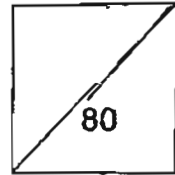




**HENRY PARK PRIMARY SCHOOL  
2011 SEMESTRAL EXAMINATION 1  
SCIENCE  
PRIMARY 3**

**Duration of Paper: 1 h 30 min**



Name: \_\_\_\_\_ ( )

Parent's Signature \_\_\_\_\_

Class: Pr 3 \_\_\_\_\_

**Section A (40 marks)**

For each question from 1 to 20, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the **Optical Answer Sheet**.

1. The diagram below shows Jimmy's pet frog in a container. After a few days, the frog died.



What could Jimmy have done to prevent this from happening?

- (1) Use a bigger container.
- (2) Put flies in the container.
- (3) Cover the holes on the lid.
- (4) Remove the water from container.

( )



2. Nicole was cycling home when she saw a bird at the side of the road. When she rang the bell on her bicycle, the bird flew away. Based on this observation, what can Nicole learn from the characteristic shown by the bird?

- (1) The bird needs air
- (2) The bird has feathers
- (3) The bird flies quickly
- (4) The bird responds to changes

( )

3. The table below shows the characteristics of four things, A, B, C and D.

Things	Characteristics			
	Does it need air	Does it move from place to place	Does it reproduce	Does it increase in size
A	Yes	No	Yes	Yes
B	Yes	No	Yes	Yes
C	No	Yes	No	No
D	Yes	Yes	Yes	Yes

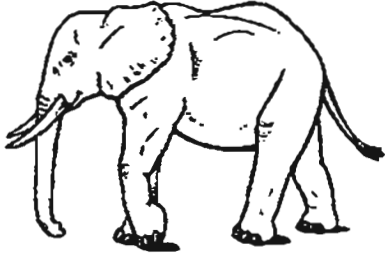
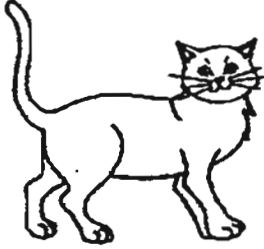
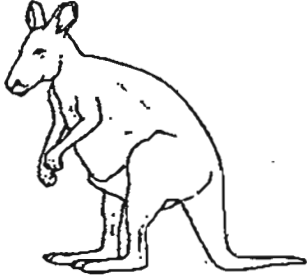

Which of the following, A, B, C or D is a non-living thing?

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

( )

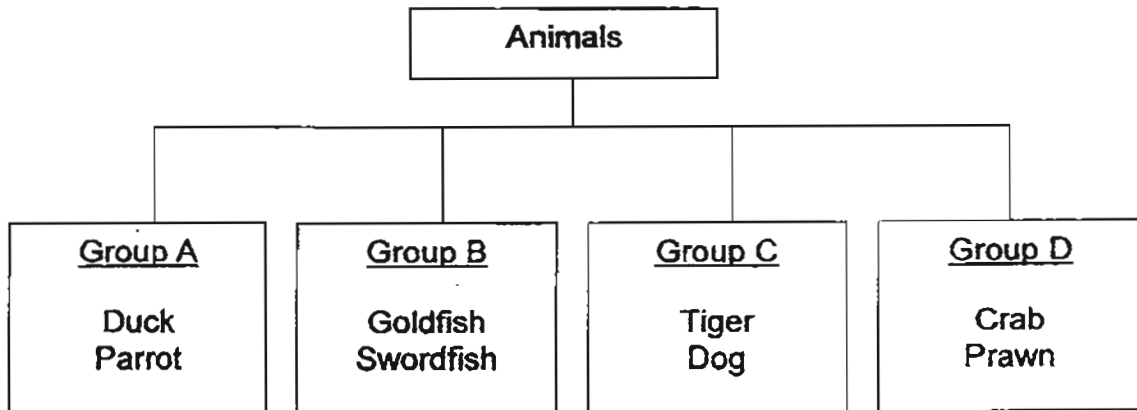


4. Which one of the following living things does **NOT** move in the same way as the others?

<p>(1)</p>  <p>Elephant</p>	<p>(2)</p>  <p>Cat</p>
<p>(3)</p>  <p>Kangaroo</p>	<p>(4)</p>  <p>Horse</p>

( )

5. The animals below are grouped according to their outer coverings.



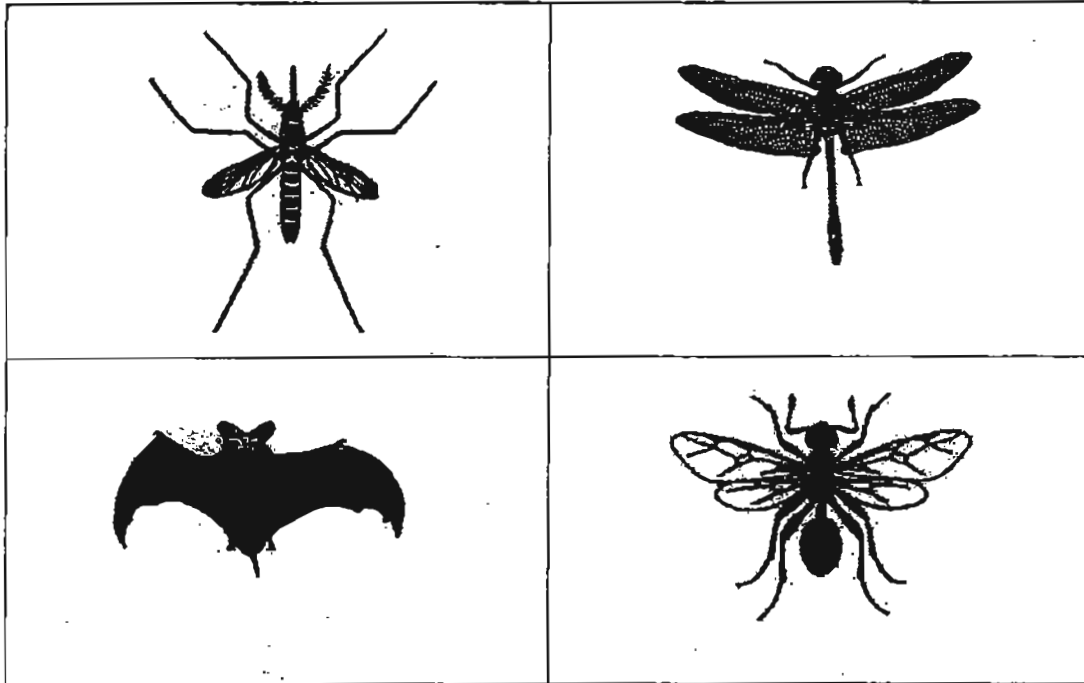
Which group would you place the whale in?

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

( )



6. The animals below are grouped together according to a common characteristic.

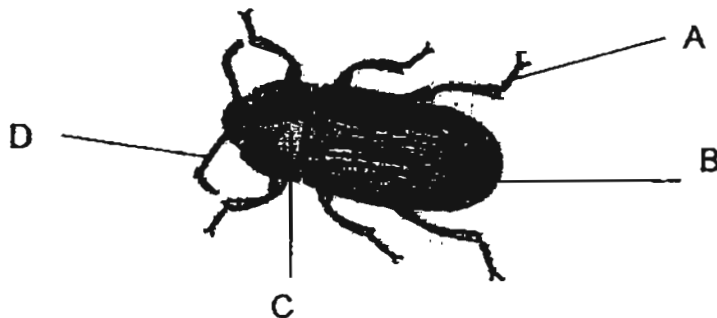


Based on your observations, what is the characteristic shared by the animals shown above?

- (1) All have feelers.
- (2) All have wings.
- (3) All have six legs.
- (4) All have hair as outer covering.

( )

7. The picture below shows a beetle.



Which body part helps the beetle to sense its surroundings?

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

( )



8. The table below shows the characteristics of 4 animals, A, B, C and D.

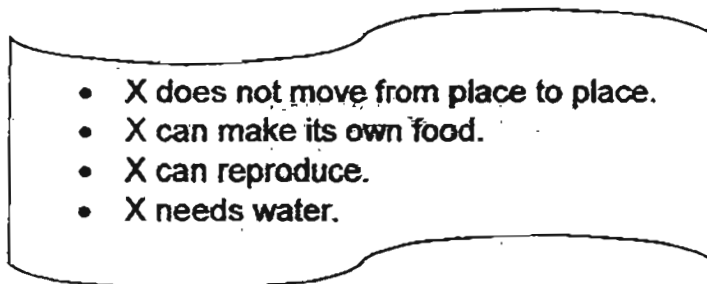
Animal	Number of legs				Has Feelers	Has Wings
	2	4	6	8		
A				√	No	No
B			√		YES	YES
C		√			No	No
D	√				NO	YES

Which 2 animals, A, B, C or D, could be a grasshopper and an ostrich respectively?

	Grasshopper	Ostrich
(1)	A	B
(2)	B	D
(3)	B	C
(4)	D	B

( )

9. Alison found living thing X in her garden. She observed it for a week and wrote down her observations as shown below.



She then showed John her observations and he concluded immediately that living thing X is a plant.

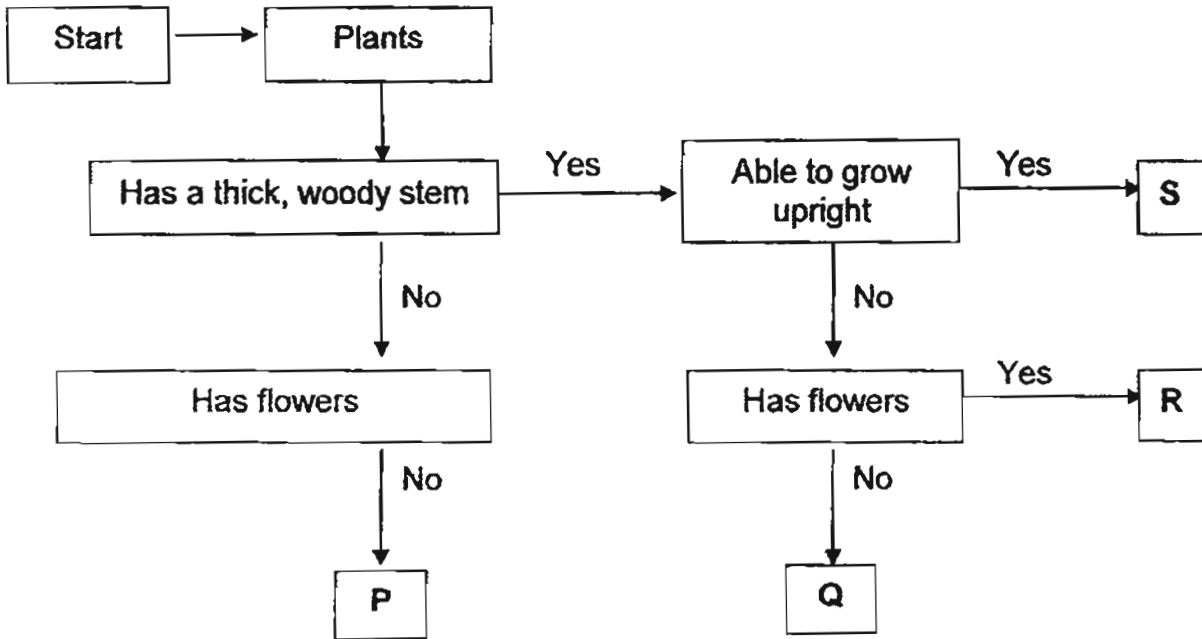
Which observation tells John that Living Thing X can only be a plant?

- (1) It needs water.
- (2) It can reproduce.
- (3) It can make its own food.
- (4) It does not move from place to place.

( )



10. The flowchart below shows the characteristics of Plant P, Q, R and S.



In which group should the plant below be placed in?

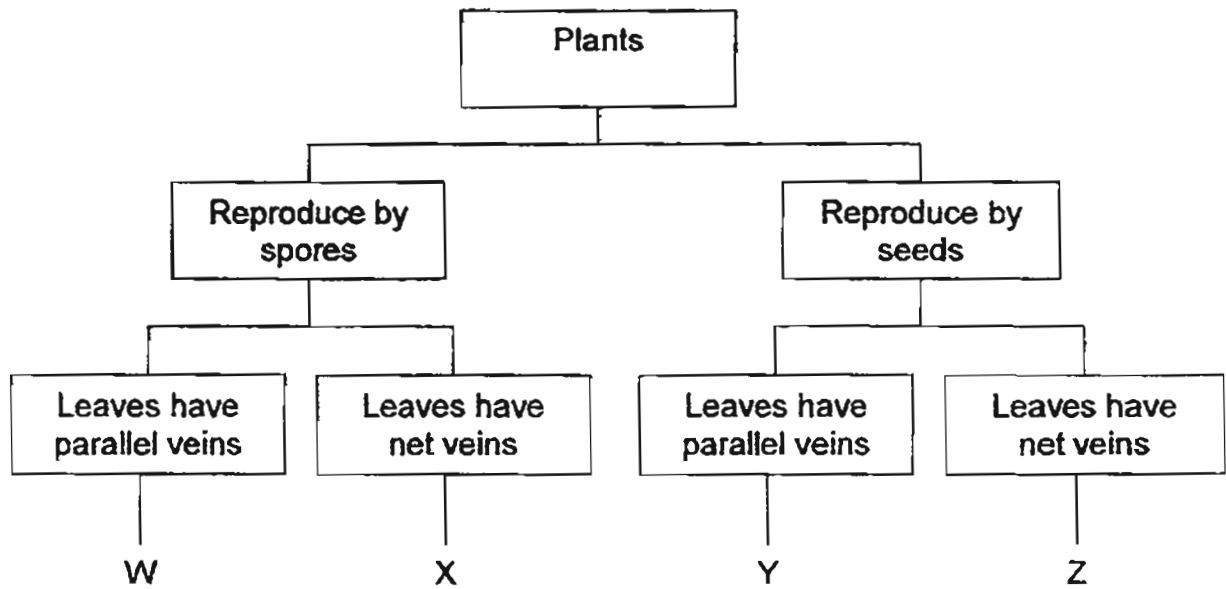


- (1) P
- (2) Q
- (3) R
- (4) S

( )



11. The flowchart below shows the characteristics of 4 plants, W, X, Y and Z.



Sam saw 2 plants, A and B and recorded his observations below.

Characteristics	Plant	
	A	B
Produces flowers	Yes	No
Has parallel veins on leaves	No	Yes

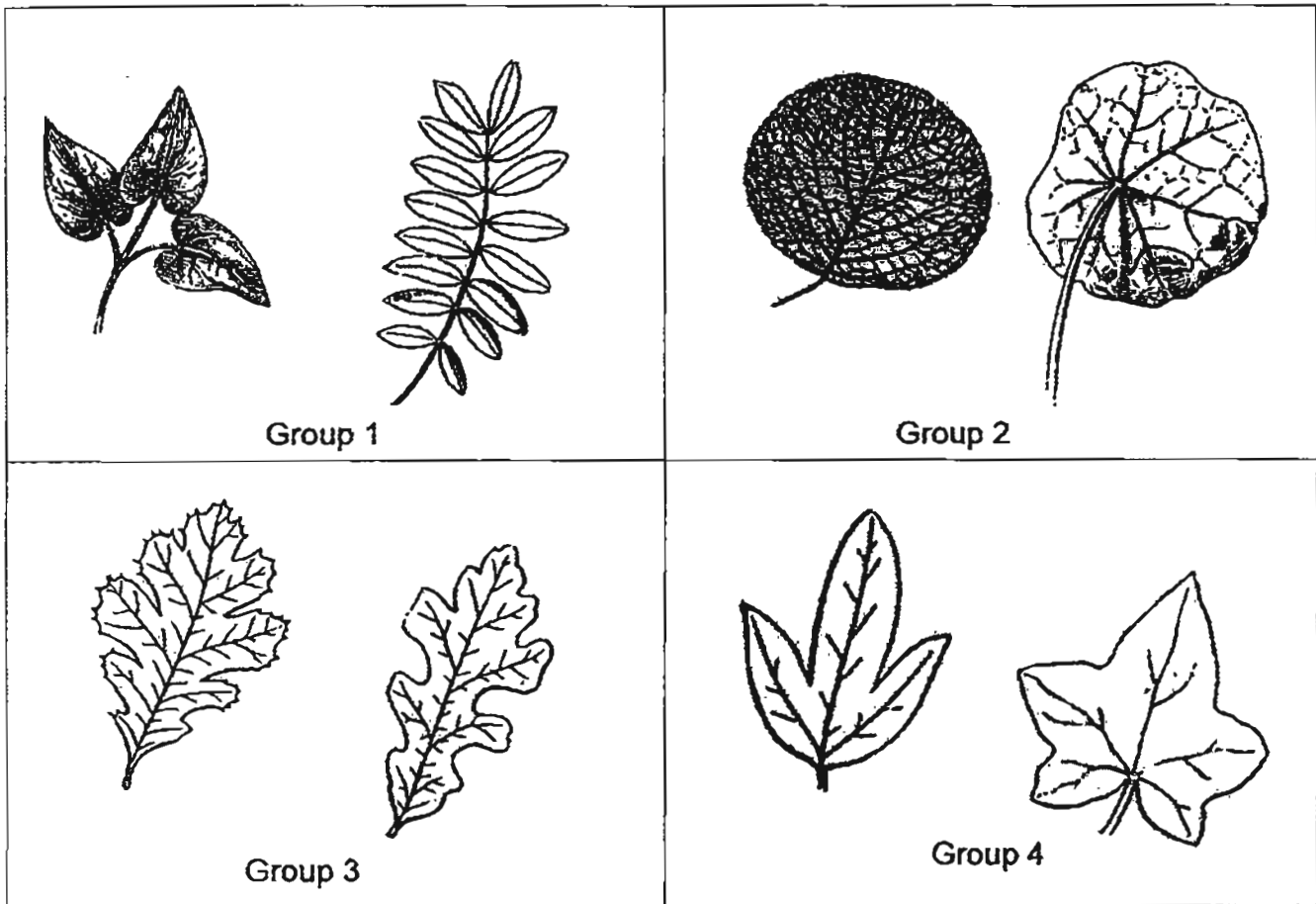
Which plant, W, X, Y or Z could Sam group Plant B with?

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

( )



12. Arjun went for a nature walk in a park and observed some leaves. He then classified them as shown below.



Arjun then saw Leaf V as shown below.



Leaf V

In which group should he classify Leaf V?

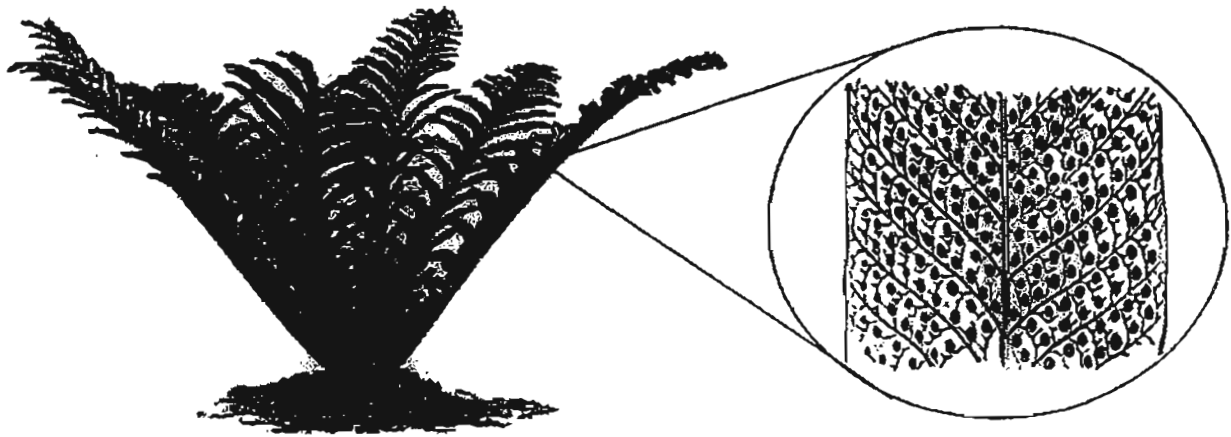
- (1) 1
- (2) 2
- (3) 3
- (4) 4

( )





13. Junhui's Science teacher showed the class a living thing as shown below and magnified a part of the living thing.



**Living Thing Y**

The class was then asked to compare Living Thing Y with Living Thing Z as shown below.



**Living Thing Z**

Four pupils were asked for their observations.

Anita: They both make their own food.

Bala : They both reproduce from spores.

Caili : Living Thing Y is not a plant while Living Thing Z is.

Dan : Living Thing Y reproduces from spores while Living Thing Z reproduces from seeds.

Whose statement(s) is/are correct?

(1) Caili only

(2) Anita and Bala only

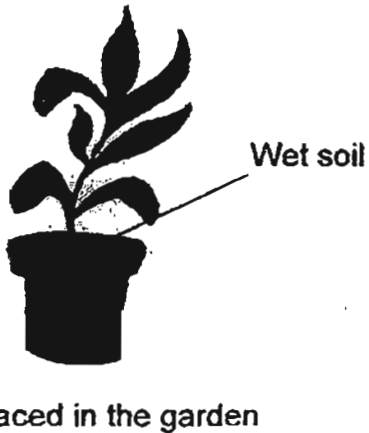

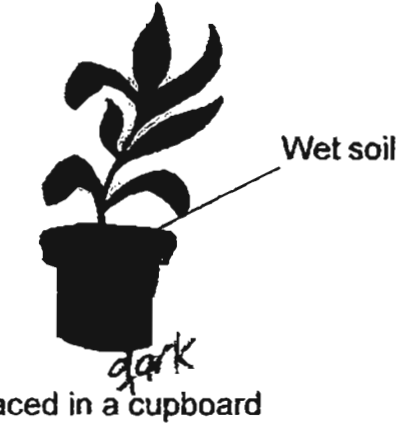
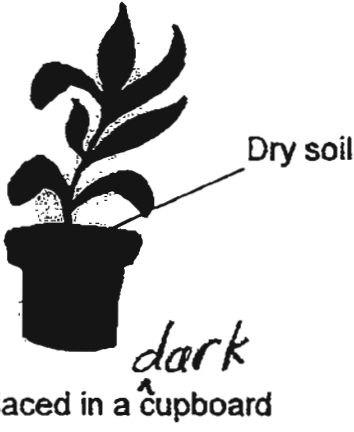
(3) Anita and Dan only

(4) Bala and Dan only

( )



14. Ming Xiang wanted to find out what plants need to survive. He used 4 potted plants (A, B, C and D) to set up the experiment as shown below.

 <p>Placed in the garden</p>	 <p>Placed in the garden</p>
<p>Plant A</p>	<p>Plant B</p>
 <p>Placed in a cupboard</p>	 <p>Placed in a cupboard</p>
<p>Plant C</p>	<p>Plant D</p>

After 2 weeks, only Plant A is alive. The other 3 plants had withered and died.

From this investigation, Ming Xiang found out that plants need \_\_\_\_\_ to survive.

- (1) air and water
- (2) soil and water
- (3) sunlight and food
- (4) water and sunlight

( )



15. Which of the following statements about bacteria is/are true?

A: Bacteria cannot reproduce.

B: Bacteria need air to survive.

C: All bacteria are harmful to us.

D: A microscope is needed for us to see bacteria.

(1) A only

(3) B and D only

(2) A and C only

(4) B, C and D only

( )

16. The table below shows information about 4 different types of living things.

Living Thing	Does it make food?	Does it reproduce by spores?
S	Yes	Yes
T	No	Yes
U	No	No
V	Yes	No

Observe the living thing below.



Based on the table, which one of the following, S, T, U or V, could the living thing above be?

(1) S

(2) T

(3) U

(4) V

( )



17. The table below shows some properties of materials, A, B, C and D.

Material	Properties
A	Breaks easily
B	Can bend easily
C	Allows light to pass through
D	Light weight

Which of the following are important properties to consider when making lenses for a pair of spectacles for a young child?

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

( )

18. Janet conducted an experiment to find out the hardness of 4 different materials W, X, Y and Z. She used the sharp ends of a plastic rod and a glass rod to scratch each of these materials. She then recorded her findings in the table below.

Type of Rod	Scratch Marks made on Material			
	W	X	Y	Z
Plastic	YES	NO	NO	NO
Glass	YES	NO	NO	YES

Which one of the following statements is true?

- (1) Both Y and Z are harder than glass.  
 (2) Both W and Z are harder than glass.  
 (3) Both X and Y are harder than plastic.  
 (4) Both W and X are harder than plastic.

( )

19. The materials below have been grouped according to where they come from. Which group of materials comes from animals?

P	Q	R	S
Feather	Gold	Stone	Wood
Wool	Iron	Sand	Paper
Leather	Silver	Pebbles	Rattan

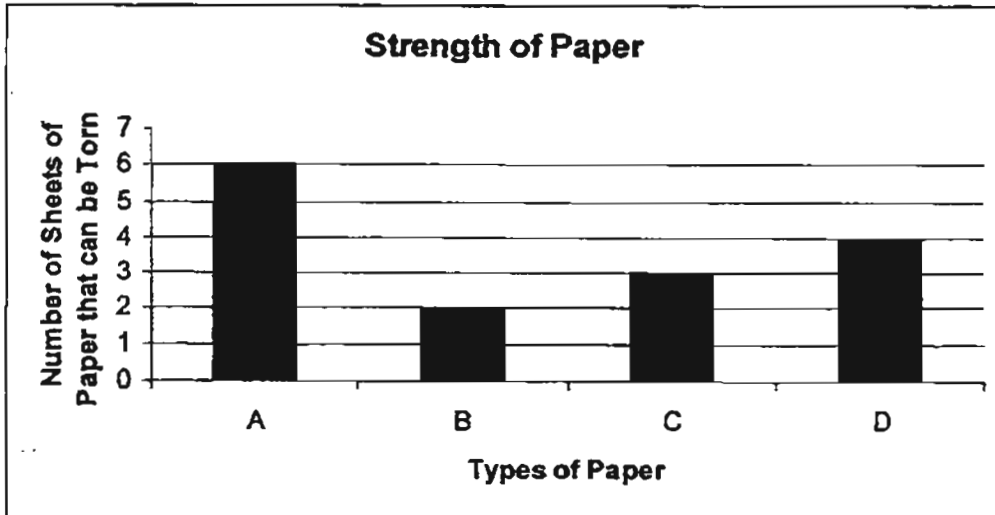
- (1) Group P  
 (2) Group Q  
 (3) Group R  
 (4) Group S

( )



20. The bar graph below shows the strength of 4 different types of paper, A, B, C and D.

The bar graph also shows the maximum number of sheets of each type of paper that can be torn when placed together.



Which is considered to be the **least** strong?

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

( )



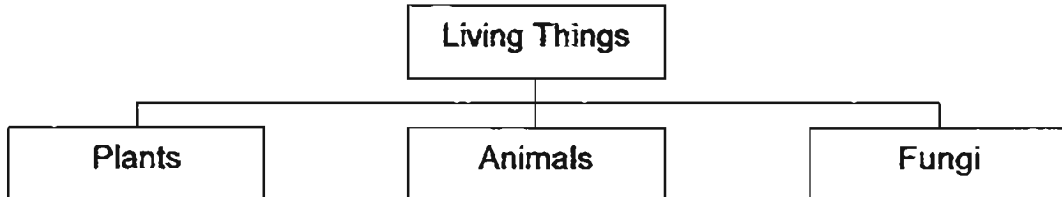
Name: \_\_\_\_\_ ( )

Class: Pr 3 \_\_\_\_\_

**Section B (12 marks)**

For each question from 21 to 26, read the instructions carefully and write your answer in the spaces provided.

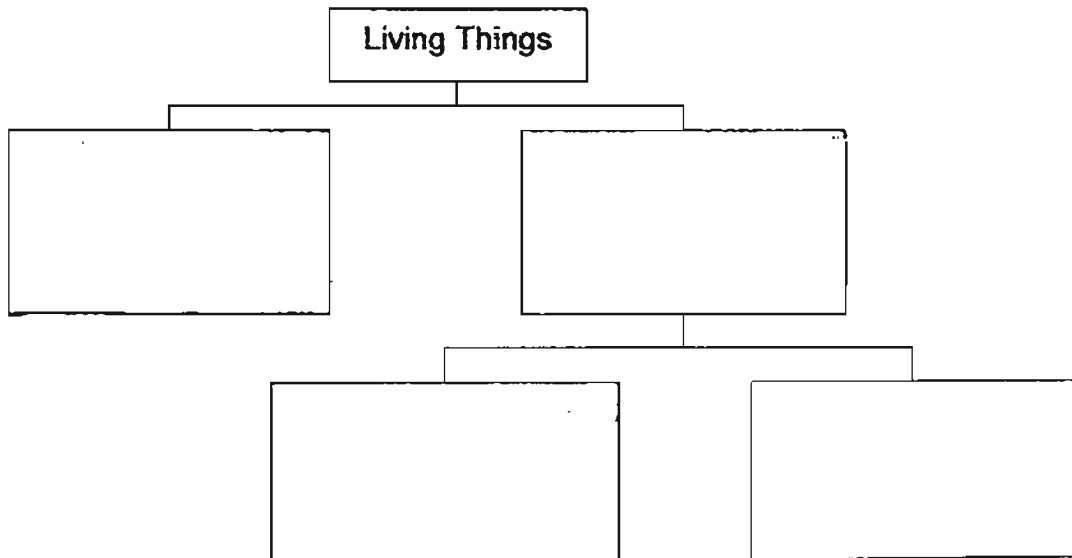
21. Ms Tan showed her Science class one way she classified living things into 3 groups in a classification table as shown below.



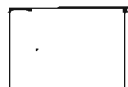
One of Ms Tan's pupils then pointed out that there is another way of classifying the living things above.

Fill in the blanks in the classification table below with the helping words given **ONLY**.

(2m)

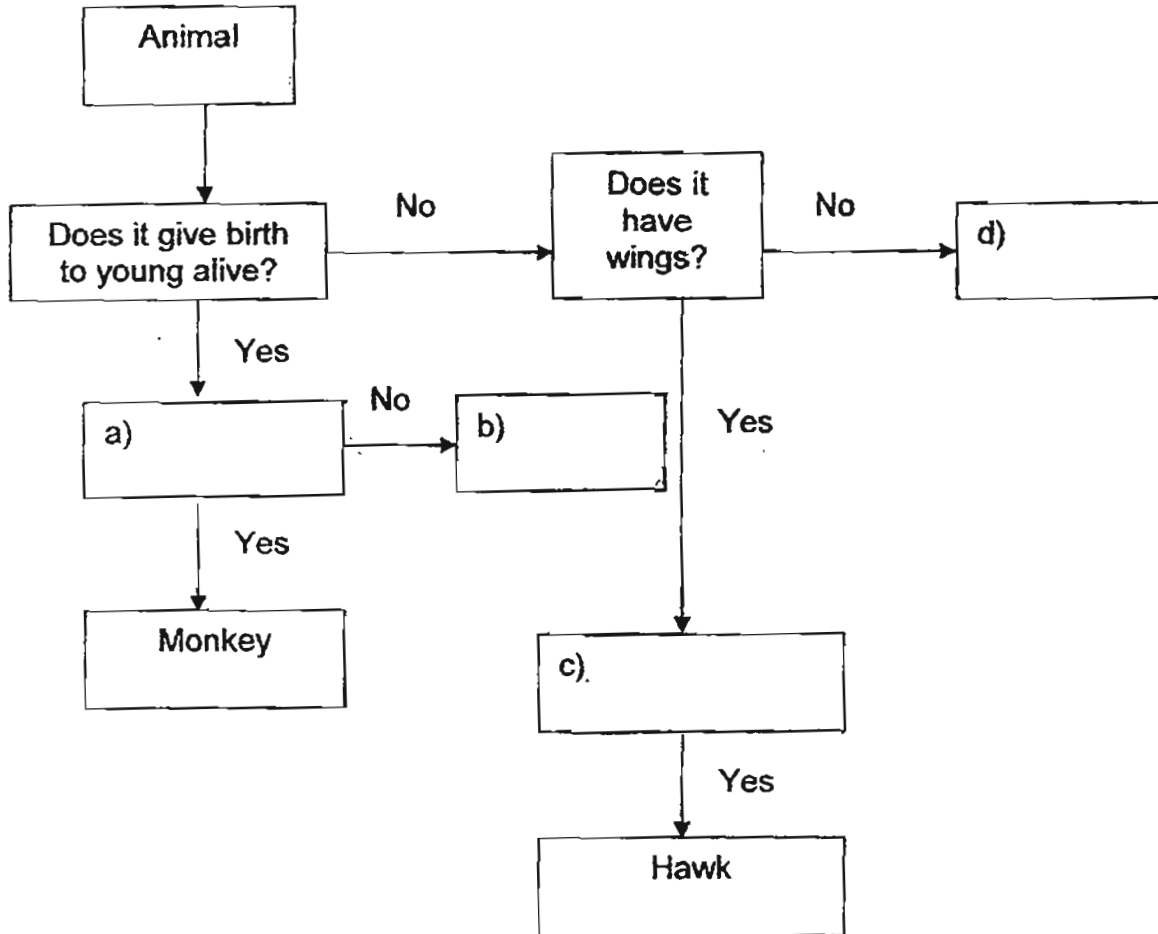


Make their own food	Feed on decaying matter
Hunt for food	Do not make their own food



22. The diagram below shows a flow chart which can be used to classify animals. (2m)  
Complete the flow chart by filling the boxes with words provided below.

<del>Spider</del>	Does it fly?
<del>Guppy</del>	Is it a mammal?



23. Observe the plants below.



Moss



Hibiscus



Fern

(1m)

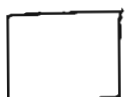
a) What similarities do the plants above have?

Put a tick (✓) next to the statements which are TRUE and a cross (x) to the statements which are FALSE.

They are all flowering plants.		They all make their own food.
--------------------------------	--	-------------------------------

b) Circle the plant that reproduces differently from the rest.

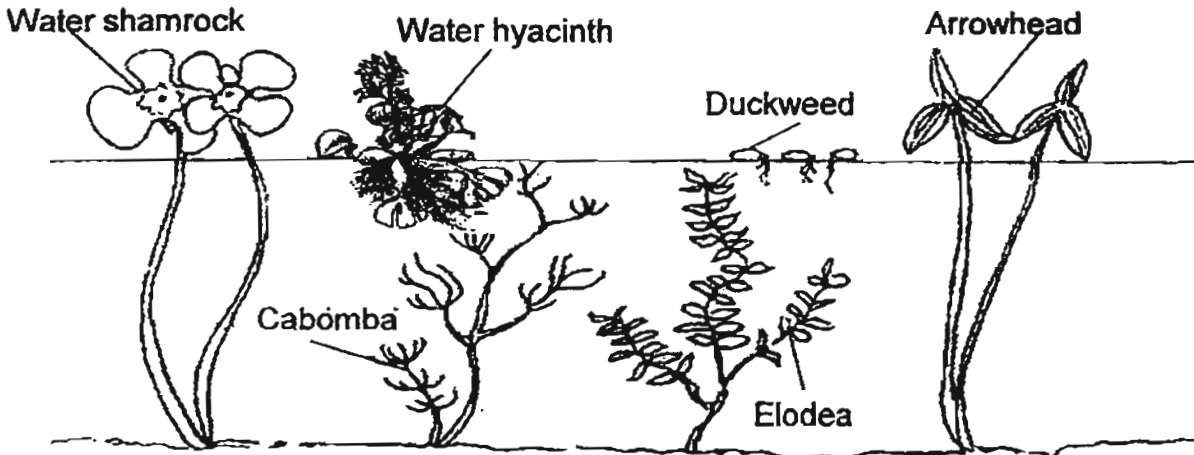
(1m)





24. Plants can be classified in many ways. One of the ways is to classify them according to how they grow in water.

The picture below shows some water plants.

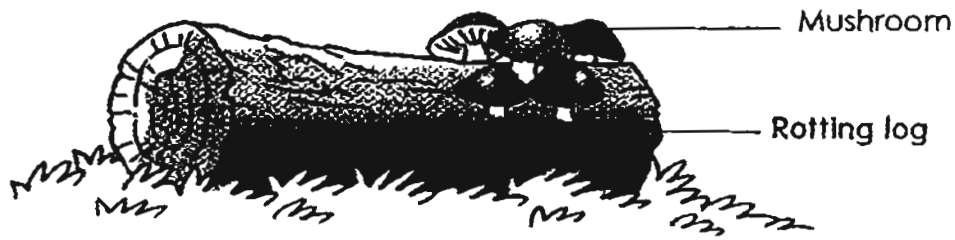


Based on what you observe from the pictures, fill in the rest of the names of the plants in the correct columns in the table below. (2m)

Floating Plants	Partially-submerged plants	Fully-submerged plants
Duckweed		Elodea



25. A group of children were asked to observe the mushrooms growing on a rotting log.

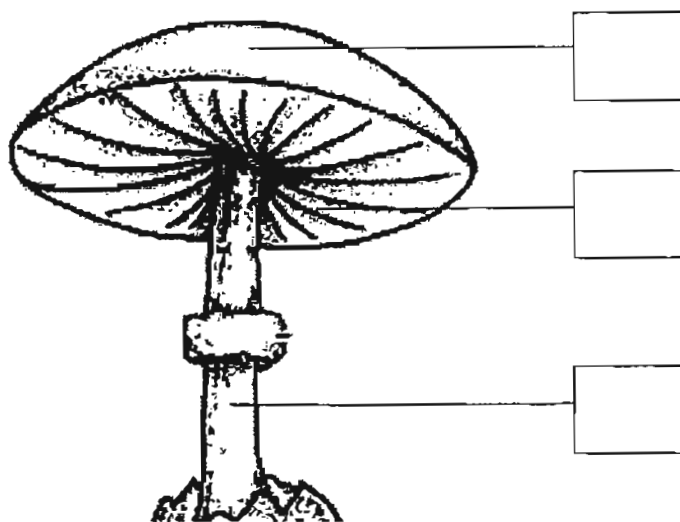


- a) Tick (✓) 'True' or 'False' in the respective columns for the following statements. (1m)

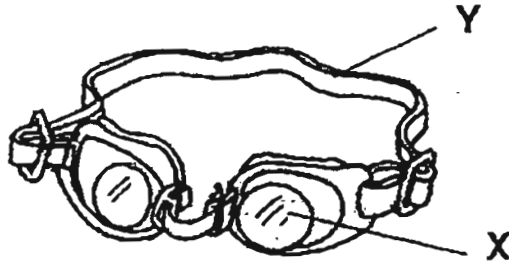
Statements	True	False
Parts of the rotting log grow into mushrooms.		
The rotting log provides food for the mushrooms.		
The rotting log helps the mushrooms to make food.		
The mushroom depends on the rotting log to survive.		

- b) The picture below shows a mushroom. (1m)

Put a tick (✓) in the correct box to show the part where spores are stored.



26. The picture below shows a pair of swimming goggles.



What materials are the parts X and Y made of?

(2m)

Part X is made of \_\_\_\_\_.

Part Y is made of \_\_\_\_\_.



Name: \_\_\_\_\_ (       )

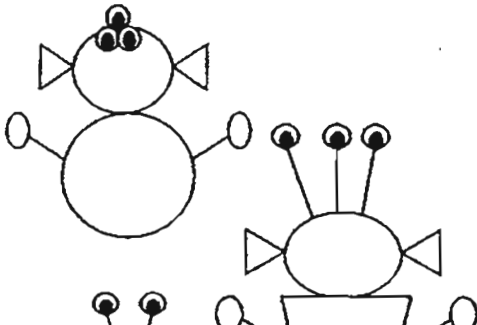
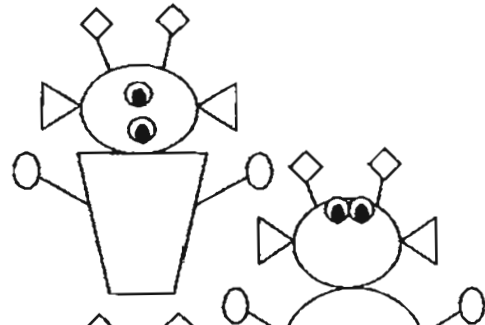


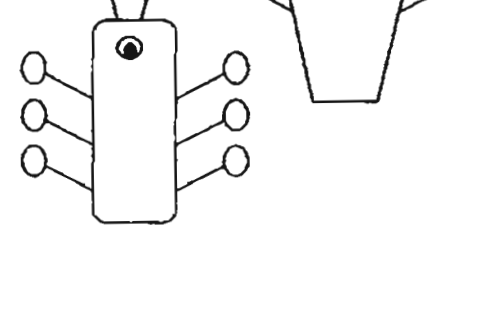
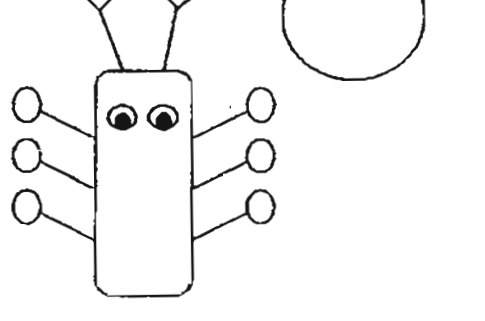


Class: Pr 3 \_\_\_\_\_

**Section C (28 marks)**

Write your answers to questions 27 to 34 in the spaces given.

27. Scientists on Planet X have discovered some new species of animals and wish to classify them.

Shown below is one way the scientists have classified them into 2 groups using a legend of their body parts.

Group 1	Group 2	Legend	
			eye
			ear
			hands
			feelers

a) Give suitable headings for Group 1 and Group 2 to show how the scientists have classified the animals. (2m)

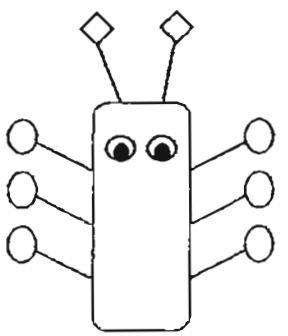
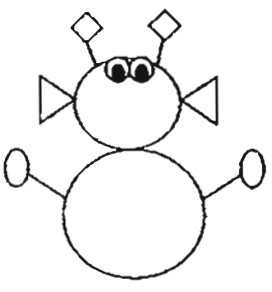
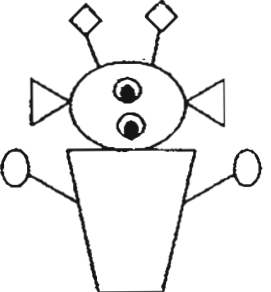




Group 1: \_\_\_\_\_

Group 2: \_\_\_\_\_



b) Using the legend and the pictures of the animals, classify the animals in Group 2 into 2 groups. (2m)

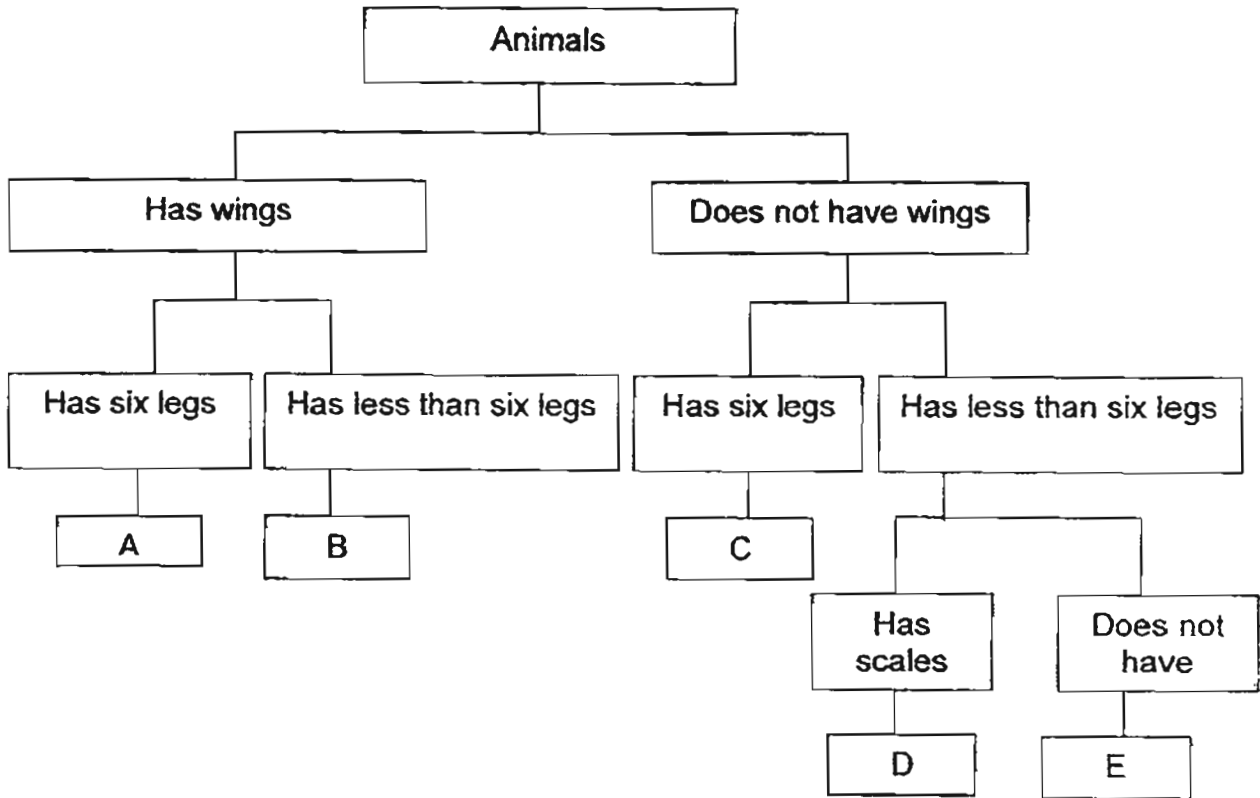
Write the letters of the animals in the spaces provided.  
Give a suitable heading for each group.

Group 2			Legend	
 <p>Animal A</p>	 <p>Animal B</p>	 <p>Animal C</p>	 <p>eye</p>	 <p>ear</p>
			 <p>hands</p>	 <p>feelers</p>

Heading: _____	Heading: _____



28. Study the classification chart below.



(a) Which group(s), A, B, C, D or E can insects be classified under? (2m)  
 Explain your answer.

---



---

(b) Study the animal below. (2m)



Can the animal shown in the diagram above be classified in group B on the classification chart above? Explain your answer.

---

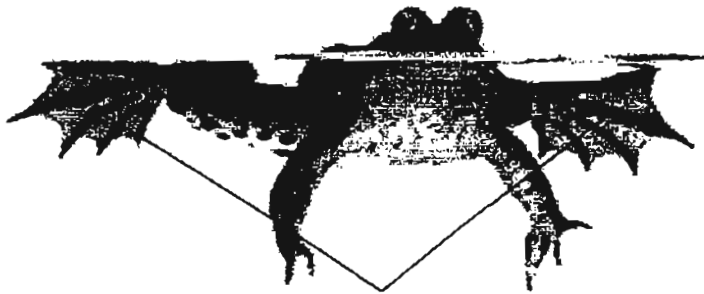


---



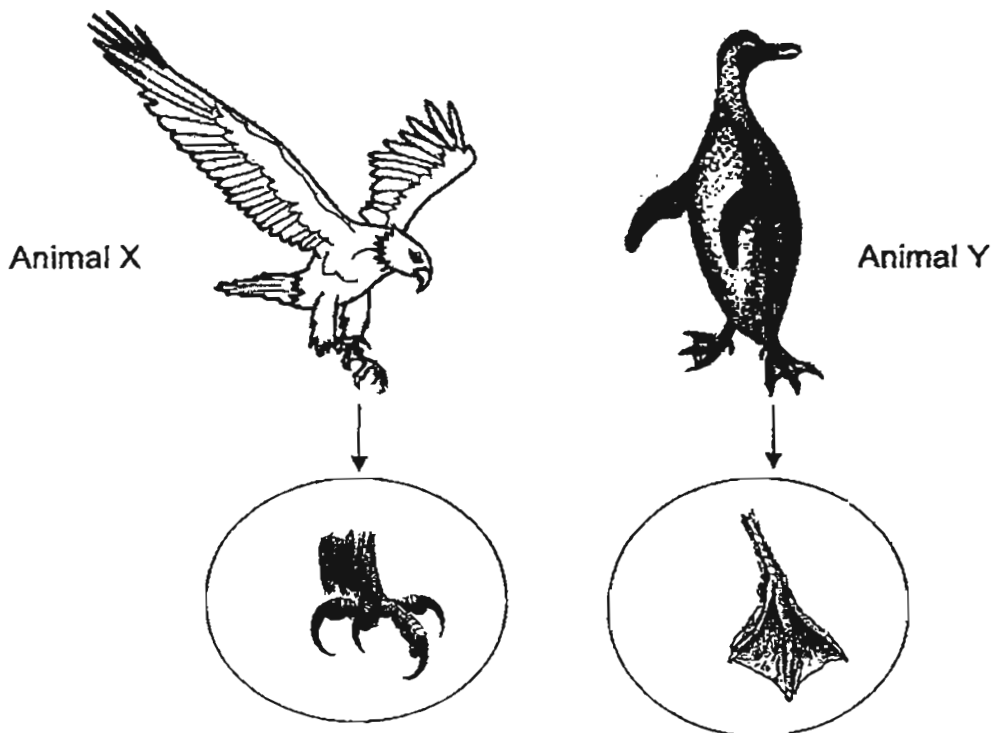
29. Animal P below uses its webbed feet to swim in water.

**Animal P**



**Webbed feet**

Joe saw two animals, X and Y as shown below.



a) Based on your observation of the animals and their feet in the above pictures, which animal, X or Y, moves easily in water? (1m)

---

---

b) Give a reason for your answer in (a). (1m)

---

---



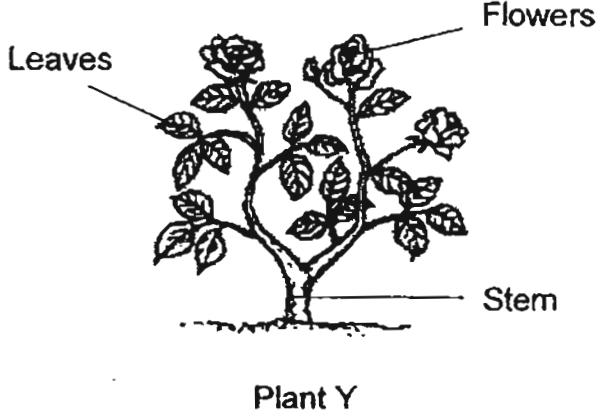
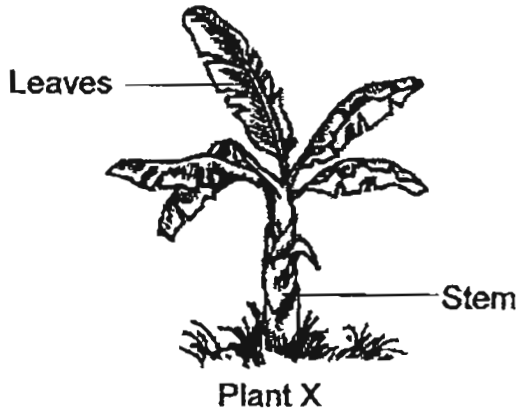
c) How is Animal X similar to Animal Y in the way they reproduce? (1m)

---

d) State one main function of the outer covering of Animal X. (1m)

---

30. The pictures below show Plant X and Plant Y.



a) Based on the plant parts shown in the pictures, state one similarity between Plant X and Plant Y. (1m)

---



---

b) Based on the plant parts shown in the pictures, state one difference between Plant X and Plant Y. (1m)

---



---

c) Junle found Plant A, B and C growing in his school garden and he recorded his observations into a table as shown below.

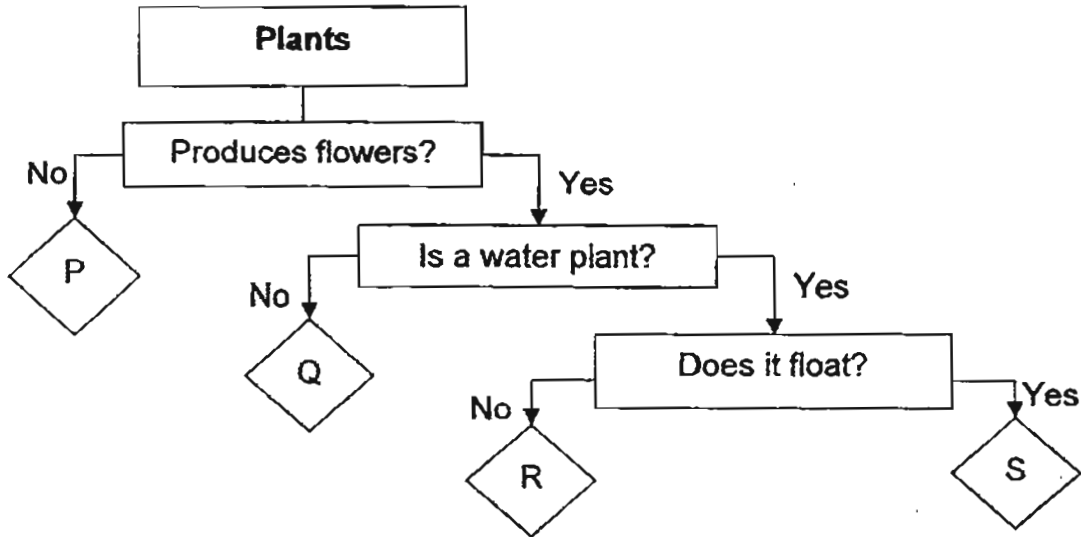
Characteristics of Plant	A	B	C
Has flowers	√	X	√
Poisonous	X	√	√
Grows on land	√	X	X

Based on his observations, which plant, A, B or C can be classified with Plant Y? (1m)

---



31. The flow chart below shows the characteristics of Plants P, Q, R and S.



Kate observed a living thing, J, and recorded her observations in her science journal.

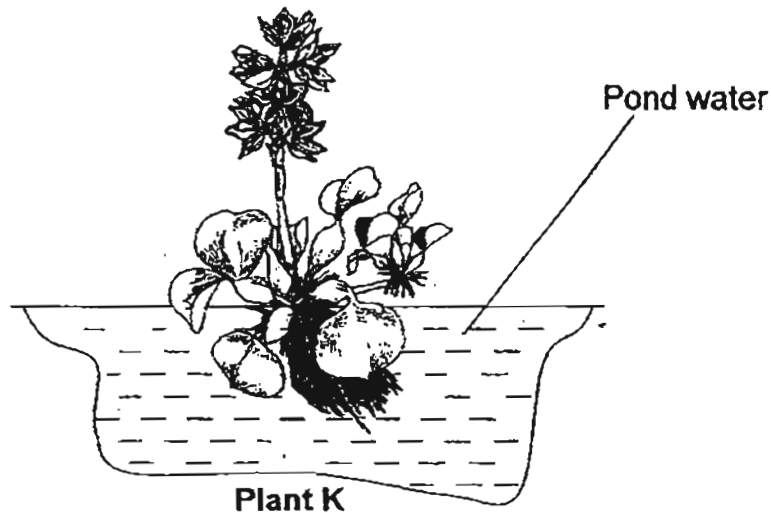
- J does not produce flowers.
- J grows on water.

a) Which plant, P, Q, R or S is J most likely to be?

(1m)

---

Kate found another plant K growing in her garden as shown below.



b) Which plant, P, Q, R or S can Plant K be grouped with?

(1m)

---

c) Using information from the chart above, give two reasons for your answer in (b).

(2m)

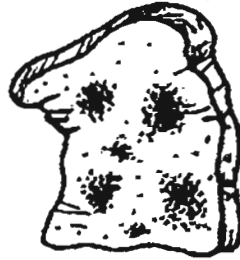
---



---



32. Muhammad wanted to have bread for breakfast one morning but found black spots growing on his bread as shown below.



- a) What are the black spots that he found growing on his bread? (1m)

---

Muhammad decided to find out what caused the black spots to appear on the bread. He set up the experiment as shown below.

	Bread A	Bread B	Bread C	Bread D
Where it was placed	Dining table	Dining table	Fridge	Fridge
Condition of bread	Not toasted	Toasted	Not toasted	Toasted
	Water added	No water added	Water added	No water added

After 3 days, he recorded his observations of the bread in the table below.

	Bread A	Bread B	Bread C	Bread D
Black spots observed	✓	X	X	X

- b) Based on Muhammad's results, name one thing needed for the black spots to grow on bread. (1m)

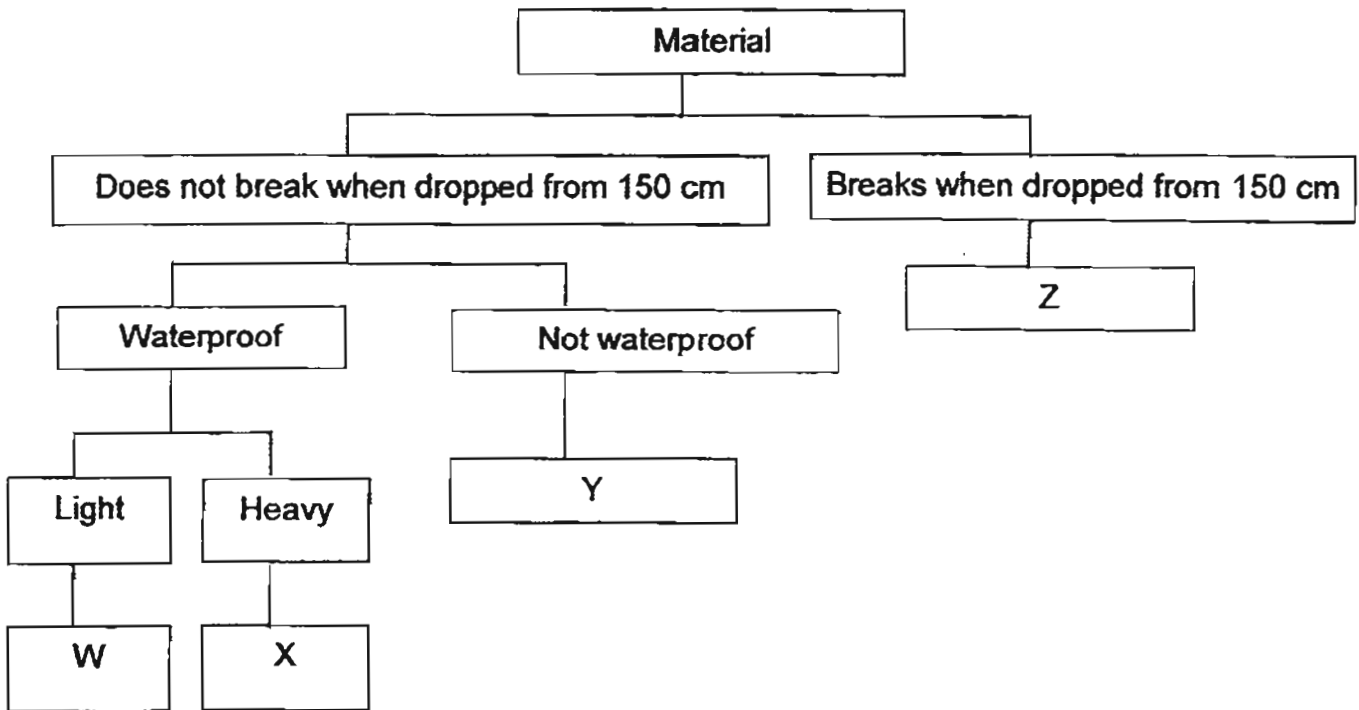
---

- c) From his experiment, state one thing Muhammad can do to prevent the black spots from growing on his bread. (1m)

---



33. The classification chart below is used to classify 4 materials W, X, Y and Z.



a) State one similarity between material W and material X. (1m)

---

---

---

b) Is material Y suitable for making a raincoat? Explain your answer. (2m)

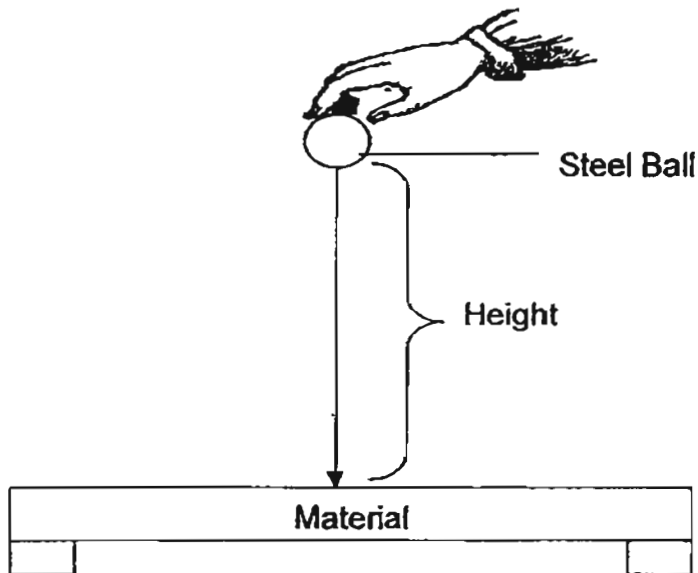
---

---

---



34. Ben carried out an experiment to test the strength of 3 materials, A, B and C using a steel ball.



He dropped the steel ball from different heights onto three different materials. When the steel ball is dropped from a greater height, it can break the material more easily.

He then recorded his observations in the table below.

Height from which the ball dropped	Material A	Material B	Material C
<del>50 cm</del> 50 cm	x	x	√
100 cm	√	x	√
<del>50 cm</del> 50 cm	√	x	√

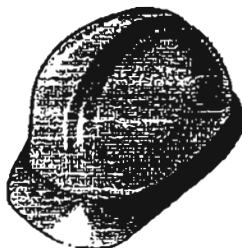
√ - Material broke    x - Material did not break

- (a) Arrange the materials correctly in the boxes below, from the strongest to the weakest. (1m)

--	--	--

Strongest → Weakest

34 b) People who work at construction sites are required to wear safety helmets.



Safety Helmet

Which material A, B or C, from (a) is most suitable for making the safety helmet? Give a reason for your answer. (2m)

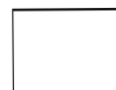
---

---

---

End-of-paper

Setters: Mr Yuan KK  
Ms Tan YH



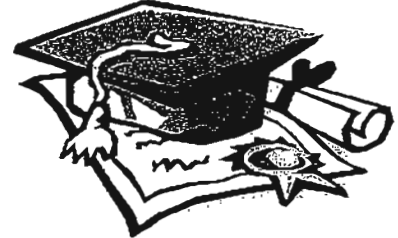


# ANSWER SHEET

**EXAM PAPER 2011**

**SCHOOL : HENRY PARK  
SUBJECT : PRIMARY 3 SCIENCE**

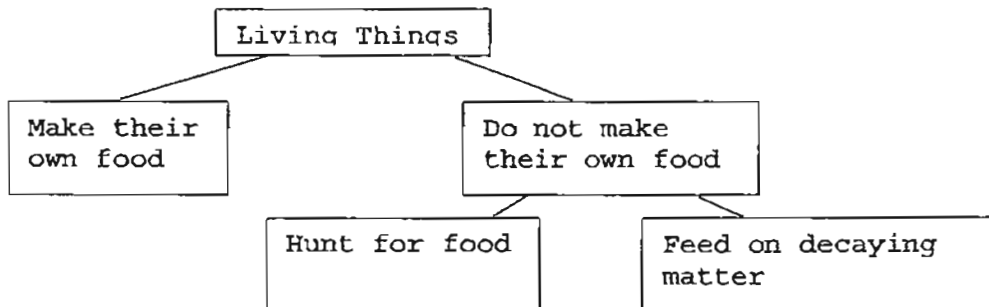
**TERM : SA 1**



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17
2	4	3	3	2	2	4	2	3	3	3	4	3	4	3	2	4

Q18	Q19	Q20
2	1	1

(21)



(22) a) Is it a mammal ?

- b) Guppy
- c) does it fly ?
- d) spider

(23a) They are all flowering plant --- > X

They all make their own food --- > ✓

(23b)

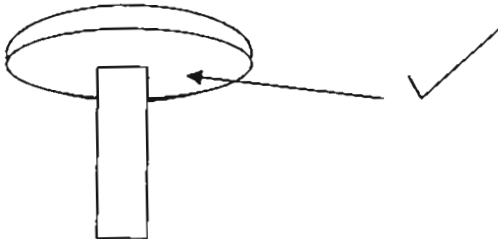
Hibiscus

(24)

Floating Plants	Partially-submerged plants	Fully-submerged
Duckweed	Arrowhead	Elodea
Water Hyacinth	water shamrock	Cabomba

- (25a) Parts of the rotting log grow into mushroom --- > False  
The rotting log provides food for the mushroom --- > True  
The rotting log helps the mushroom to make food -- > False  
The mushroom depends on the rotting log to survive --- > True

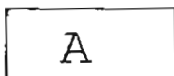
(25b)



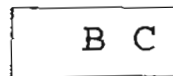
- (26) Part X is made of plastic  
Part Y is made of rubber

- (27 a) Group 1 : three eyes  
Group 2 : two eyes

(27b) Heading : six hands



Heading : two hands



(28a) Group A and C . all insect have six legs.

(28b) No. It does not have wings.

(29a) Animal Y

(29b) It has webbed feet that allows it to swim in water easily.

(29c) They lay eggs.

(29d) It protects it from the cold in the water.

(30a) Both have stems.

(30b) Plant X does not have any flowers while plant Y has flowers.

**Page 3**

**(30c) Plant A**

**(31a) Plant P**

**(31b) Plant S**

**(31c) It produces flowers and plant K is a water plant.**

**(32a) mould**

**(32b) water must be added**

**(32c) He can toast the bread**

**(33a) Both are waterproof.**

**b) No. Material Y is bit waterproof , raincoat must be waterproof.**

**34a) Material b. Material A. Material C.**

**(b) Material B. It is strong and hard**

**-- end of paper ---**

