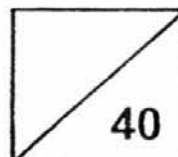




**Rosyth School**  
**Topical Test for 2016**  
**SCIENCE**  
**Primary 4**

Name: \_\_\_\_\_

Total  
Marks:



Class: Pr 4 \_\_\_\_\_

Register No. \_\_\_\_\_ Duration: 60 min

Date: 29 February 2016

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 12, write the correct answer in the brackets provided.
5. For questions 13 to 18, give your answers in the spaces provided in Part II.

	<b>Maximum Marks</b>	<b>Marks Obtained</b>
<b>Part I</b>	<b>24 marks</b>	
<b>Part II</b>	<b>16 marks</b>	
<b>Total</b>	<b>40 marks</b>	

\* This booklet consists of 12 pages. (pg. 1 to 12)

**Part 1 (24 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 bracket provided.

1. Adam, Beth and Carla made a few statements about living things.

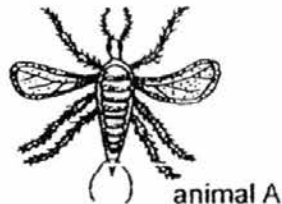


Who has/have made a correct statement(s)?

- (1) Carla only
- (2) Beth and Carla only
- (3) Adam and Beth only
- (4) Adam, Beth and Carla

( )

2. Some pupils found animal A in the school field.



After making some observations as shown below, the pupils thought that animal A belonged to the insect group.

- A: Ali said that it is hairy.
- B: Bala said that it has six legs.
- C: Charlie said that it has a pair of wings.

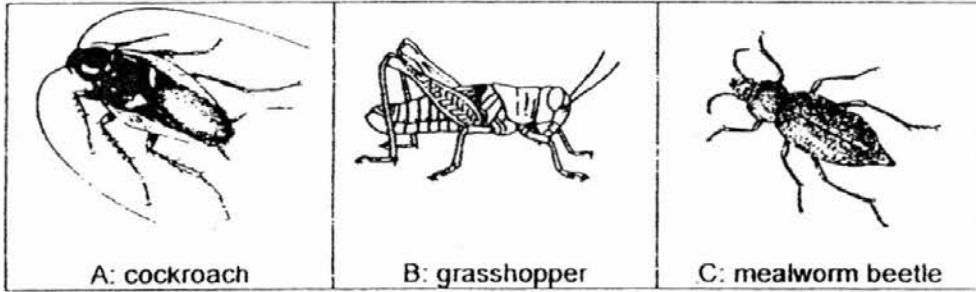
Who gave the correct observation(s) that animal A is an insect?

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

( )



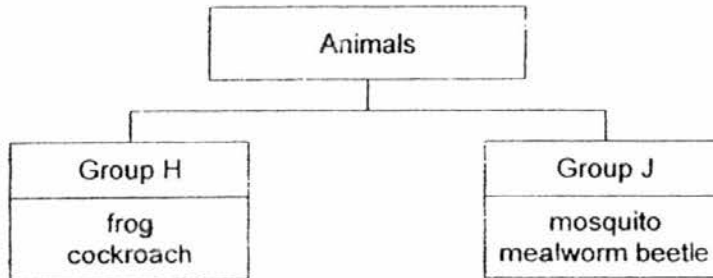
5. Which of these animals have young that do not look like their parents upon hatching?



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

( )

6. Study the classification table below.

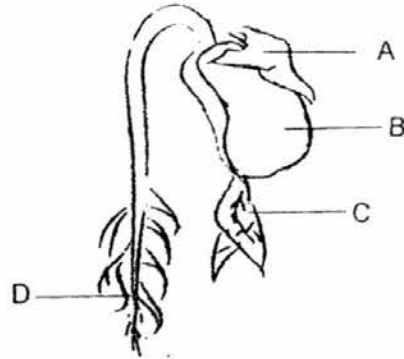


What would be suitable headings for Group H and Group J?

	Group H	Group J
(1)	Lives in water	Lives on land
(2)	Lays one egg only	Lays many eggs at a time
(3)	Has a 3-stage life cycle	Has a 4-stage life cycle
(4)	Its young resembles the adult	Its young does not resemble the adult

( )

Study the picture of a germinating seed below and answer questions 7 and 8.



7. Which part of the seed will grow first when it germinates?

- (1) A
- (3) C

- (2) B
- (4) D

( )

8. Which part of the plant becomes smaller as the seedling grows?

- (1) A
- (3) C

- (2) B
- (4) D

( )

9. The diagram below shows two stages in the life cycle of a bean plant.



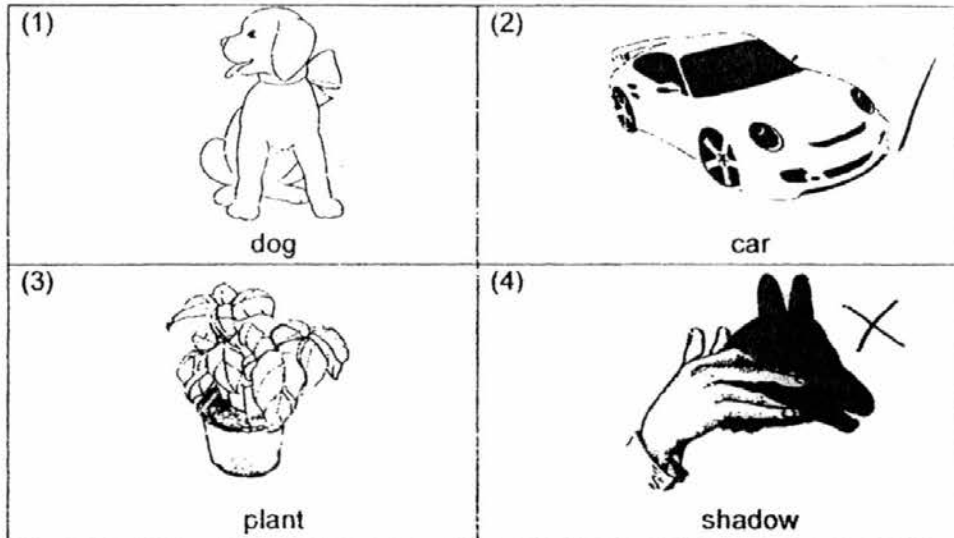
What is/are the common characteristic(s) between stage A and stage B in the life cycle of a bean plant?

- A: They can make their own food.
- B: They are able to produce seeds.
- C: They can absorb water through their roots. .

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

( )

10. Which of the following is **not** a matter?



( )



**Part II (16 Marks)**

For questions 13 to 17, write your answers in the space provided.

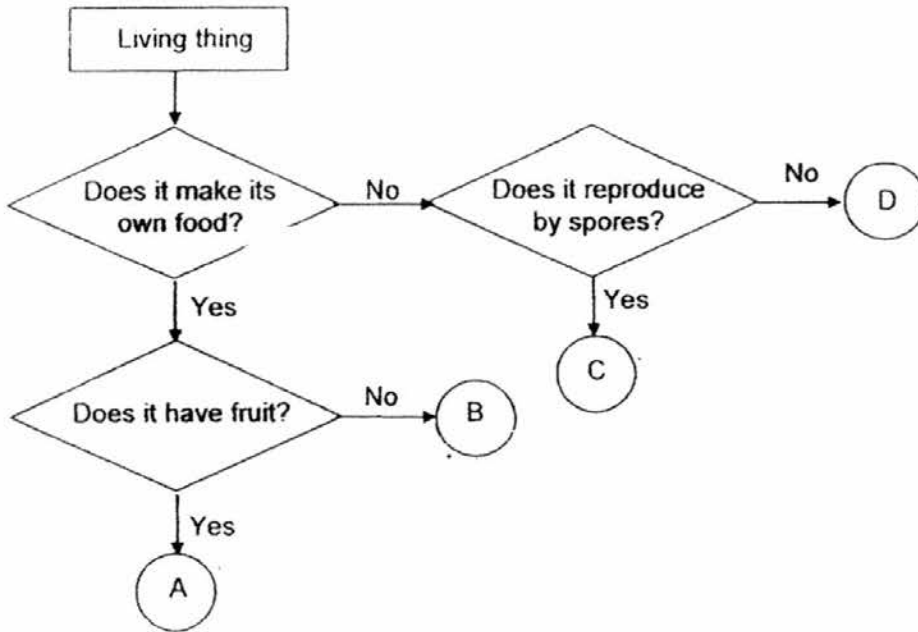
- 13 David kept two objects, Y and Z, in two separate cages. He put fresh food and water in the cages daily. He measured the masses of Y and Z and recorded it in the table shown below.

	Mass of object (g)	
	Y	Z
Week 1	300	200
Week 2	320	200
Week 3	350	200
Week 4	?	?
Week 5	390	200

- (a) Which one, Y or Z, is more likely to be a non-living thing? (1m)
- \_\_\_\_\_
- (b) What are the possible masses of Y and Z in Week 4? (1m)
- (i) Y: \_\_\_\_\_ g
- (ii) Z: \_\_\_\_\_ g



14. Study the flowchart below.



(a) Based on the information in the flowchart above, which living thing, A, B, C or D, best represents bread mould? (1m)

\_\_\_\_\_

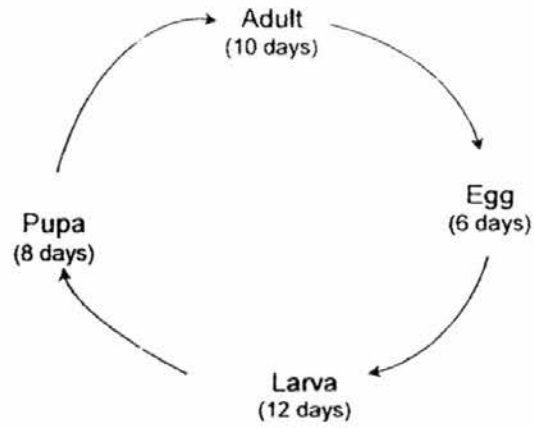
(b) From the flowchart, state a similarity between living thing A and living thing B. (1m)

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

(c) From the flowchart, state a difference between living thing C and living thing D. (1m)

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

15. As part of a Science activity, Jenny observed the life cycle of insect K and recorded her data as shown in the diagram below.



- (a) How long would it take for the organism to become an adult, after the egg is laid? (1m)

\_\_\_\_\_ days

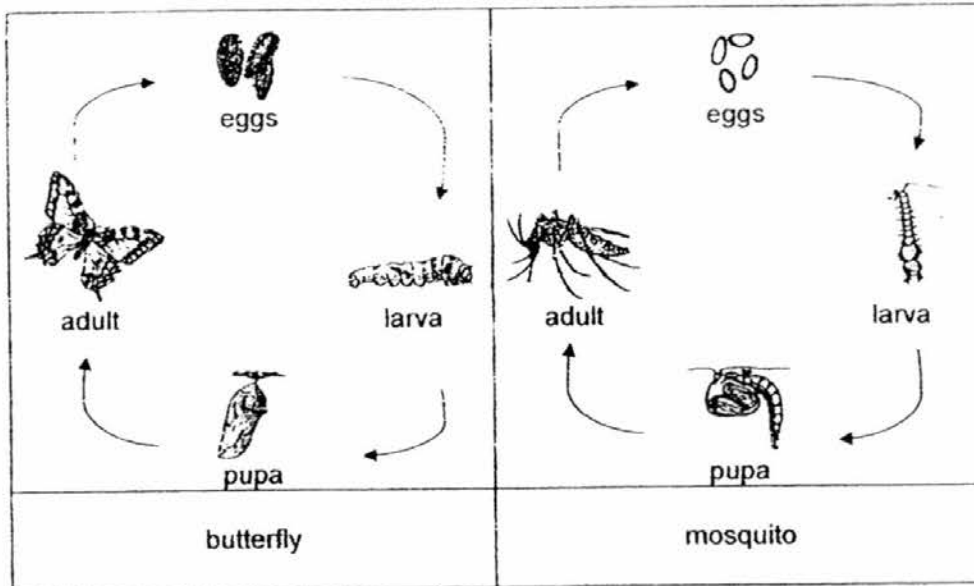
Jenny observed some dried skin as the organism developed. Her teacher explained that insect K had moulted.

- (b) Explain why insect K had moulted. (1m)

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16. The following diagram shows the life cycles of a butterfly and a mosquito.



(a) The butterfly and mosquito have 4-stage life cycles. Give another similarity between the life cycles of a butterfly and a mosquito. (1m)

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(b) Why do both insects lay many eggs at one time? (1m)

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(c) At a particular stage in its life cycle, the larva of the butterfly is considered a pest to farmers. Why is it considered a pest? (1m)

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17. Alan carried out an experiment in a dark room to observe the life cycle of green bean plants. He measured the mass of the seed leaves as the seedlings grew and recorded his results in a table.

- (a) Which set of results, X, Y or Z, in the table below would correctly show the mass of the seed leaves as the seedlings grew? Support your choice. (2m)

	Mass (milligrams)		
	X	Y	Z
Day 2	10	15	20
Day 4	15	15	15
Day 8	20	15	10

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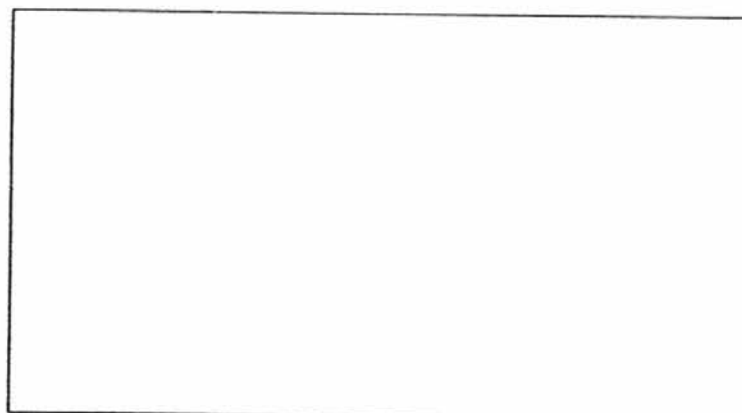
- (b) As Alan continued the experiment in the dark room, he noticed that the plant was beginning to wither. Suggest what Alan could do to ensure the plant does not wither and die. (1m)

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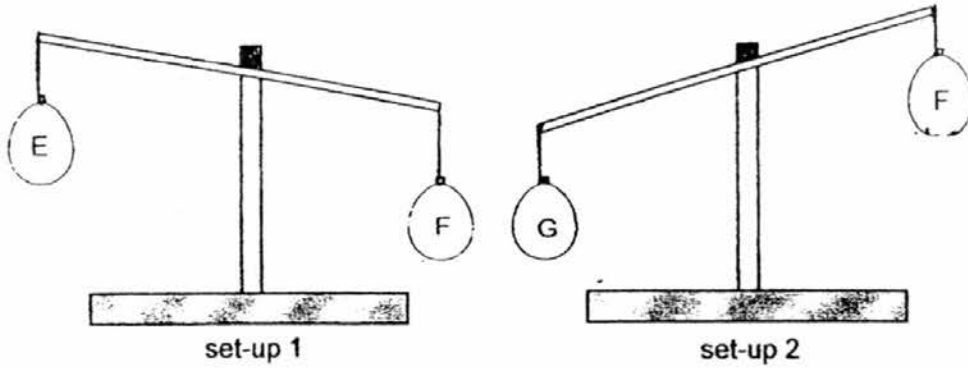
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- (c) In the space below, draw the life cycle of the bean plant.



(1m)

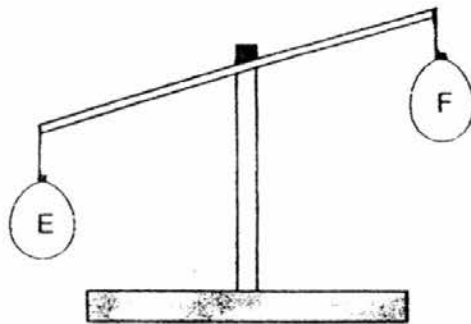
18. Dan was given a lever balance. He used it to compare the masses of the three balloons as shown below.



- (a) Arrange the masses of the balloons, E, F and G, in descending order. (1m)

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_  
 Heaviest

After some time, Dan noticed a change in set-up 1 as shown below.



- (b) If the mass of balloon G remains the same, will there be a change in set-up 2? Explain why. (1m)

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

**End of Paper**

**EXAM PAPER 2016**  
**LEVEL : PRIMARY 4**  
**SCHOOL : ROYSTH**  
**SUBJECT : SCIENCE**  
**TERM : TOPICAL TEST**  
**DATE: 29 FEBRUARY 2016**

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
2	2	4	4	2	3	4	2	2	4
Q11	Q12								
1	4								

Q13a) Z

- b)(i) Y : 370g
- (ii) Z : 200g

Q14a) C

- b) Both A and B are plants that make its own food.
- c) C reproduce by spores but D does not reproduce by spores.

Q15a) 26 days

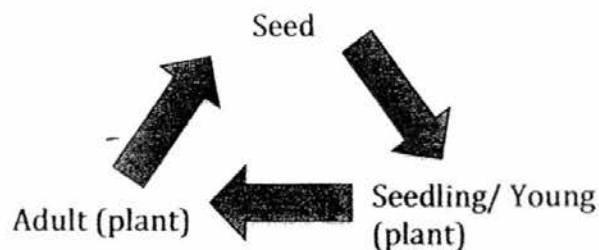
- b) Insect K had moulted as the skin was too small and I grew bigger.

Q16a) Both life cycle start with the egg stage.

- b) To ensure that if their predators eat the eggs, there will still have eggs to continue the life cycle.
- c) The larva of a butterfly eats leaves from the farmer's plants.

Q17a) Z. The mass of the seed leaves should decrease as the seed leaves provide food for the seedling.

- b) Alan could place the plant near the window to get sunlight.
- c)



Q18a) G, F, E

b) No. In the set-up, G was heavier than F, so if F gets lighter and G remains the same, G will still be heavier than F.