

Anglo-Chinese School (Junior)



SEMESTRAL ASSESSMENT 2 (2017)

PRIMARY 3

SCIENCE

BOOKLET A

Thursday

2 November 2017

1 hr 30 min

Name: _____ () Class: 3.()

INSTRUCTIONS TO PUPILS



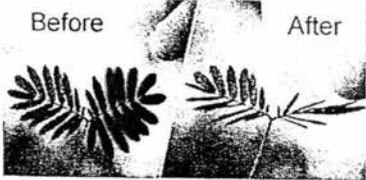
- 1 Do not turn over the pages until you are told to do so.
- 2 Follow all instructions carefully.
- 3 There are 25 questions in this booklet.
- 4 Answer ALL questions.
- 5 Shade your answers in the Optical Answer Sheet (OAS) provided.

This question paper consists of 13 printed pages (inclusive of cover page).

Booklet A (50 marks)

For each question from 1 to 25, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade your answer on the Optical Answer Sheet. (25 x 2 marks)

1. Which of the following characteristics is true for all living things?
- (1) They can make their own food.
 - (2) They give birth to their young alive.
 - (3) They need air, food and water to survive.
 - (4) They can move from place to place by themselves.
2. Which of the following statement(s) show(s) that living things respond to changes around them?

A: A boy drinking water.	
B: A lioness giving birth to cubs.	
C: A leaf of the Mimosa plant closing when touched.	<p style="text-align: center;">Before After</p> 

- (1) A only
 - (2) C only
 - (3) A and B only
 - (4) B and C only
3. Which of the following statements **does not** show that Tom's puppy is a living thing?
- (1) It eats meat.
 - (2) It drinks water.
 - (3) It has four legs.
 - (4) It barks at strangers.

4. John grouped the following things into two groups.

A	B
Ball	Table
Snake	Spider
Fish	Bird
Ant	Cat

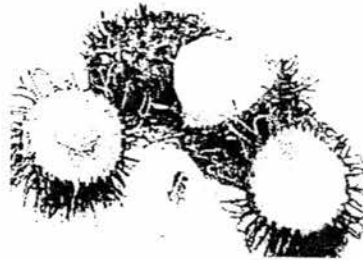
Which of the following things is classified incorrectly?

- (1) Ant
 - (2) Bird
 - (3) Cat
 - (4) Fish
5. Study the pictures of two fruits below.

Longan



Rambutan



Based on the pictures, which of the following is/are difference(s) between the two fruits?

- A: Size
 B: Texture of skin
 C: Number of seed(s)
- (1) A only
 - (2) C only
 - (3) A and B only
 - (4) B and C only

6. Which of the following is not a plant?

(1)



Fern

(2)



Moss on a tree trunk

(3)







Water lily

(4)



Mould on orange

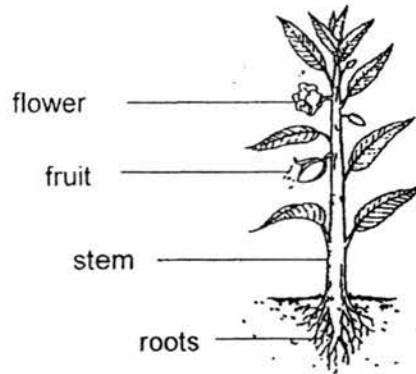
7. The table below shows how some plants with flowers have been classified.

Group A		Group B	
			
Ixora	Hydrangea	Hibiscus	Rose

Which one of the following are suitable headings for the above groups?

	Group A	Group B
(1)	Plants that bear fruits	Plants that do not bear fruits
(2)	Plants that have weak stems	Plants that have strong stems
(3)	Flowers that are brightly-coloured	Flowers that are dull-coloured
(4)	Flowers that grow in clusters	Flowers that grow singly

8. The diagram below shows a plant from a garden near Sam's house.

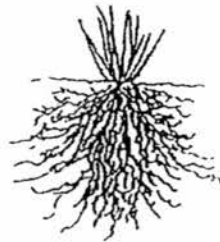


Which part of the plant allows it to get the maximum amount of sunlight to make food?

- (1) Fruit
 - (2) Stem
 - (3) Roots
 - (4) Flower
9. The pictures below show the roots of Plant G and Plant H.



Plant G



Plant H

Plant H has more roots than Plant G. Thus, the roots of Plant H can

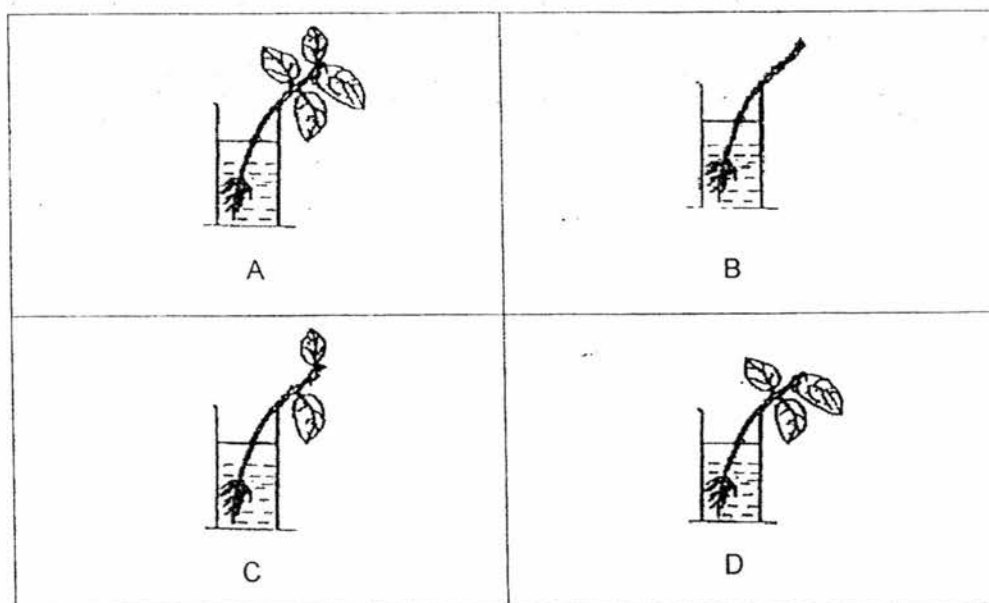
- (1) trap more sunlight
- (2) hold the plant more upright
- (3) absorb more water from the soil
- (4) transport more water to other parts of the plant

10. The table below provides information on three living things A, B and C. A tick (✓) shows that the living thing has the characteristic.

Characteristics	A	B	C
Has fruits	✓		
Has leaves	✓	✓	
Reproduce by spores		✓	✓

Which of the following is/are non-flowering plant(s)?

- (1) A only
 (2) B only
 (3) C only
 (4) A, B and C
11. Four plants, A, B, C and D, of the same height, 7 cm, were placed in four identical beakers, with the same amount of water, at the same location as shown below.



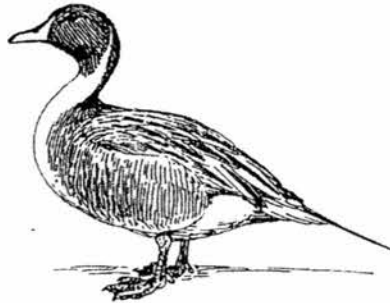
Arrange these plants according to their water level in the beakers, **from the most to the least amount of water**, at the end of 3 days.

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

12. Which one of the following is not a characteristic of **all** insects?

- (1) Lays eggs
- (2) Have wings
- (3) Have six legs
- (4) A pair of feelers

13. The table below shows the characteristics of 4 animals, A, B, C and D. A tick (✓) shows that the animal has that characteristic. Which animal, A, B, C or D, best represents the animal shown below?



Duck

	Animal	Has legs	Reproduce by laying eggs	Has 3 body parts	Has feathers
(1)	A	✓	✓		
(2)	B	✓	✓		✓
(3)	C	✓	✓	✓	
(4)	D		✓		

14. Darren discovered an unknown animal in his school eco-garden. He made the following observations:

- Its body is covered with slimy skin.
- It breathes through its skin in water.
- It can live both on land and in water.
- It reproduces by laying eggs in water.

Which of the following groups does this animal belong to?

- (1) Fish
- (2) Insects
- (3) Reptiles
- (4) Amphibians

15. Three students, Dan, Eric and Ian studied the classification table below.

Have wings	Have scales	Have hair	Have moist skin
Penguin	Snake	Bat	Frog
Cockroach	Clown fish	Monkey	Salamander

They then made the following statements based on the table:

Dan: The penguin and cockroach can fly.

Eric: The animals are grouped according to their body covering.

Ian: The animals can also be classified based on where they live.

Who made the correct statement(s)?

- (1) Ian only
 - (2) Eric only
 - (3) Dan and Ian only
 - (4) Dan and Eric only
16. The table below gives some information on three organisms, F, G and H. A tick (✓) shows that the organism has the characteristic.

Characteristic	Organism		
	F	G	H
Has scales		✓	
Reproduces by spores	✓		✓
Can make its own food			✓
Can live on land and in water		✓	

Which of the following is the correct group that organisms F, G and H belong to?

- (1)

F	G	H
Bacteria	Fungi	Fern
- (2)

F	G	H
Fern	Fish	Fungi
- (3)

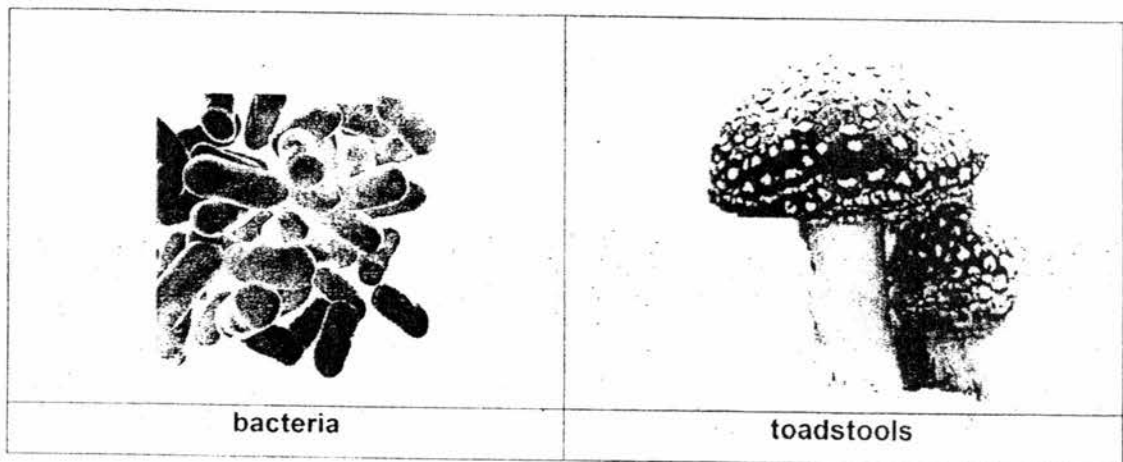
F	G	H
Fish	Bacteria	Reptile
- (4)

F	G	H
Fungi	Reptile	Fern

17. Timothy wants to conduct an experiment on bread mould. He wants to find out if amount of water affects the growth of bread mould. Which variables should he keep the same to conduct a fair experiment?

	Location	Size of bread	Type of bread	Amount of water
(1)	✓	✓	✓	
(2)	✓	✓		✓
(3)	✓		✓	✓
(4)		✓	✓	✓

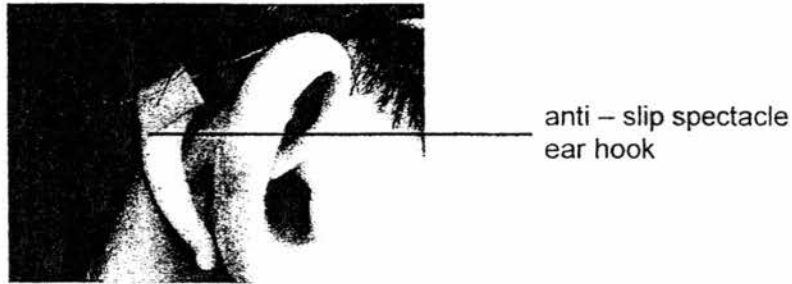
18. The diagrams below show bacteria and toadstools.



Which of the following is their common characteristic?

- (1) They are micro-organisms.
- (2) They reproduce from seeds.
- (3) They can make their own food.
- (4) They feed on living things which may be dead or alive.

19. Study the diagram below.

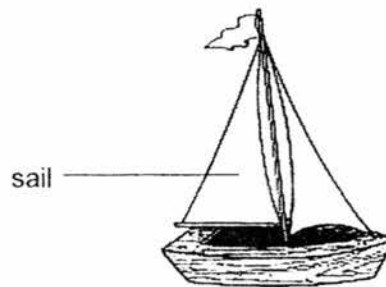


Anti-slip spectacle ear hooks are commonly used to prevent spectacles from slipping down. For the spectacle ear hook to be effective for its use, it must be made of a material that is _____.

- A light
- B flexible
- C colourful
- D waterproof

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

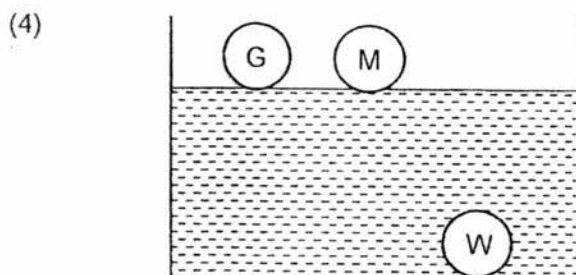
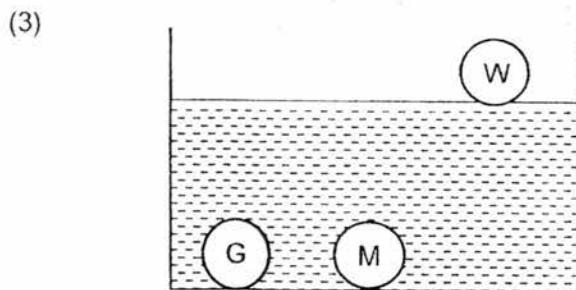
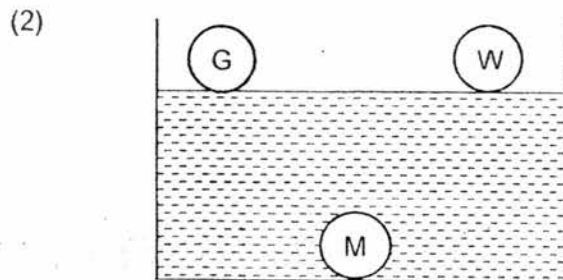
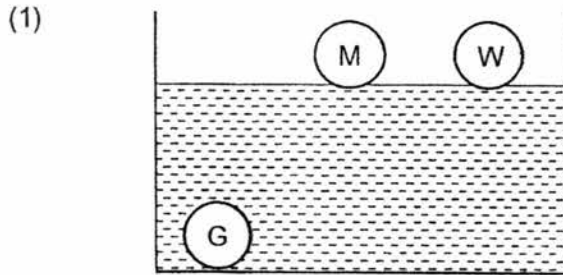
20. A group of primary 3 students wanted to investigate the best material to make the sail of a boat. They used 4 different materials for the sail and placed the sailboats along the starting line. They recorded the time taken for each sailboat to reach the finish line.



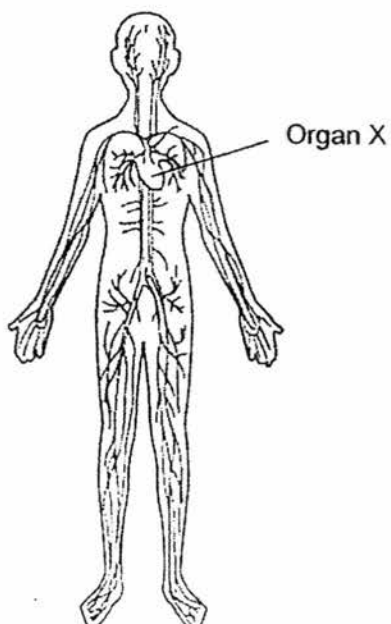
Based on the results, which is the best material used to make the sail?

	Material used for sail	Time taken to reach the finishing line
(1)	paper	60
(2)	plastic	25
(3)	cloth	35
(4)	aluminium foil	40

21. Sam placed 3 balls, each made of glass (G), metal (M) and wood (W), in a container of water. None of the balls are hollow. Which of the following diagrams shows the positions of the 3 balls correctly?



22. The diagram below shows a human body system.



Organ X is the **(a)** _____ and is part of the **(b)** _____ system.

	(a)	(b)
(1)	heart	circulatory
(2)	lungs	skeletal
(3)	gullet	respiratory
(4)	stomach	digestive

23. Three friends, Alex, Brian and Casper stated the functions of the various human body systems.

Alex: It allows the bones to move.

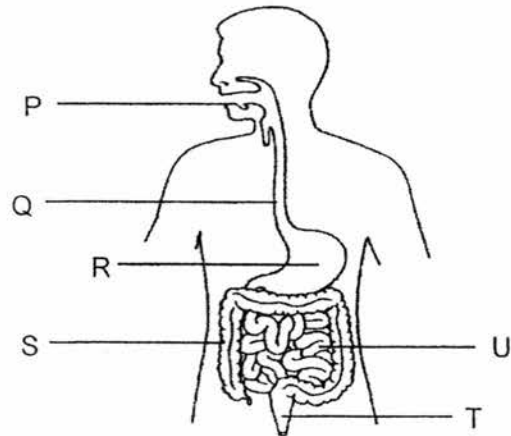
Brian: It gives the body shape and supports the body.

Casper: It transports oxygen and digested food to all parts of the body.

Which of the following systems correctly matches the functions stated by Alex, Brian and Casper?

	Alex	Brian	Casper
(1)	Circulatory	Muscular	Skeletal
(2)	Circulatory	Skeletal	Muscular
(3)	Muscular	Circulatory	Skeletal
(4)	Muscular	Skeletal	Circulatory

Study the diagram below and answer questions 24 and 25.



24. In which of the following parts of the digestive system are digestive juices produced?
- (1) P, Q and R only
 - (2) P, R and U only
 - (3) Q, R and S only
 - (4) Q, S and U only
25. Which of the following shows the correct sequence until digestion of food is completed?
- (1) P, Q, R, S
 - (2) P, Q, R, U
 - (3) P, Q, R, S, U, T
 - (4) P, Q, R, U, S, T

End of Booklet A

Anglo-Chinese School (Junior)



SEMESTRAL ASSESSMENT 2 (2017)

PRIMARY 3

SCIENCE

BOOKLET B

Thursday

2 November 2017

1 hr 30 min

Name: _____ () Class: 3.() Parent's Signature: _____

INSTRUCTIONS TO PUPILS

- 1 Do not turn over the pages until you are told to do so.
- 2 Follow all instructions carefully.
- 3 There are 13 questions in this booklet.
- 4 Answer ALL questions.
- 5 The marks are given in the brackets [] at the end of each question or part question.

Booklet	Possible Marks	Marks Obtained
A	50	
B	40	
PBA	10	
Total	100	

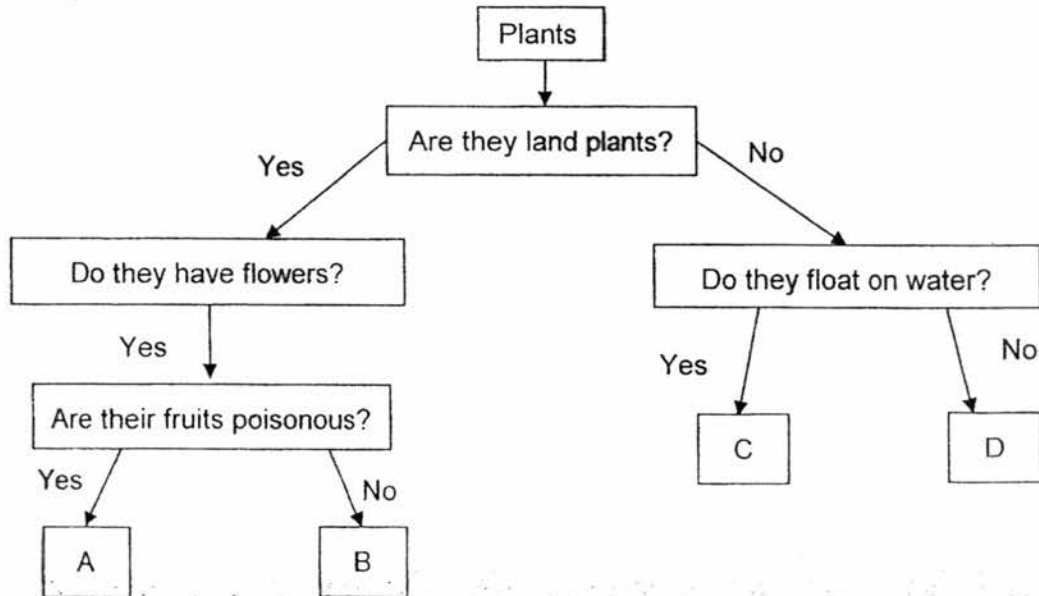
This question paper consists of 14 printed pages (inclusive of cover page).

Booklet B (40 marks)

For questions 26 to 38, write your answers in this booklet.

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

26. Study the flowchart below.



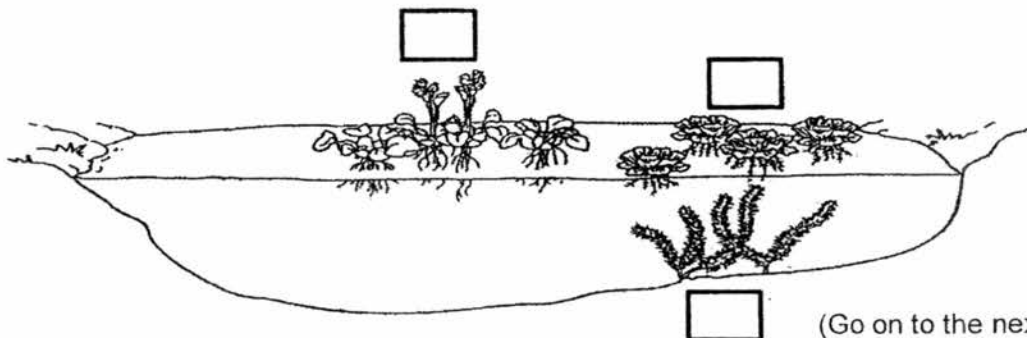
(a) Based on the flowchart, state two similarities between Plant A and Plant B. [1]

1) _____

2) _____

(b) Based on the flowchart, state a difference between Plant B and Plant D. [1]

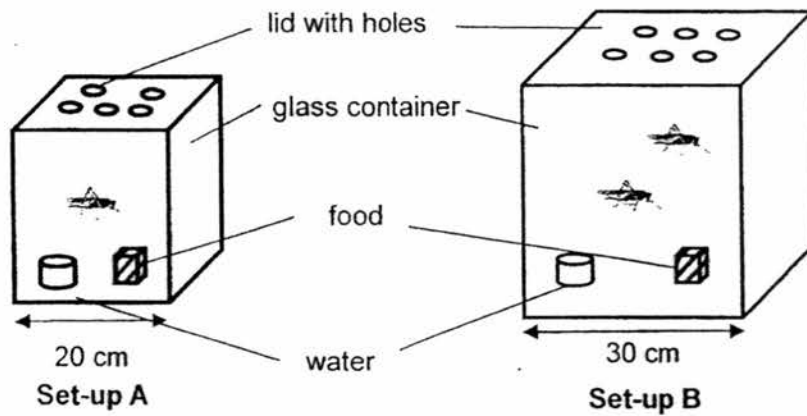
(c) Which of the following plants can most likely be Plant C? Place a tick (✓) in the correct box(es) provided. [1]



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SCORE	3
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27. Siti set up the following experiment as shown below. She wanted to find out if the size of the glass container affects the growth of the grasshopper.



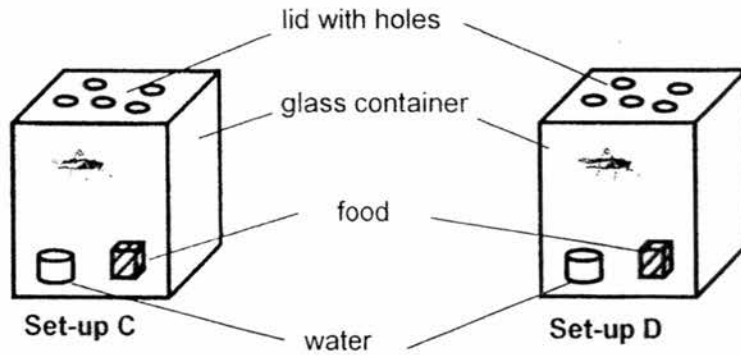
Siti's mother told her that her experiment was not fair.

- (a) Write down 2 things that Siti should do to Set-up B to ensure that the experiment is fair. [2]

1) _____

2) _____

- (b) Siti wanted to find out if the grasshopper can survive **without** air based on the set-ups below.

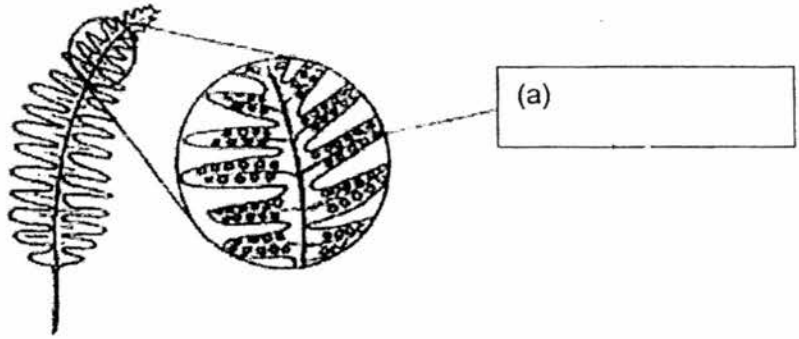


Suggest one change she would need to make to Set-up D to test her aim. [1]

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SCORE	3
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28. Alice found a fern near her school and observed the underside of its leaves as shown in the diagram below.



- (a) Label the part above in the box provided. [1]

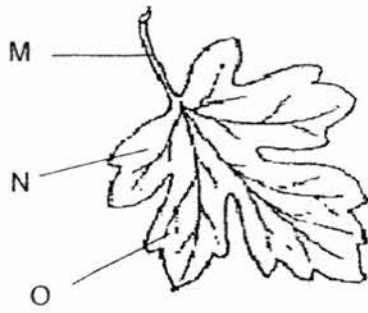
- (b) Alice pointed out that fern can be grouped under fungi. Do you agree with her? Give a reason for your answer. [1]

- (c) Alice's mother told her that the fern is a non-flowering plant. Besides not having flowers, how can Alice tell that fern is a non-flowering plant? [1]

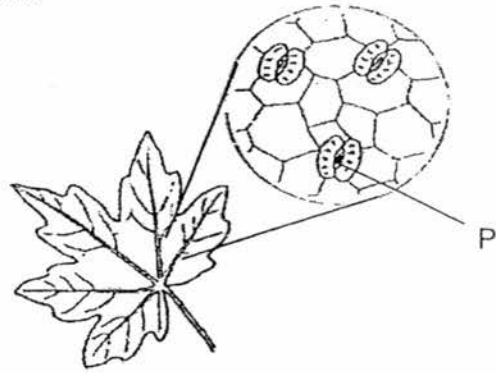
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SCORE	3
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29. The diagrams below show the leaf from a plant.



Topside of leaf



Underside of leaf

(a) Identify parts M, N, O and P.

[2]

M: _____

N: _____

O: _____

P: _____

(b) State two functions of a leaf.

[1]

1) _____

2) _____

(Go on to the next page)

SCORE	3
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30. Study Plants S and T below.



Plant S



Plant T

(a) What is the function of Part X?

[1]

(b) Based on your observation of the plants above, state a similarity and difference between the plants. (Do not compare size)

[2]

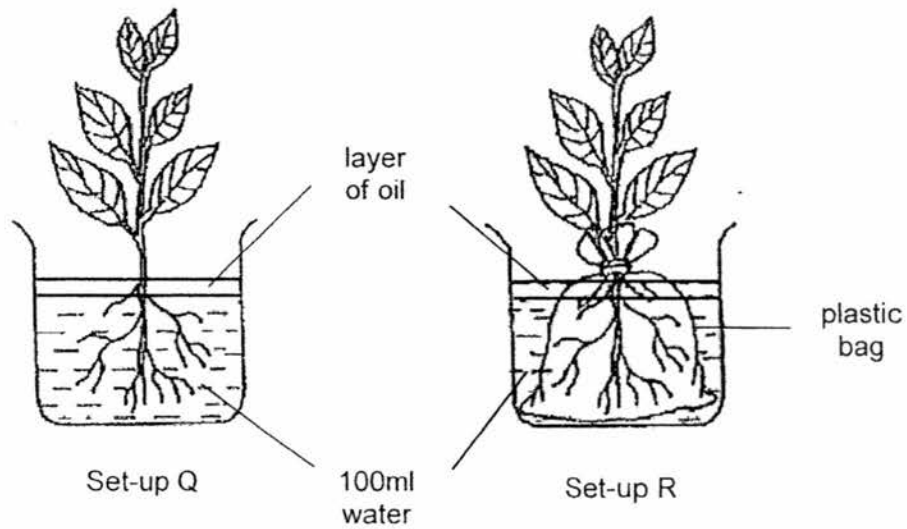
Similarity: _____

Difference: _____

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SCORE	
	3

31. Roger placed two similar plants in identical beakers, each containing 100ml of water, near his window, as shown below.



Roger observed the volume of water in both set-ups for 2 days. The results were recorded in the table as shown below.

Set-up	Volume of water	
	Day 1	Day 2
Q	100ml	90ml
R	100ml	?

- (a) Predict the volume of water left in Set-up R on Day 2. [1]

 ml

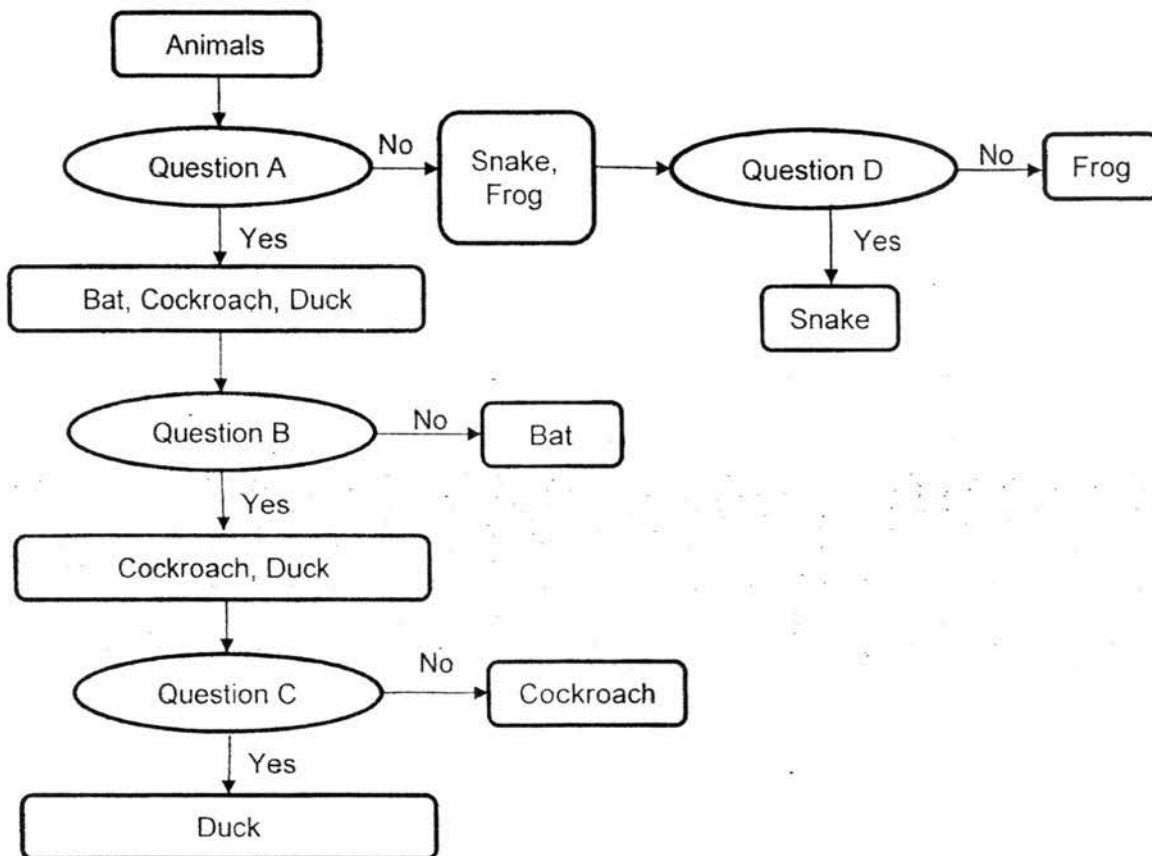
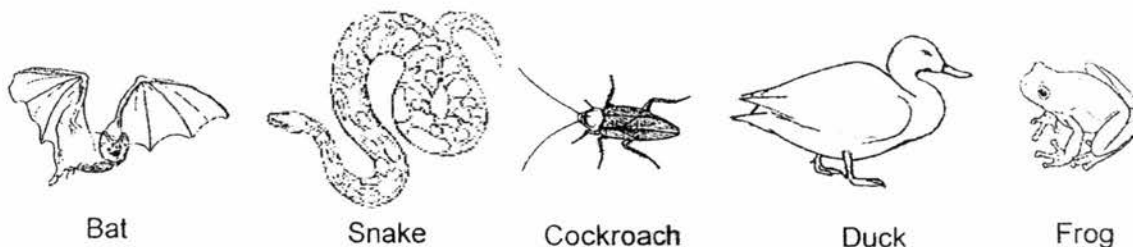
- (b) What is the aim of Roger's experiment? [1]

- (c) What do you think will happen to the plant in Set-up R after a few days? Explain your answer. [1]

(Go on to the next page)

SCORE	3
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32. Selena classified the five animals in the flowchart shown below.



(a) Match the questions below correctly to Questions A, B, C and D in the flowchart. Write the letters A, B, C and D in the boxes to match them. [2]

Question	Letter
Does it lay eggs?	
Does it have wings?	
Does it have scales?	
Does it have feathers?	

(b) What animal groups do the following animals belong to? [1]

Snake: _____

Frog: _____

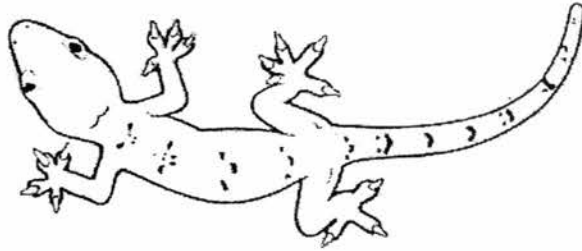
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SCORE	3
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33. Study the two animals that came into John's classroom occasionally from the Eco-garden. Animals X and Y are not drawn to scale.



Animal X



Animal Y

- (a) Based on your observation of the pictures above only, state two physical differences between Animal X and Animal Y. [2]
(Do not compare their sizes or movement.)

- b) Based on your observation, which animal group does Animal Y belong to? Give a reason for your answer. [1]

(Go on to the next page)

SCORE	3
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34. Isaac came across a big and tall tree at the corner of the park near his house. The tree was partly in the shade and partly in the sun. He also saw some mushrooms growing at the sides of the tree. He decided to record his observations in the table.

Conditions at the different parts of the tree	Number of mushrooms growing on:		
	Day 1	Day 2	Day 3
Shady and dry	2	4	7
Shady and moist	4	10	18
Sunny and dry	0	1	3
Sunny and moist	1	3	6

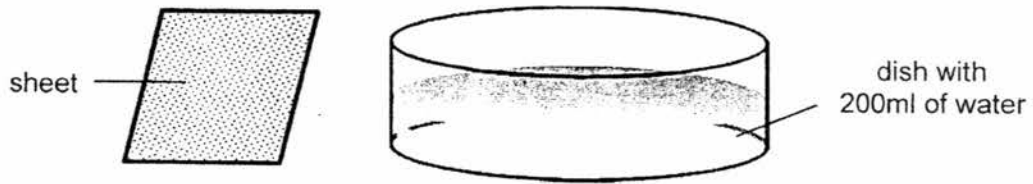
- (a) Based on Isaac's observations, under which conditions did the mushrooms reproduce the fastest? [1]

- (b) Fungi can be useful or harmful to us. Give an example of a fungus that is harmful to us. Give a reason why it is harmful. [2]

(Go on to the next page)

SCORE	3
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35. Ethan used the set-up as shown below to investigate a certain property of materials.



In his investigation in class, he used 4 sheets made of different materials, A, B, C and D. He submerged each sheet in 4 identical dishes of 200ml of water.

Material	Amount of water left in each dish after removing the sheet (ml)
A	150
B	200
C	80
D	120

- (a) Name the property of materials Ethan was trying to investigate. [1]

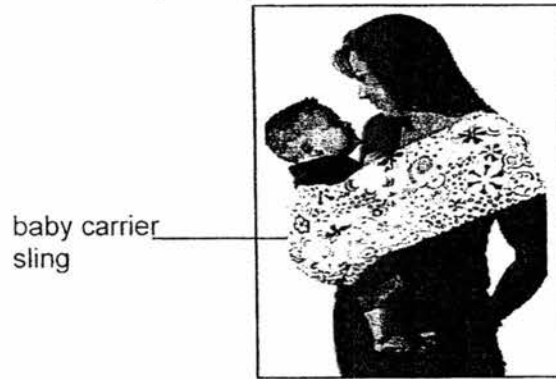
- (b) Based on his results, which material, A, B, C or D is most suitable for making a towel? Explain your answer based on the results of his investigation. [1]

- (c) State 2 other variables that Ethan should keep the same to ensure he carries out a fair test. [1]

(Go on to the next page)

SCORE	3
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36. Mrs Tay wanted to make a baby carrier sling as shown below. A baby carrier sling is used by an adult to carry a baby in various positions.



Before deciding on a material to use, she experimented with four materials and placed bags of sand on them. The table below shows the total weight of sand each material can hold before it started to tear.

Materials	Total weight of sand (kg) the sling could hold before it tore
G	13
H	5
K	8
L	20

- (a) What was the aim of Mrs Tay's experiment? [1]

- (b) Based on the table above, order the materials, G, H, K and L, based on the weight they could hold before tearing. Start with the material that could hold the least weight to the most weight. [1]

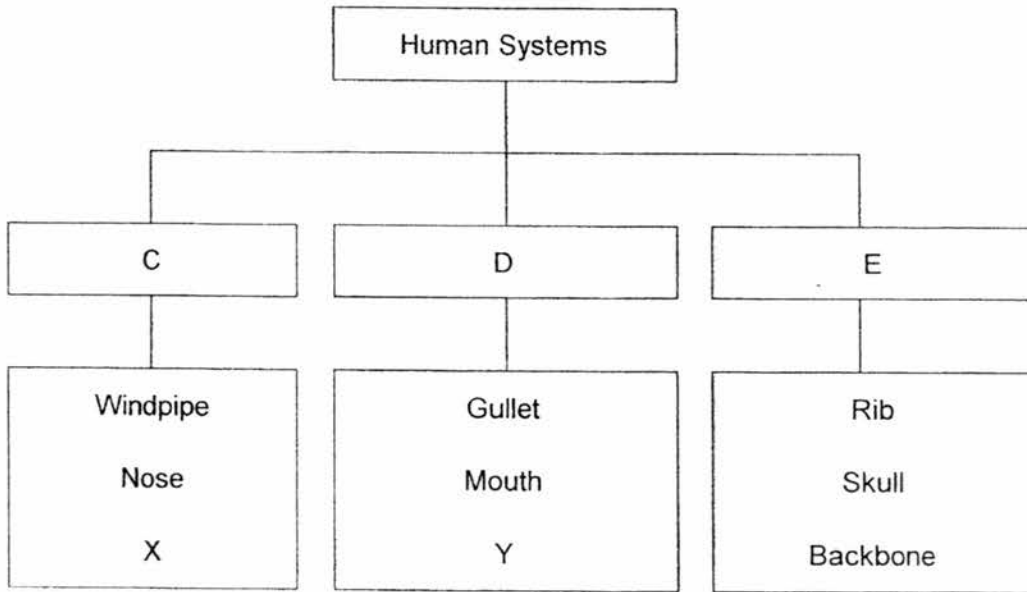
_____ _____ _____ _____
 Least weight held → Most weight held

- (c) Which material, G, H, K or L is the most suitable for making the sling? Explain your answer based on the property of the material that Mrs Tay was testing. [1]

(Go on to the next page)

SCORE	3
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37.



(a) What are systems C and D? [1]

C: _____

D: _____

(b) What can X and Y be? [1]

X: _____

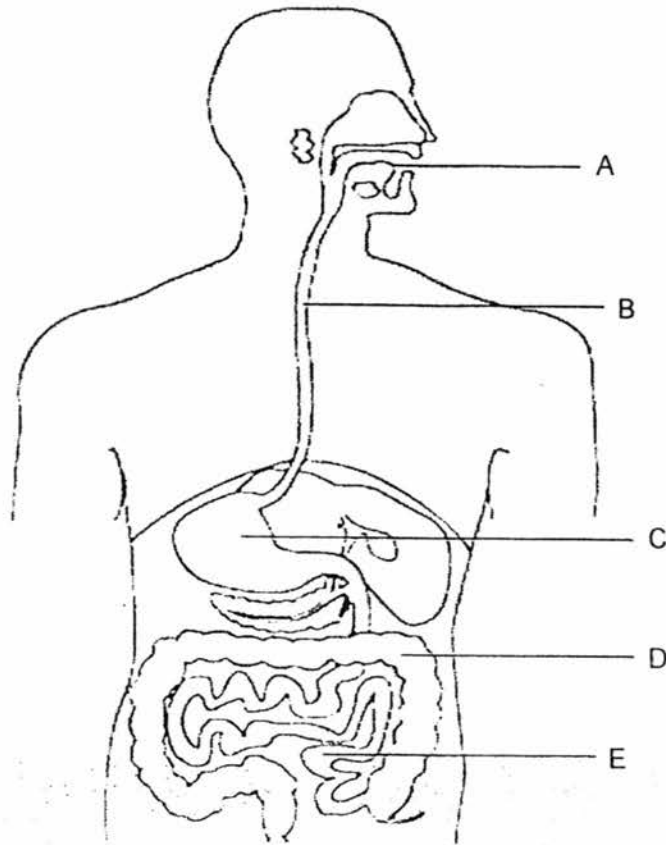
Y: _____

(c) What is the main function of the parts in group E? [1]

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SCORE	3
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38. The diagram below shows parts of the digestive system of a human body.



- (a) Name the substance in the mouth that mixes with the food that is chewed. [1]

- (b) State a similarity at parts C and E. [1]

- (c) State the major function of part D. [1]

- (d) Where is digestion completed? What happens to digested food after that? [1]

End of paper

SCORE	4
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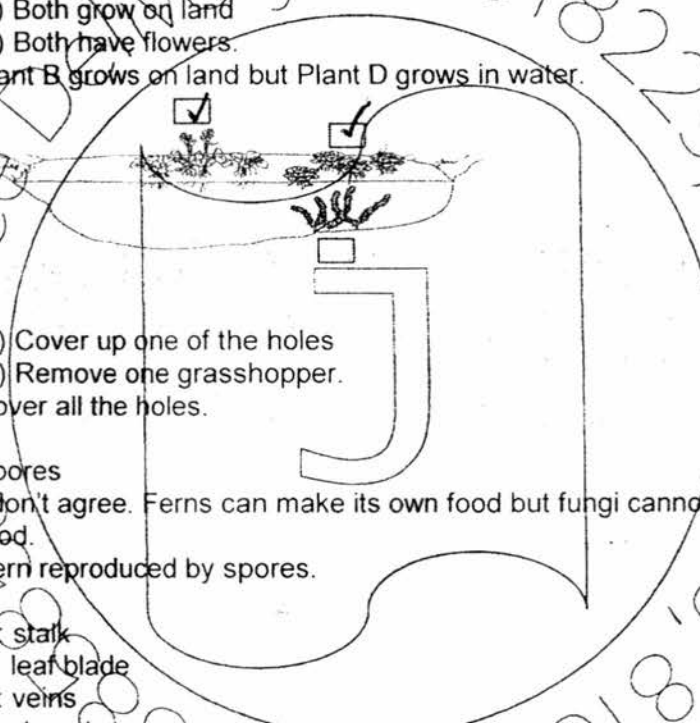
EXAM PAPER 2017

LEVEL : PRIMARY 3
SCHOOL : ACS (Junior)
SUBJECT : SCIENCE
TERM : SA2

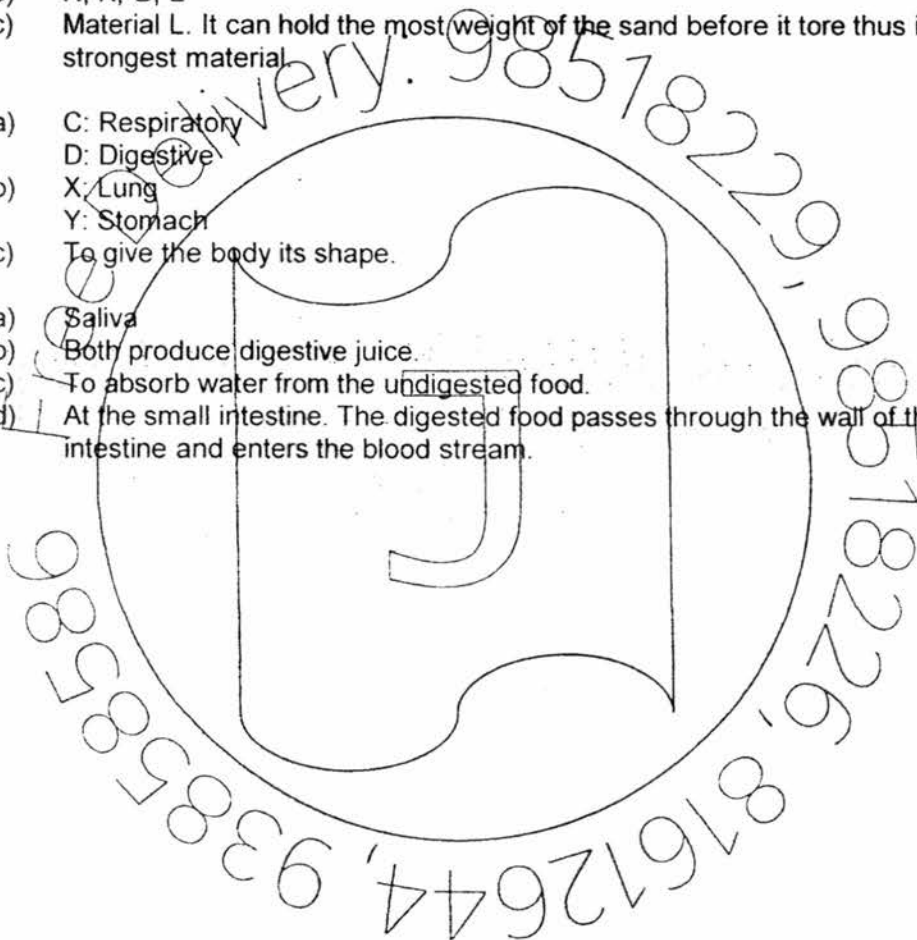
Booklet A

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

Booklet B

- Q26 (a) (1) Both grow on land
 (2) Both have flowers.
 (b) Plant B grows on land but Plant D grows in water.
 (c)
- 
- Q27 (a) (1) Cover up one of the holes
 (2) Remove one grasshopper.
 (b) Cover all the holes.
- Q28 (a) Spores
 (b) I don't agree. Ferns can make its own food but fungi cannot make its own food.
 (c) Fern reproduced by spores.
- Q29 (a) M: stalk
 N: leaf blade
 O: veins
 P: stomata
 (b) (1) To make most of the plant food.
 (2) To breathe air in and out so that the plant can take in carbon dioxide.
- Q30 (a) To hold up the leaves up so that they can get plenty sunlight and air.
 (b) Similarity: Both have flowers.
 Difference: Plant S has a weak stem while Plant T has a strong stem.
- Q31 (a) 100ml
 (b) To find out if plants need water to survive.
 (c) It will wilt and die because it has no water.
- Q32 (a) B,A,D,C
 (b) Reptile
 Amphibians

- Q33 (a) Animals X has 6 legs but Animal Y does not.
Animal X has wings but Animal Y does not.
(b) Reptile. It is covered with scales.
- Q34 (a) Shady and moist.
(b) Toadstools. They are poisonous.
- Q35 (a) Absorption
(b) Material C. The amount of water left in the dish was the least.
(c) The size of the material and the time taken the material is submerged in the water.
- Q36 (a) To find out which material is the strongest.
(b) H, K, G, L
(c) Material L. It can hold the most weight of the sand before it tore thus it is the strongest material.
- Q37 (a) C: Respiratory
D: Digestive
(b) X: Lung
Y: Stomach
(c) To give the body its shape.
- Q38 (a) Saliva
(b) Both produce digestive juice.
(c) To absorb water from the undigested food.
(d) At the small intestine. The digested food passes through the wall of the small intestine and enters the blood stream.



3
2nd