to a rest. It pointed to a certain direction as shown in the picture below.



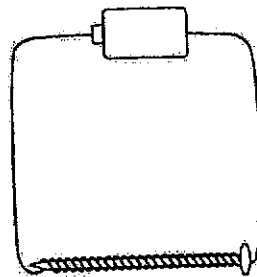
He then held the South pole of another bar magnet near to pole W. He observed that both poles repel each other.

Which one of the following statements correctly describes poles W and X?

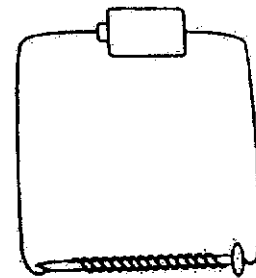
- (1) Pole X is a South pole.
 - (2) Pole W is a South pole.
 - (3) Both Poles W and X are North poles.
 - (4) Both Poles W and X are South poles.
20. Three identical steel rods were used to make electromagnets X, Y and Z as shown below. Each electromagnet has a different magnetic strength.



electromagnet X with 10 coils of wire



electromagnet Y with 25 coils of wire



electromagnet Z with 15 coils of wire

Arrange the electromagnets according to their magnetic strength from the weakest to the strongest.

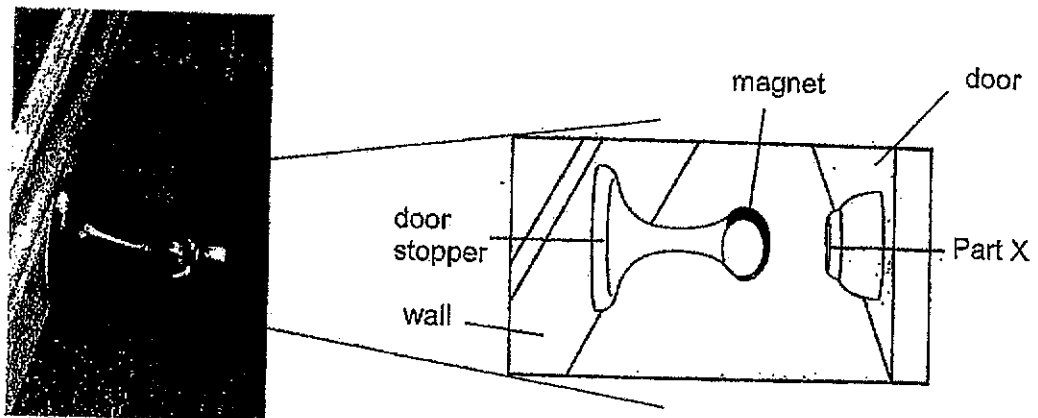
| | weakest | → | strongest |
|-----|---------|---|-----------|
| (1) | X | Y | Z |
| (2) | X | Z | Y |
| (3) | Z | X | Y |
| (4) | Z | Y | X |

21. Yi Ling stroked an iron nail with a magnet several times. She then tried to use the nail to pick up the pins. She observed that her iron nail could not pick up any pins.

What could be a possible reason why Yi Ling's iron nail did not pick up any pins?

- (1) She did not add batteries.
- (2) The magnet she used was too small.
- (3) The nail is made of a magnetic material.
- (4) She did not stroke the iron nail with the magnet in the same direction each time.

22. The diagram below shows a door stopper which is used to hold a door open.



magnetic door stopper

Which of the following statement(s) is/are true about the magnetic door stopper?

- A Part X can be made of iron.
 - B Part X is made of a non-magnetic material.
 - C The magnet on the door stopper repels part X.
- (1) A only
 - (2) B only
 - (3) A and C only
 - (4) B and C only

~ END OF BOOKLET A ~



NANYANG PRIMARY SCHOOL

**2024
PRIMARY 3
END-OF-YEAR EXAMINATION**

**SCIENCE
(BOOKLET B)**

Total Time for Booklets A and B: 1 h 30 min

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not open this booklet until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers to Questions 23 to 31 in the spaces provided.

| | | |
|-------------------|--|-----------|
| Booklet A: | | 44 |
| Booklet B: | | 26 |
| Total: | | 70 |

Name: _____ ()

Class: Primary 3 ()

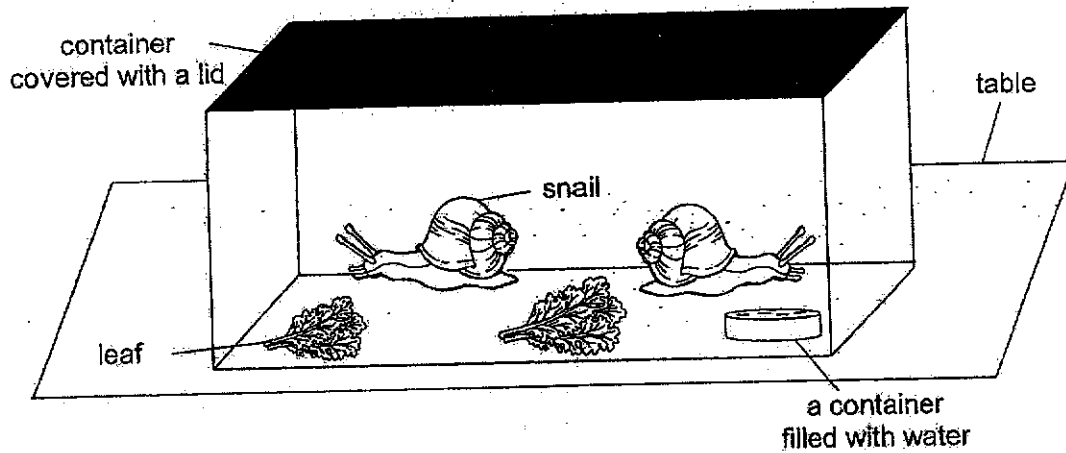
Parent's signature: _____

Please sign and return the paper the next day. Any queries should be raised at the same time when returning the paper.

Booklet B consists of 12 printed pages including this cover page.

Section B: Open-Ended Questions [26 marks]

23. Evan prepared the set-up as shown below.



Evan's teacher told him that his snails will not survive.

- (a) Suggest one change Evan can make to the set-up to ensure his snails can survive. Explain your reason. [1]

- (b) What will happen to the amount of water in the container after a few days? [1]

24. Study the table below.

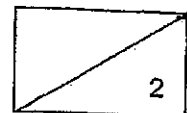
| W | X |
|-------------|------|
| Apple tree | Fern |
| Mango tree | Moss |
| Orange tree | |

(a) State the headings for W and X according to how they reproduce. [1]

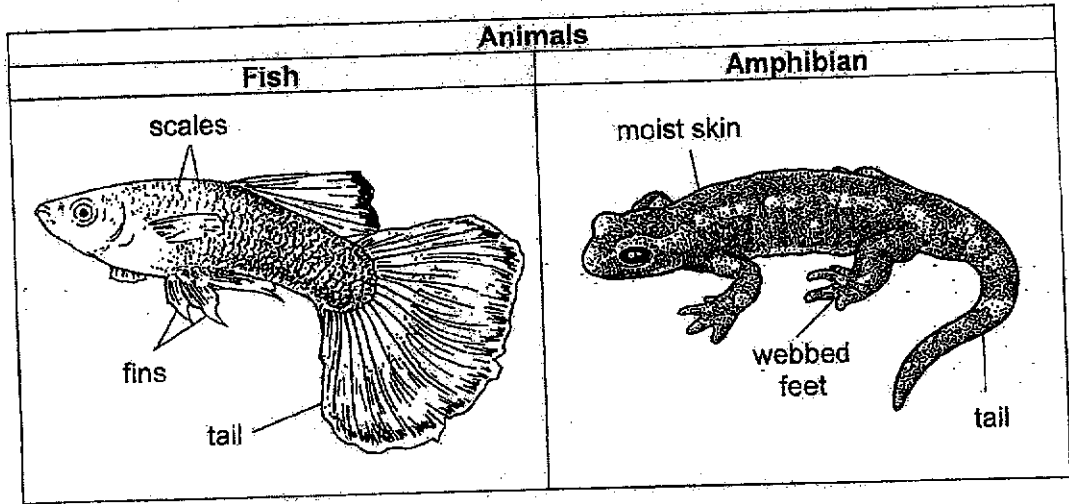
i. W: _____

ii. X: _____

(b) Other than the answer in (a), state another difference between the characteristics of living things in Group W and X. [1]

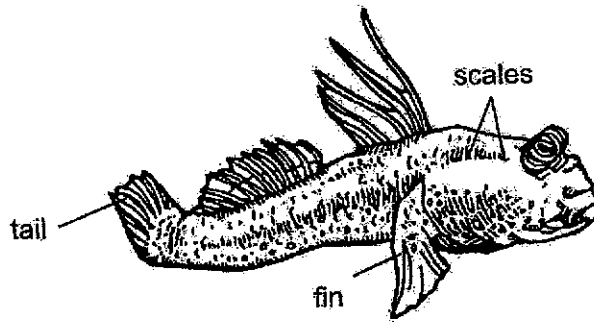


25. Study the diagram below.

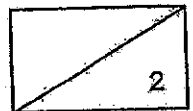


(a) Other than the characteristics of an amphibian shown in the diagram above, state another characteristic that only an amphibian would have. [1]

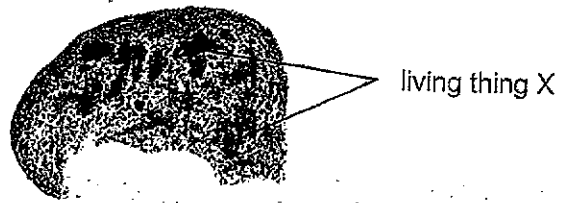
Tom saw Animal C and drew his observation of it below.



(b) Based only on the information given in the question, state which group of animals does Animal C most likely belong to. [1]

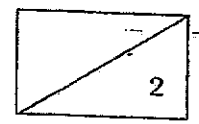


26. Wei Ming ate a slice of bread halfway and left it inside his snack box. One week later, he observed that living thing X was growing on the bread.

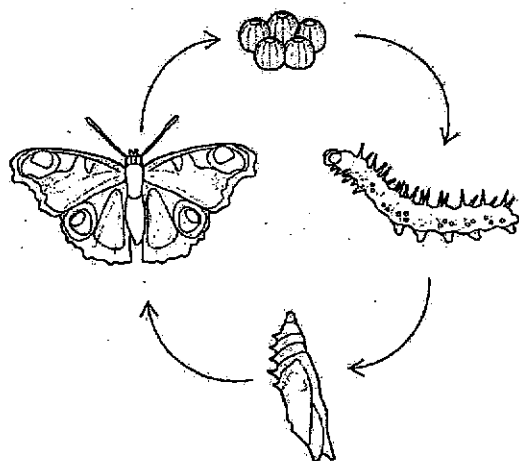


(a) Based on the diagram, which group of living things does X belong to? [1]

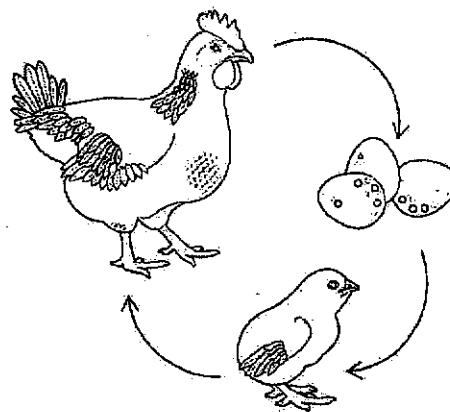
(b) How does X get its food? [1]



27. The diagram below shows the stages of the life cycle of a butterfly and a chicken.



Life cycle of a butterfly



Life cycle of a chicken

(a) Based on the diagram above, state two observable differences between the life cycle of the butterfly and the chicken. [2]

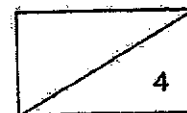
i) _____

ii) _____

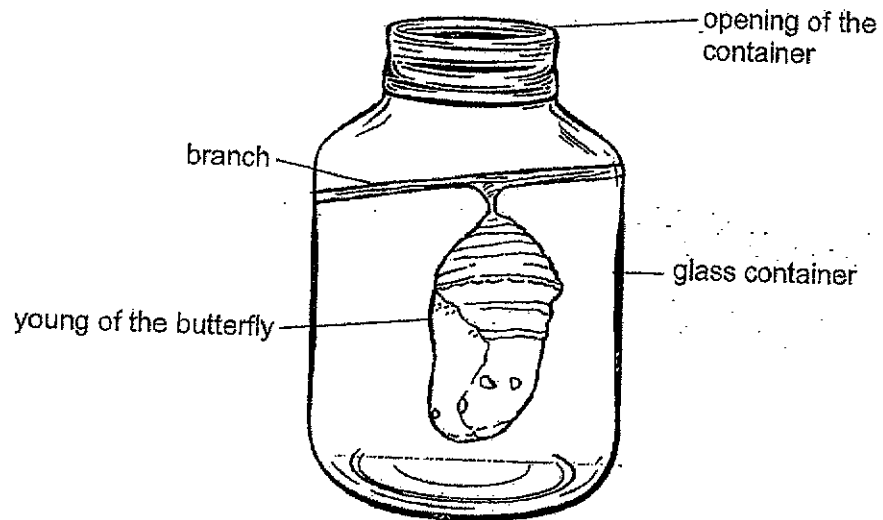
(b) Name the stage of the life cycle of the butterfly that is a pest to the vegetable farmers. Give a reason for your answer. [2]

Stage: _____

Reason: _____



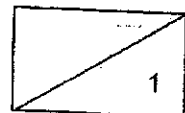
Betty took the young of the butterfly and kept it in an open container.



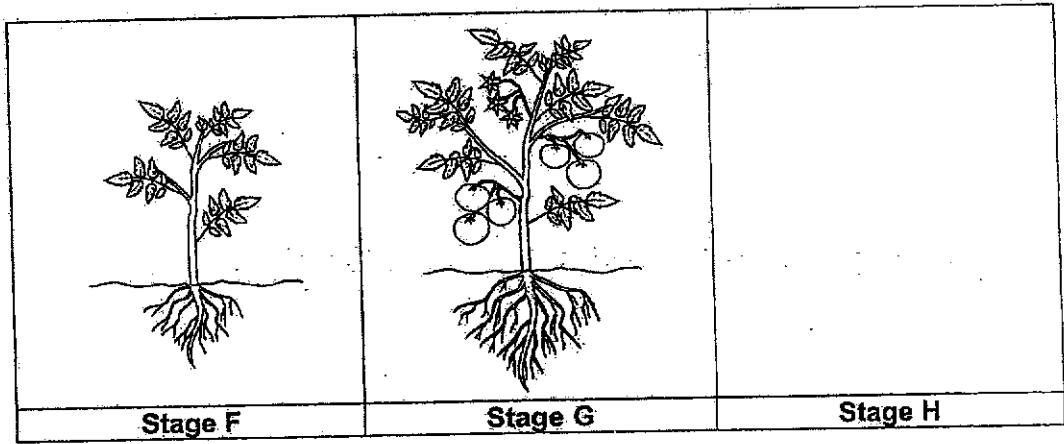
5 days later, the young of the butterfly did not change to the next stage of its life cycle. Betty's friend said it was because she did not provide it with food and water.

(c) Was Betty's friend correct? Explain your answer.

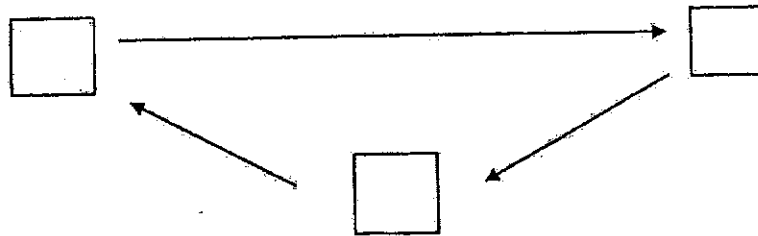
[1]



28. The diagram below shows the stages of the life cycle of a tomato plant.



(a) Using the stages above, write F, G and H in the diagram below to show the order of the tomato plant's life cycle. [1]

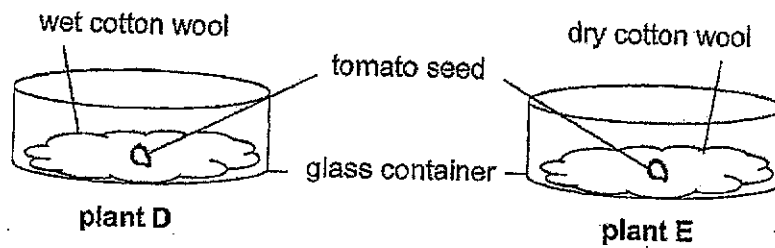


(b) Identify the names of the stages below. [1]

(i) Stage F: _____

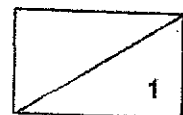
(ii) Stage G: _____

Sally prepared two set-ups as shown below.



| Day | Height of plant D (cm) | Height of plant E (cm) |
|-----|------------------------|------------------------|
| 0 | 0 | 0 |
| 2 | 1 | 0 |
| 4 | 3 | 0 |
| 6 | 5 | 0 |

(c) What could the height of plant D be on Day 5? [1]



29. Study the classification table below.

| Group E | Group F | Group G | Group H |
|------------|------------|---------------|--------------|
| T-shirt | pen | rain boots | drink cans |
| bath towel | toothbrush | bicycle tyres | cooking pots |

(a) Using only the words in the table below, identify the materials used to make the objects in group E, F, G and H. Each material can only be used once. [2]

| | | | |
|---------|-------|--------|--------|
| plastic | metal | fabric | rubber |
|---------|-------|--------|--------|



Group E : _____

Group F : _____

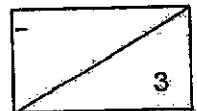
Group G : _____

Group H : _____

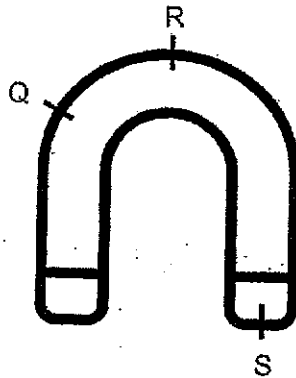
Eric had 2 cups, made of metal and clear glass, as shown below.

| metal cup | clear glass cup |
|---|--|
|  |  |

(b) Which material is more suitable to make a fish tank for Eric to view his fish? Explain your answer. [1]

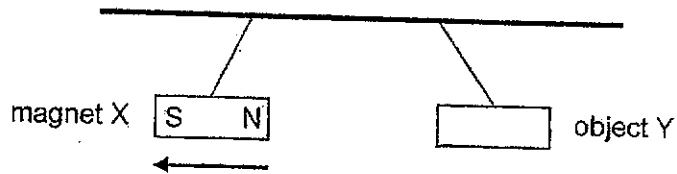


30. Jordan placed a U-shaped magnet near to a container of steel clips.



(a) Based on the diagram above, which part(s) of the U-shaped magnet would attract the most number of steel clips? [1]

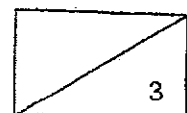
Jordan did another experiment by hanging bar magnet X and object Y from a stick.



He noticed that magnet X moved away from object Y.

(bi) What is object Y? [1]

(bii) Explain why magnet X moved away from object Y. [1]



31. Sue carried out an experiment to find out how the number of batteries affect the magnetic strength of an electromagnet.

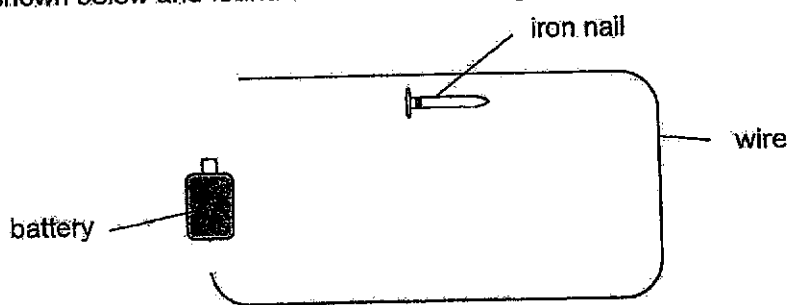
(a) State the changed variable in Sue's experiment. [1]

Sue increased the number of batteries used in the set-up and recorded her observations in the table shown below.

| Number of batteries used | Number of steel clips attracted |
|--------------------------|---------------------------------|
| 1 | 4 |
| 2 | ? |
| 3 | 10 |

(b) Predict the number of steel clips attracted when Sue used 2 batteries in her set-up. [1]

Sue wanted to make another electromagnet. She placed an iron nail near to a piece of wire as shown below and found that the electromagnet could not attract any steel clips.

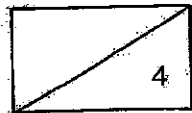


(c) State 2 reasons why Sue's electromagnet could not work. [2]

i) _____

ii) _____

~ END OF BOOKLET B ~



Suggested Answer Key – P3 Science EYE 2024**Section A**

| | | | | | | | | | |
|---|---|----|---|----|---|----|---|----|---|
| 1 | 4 | 6 | 4 | 11 | 3 | 16 | 4 | 21 | 4 |
| 2 | 3 | 7 | 2 | 12 | 1 | 17 | 3 | 22 | 1 |
| 3 | 1 | 8 | 1 | 13 | 1 | 18 | 2 | 23 | |
| 4 | 2 | 9 | 2 | 14 | 3 | 19 | 2 | 24 | |
| 5 | 1 | 10 | 1 | 15 | 2 | 20 | 2 | 25 | |

Section B

| Qns No | Answer |
|---------|--|
| 23 (a) | Remove the lid./ Poke holes in the lid. The snails need air to survive. |
| (b) | The amount of water will decrease. |
| 24 (ai) | W: reproduce by seeds |
| (aii) | X: reproduce by spores |
| (b) | W bear fruits but X does not bear fruits. |
| 25 (a) | Amphibians live on land and in water unlike fish. |
| (b) | Fish |
| 26 (a) | Fungi |
| (b) | X get its food from the bread it is growing on. |
| 27 (ai) | There are 4 stages in the lifecycle of the butterfly but there are 3 stages in the lifecycle of the chicken. |
| (aii) | The young of the butterfly does not look like its adult but the young of the chicken looks like its adult. |
| (b) | Larva stage The larva eats a lot of leaves. |
| (c) | No. The pupa does not need food and water during that stage. |
| 28 (a) | <p>H → F → G</p> |
| (b) | Stage F: young plant Stage G: adult plant |
| (c) | 4 cm |
| 29 (a) | Group E: Fabric Group F: Plastic Group G: Rubber Group H: Metal |
| (b) | Material: Clear glass Property: It allows more light to pass through so that Eric can see the fish. |
| 30 (a) | S |
| (bi) | Magnet |
| (bii) | Like poles of object Y and magnet X are facing each other, hence they repel. |
| 31 (a) | Number of batteries used |
| (b) | 5 to 9 |
| (c) | She did not coil the wire around the nail. |
| (cii) | The ends of the wire were not connected to the battery. |

