



Rosyth School
Second Semestral Examination for 2012
SCIENCE
Primary 3

Name: _____

Class: Pr 3 - _____ Register No. _____ Duration: 1 h 45 min

Date: 30 October 2012 Parent's Signature: _____

Booklet A

Instructions to Pupils:

1. Do not open the booklets until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 booklets, Booklet A and Booklet B.
4. For questions 1 to 30 in Booklet A, shade the correct ovals on the Optical Answer Sheet (OAS) provided using a 2B pencil.
5. For questions 31 to 44, write your answers in the spaces given in Booklet B.

* This booklet consists of 17 pages.

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Part I (60 MARKS)

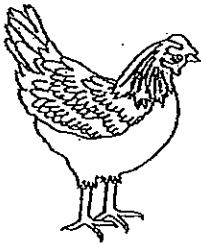
For each question from 1 to 30, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

1. Mr Tan is partially blind. He uses the dots below to help him read his books. Which one of the following senses is he using to enable him to read well?



- (1) Sight
(2) Smell
(3) Touch
(4) Hearing

2. Study the three animals carefully. In what ways are they similar?



- A: They have legs.
B: They have wings.
C: They have a beak.
D: They have feathers on their bodies.

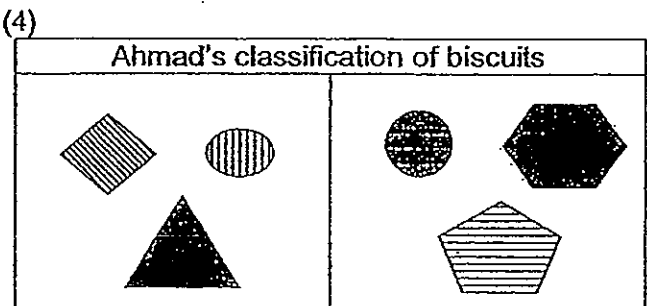
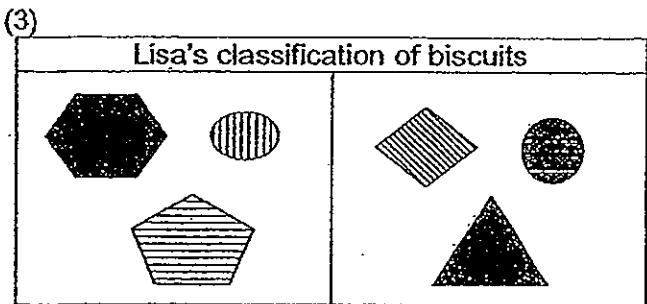
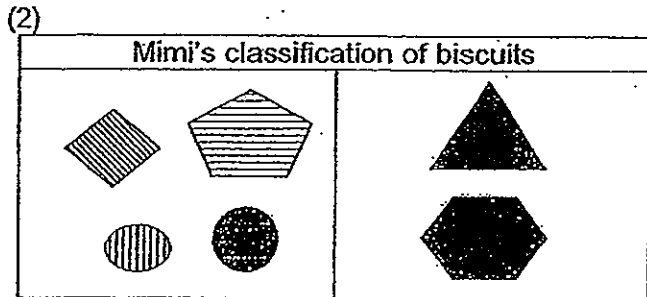
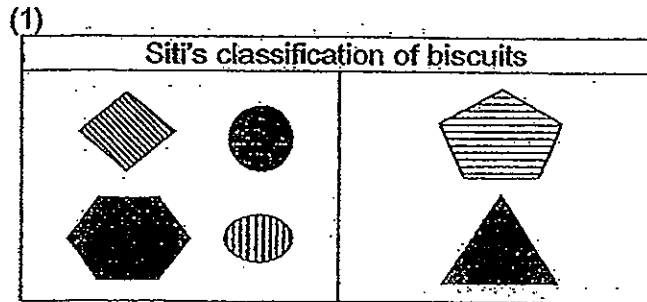
- (1) A and B only
(2) B and C only
(3) A, B and C only
(4) A, B and D only



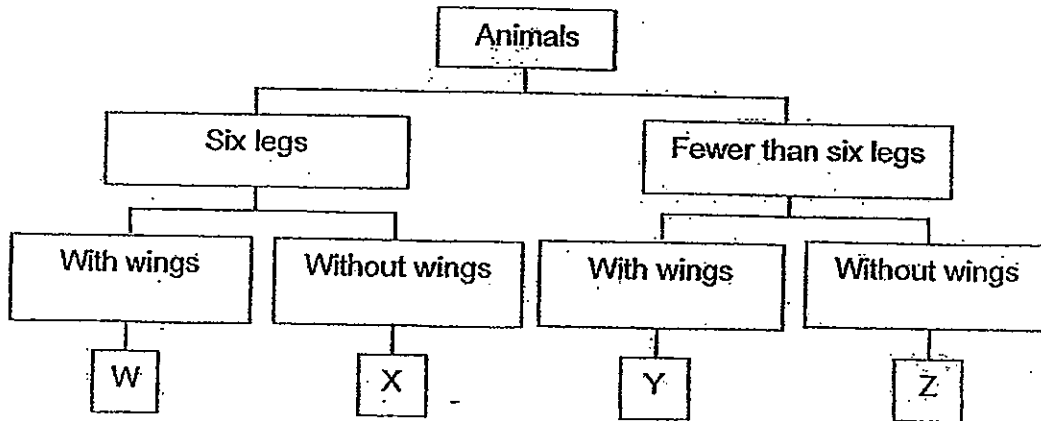
3. Mrs Fatimah told her children to classify the 6 biscuits into 2 groups.



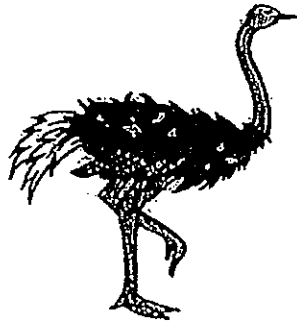
The classification charts below show how each child has classified the biscuits. Who has classified correctly?



4. Study the classification diagram carefully.



In which group does the animal below belong to?



- (1) W
- (3) Y

- (2) X
- (4) Z

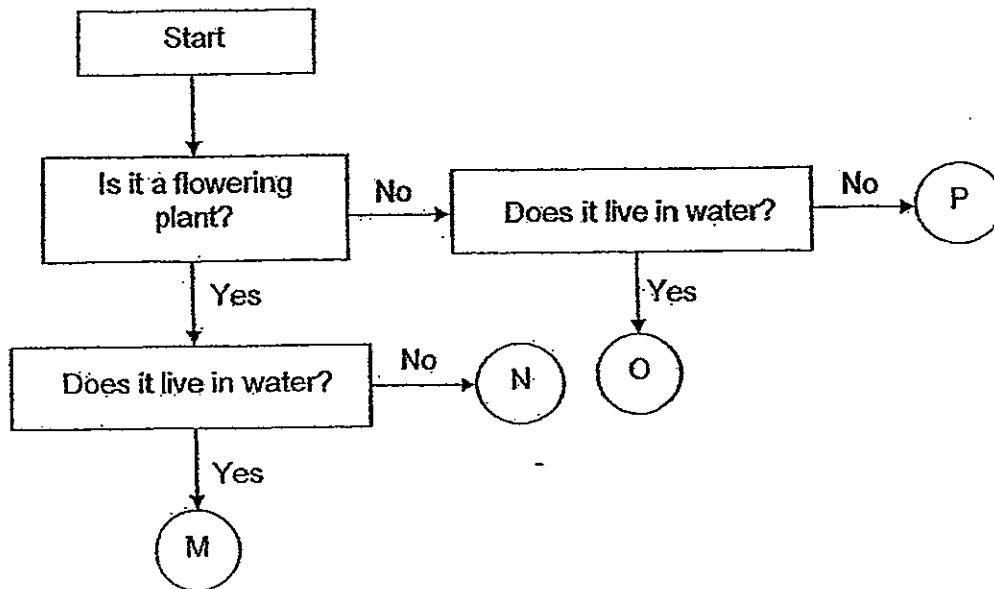
5. Which of the following statement(s) about flowering green plants is/are true?

- A: They produce flowers.
- B: They can make their own food.
- C: They only bear fruits that can be eaten.

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

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

6. Study the flow chart below carefully.



What is/are the characteristic(s) of Plant N?

- A: Plant N lives on land.
- B: Plant N lives in water.
- C: Plant N is a flowering plant.
- D: Plant N is a non-flowering plant.

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

7. Natalie bought a butter cake. After a week, she found some green, black and yellow patches on the cake. What could these patches be?

- (1) They are fungi.
- (2) They are plants.
- (3) They are chlorophyll.
- (4) They are tiny insects.

8. Look at the bread mould and mushroom carefully. Which of the statements are true about both of them?



bread mould

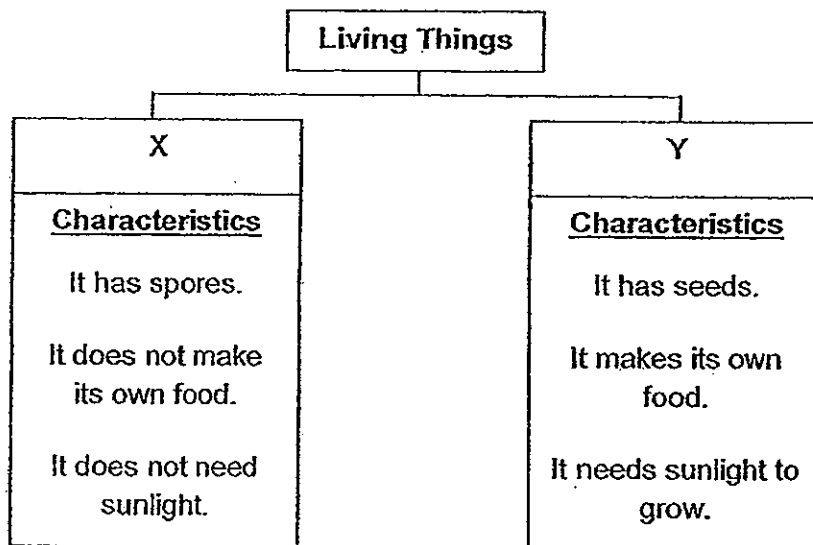


mushroom

- A: Both are living things.
 B: Both reproduce by spores.
 C: Both are micro-organisms.
 D: Both do not make their own food.

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

9. Study the classification table below.



Which one of the following can be the headings for X and Y?

	X	Y
(1)	Fungi	Plants
(2)	Fungi	Bacteria
(3)	Plants	Fungi
(4)	Bacteria	Fungi

12. Larry tested the hardness of three spoons made of different materials, X, Y and Z. He scratched each of them with a plastic ruler and a metal ruler, one at a time. Then he recorded his observations in the table below.

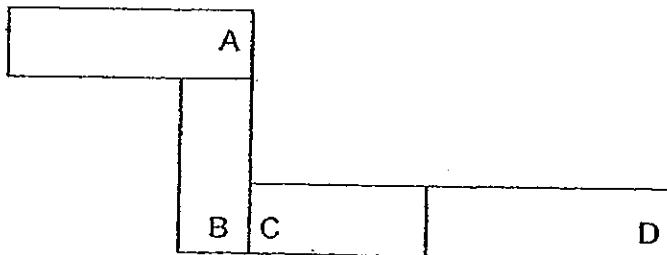
'+' shows the depth of the scratches.

Material	Scratches made by the plastic ruler	Scratches made by the metal ruler
X		--
Y	+	+++
Z		+

Using the property on hardness, which one of the following shows the correct arrangement of these materials, starting from the hardest material?

- (1) X, Y and Z
- (2) X, Z and Y
- (3) Y, X and Z
- (4) Y, Z and X

13. The diagram below shows the arrangement of four magnets, each with a pole labelled as A, B, C and D.



Which one of the following shows the poles of A, B, C and D correctly?

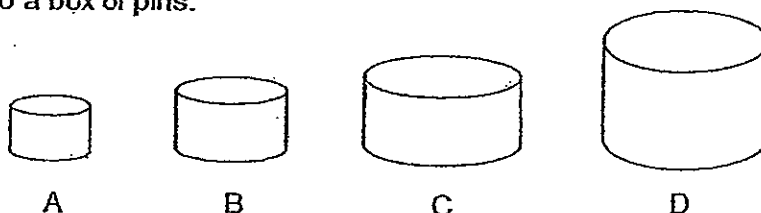
	A	B	C	D
(1)	North	North	South	South
(2)	South	North	South	North
(3)	North	South	North	South
(4)	South	South	North	South

14. Mary magnetised four similar iron nails (M, N, O and P) using the 'stroking' method. Then she tested the strength of the iron nails by placing them in a box of paper clips. She recorded the number of strokes applied to the nails and the number of paper clips that were attracted to the nails as shown in the table below.

Iron nail	Number of strokes applied	Number of paper clips attracted
M	5	1
N	10	3
O	20	5
P	35	10

What can Mary infer from the experiment?

- (1) The strength of the iron nail remains unchanged.
 - (2) The number of strokes does not affect the strength of the iron nail.
 - (3) The magnetism gets weaker when more strokes are applied to the iron nail.
 - (4) The magnetism gets stronger when more strokes are applied to the iron nail.
15. Arvin had four button magnets (A, B, C and D) of different sizes. He brought them near to a box of pins.



He observed the number of pins that were attracted by each magnet and recorded his observations in the table below.

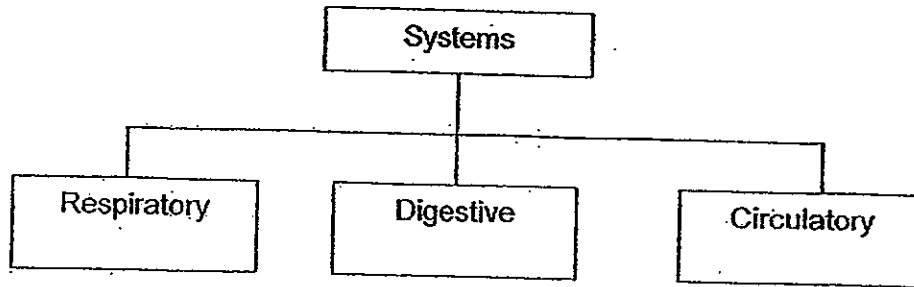
	Magnet A	Magnet B	Magnet C	Magnet D
Number of pins attracted	15	10	3	7

Which of the statement(s) is/are true about the experiment?

- A: Magnet A is the strongest.
 B: Magnet B is weaker than Magnet D.
 C: The strength of the magnet depends on its size.
 D: The strength of the magnet does not depend on its size.

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

16. Below is a classification chart of body systems.



Which of the following correctly match the parts to the systems?

	Respiratory	Digestive	Circulatory
(1)	Gullet	Windpipe	Skull
(2)	Heart	Nose	Large intestine
(3)	Nose	Small intestine	Ribs
(4)	Lungs	Stomach	Heart

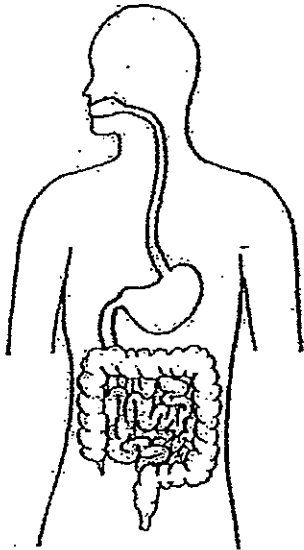
17. Which one of the actions below makes least use of the muscular system?

- (1) Running
- (2) Skipping
- (3) Sitting on a chair
- (4) Playing basketball

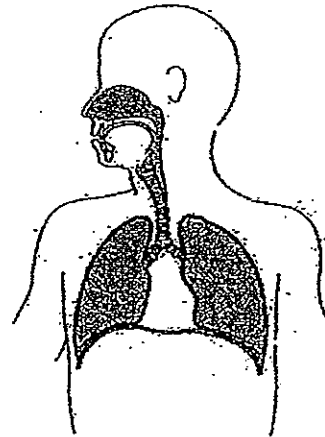
18. Ann tries to describe a body system found in the human body. She says, "This system supports the body and gives it shape, protects some important organs inside the body and works with the muscular system to enable the body to move about".

Which of the following body systems is she referring to?

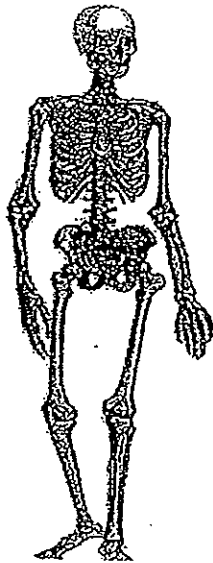
(1)



(2)



(3)



(4)

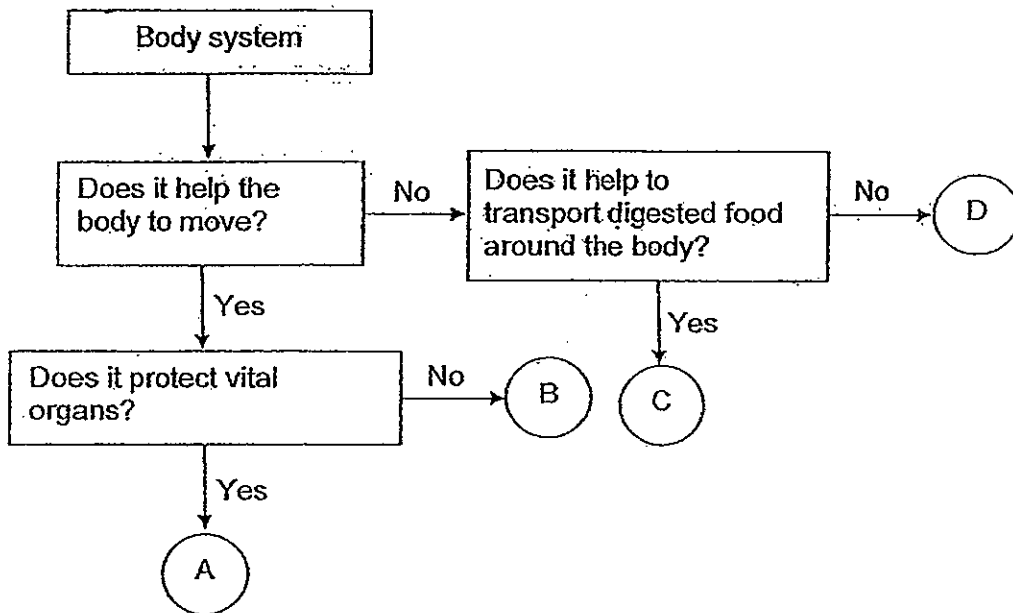


19. Daniel is playing basketball with his friends. Which of the systems help him play basketball?

- A: Skeletal system
- B: Muscular system
- C: Circulatory system

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

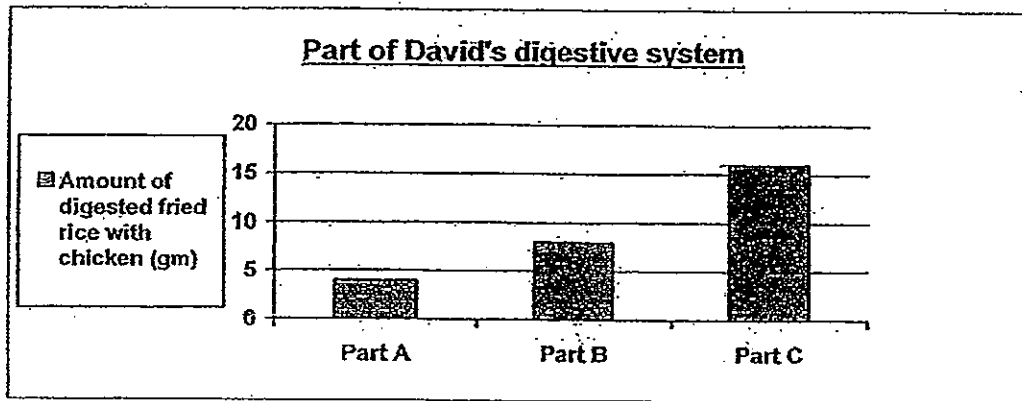
20. The flowchart below shows the characteristics of some body systems.



Which one of the following is likely to be the circulatory system?

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

21. David ate a plate of fried rice with pieces of chicken (40 grams) for dinner. The graph below shows the amount of digested fried rice with chicken in three organs of his digestive system.

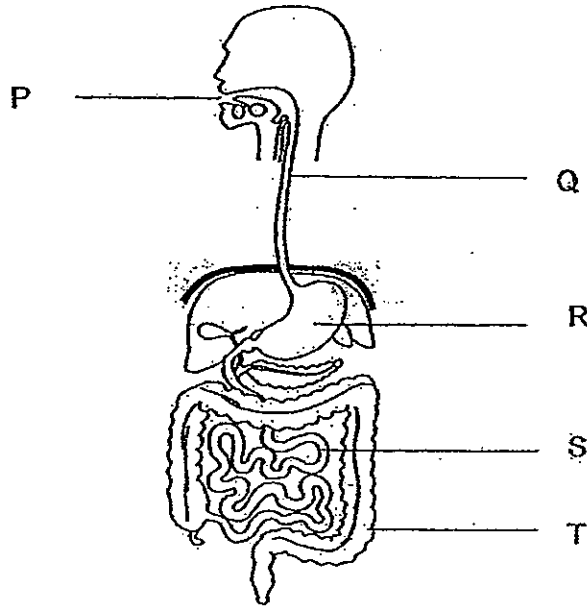


What are Parts A, B and C?

	Part A	Part B	Part C
(1)	Gullet	Large intestine	Small intestine
(2)	Small intestine	Gullet	Stomach
(3)	Mouth	Stomach	Small intestine
(4)	Stomach	Large intestine	Gullet

The diagram below shows the human digestive system.

Use the diagram to answer questions 22, 23 and 24.



22. Which of the following statements best describe the functions of the digestive juices produced in P?

- A: They add moisture into the food.
- B: They help to digest the food partially.
- C: They help to digest the food completely.

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

23. In which of the following part is water absorbed?

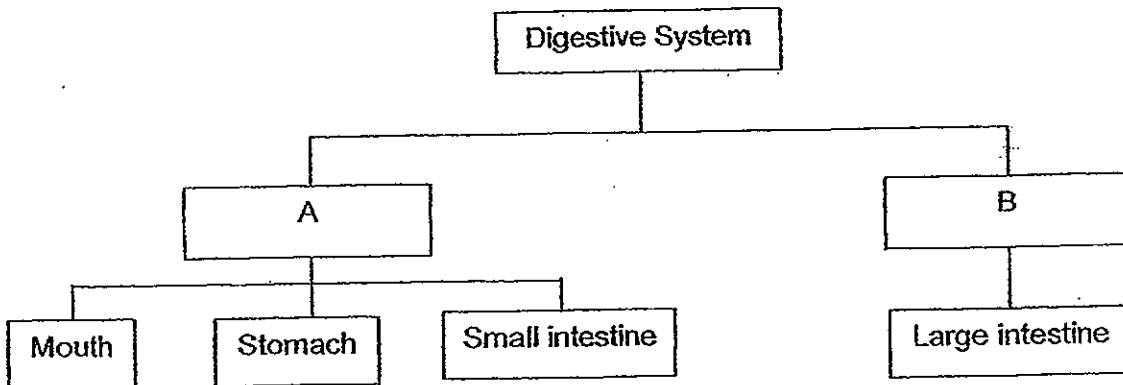
- (1) P only
- (2) Q only
- (3) R only
- (4) T only

Go to page 14 for Q24.

24. Which one of the following best describes what takes place at Q, R and S?

	Q	R	S
(1)	Digestion takes place	Allows food to pass through	Digested food is absorbed
(2)	Allows food to pass through	Digested food is absorbed	Water is being removed
(3)	Allows food to pass through	Digestion takes place	Digested food is absorbed
(4)	Digested food is absorbed	Water is being removed	Allows food to pass through

25. Below is a classification chart of the digestive system.



What are the headings, A and B, likely to be?

	A	B
(1)	Does not grind food into smaller pieces	Grind food into smaller pieces.
(2)	Does not produce digestive juices.	Produces digestive juices.
(3)	Does not absorb digested food.	Absorbs digested food.
(4)	Help to digest food.	Does not help to digest food.

26. John was eating his lunch when he started to choke. Which of the following is the most likely reason why he choked?

- (1) The food tasted bad.
- (2) The food entered his gullet.
- (3) The food entered his stomach.
- (4) The food entered his windpipe.

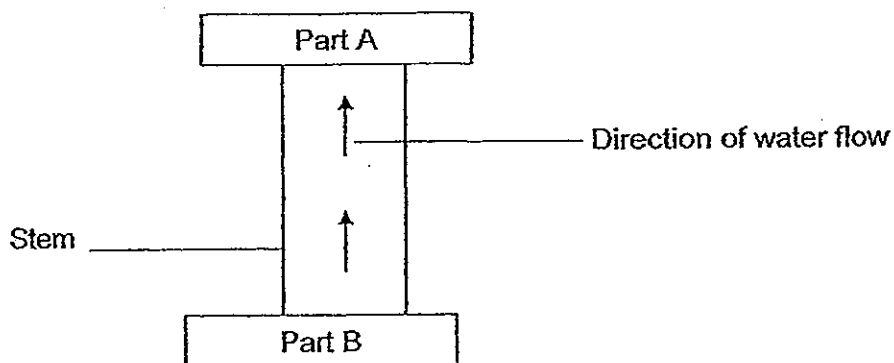
27. Four pupils, Alex, Beatrice, Charlie and Dewi made some statements about seeds.

- Alex : Seeds grow into plants.
- Beatrice: Seeds grow into stems.
- Charlie : Seeds grow into leaves.
- Dewi : Seeds are usually found inside fruits.

Who made the correct statement(s)?

- (1) Alex only
- (2) Alex and Dewi only
- (3) Beatrice and Charlie only
- (4) Alex, Beatrice and Dewi only

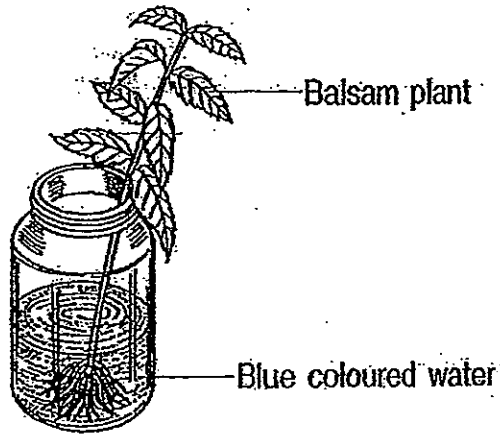
28. The diagram below shows the stem of a plant. The arrows show how water is carried in the plant.



What are parts A and B likely to be?

	A	B
(1)	Fruit	Seed
(2)	Leaf	Root
(3)	Root	Leaf
(4)	Flower	Fruit

29. Mary placed a balsam plant in a beaker filled with blue coloured water.

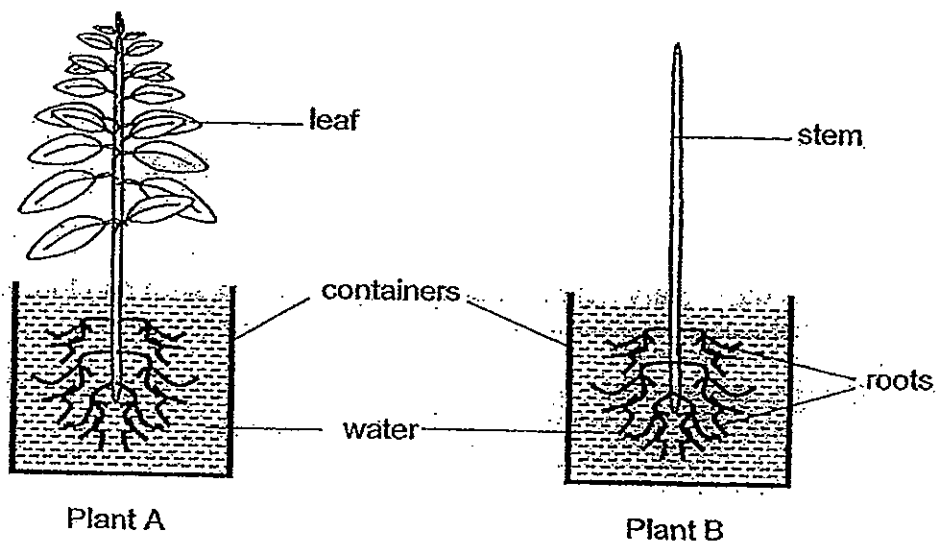


After a few days, Mary noticed that the leaves and the stem had turned blue. What can Mary infer from her experiment?

- A: Water is absorbed through the leaves.
- B: The roots hold the plant firmly to the ground.
- C: The roots absorb the blue coloured water and pass it on to the stem.

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

30. Ali carried out an experiment with two potted plants, A and B. He left Plant A as it was and cut away all the leaves on Plant B. He continued to cut away all leaves from Plant B whenever the leaves appeared. He watered the two plants daily with the same amount of water and both plants had sufficient sunlight. After a few weeks, Plant B died but Plant A survived.



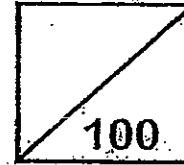
Ali thought of four possibilities why Plant A lived but Plant B died. Which one is correct?

- (1) Plant A can make food but Plant B cannot.
- (2) Plant A can stand upright but Plant B cannot.
- (3) Plant A can absorb water but Plant B cannot.
- (4) Plant A has mineral salts but Plant B does not.

End of Part I



Rosyth School
Semestral Examination for 2012
SCIENCE
Primary 3



Name: _____

Total
Marks:

Class: Pr 3 - _____ Register No. _____ Duration: 1 h 45 min

Date: 30 October 2012 Parent's Signature: _____

Booklet B

Instructions to Pupils:

1. For questions 31 to 44, write your answers in the spaces given in this booklet.

	Maximum	Marks Obtained
Booklet A	60 marks	
Booklet B	40 marks	
Total	100 marks	

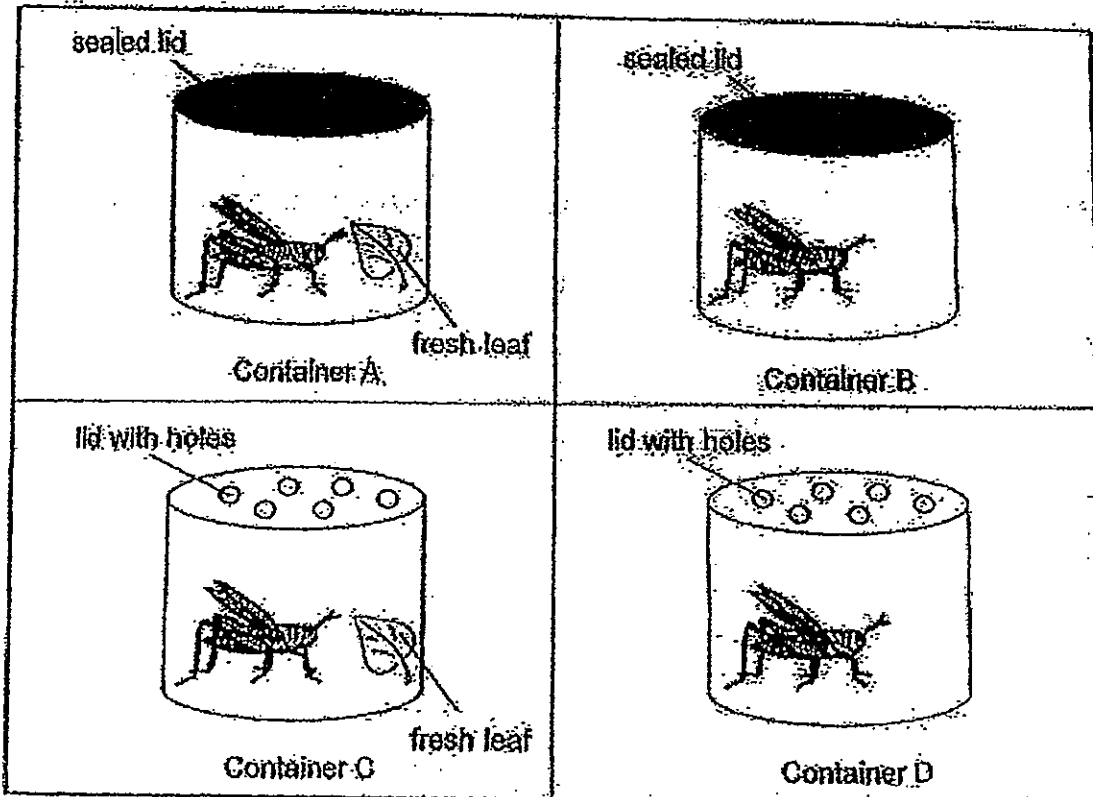
* This booklet consists of 13 pages.

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Part II (40 MARKS)

For questions 31. to 44, write your answers in this booklet.

31. Wei Leong carried out an experiment to find out the conditions needed for the grasshoppers to live longer. He kept each grasshopper of similar species in four different containers as shown below.



- (a) In which container would the grasshopper live the longest? Explain why. (1m)

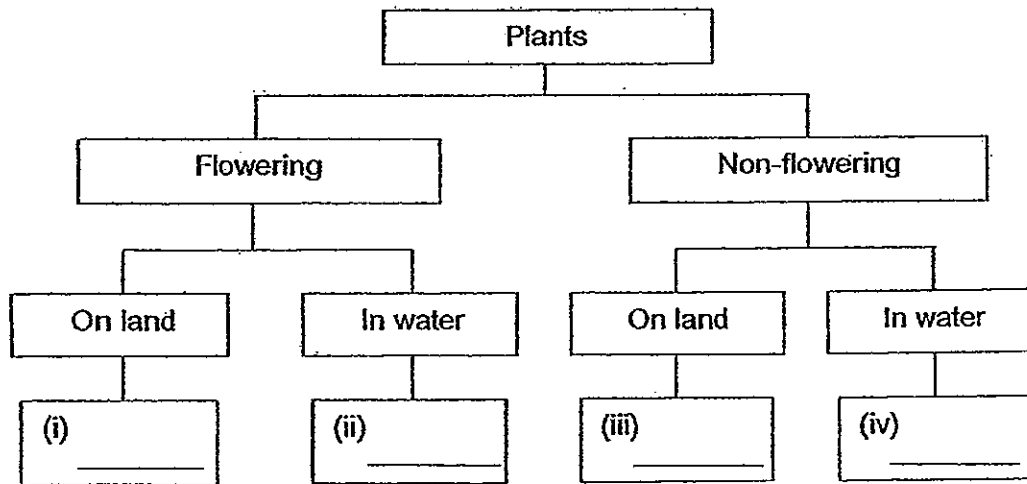
- (b) Which group of animals would you classify the grasshopper? (1m)

32. The table below shows the characteristics of four plants, W, X, Y and Z. A tick (✓) shows a particular characteristic of the plant.

Characteristics	W	X	Y	Z
- It bears fruits.	✓		✓	
- It grows on land.	✓	✓		

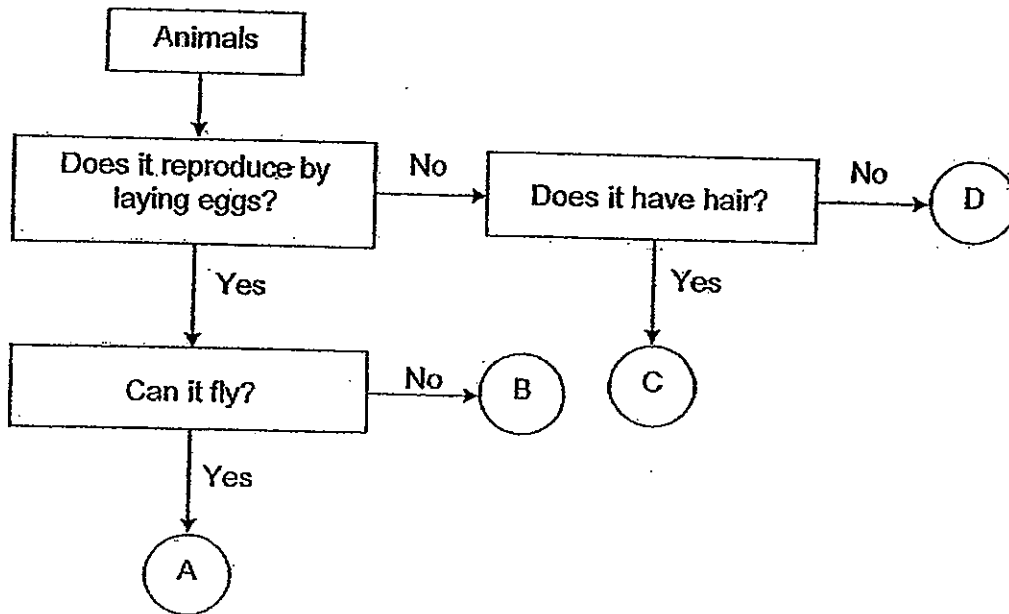
(a) Based on the information presented in the table above, state a difference between Plant Y and Plant Z (1m)

(b) From the information above, fill in the letters (W, X, Y and Z) in the classification chart below to represent the plants.



(2m)

33. Study the flow chart carefully.



(a) State the characteristics of Animal A. (1m)

(b) How is Animal A different from Animal B? (1m)

(c) Can Animal C be a mammal? Support your answer with a reason. (1m)

34. Lina found Animal W and put it in a tank with the cover not fully closed. She observed that Animal W moved away when it was touched.

She also recorded the mass of the leaves and minced meat left in the tank at the end of different days. Refer to the table below.

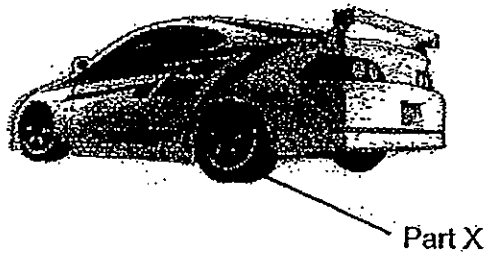
	Mass of fresh leaves left (in grams)	Mass of minced meat left (in grams)
Day 1	70	70
Day 3	50	70
Day 5	35	70
Day 7	25	70

- (a) From the table above, what do you observe about the mass of fresh leaves left from Day 1 to Day 7? (1m)

- (b) Lina said that Animal W eats both fresh leaves and meat only. Do you agree with her? Support your answer with a reason. (1m)

- (c) Since Animal W is a living thing, based on the information above, what are the two characteristics of living things shown by Animal W? (2m)

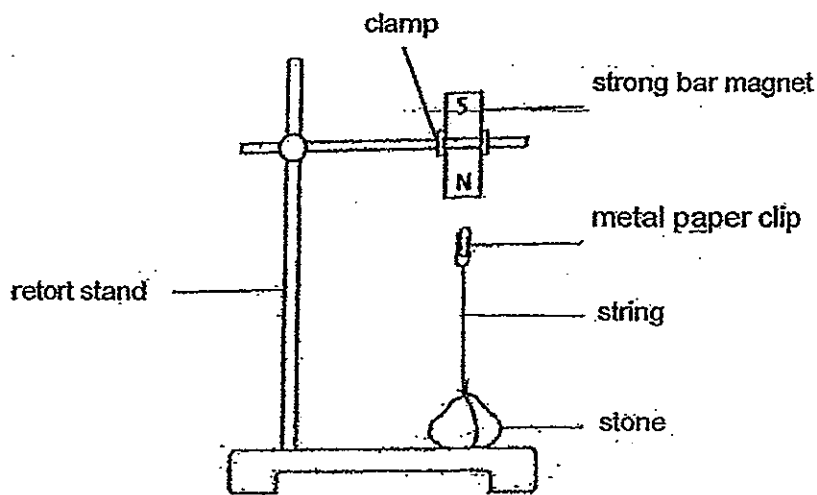
35. Mr Chan drove his car as shown below to work every day.



(a) Name the material Part X is made of. (1m)

(b) Using the property of material, explain why this material (a) is suitable to make Part X. (1m)

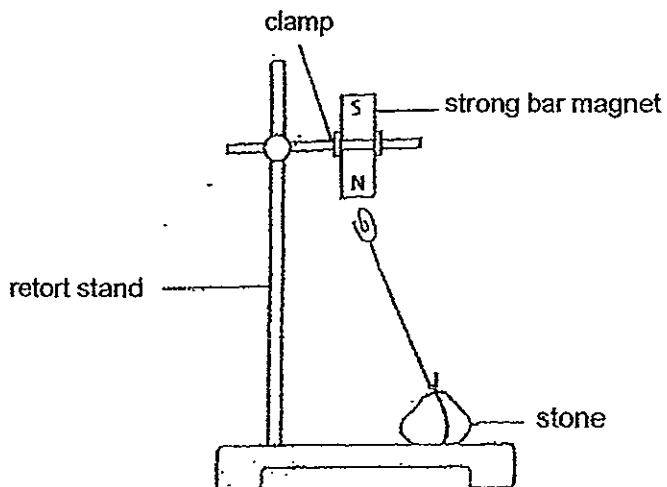
36. The diagram below shows a metal paper clip tied to a stone with a string. The magnet is attached to the retort stand with a clamp.



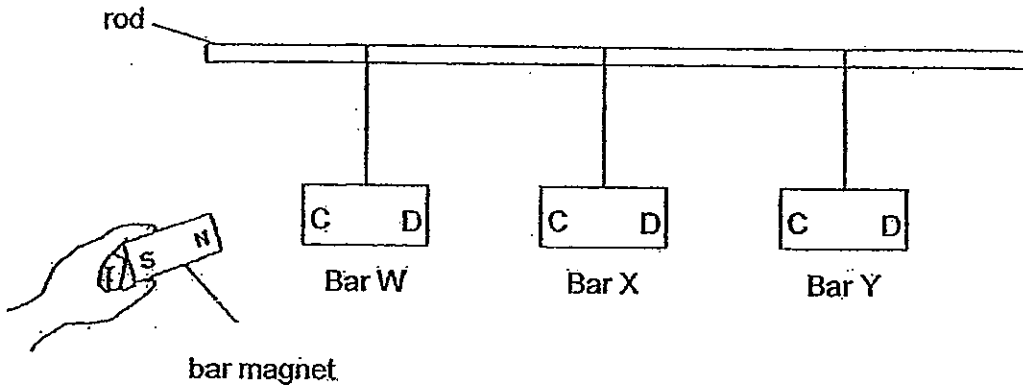
- (a) The position of the magnet is changed so that the south pole is facing the metal paper clip. What will happen to the metal paper clip? (1m)

- (b) What will happen to the metal paper clip if the string is cut? (1m)

- (c) Now the position of the bar magnet is moved as shown in the diagram below. Draw the new position of the string and the metal paper clip which are still tied to the stone. (1m)



37. Kaden tied 3 metal bars (W, X and Y) of the same size onto a horizontal rod as shown below.



He brought the north-pole of a bar magnet near to C and then D of each metal bar. After that, he wrote his observations below.

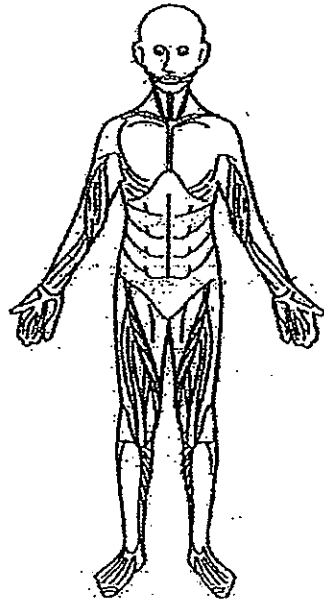
Metal bar	North-pole of the bar magnet and C	North-pole of the bar magnet and D
W	Attracted	Attracted
X	Repelled	Attracted
Y	Remained the same	Remained the same

(a) Based on Kaden's observations, which metal bar (W, X or Y) is a magnet? (1m)

(b) What material could metal bar W be made of? (1m)

(c) Kaden said that metal bar Y is a magnetic material. Do you agree with him? Support with a reason. (1m)

38. The diagram below shows a body system.



(a) Name the above system.

(1m)

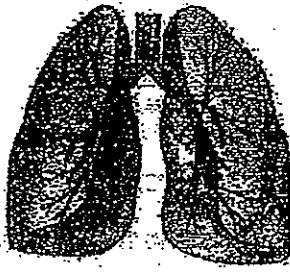
(b) Alex said that the function of the above system helps the body to take in air. Do you agree with Alex? Explain why.

(1m)

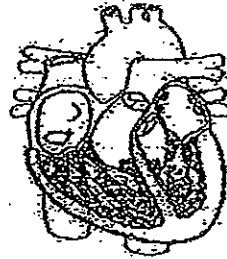
39. Siti makes some comments about the human body. Do you agree with her? Write "True" or "False" in the boxes below. (3m)

	Siti's statements	"True" or "False"
(a)	The lungs help the body get rid of excess water.	
(b)	Nutrients are absorbed into the blood at the small intestine.	
(c)	The skull protects the heart.	
(d)	The gullet carries blood to the stomach.	
(e)	Undigested food is stored in the stomach.	
(f)	Bones and muscles work together to enable us to move.	

40. Below are pictures of two parts, X and Y, found in the human body.



X



Y

Both X and Y are classified under different body systems. What are the body systems? (2m)

(a) X belongs to the _____ system.

(b) Y belongs to the _____ system.

(c) State a function of the system which X belongs to. (1m)

(d) Alice says that blood flows through X and air flows through Y. Do you agree with her? Why? (1m)

41. Our teeth help to cut food into smaller pieces.

(a) Why is it important for us to chew our food into smaller pieces before swallowing them? (1m)

(b) What is the substance that helps in the digestion of food in the mouth? (1m)

42. A, B, C, D and E are processes that take place in the digestive system.

A: Food is chewed, ground and reduced to smaller pieces.

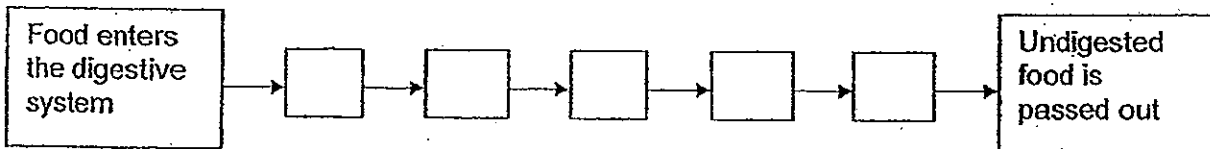
B: Excess water is absorbed.

C: Food passes through a simple muscular tube.

D: Fully digested food is passed into the bloodstream.

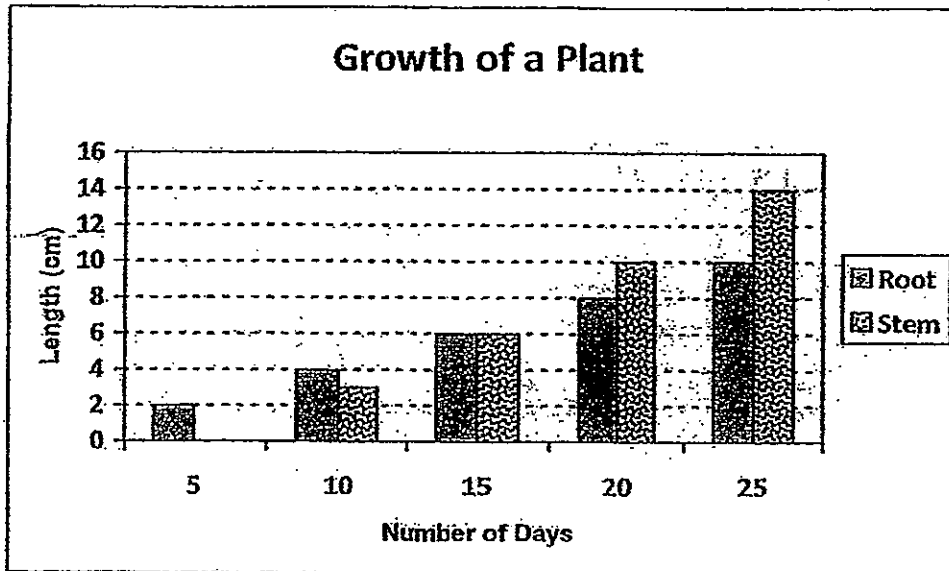
E: Food is mixed with digestive juices and reduced to semi-solid in a muscular bag.

(a) Fill in the boxes below with the letters A, B, C, D and E in correct sequence. (2m)



(b) Name the parts of the digestive system where digestive juices are produced. (1m)

43. The graph below shows the length of the root and stem of a plant.

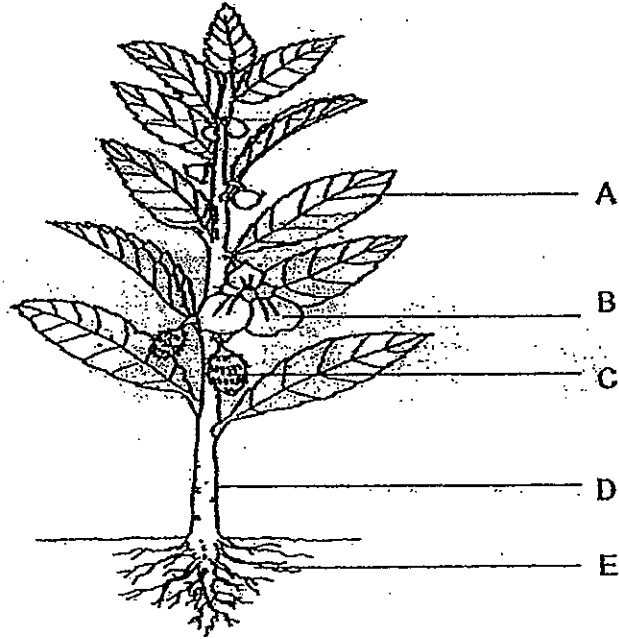


Based on the above graph, answer the following questions.

(a) State one similarity between the root and stem on Day 15. (1m)

(b) Which part of the plant appears first, the root or the stem? State the evidence. (1m)

44. The diagram below shows a flowering plant.



(a) Write the letters A, B, C, D or E in the blanks below.

(i) Part _____ makes food for the plant. (1m)

(ii) Part _____ holds the plant firmly to the ground. (1m)

(b) What is the function of Part D? (1m)

(c) Which part of the plant stores and protects the seeds? (1m)

End of Paper

ANSWER SHEET

EXAM PAPER 2012

SCHOOL : ROSYTH PRIMARY SCHOOL

SUBJECT : PRIMARY 3 - SCIENCE

TERM : SA 2

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	1	2	3	2	1	1	4	1	3
Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
1	2	4	4	3	4	3	3	4	3
Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30
3	2	4	3	4	4	2	2	2	1

31. a) Container C. Living things need air, food and water to survive. In C, both food and air is available thus the grasshopper can live the longest.

b) The insect group.

32. a) Plant Y bears fruits but Plant Z does not bear fruits.

b) i) W

ii) Y

iii) X

iv) Z

33. a) Animal A can reproduce by laying eggs and it can also fly.

b) Animal A can fly but animal B cannot fly.

c) Yes. Mammals have hair on the body and animal C also has hair.

34. a) From day 1 to day 7, the mass of the leaves gets lesser.

- b) No. Animal W does not eat meat because the mass of minced meat left is the same.
- c) Living things respond to changes. Living things need air, food and water to survive.

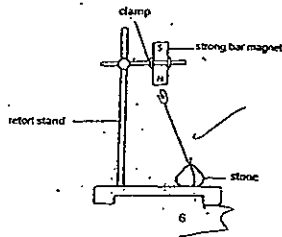
35. a) Rubber

b) Rubber is flexible.

36. a) The metal paper clip will remain stationary.

b) The metal paper clip will attract the strong bar magnet.

c)



37. a) X

b) Nickel

c) No. Metal bar remained the same and was not attracted to the magnet.

38. a) Muscular system

b) The system above does not take in air, only helps the body to move about

39.

a) False

b) True

c) False

d) False

e) False

f) True

40. a) Respiratory

b) Circulatory

c) To take in oxygen and give out carbon dioxide from the body

d) No. Blood flows through Y and air flows through X.

41. a) The food will be digested easily.

b) Saliva.

EXAM PAPER 2012

SCHOOL : ROSYTH SCHOOL

SUBJECT : PRIMARY 3 - SCIENCE

TERM : SA 2

42. a) A – C – E – D – B

b) Mouth, stomach, small intestine

43. a) Both the root and stem is 6 cm tall.

b) Root. The shoot only appears on day 10.

44. a i) A

a ii) E

b) Part D holds the plant upright.

c) Part C

