



## **2023 PRIMARY 4 WEIGHTED ASSESSMENT 1**

Name : \_\_\_\_\_ ( )

Date: 5 April 2023

Class : Primary 4 ( )

Duration: 35 minutes

Parent's Signature : \_\_\_\_\_

# **SCIENCE**

## **INSTRUCTIONS TO CANDIDATES**

- (a) Write your name, class and register number.
- (b) Do not turn over this page until you are told to do so.
- (c) Follow all instructions carefully.
- (d) Answer all questions.
- (e) Write all your answers in the booklet.

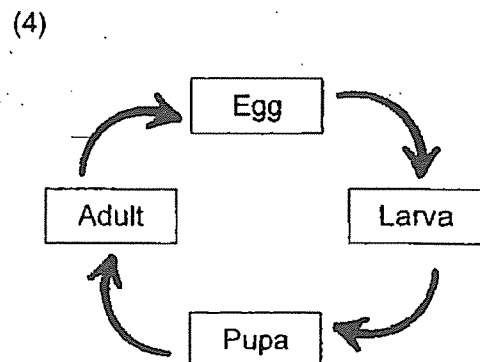
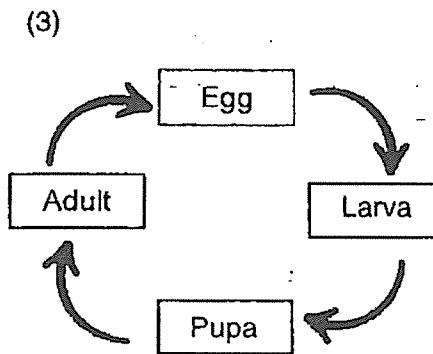
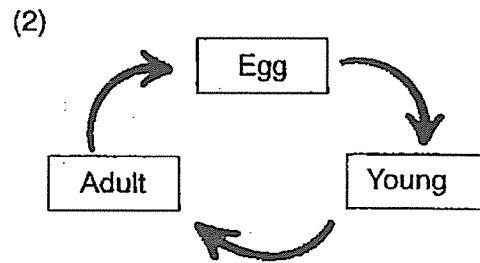
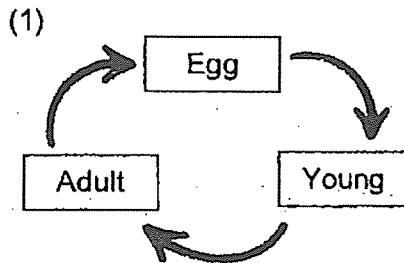
Section A	16
Section B	14
Total	30

**Section A (8 x 2 marks)**

For each question from 1 to 8, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write it in the brackets provided.

(16 marks)

1. Which of the following shows the correct stages of the life cycle of a frog?



( )

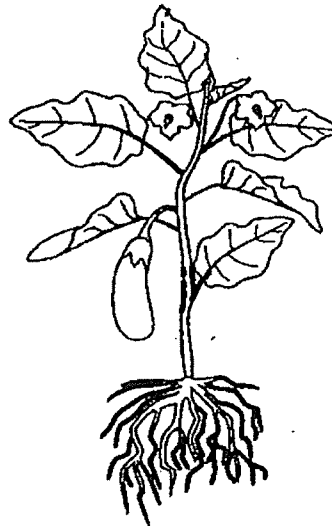
2. The diagrams below show the stages of growth in the life cycle of a plant.



A



B



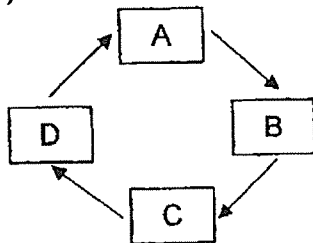
C

G

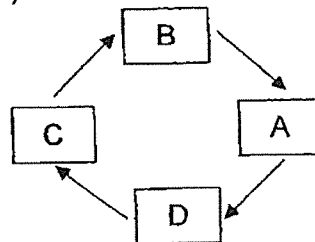
D

Which of the following shows the correct order of growth?

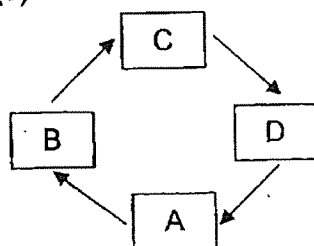
(1)



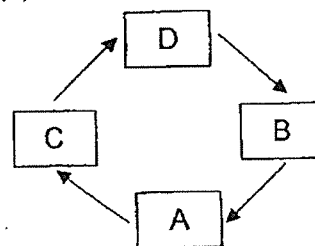
(2)



(3)

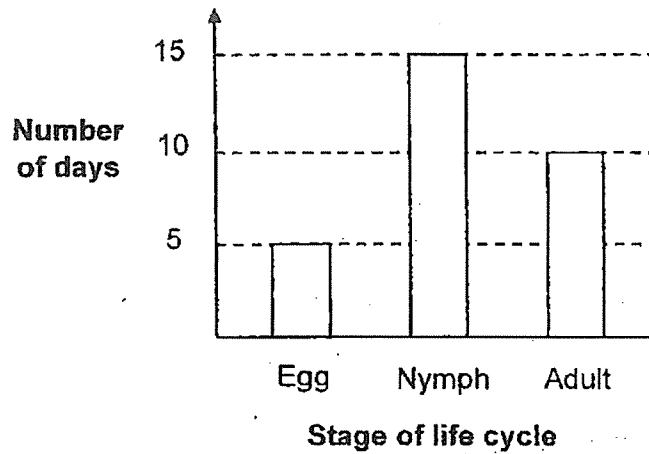


(4)



( )

3. The graph below shows the number of days in each stage of the life cycle of an insect which lives in the water.



Which of the following statements is correct?

- (1) The insect is alive for less than two weeks.
- (2) The insect takes 10 days to become a nymph.
- (3) The insect lives in the water for 15 days as a nymph.
- (4) The insect takes 30 days to become an adult after the egg is hatched.

( )

4. The following statements describe the life cycle of an animal.

- It has wings at the adult stage.
- The female adult lays its eggs in water.
- The young does not resemble the adult.

Which of the following animals fits the description stated above?

- (1) Butterfly
- (2) Housefly
- (3) Mosquito
- (4) Cockroach

(      )

5. Mary placed two objects on a weighing balance as shown below.

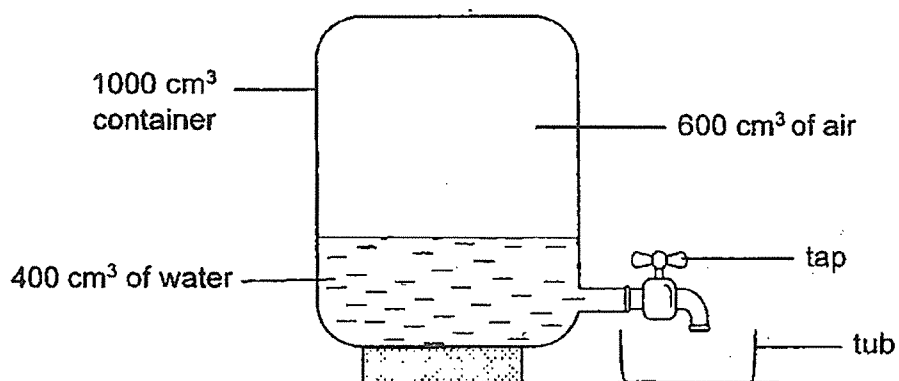


Which of the following can be concluded from the above observation?

- (1) Both objects have the same mass.
- (2) Both objects have the same volume.
- (3) Both objects have the same mass and volume.
- (4) Both objects have the same volume but different shape.

(      )

6. The diagram shows a container with a capacity of  $1000 \text{ cm}^3$ . It contains  $400 \text{ cm}^3$  of water.

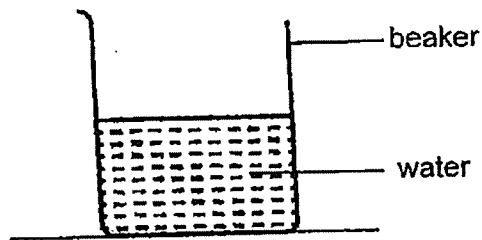


$100 \text{ cm}^3$  of water is collected in the tub after the tap is turned on for a few seconds and then turned off. Which of the following shows the final volume of air and water in the container?

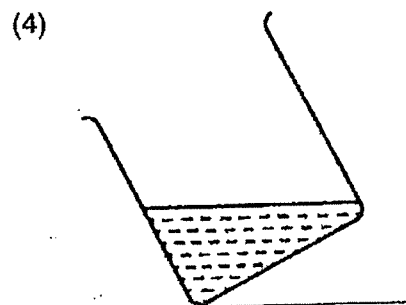
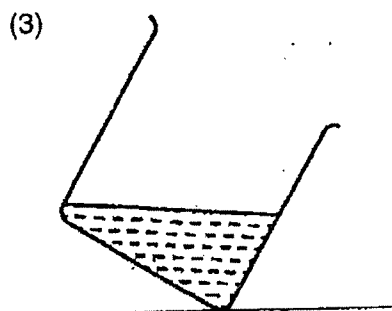
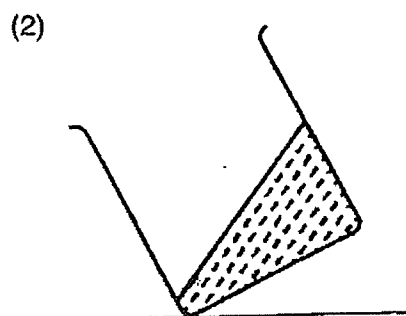
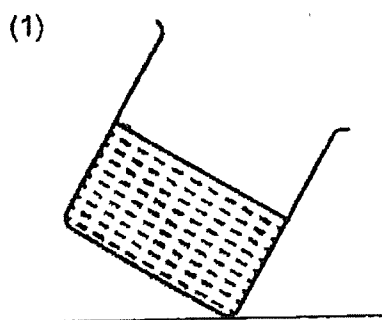
	Volume of air ( $\text{cm}^3$ )	Volume of water ( $\text{cm}^3$ )
(1)	500	500
(2)	600	400
(3)	600	300
(4)	700	300

( )

7. The diagram below shows a beaker containing some water at room temperature. It was then placed in the freezer for ten hours.

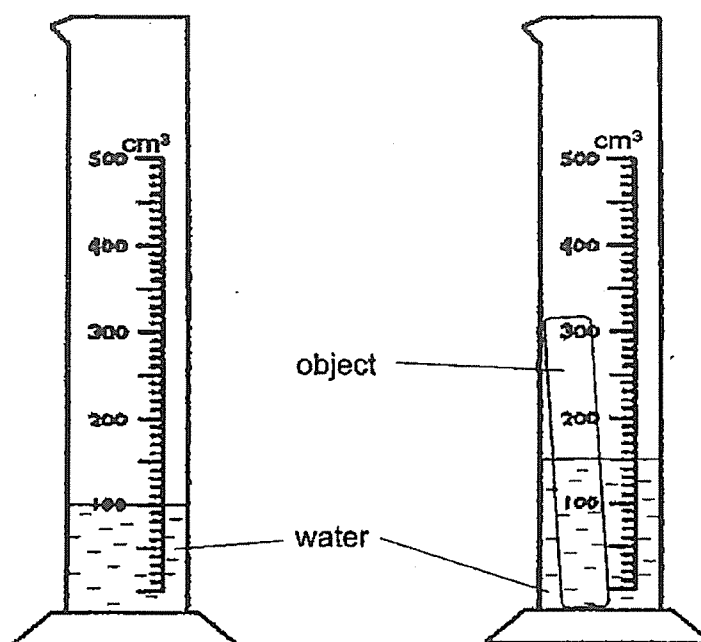


Which one of the following diagrams shows how the water in the beaker would look like in the freezer when it was tilted?



( )

8. Samantha placed an object into a measuring cylinder of water as shown below. Approximately half of the object is submerged in the water.



What is the likely volume of the object?

- (1) 50 cm<sup>3</sup>
- (2) 100 cm<sup>3</sup>
- (3) 150 cm<sup>3</sup>
- (4) 200 cm<sup>3</sup>

(      )

**End of Section A**



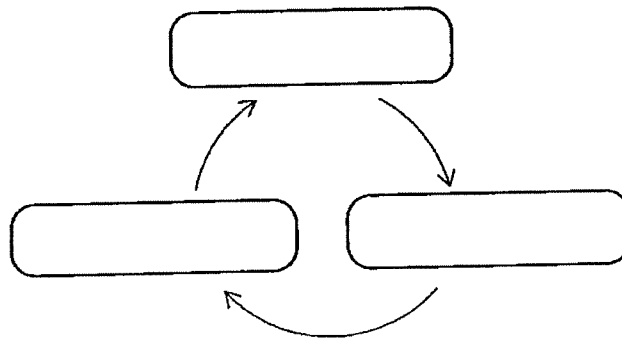
**Section B (14 marks)**

For questions 9 to 13, write your answers clearly in this booklet.

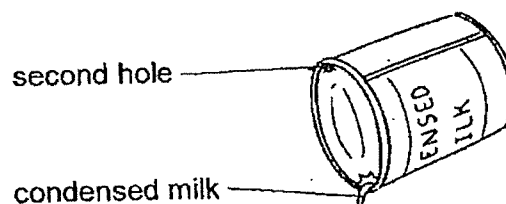
The number of marks available is shown in brackets [ ] at the end of each question or part question.

(14 marks)

9. Complete the diagram below by writing the names of the different stages in the life cycle of a bean plant. [2]



10. Jonathan noticed that his grandmother made a second hole on a tin when pouring out the condensed milk as shown in the diagram below.



Explain why the milk could flow out more quickly after the second hole was made on the tin. [2]

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Score	4
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11. Study the table below.

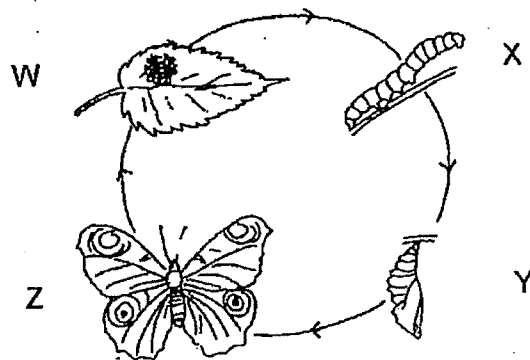
Characteristic	Substance		
	A	B	C
Has mass	✓	✓	✓
Has a definite shape		✓	
Has a definite volume		✓	✓

Write down the letter A, B or C that best represents the items shown below. [2]

Item	Substance
Oil	
A block of frozen butter	
Air	

Score	2
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12. Below is the life cycle of a butterfly. It can be harmful or useful to Man at different stages.



When a butterfly is in one of the stages of its life cycle, it can destroy crops.

- (a) Name the stage of a butterfly that can destroy crops. [1]

\_\_\_\_\_

- (b) How does the butterfly at this stage destroy crops? [1]

\_\_\_\_\_  
\_\_\_\_\_

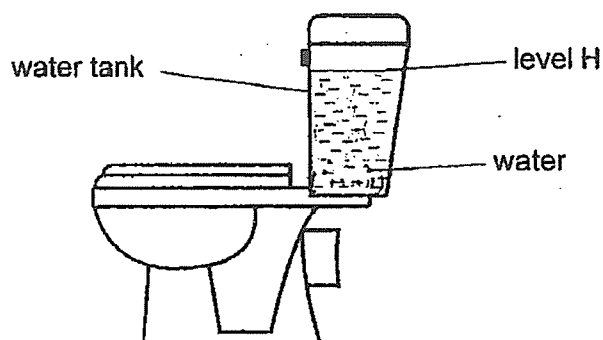
- (c) State two differences between the animal at stage X and stage Y. [2]

First difference: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Score	4
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13. The diagram below shows a water tank used for flushing a toilet bowl. Water enters and refills the tank after flushing. The tank will stop refilling when the water reaches level H.



Thomas wanted to save some water for his toilet by placing 30 golf balls into the water tank. The golf balls sank to the bottom of the tank.

- (a) Explain how this method could help him to save water. [2]

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Thomas replaced the golf balls with 30 identical ping pong balls into the water tank.

- (b) Explain why he could not save as much water as in (a). [2]

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End of Paper

Score	4
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SCHOOL : TAO NAN PRIMARY SCHOOL  
 LEVEL : PRIMARY 4  
 SUBJECT : SCIENCE  
 TERM : 2023 WEIGHTED ASSESSMENT 1

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### **SECTION A**

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
1	4	3	3	1	4	1	2

### **SECTION B**

Q9)	<pre> graph TD     A[Adult plant] --&gt; B[Young plant]     B --&gt; C[Seed]     C --&gt; A           </pre>
Q10)	Air could enter the tin through the second hole to take up space originally taken up by milk
Q11)	oil - C Frozen butter - B Air - A
Q12)	a) Stage X b) The larva eats a lot and will eat most of the leaves of the crops c) At stage X, the larva eats a lot while in stage Y the pupa does not eat. At stage X, larva can move from place to place but pupa cannot. At stage X, larva molts but the pupa does not molt in stage Y
Q13)	a) The 30 golf balls occupy space in water tank so less water will be required to fill up water tank to level H b) The 30 ping pong balls floated on the water take up less space in the tank so more water is needed to fill up to level H