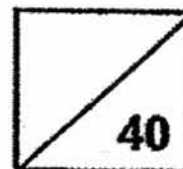




**Rosyth School
Topical Test for 2017
SCIENCE
Primary 4**

Name: _____

Total
Marks:



Class: Pr 4 _____

Register No. _____ Duration: 1 hour

Date: 3 March 2017

Parent's Signature: _____

Instructions to Pupils:

1. Do not open the booklet until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 sections, Part I and Part II.
4. For questions 1 to 11, write the correct answer in the brackets provided.
5. For questions 12 to 18, give your answers in the spaces provided in Part II.

	Maximum Marks	Marks Obtained
Part I	22 marks	
Part II	18 marks	
Total	40 marks	

* This booklet consists of 12 pages. (including cover page)

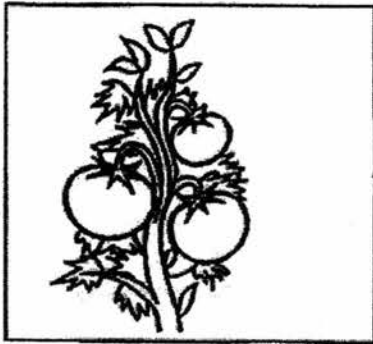
This paper is not to be reproduced in part or whole without the permission of the Principal.

Part I (22 Marks)

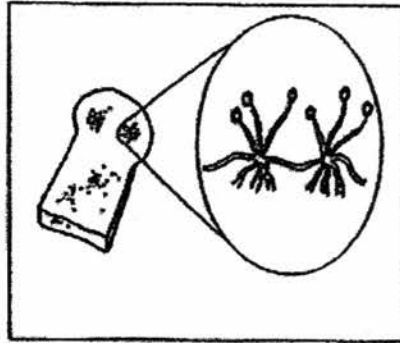
For each question from 1 to 12, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write your answer in the brackets provided.

1. Which of the following organism(s) does/do not reproduce by spores?

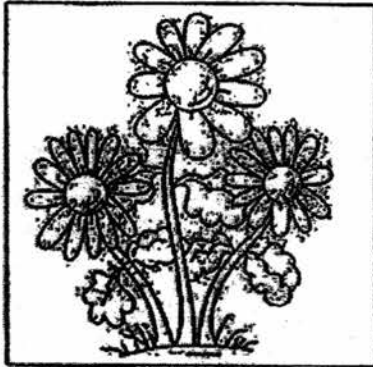
A. tomato plant



B. bread mould



C. sunflower plant



D. Bird Nest Fern



(1) D only

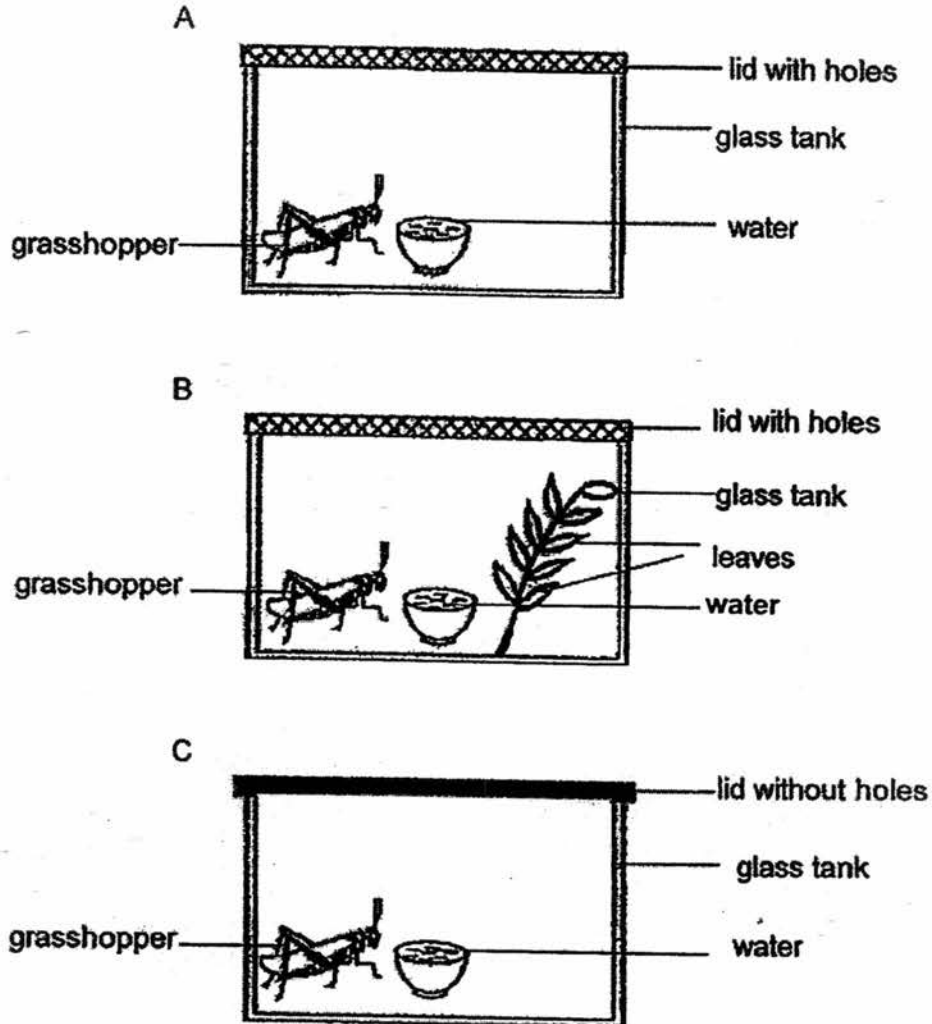
(3) B and C only

(2) A and C only

(4) A, B and D only

()

2. Jack wanted to keep a grasshopper as a pet. He thought of three possible ways A, B and C to keep his grasshopper alive.



Which of the following is correct?

	Least suitable way to keep the grasshopper	Most suitable way to keep the grasshopper
(1)	C	B
(2)	A	C
(3)	C	A
(4)	A	B

()

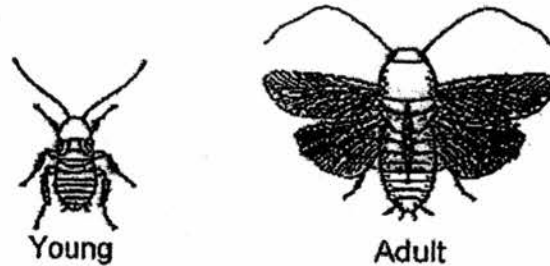
5. Jack kept four mealworm beetles, W, X, Y and Z. They are at different stages of their life cycles. He kept each mealworm beetle in a separate container and he placed 20 g of food in each container. He measured the mass of food left in the container after 3 days and recorded the results in a table.

Mealworm	Mass of food left (g)
W	20
X	12
Y	10
Z	7

Which mealworm is most likely to be in the pupa stage?

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

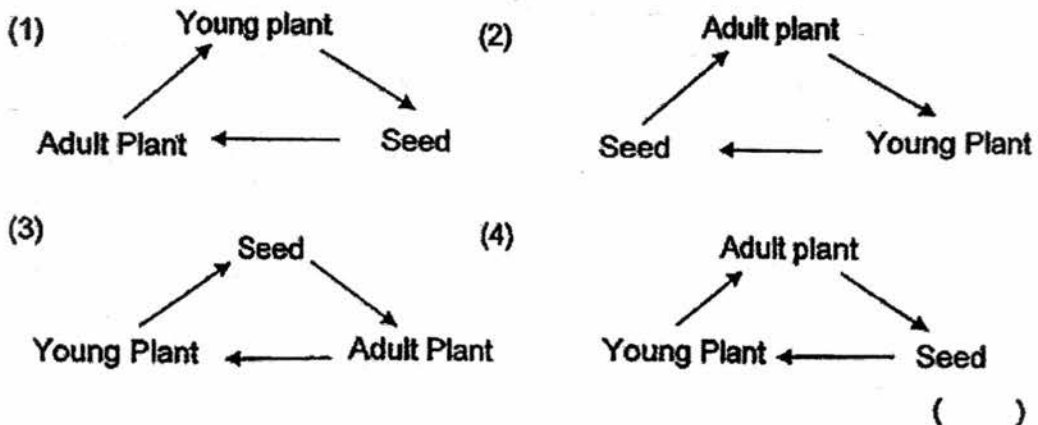
6. The diagram below shows the young and adult of a cockroach.



Which of the following statements is/are correct about the young and the adult?

- A. Both have feelers.
 B. The young does not resemble the adult.
 C. The young does not have wings but the adult has wings.
- (1) A only (2) A and C only
 (3) B and C only (4) A, B and C ()

7. Which one of the following shows the correct order of stages in the life cycle of a flowering plant?



8. The following statements show the different stages of a seed germinating into a seedling.

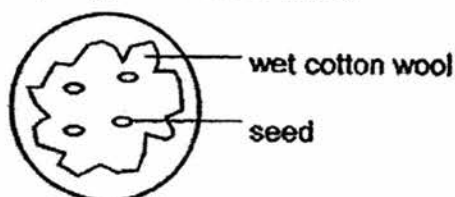
- A. The shoot grows upwards.
- B. The root grows downwards.
- C. The seedling develops its first leaves.
- D. The young plant uses sunlight to make food.

Which one of the following options shows the correct stages of growth?

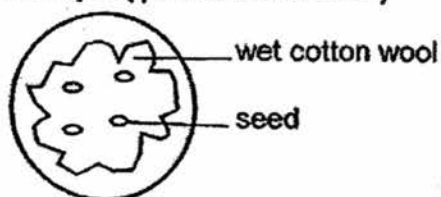
- (1) A → C → B → D (2) B → A → C → D
 (3) C → A → D → B (4) C → D → A → B ()

9. Krishnan set up an experiment as shown in the diagram.

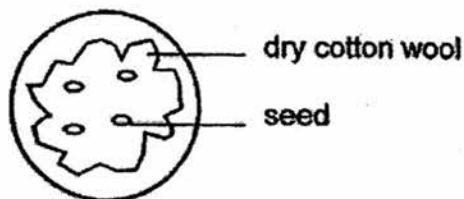
Set-up 1 (placed under light)



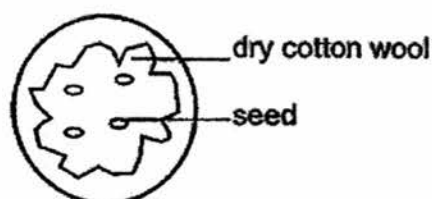
Set-up 2 (placed in the dark)



Set-up 3 (placed under light)



Set-up 4 (placed in the dark)



At the end of the experiment, he observed that only the seeds in set-up 1 and set-up 2 grew into seedlings.

What can Krishnan infer from his observations?

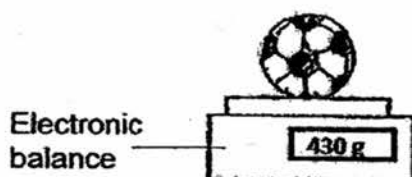
- (1) Seeds need light to germinate.
- (2) Seeds need warmth to germinate.
- (3) Seeds need water to grow into seedlings.
- (4) Seeds need water, light and cotton wool to grow into seedlings. ()

10. Which of the following is not a matter?

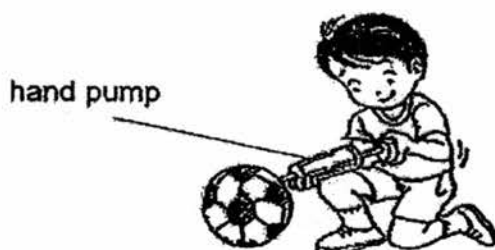
- | | | |
|----------|-----------|---------|
| (1) air | (2) heat | |
| (3) sand | (4) water | () |

11. Sam did an experiment as shown in the diagram below. First, he measured the mass of a ball using an electronic balance and recorded it. Next, he pumped more air into the ball using a hand pump. Then, he measured the mass of the ball again and recorded it.

First



Next



Which one of the following results is mostly likely to be Sam's set of readings and explanation?

	Mass of ball at first (g)	Mass of ball after more air was pumped in (g)	Explanation
(1)	430	410	Air has mass
(2)	430	430	Air takes up space
(3)	430	445	Air has mass
(4)	430	450	Air takes up space

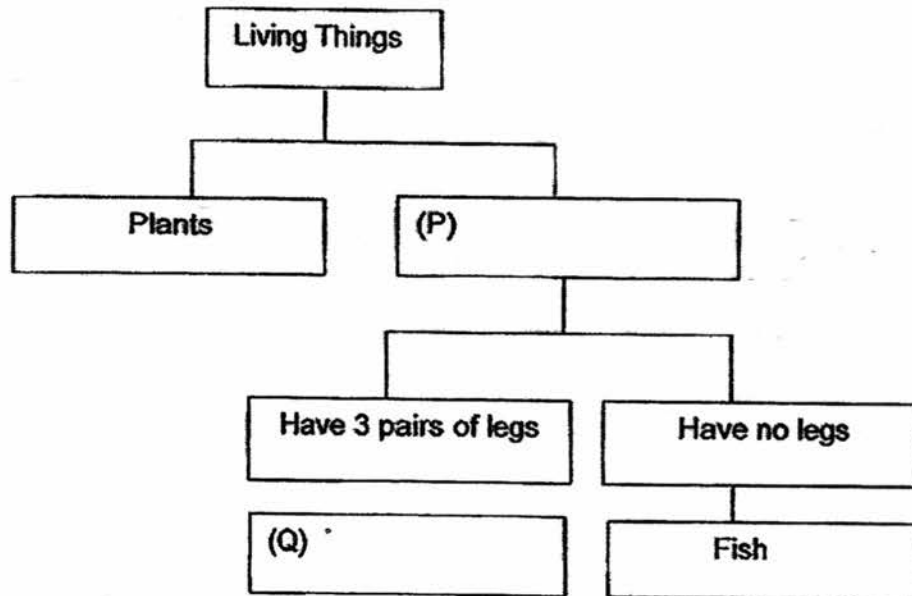
()

End of Part I

Part II (18 Marks)

For questions 12 to 18, write your answers in the space provided.

12. Study the classification chart below.

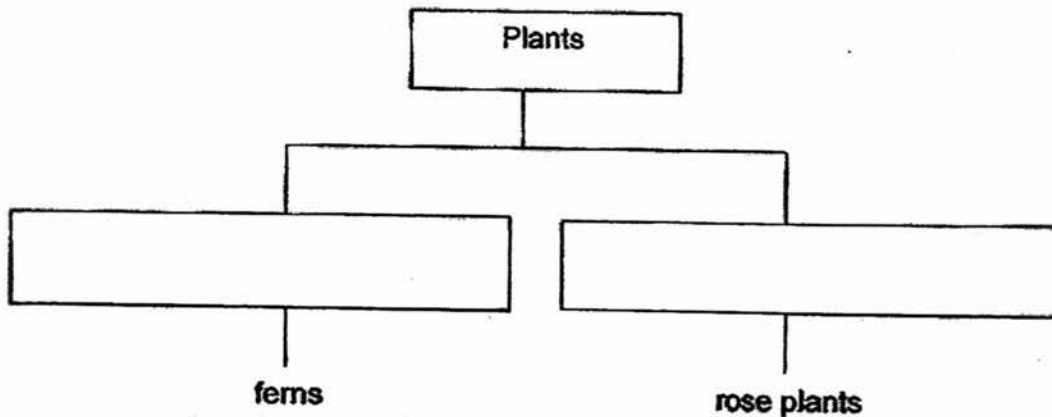


(a) Complete the classification chart above by filling in the boxes P and Q with suitable headings.

[1]

(b) How would you classify plants into two groups? Write your answers in the boxes below.

[2]



13. Billy planted a seed and observed it for 5 weeks. The seed germinated and he measured the height of the seedling every week and recorded it over five weeks.

Week	Height (cm)
1	2
2	5
3	9
4	12
5	16

- (a) What characteristic of living things does the plant show? [1]

- (b) In week 10, another similar young plant was observed to be growing beside Billy's plant. Other than your answer in (a), state another characteristic of living things shown here. [1]

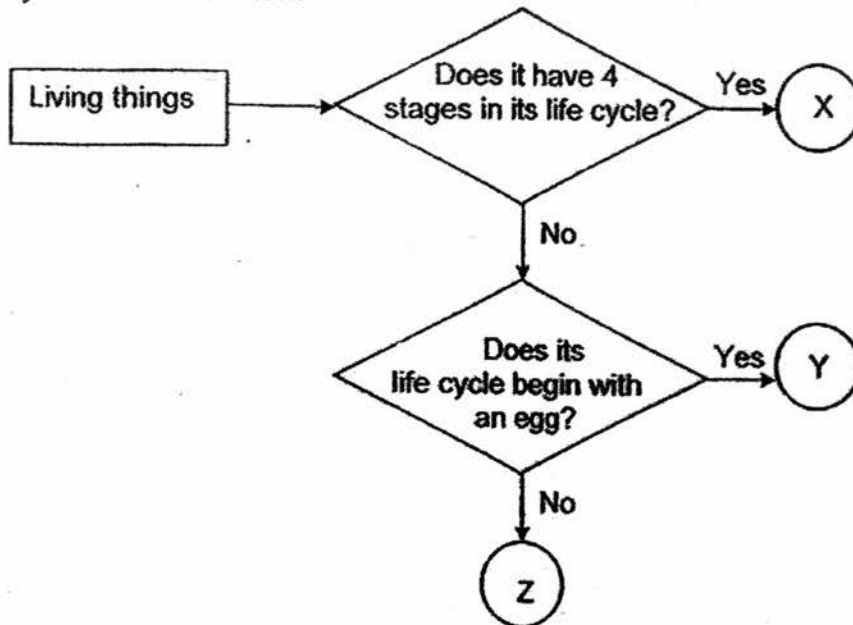
14. The picture below shows a caterpillar.



- (a) A caterpillar is the young of an insect. Draw the life cycle of the insect in the box below. [1]

- (b) The adult of the caterpillar lay their eggs on the leaves of some plants. Give a reason why they lay their eggs there. [1]

15. Study the flowchart below.



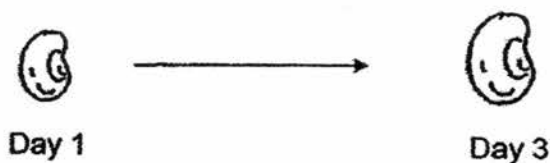
(a) Based on the flowchart above, which of the letters X, Y and Z represent the following things? [2]

(i) Plant : _____

(ii) Frog : _____

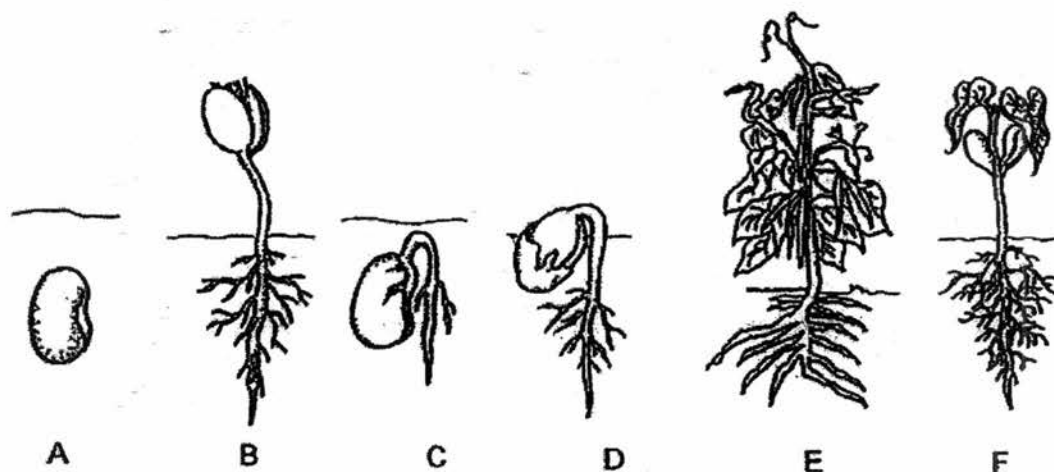
(b) Based on the flowchart, what is the difference between X and Z? [1]

16. Kai Li placed a seed in a container of moist cotton wool for three days. She observed the seed and drew her observations below.

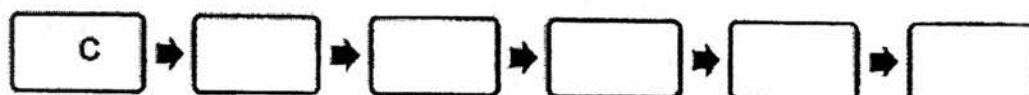


- (a) Explain what has caused the seed to increase in size. [1]

- (b) The following pictures show the different developmental stages of growth of the seed into a plant.

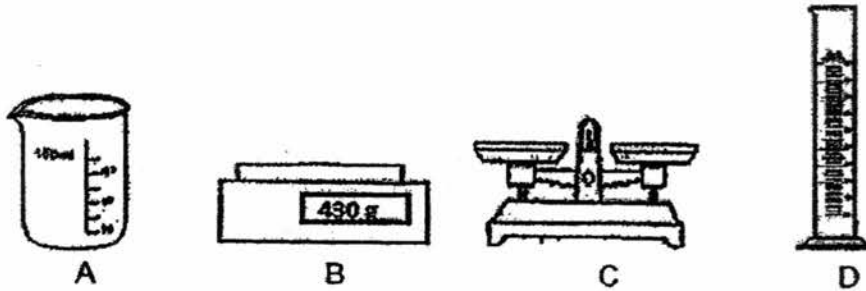


- Rearrange the above stages (A to F) in the correct order. The first letter 'C' is already done for you. [1]



- (c) At which stages (A to F) can the plant make its own food? State your reason why. [2]

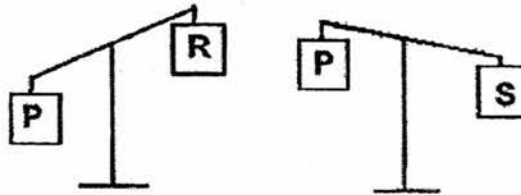
17. The diagrams below show some apparatus commonly used in Science experiments.



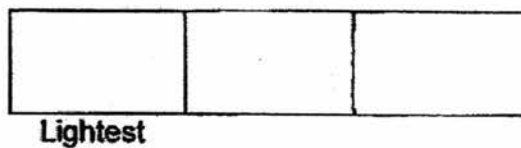
(a) Which two apparatus (A, B, C, D) are used to measure the mass of objects? [1]

(b) What do the other two apparatus measure? [1]

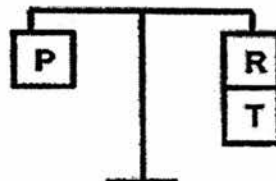
18. Joe was given a lever balance. He used it to compare the masses of three objects as shown in the diagram below.



(a) Study the diagram carefully and arrange the objects, P, R and S according to their masses from the lightest to the heaviest. [1]



Joe placed another object, T, on the first lever balance together with R. The diagram below shows what he observed..



(b) What can you infer about the mass of P, R and T from the observation above? [1]

End of Paper

EXAM PAPER 2017 (P4)

SCHOOL : ROSYTH

SUBJECT : SCIENCE

TERM : CA1

ORDER CALL :

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

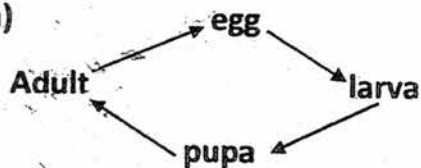
12)a)P: Animals Q: Insects.

b)Non- flowering plant / Flowering plant

13)a)Living things grow.

b)Living things reproduce.

14)a)



b)The butterfly lays egg on leaves so that the caterpillar can feed on the leaves.

15)a)i)Z ii)Y

b)X has 4 stages in its life cycle while Z does not have 4 stages in its life cycle.

16)a)It is because the seed absorbed water from the moist cotton wool.

b) $C \rightarrow D \rightarrow B \rightarrow F \rightarrow E \rightarrow A$

c)Stages E and F. The seedlings have grown leaves to make food.

17)a)B and C.

b)They find the volume of things.

18)a)R P S

b)The mass of Pin more that the mass of R or T.