Name: _____ ( )

Class: Primary 3 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL

Primary 3

End Year Assessment

SCIENCE

BOOKLET A

23 October 2024

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

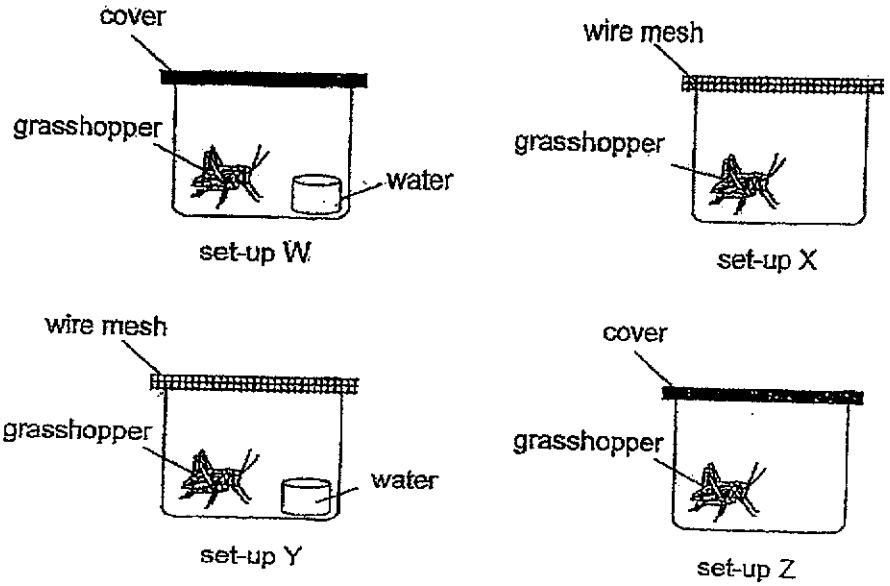
24 questions
48 marks

Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.

This booklet consists of 14 printed pages.

Section A (24 x 2 = 48 marks)
For each question from 1 to 24, 4 options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct answer (1, 2, 3 or 4) in the Optical Answer Sheet (OAS) provided.

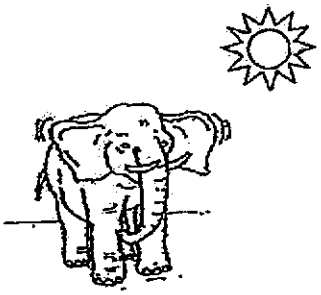
1. Josh conducted an experiment to find out if living things need water to survive.



Which two set-ups should he use to conduct a fair test?

(1) W and X
(2) W and Y
(3) X and Y
(4) Y and Z

2. The diagram below shows an elephant flapping its ears to cool down.



Based on the diagram, the elephant is a living thing because it can _____.

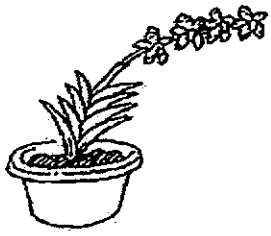
(1) grow
(2) breathe
(3) reproduce
(4) respond to changes

3. Which one of the following is a non-living thing?

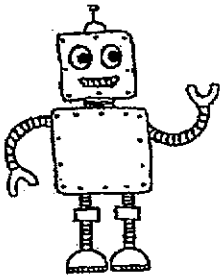
(1)

(2)

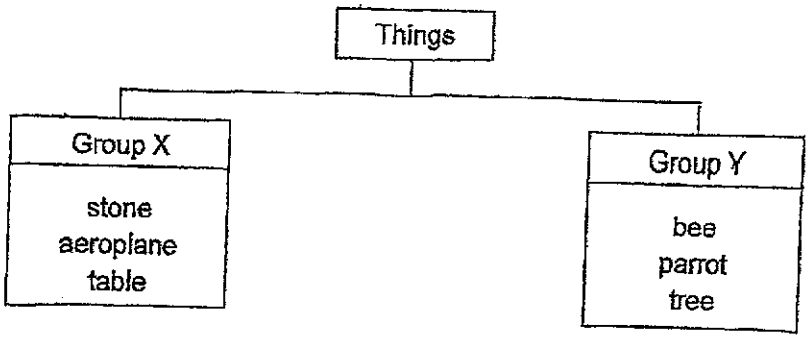
(3)



(4)



4. Study the diagram below.



Which of the following best represents group X and Y?

	Group X	Group Y
(1)	living things	non-living things
(2)	can move	cannot move
(3)	cannot grow	can grow
(4)	can fly	cannot fly

5. Arissa wanted to find out if the amount of water given to a plant affects its growth.

Set-up	Amount of water given daily (ml)	Height of plant at start of experiment (cm)	Height of plant at end of experiment (cm)
A	40	10	15
B	80	10	19
C	120	10	20

Based on the results of her experiment, what is the relationship between the growth of the plant and the amount of water given to a plant?

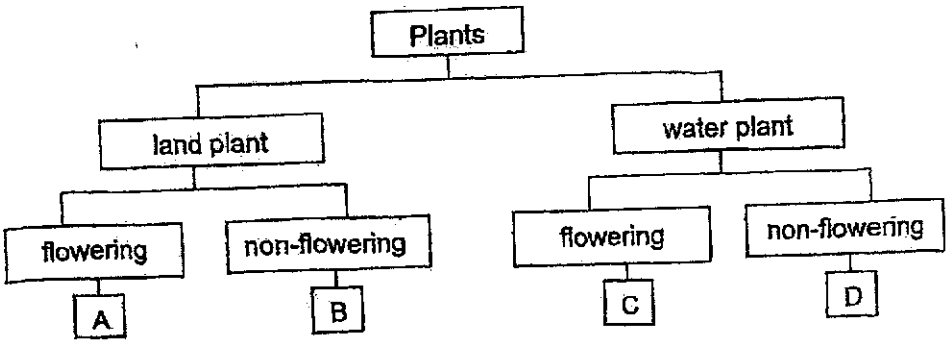
(1) As the amount of water given increases, the plant's growth increases.

(2) As the amount of water given increases, the plant's growth decreases.

(3) As the amount of water given decreases, the plant's growth increases.

(4) As the plant's growth increases, the amount of water given decreases.

6. Study the classification chart below.



Which group A, B, C or D does plant X belong to?

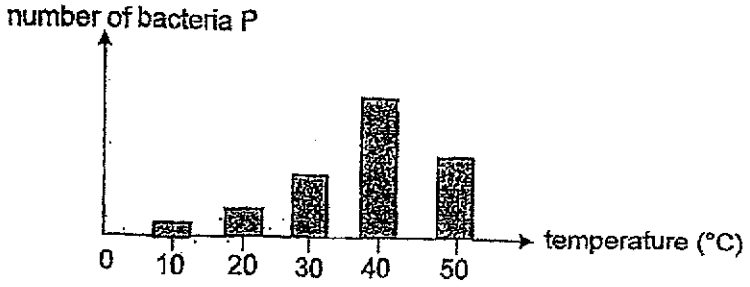
(1) A
(2) B
(3) C
(4) D

7. Which of the following statements about yeast and mould are false?

A Mould is a type of fungi.
B Yeast is a type of bacteria.
C Both can make their own food.
D Yeast can be used to bake bread.

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

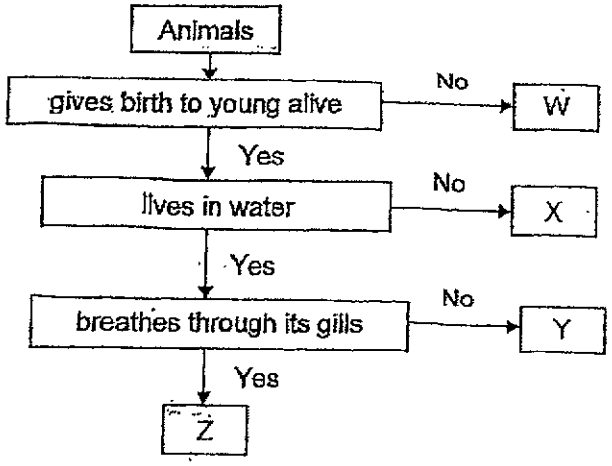
8. The graph shows the number of bacteria P at different temperatures.



Based on the graph, which temperature is most suitable for bacteria P to grow?

(1) 20 °C
(2) 30 °C
(3) 40 °C
(4) 50 °C

9. Study the flow chart below.



Based on the flow chart, which letter W, X, Y or Z best represents the whale?

(1) W
(2) X
(3) Y
(4) Z

10. Susan spotted animal X in a park.

Which of the following characteristics would help her decide that Animal X was a fish?

(1) number of legs
(2) presence of gills
(3) presence of wings
(4) presence of moist skin

11. Study the animals below.

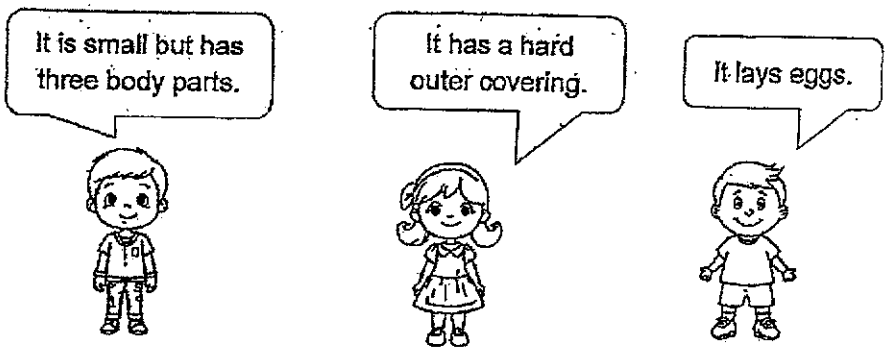
salamander

frog

What is a similarity between the salamander and frog?

(1) Both breathe through their gills.
(2) They produce milk for their young.
(3) Both give birth to their young alive.
(4) They have the same outer body covering.

12. Three pupils made some observations about animal B.



Based on their observations, which of the following best represents animal B?

(1) cat
(2) guppy
(3) cricket
(4) mudskipper

13. Study the animals below.


grasshopper


mealworm beetle

Which of the following statement(s) about the grasshopper and the mealworm beetle is/are true?

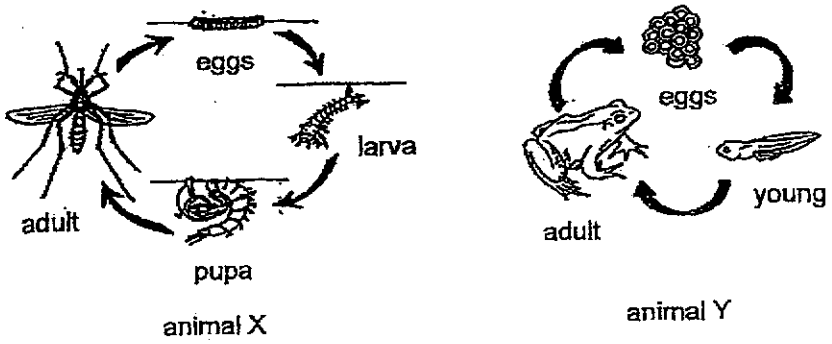
A Their young do not have wings.
B Their young resemble the adults.
C Both have the same number of stages in their life cycle.

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

14. Which group of organisms has three stages in their life cycle?

(1) beetle and butterfly
(2) chicken and butterfly
(3) beetle and bean plant
(4) mango plant and chicken

15. The diagram below show the life cycles of animals X and Y.

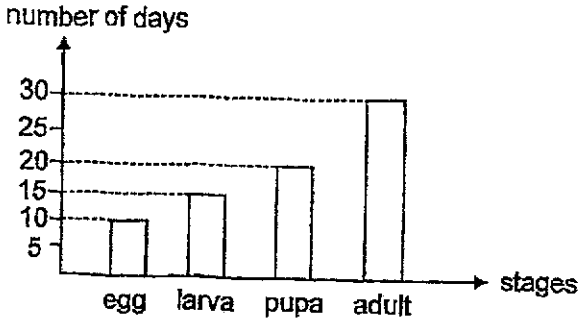


Based on the diagram above, which of the following statement(s) about animal X and Y is/are true?

A Only the young of animal X does not resemble the adult.
B The adult of animal X and Y can live both on land and in water.
C Animal X and Y have different number of stages in their life cycle.

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

16. The graph below shows the number of days in the different stages of the life cycle of animal X.



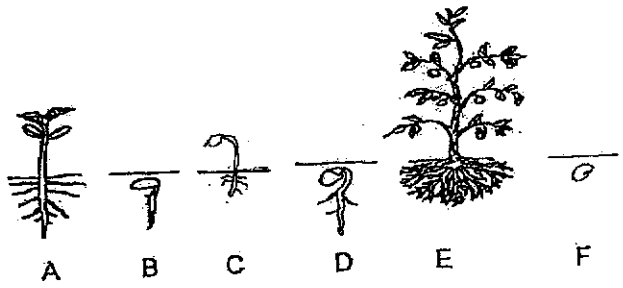
Based on the graph, how many days will it take for animal X's egg to become a pupa after it is hatched?

(1) 10
(2) 15
(3) 20
(4) 35

17. Which statement about life cycles is true?

(1) All life cycles begin with an egg stage.
(2) A life cycle is a repeated pattern of change.
(3) All life cycles have the same number of stages.
(4) The young go through a different life cycle from their parents.

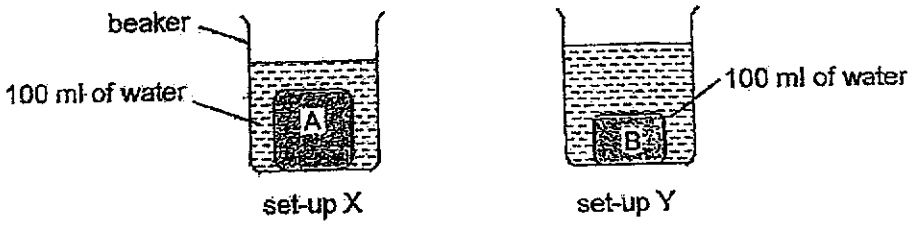
18. The diagram below shows the different developmental stages of growth of a plant.



Which of the following is the correct order of the developmental stages of growth of the plant?

(1) A→ E→ F→ B→ D→ C
(2) C→ E→ A→ D→ F→ B
(3) F→ B→ D→ A→ C→ E
(4) F→ C→ B→ D→ A→ E

19. Alex wanted to find out which material A or B can absorb more water. He set up his experiment as shown below.

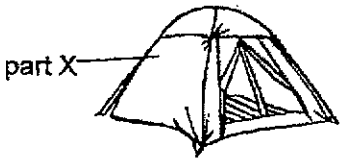


However, his teacher told him that his experiment was not a fair test.

Which one of the variables should be kept the same to make it a fair test?

(1) Use the same type of material.
(2) Use materials of the same size.
(3) Use a bigger beaker for set-up X.
(4) Remove some water from set-up Y.

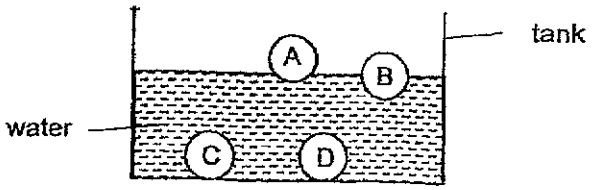
20. The camping tent keeps out the rain and the sun. It can be folded easily when not in use.



Which one of the following best represents the properties of the material used to make part X?

	Flexible	Waterproof	Allows light to pass through
(1)	No	No	No
(2)	No	Yes	No
(3)	Yes	Yes	Yes
(4)	Yes	Yes	No

21. Ali put four waterproof objects A, B, C and D into a tank of water as shown below.



Based on the diagram, which of the following statement(s) is/are true?

A Only object A floats on water.

B Only objects C and D sink in water.

C Objects A and B are made of the same material.

D Objects C and D absorb water.

(1) B only

(2) D only

(3) A and B only

(4) A, C and D only

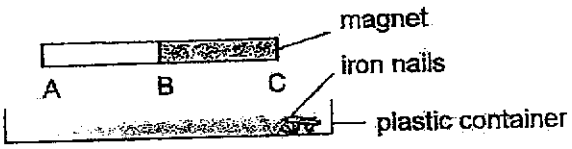
22. Two different objects were placed in each of the four containers A, B, C and D as shown in the table below.

Containers	Objects
A	steel pins and sand
B	copper nails and wooden toothpicks
C	iron nails and steel clips
D	plastic beads and glass marbles

In which container can the two objects be separated using a bar magnet?

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

23. Raju lowered a bar magnet into a container of iron nails.



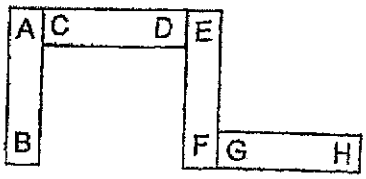
He recorded the number of iron nails attracted by parts A, B and C of the magnet in the table below.

	part A	part B	part C
first try	10	0	11
second try	9	1	10
third try	11	0	9

Based on his results, what conclusion can he draw from his experiment?

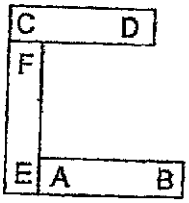
(1) Iron nails are non-magnetic materials.
(2) Part B of the magnet has no magnetic strength.
(3) The poles of the magnet have the greatest magnetic strength.
(4) Part A of the magnet has greater magnetic strength than part B.

24. Four bar magnets AB, CD, EF and GH are arranged as shown below.

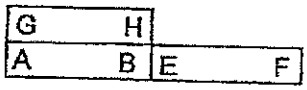


Which one of the following arrangements is possible?

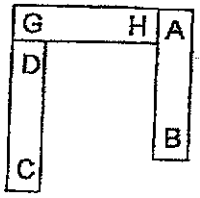
(1)



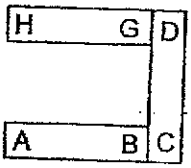
(2)



(3)



(4)



~~ End of Section A~~

Name : _____ ( )

Class : Primary 3 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL

Primary 3
End Year Assessment
SCIENCE

BOOKLET B

23 October 2024

Booklet A	48
Booklet B	32
Total	80

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

10 questions
32 marks

Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.

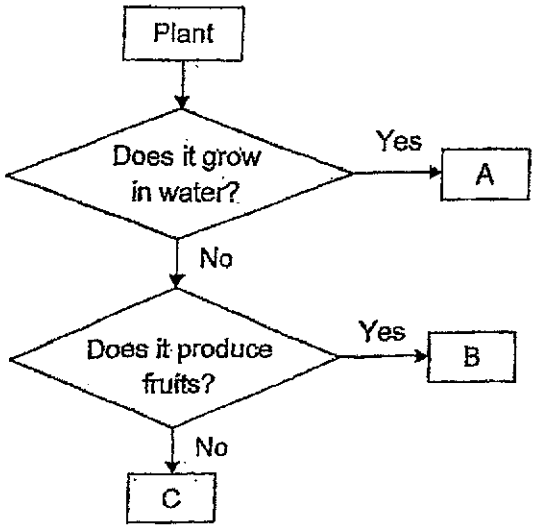
_____

Parent's Signature/Date

This paper consists of 11 printed pages.

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

25. Study the flow chart below.



(a) Based on the flow chart, state one difference between A and B. [1]

_____

_____

(b) Based on the flow chart, state the characteristics of C. [1]

_____

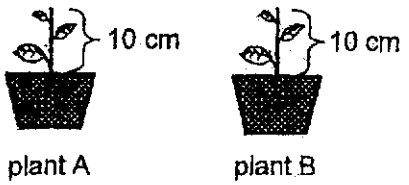
_____

(c) John said B is a mushroom. Do you agree with him? Give a reason for your answer. [1]

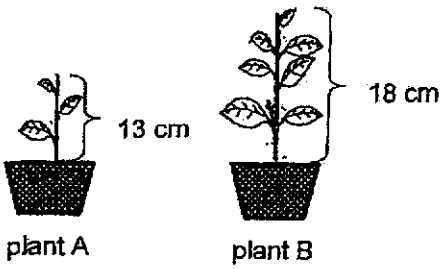
_____

_____

26. Jean conducted an experiment with two plants A and B as shown below. The plants were placed in a garden and watered daily.



The diagram below shows the growth of plant A and B after a few months.



(a) Based on the observations above, which plant A or B grew the fastest? [1]

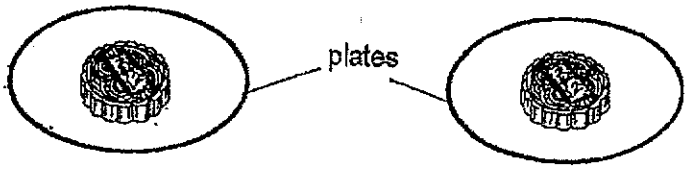
_____

_____

(b) In the table below, tick (✓) the variable(s) that Jean need(s) to keep the same to ensure a fair test. [2]

Variable	Tick (✓)
amount of sunlight the plants received	
amount of water given to the plants daily	
height of the plant at the end of the experiment	

27. Fatimah sprinkled some water on two similar mooncakes X and Y. She placed them in different locations as shown below.



mooncake X
placed on kitchen table

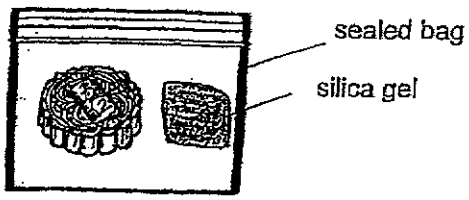
mooncake Y
placed in a refrigerator

A few days later, she observed some mould growing on one of the mooncakes.

(a) What is she trying to find out from her experiment? [1]

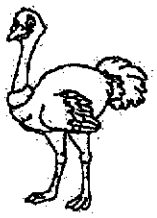
(b) Based on her experiment, which mooncake turned mouldy first? Explain your choice. [1]

Silica gel absorbs moisture and keeps food fresh for a longer time.

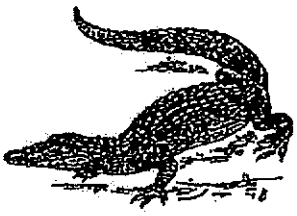


(c) Explain how placing the silica gel in the bag can help to slow down the growth of mould in the mooncake. [1]

28. Study the organisms below.



organism X



organism Y

(a) Which animal group does organism Y belong to? [1]

_____

(b) Name one animal that belongs to the same group as organism Y. [1]

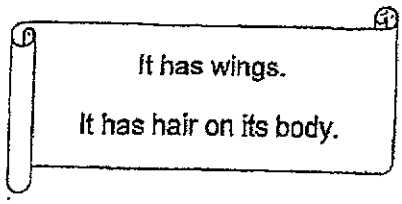
_____

(c) State one similarity between organism X and Y. [1]

_____

_____

29. Joe noted down some observations of animal Z below.



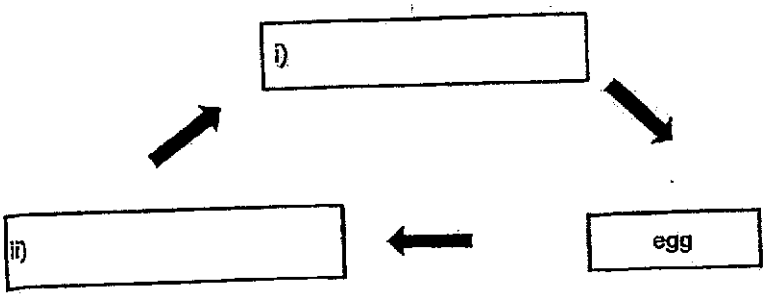
(a) Based on his observations, Joe concluded that animal Z was a bird. Do you agree with him? Explain your answer. [1]

(b) State the method of reproduction for animal Z. [1]

(c) Suggest what animal Z could be. [1]

30. Study the diagram below.

(a) Write the correct stages of the life cycle of a cockroach in the spaces below. [1]



Devi observed the number of days taken for the eggs of the cockroach to hatch at different temperatures. She recorded her observations in the table below.

Temperature of surroundings (°C)	Number of days for eggs to hatch
15	38
22	?
28	29
33	24

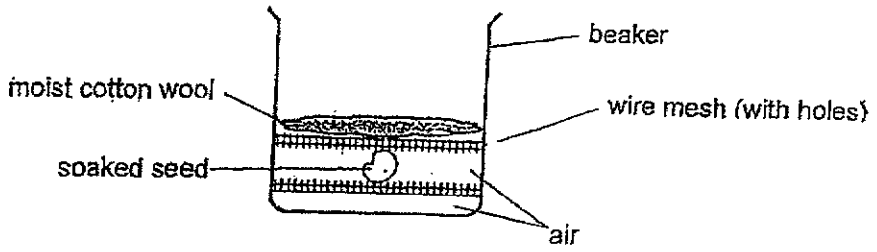
(b) Based on the table, how many days would it take for the eggs to hatch when the surrounding temperature is 22 °C? [1]

_____

(c) Based on the table, state whether each of the following statements is 'True', 'False' or 'Not possible to tell'. Put a tick (✓) in the correct column. [2]

Statement	True	False	Not possible to tell
As the temperature increases, the number of eggs hatched decreases.			
It takes 50 days for the eggs to grow into adults.			

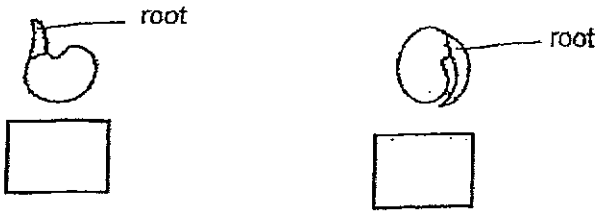
31. Naomi placed a soaked seed in a beaker as shown below.



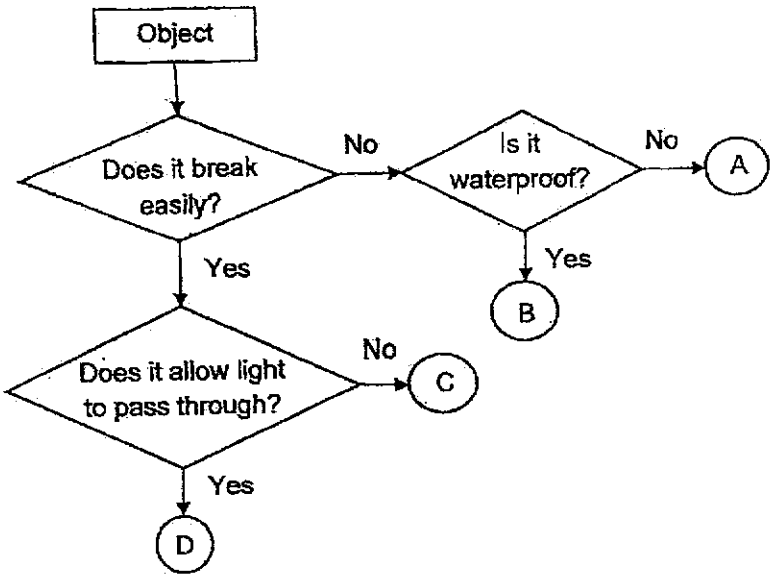
(a) Naomi said that the beaker must be placed under sunlight for the seed to germinate. Do you agree? Give a reason for your answer. [1]

(b) State the conditions needed for a seed to germinate. [1]

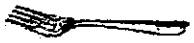
(c) A few days later, she observed that the seed germinated.
Tick (✓) the box that shows the correct position of the germinated seed. [1]



32. Study the flow chart below.



(a) Based on the flow chart, which letters A, B, C or D best represents the objects below? Write the letters in the space below. [1]

Object	Letter
 ceramic spoon	
 metal fork	

(b) State one similarity between objects C and D. [1]

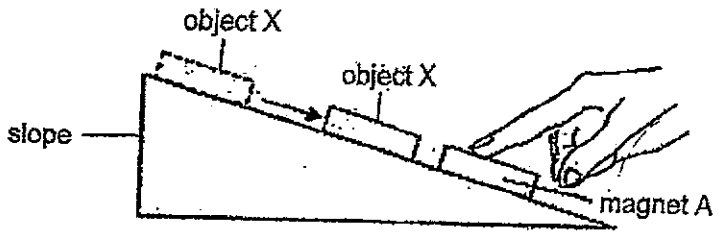
_____

_____

(c) Suggest a material that object A can be made of. [1]

_____

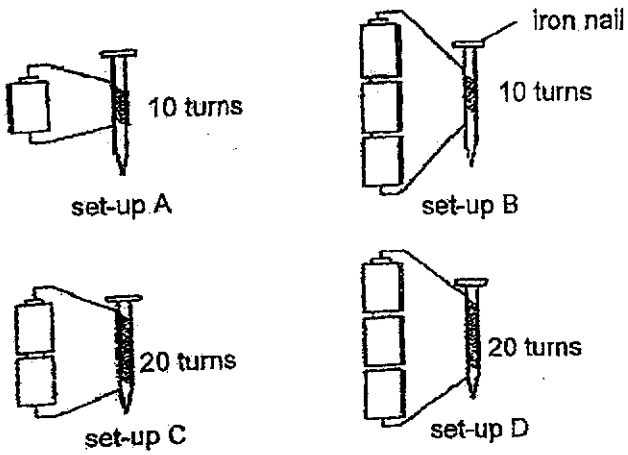
33. Aisyah held magnet A on a slope. When she placed object X at the top of the slope, object X moved down the slope before coming to a stop as shown below.



(a) What could object X be? [1]

(b) Explain your answer in (a). [2]

34. Jane set up an experiment as shown below. She wants to find out if the number of turns of wire around the nail affects the number of steel clips attracted by the iron nail.



(a) Based on her experiment, which two set-ups should she use to conduct a fair test? [1]

(b) Based on the above diagram, state the method she is using to turn the iron nail into a temporary magnet. [1]

(c) In the table below, tick the variable that she is measuring in this experiment. [1]

Variables	Tick (✓)
type of nail	
number of batteries	
number of steel clips attracted	

(d) Can Jane replace the iron nails with copper nails in her experiment? Explain your answer. [1]

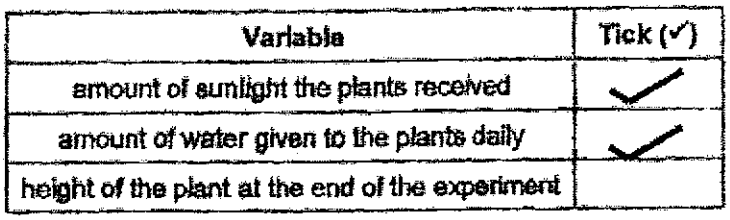
~~ End of Paper ~~

SCHOOL : CHIJ ST NICHOLAS GIRLS' SCHOOL
LEVEL : PRIMARY 3
SUBJECT : SCIENCE
TERM : SA2

BOOKLET A

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

BOOKLET B

Q25 (a)	Plant A grows in water while plant B does not.
Q25 (b)	Plant C does not grow in the water and does not produce fruits.
Q25 (c)	No. Plant B produces fruits but mushrooms do not produce fruits and produces spores instead.
Q26 (a)	Plant B.
Q26 (b)	
Q27 (a)	To find out if mould needs warmth to grow.
Q27 (b)	Mooncake X. It was placed on the kitchen table which was

Variable	Tick (✓)
amount of sunlight the plants received	✓
amount of water given to the plants daily	✓
height of the plant at the end of the experiment	

<table>
<tr><td></td><td>warmer which resulted in it turning mouldy first.</td></tr>
<tr><td>Q27 (c)</td><td>Silica gel reduces moisture from the air in the bag so mould would grow slower.</td></tr>
<tr><td>Q28 (a)</td><td>Reptile</td></tr>
<tr><td>Q28 (b)</td><td>Turtle</td></tr>
<tr><td>Q28 (c)</td><td>Organisms X and Y cannot fly.</td></tr>
<tr><td>Q29 (a)</td><td>I do not agree with him. Animal Z has hair on its body, making it a mammal.</td></tr>
<tr><td>Q29 (b)</td><td>Giving birth to live young.</td></tr>
<tr><td>Q29 (c)</td><td>Bats.</td></tr>
<tr><td>Q30 (a)</td><td>(i) Adult
(ii) Young</td></tr>
<tr><td>Q30 (b)</td><td>32</td></tr>
<tr><td>Q30 (c)</td><td>
<table>
<tr><th>Statement</th><th>True</th><th>False</th><th>Not possible to tell</th></tr>
<tr><td>As the temperature increases, the number of eggs hatched decreases.</td><td></td><td>✓</td><td></td></tr>
<tr><td>It takes 50 days for the eggs to grow into adults.</td><td></td><td></td><td>✓</td></tr>
</table>
</td></tr>
<tr><td>Q31 (a)</td><td>I do not agree. Seeds do not need sunlight to germinate.</td></tr>
<tr><td>Q31 (b)</td><td>The seeds need air, water and warmth.</td></tr>
<tr><td>Q31 (c)</td><td> 
</td></tr>
</table>

<table>
<tr><td>Q32 (a)</td><td>
<table>
<tr><th>Object</th><th>Letter</th></tr>
<tr><td> 
ceramic spoon</td><td>C</td></tr>
<tr><td> 
metal fork</td><td>B</td></tr>
</table>
</td></tr>
<tr><td>Q32 (b)</td><td>Objects C and C break easily.</td></tr>
<tr><td>Q32 (c)</td><td>Wood.</td></tr>
<tr><td>Q33 (a)</td><td>A magnet.</td></tr>
<tr><td>Q33 (b)</td><td>As there is a slope, the object X will slide down, only magnets can repel if the like poles are facing each other. Hence there is a gap between object X and magnet A as they were repelling each other.</td></tr>
<tr><td>Q34 (a)</td><td>Set-ups B and D.</td></tr>
<tr><td>Q34 (b)</td><td>The electrical method.</td></tr>
<tr><td>Q34 (c)</td><td>The number of steel clips attracted.</td></tr>
<tr><td>Q34 (d)</td><td>No. Copper is a non-magnetic material so it will not attract any steel clips.</td></tr>
</table>