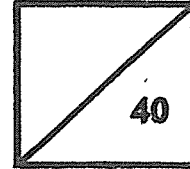




**Rosyth School
PRACTICE PAPER
SCIENCE
Primary 4**

Name: _____

Total
Marks:



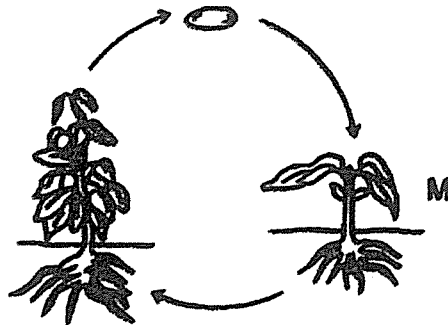
Class: Pr 4- _____ Register No. _____ Duration: 50 min

Date: 28 October 2022

Parent's Signature: _____

For each question from 1 to 11, four options are given. One of them is the correct answer. Choose the correct answer and write its number in the brackets provided.
(22 marks)

1 The diagram below shows the life cycle of a plant.



What is the stage marked M?

- (1) egg
- (2) seed
- (3) adult plant
- (4) young plant

()

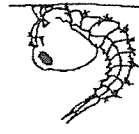
2 A, B, C and D are the various stages in the life cycle of a mosquito.



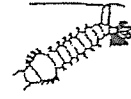
A



B

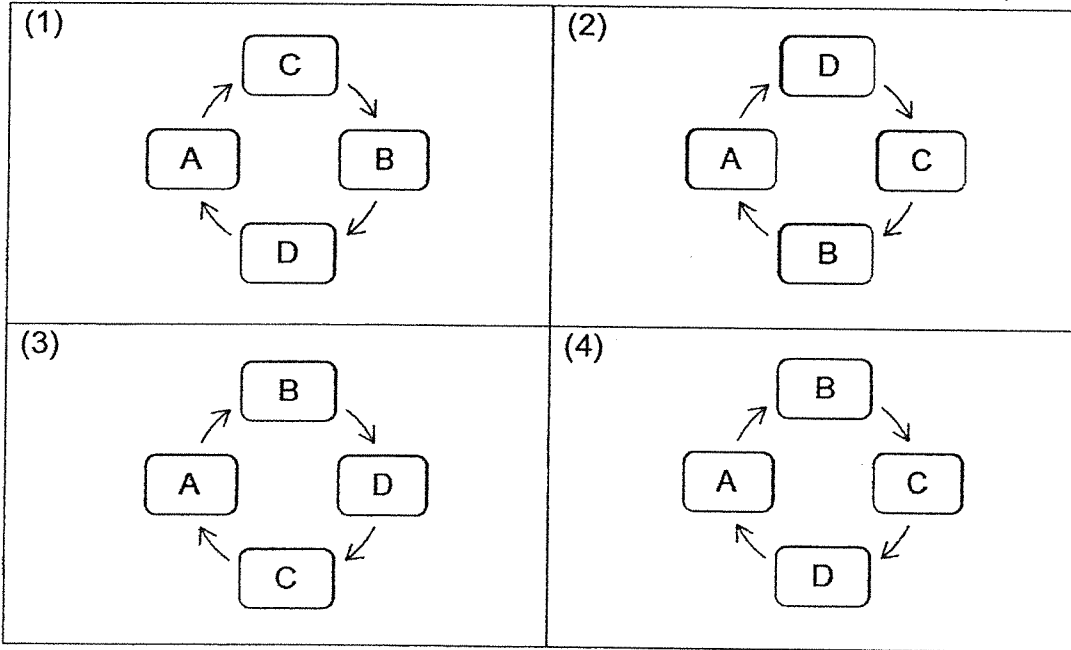


C



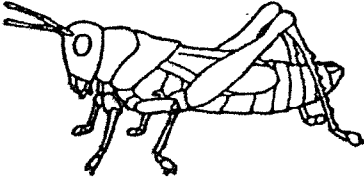
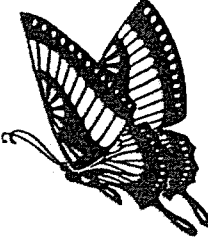
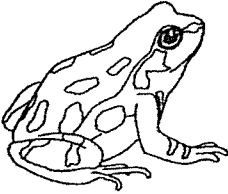

D

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



()

3 Which of the following animals has a 4-stage life cycle?

<p>(1) grasshopper</p> 	<p>(2) butterfly</p> 
<p>(3) frog</p> 	<p>(4) human</p> 

()

4 Which one of the following properties is true for both air and a pencil?

- (1) They can be seen.
- (2) They take up space.
- (3) They have fixed shapes.
- (4) They have fixed volumes.

()

5 Which one of the following substances has a fixed shape?

- (1) oil
- (2) water
- (3) stone
- (4) orange juice

()

6 Charlene made the following observations on the life cycle of an animal.

- The young resembles the adult.
- There are three stages in the life cycle.

Which of the animals was Charlene observing?

A: cockroach

B: grasshopper

C: mealworm beetle

(1) C only

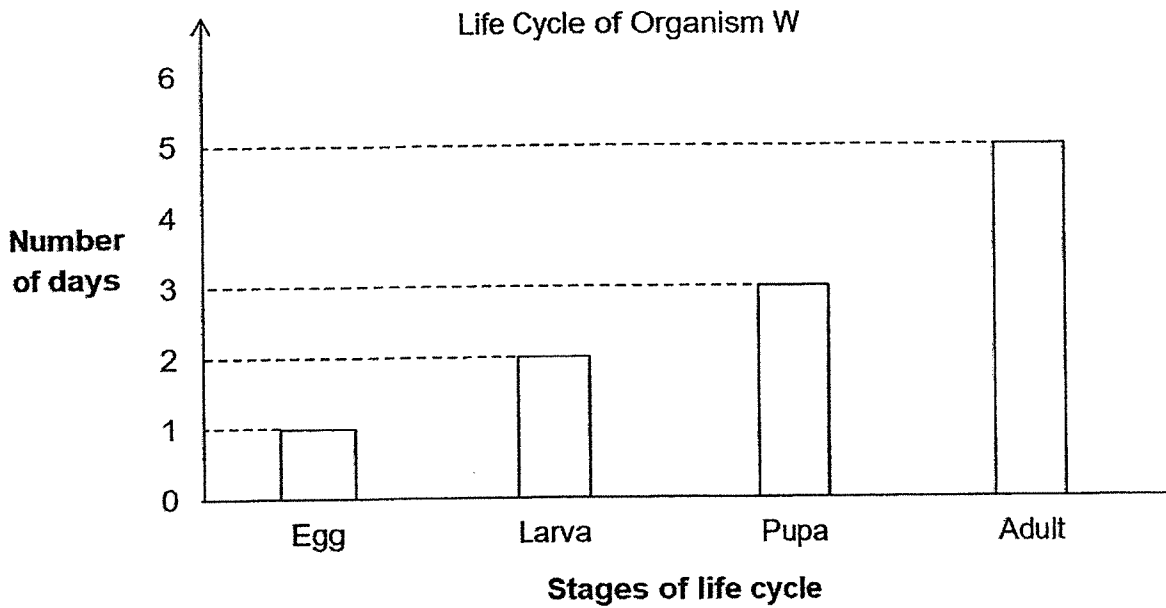
(2) A and B only

(3) B and C only

(4) A, B and C

()

- 7 Ravi studied the life cycle of Organism W. He then recorded the number of days of each stage of Organism W in the graph below.

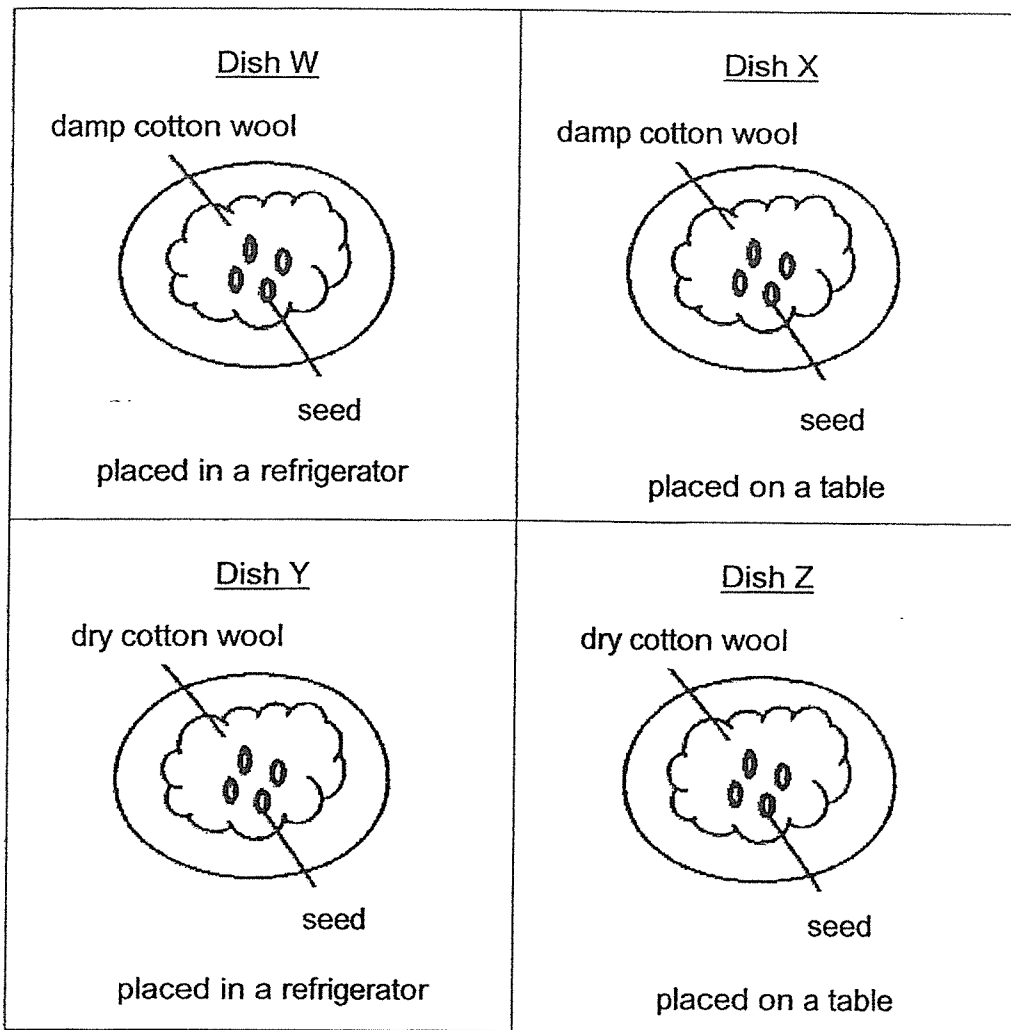


Based on the information above, which one of following statements about Organism W is correct?

- (1) Organism W eats for two days only.
- (2) Organism W took five days to lay eggs.
- (3) Organism W does not eat for three days after the pupal stage.
- (4) Organism W took three days to become an adult after the larva stage.

()

8 Julaiha set up an experiment as shown below.

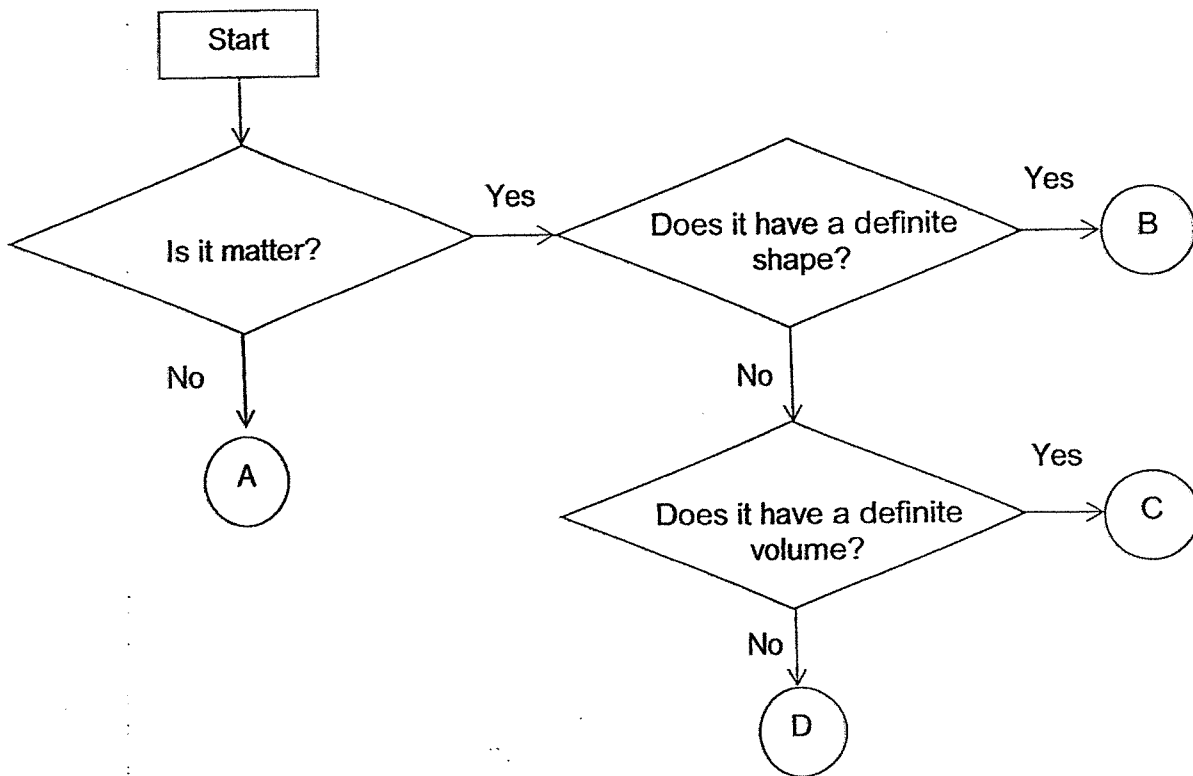


Only the seeds in Dish X germinated. Which factors of germination can be confirmed using the above experiment?

- (1) oxygen and water only
- (2) water and warmth only
- (3) oxygen and water only
- (4) oxygen, water and warmth

()

- 9 The following flowchart shows the properties of four substances A, B, C and D at 50°C.

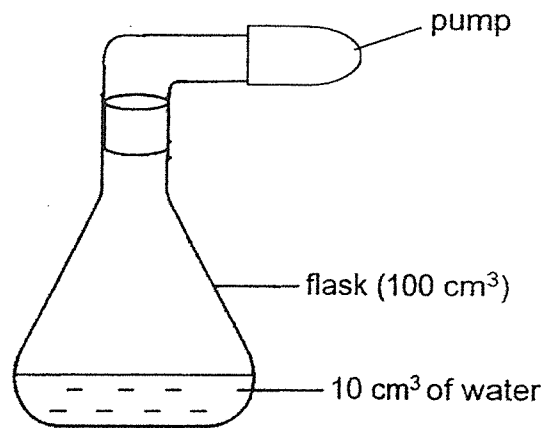


Which substance will escape if it is not stored in a sealed container at 50°C?

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

()

10 Peter carried out an experiment using the set-up shown below.



A 100 cm³ flask containing 10 cm³ of water was connected to a pump. Peter first added 20 cm³ of air to the flask using the pump. He then added another 40 cm³ of air to the flask.

What is the final volume of air in the flask?

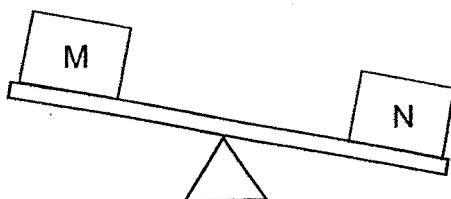
- (1) 60 cm³
- (2) 90 cm³
- (3) 100 cm³
- (4) 140 cm³

()

11 The table below shows the mass and volume of four balls, A, B, C and D.

Ball	A	B	C	D
Mass (g)	70	100	100	100
Volume (cm ³)	100	70	100	70

The diagram below shows what happened when two of the balls were placed into two identical boxes, M and N, on each end of a balance.



Based on the information given in the table above, identify which two balls were placed in boxes M and N.

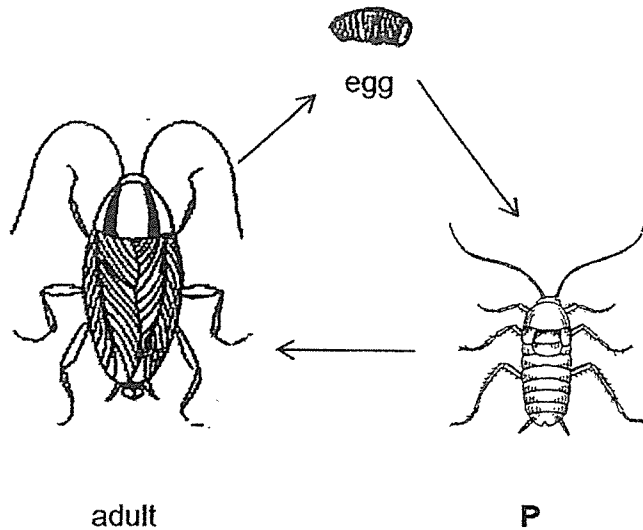
	Box M	Box N
(1)	A	B
(2)	D	A
(3)	C	B
(4)	D	C

()

For questions 12 to 16, write your answers in the blanks provided.

(18 marks)

12 The diagram below shows the life stages in the life cycle of a cockroach.



(a) Name stage P.

[1]

(b) State two other animals that have a similar life cycle as a cockroach.

[2]

13 Tick (✓) in the box if each of the following has
(i) a definite shape

(ii) a definite volume

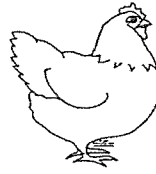
[3]

	(i) has a definite shape	(ii) has a definite volume
(a) air	<input type="checkbox"/>	<input type="checkbox"/>
(b) water	<input type="checkbox"/>	<input type="checkbox"/>
(c) metal spoon	<input type="checkbox"/>	<input type="checkbox"/>

14 Look at the diagrams below.



frog



chicken

- (a) State one similarity and one difference between the life cycle of a frog and a chicken. [2]

Similarity:

Difference:

In a farm, a farmer recorded the number of chicken eggs that hatched at different temperatures. The table below shows his recordings.

Temperature (°C)	Number of eggs hatched
35.0	0
35.5	15
36.0	24
36.5	50
37.0	71

- (b) Based on the recordings shown above,
(i) what is the most suitable temperature for the chicken egg to hatch? [1]

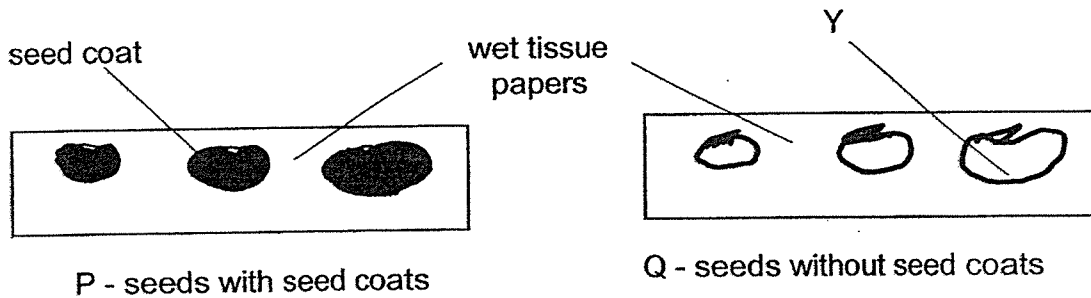
_____ °C

- (ii) state the relationship between the temperature and the number of eggs hatched. [1]

15(a) During germination, the root appears first. Explain why.

[1]

Jamie carried out an experiment on two sets of seeds, P and Q. P has seeds with seed coats and Q has seeds without seed coats. The seeds were placed on wet tissue papers as shown below.



Jamie placed the containers on a table in her room and observed their growth over a period of three weeks.

(b) Name Part Y.

[1]

(c) What is the aim of Jamie's experiment?

[1]

(d) Which set(s) of seeds would become seedlings? Explain why.

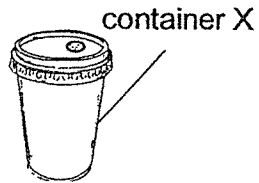
[1]

16 Fill in the blanks.

(a) Matter is anything that has _____ and _____

[2]

(b) Ron bought a drink in container X as shown below.



Ron held container X and found that it was filled to the brim with liquid.

If he inserted a metal straw into container X, state one observation he would make about the liquid in the container. Explain your answer. [2]

b) Observation: _____

c) Explanation: _____

End of Paper

ANSWER KEY

YEAR : 2022
LEVEL : Primary 4
SCHOOL : Rosyth School
SUBJECT : SCIENCE
TERM : Practice Paper

Q1	4	Q2	3	Q3	2	Q4	2	Q5	3
Q6	2	Q7	4	Q8	2	Q9	4	Q10	2
Q11	1								

Q12	(a) nymph (b) grasshopper frog
Q13	(a) no tick (b) has a definite volume (c) has a definite shape, has a definite volume
Q14	(a) Similarity : Both have a 3 stage life cycle Difference : The chicken's young resembles the adult but the frog's young does not resemble the adult (b)(i) 37.0 (ii) As the temperature increases, the number of eggs hatched increases.
Q15	(a) The root appears first so it can absorb water for the plant (b) seed leaf (c) To find out if the seed can grow without a seed coat. (d) Both P and Q. The seed still have seed leaf to provide it with food for growth.
Q16	(a) mass, occupies space (b) Observation : The liquid will leak (c) When he poked the straw in, the cup was already full and the liquid leaked to make space for the metal straw because it occupies space.

