



## AI TONG SCHOOL

### 2011 SEMESTRAL ASSESSMENT (2) PRIMARY THREE SCIENCE

**DURATION : 1hr 45 min**

**DATE: 31<sup>st</sup> October 2011**

#### **INSTRUCTIONS**

**Do not open the booklet until you are told to do so.  
Follow all instructions.  
Answer all questions.**

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

**Class : Primary \_\_\_\_\_**

**Parent's Signature : \_\_\_\_\_**

**Date : \_\_\_\_\_**

<b>MARKS</b>	<b>100</b>
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**Section A (30 x 2 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). **Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.**

1. Study the classification table below.

<b>Group A</b>	<b>Group B</b>
Glass	Fried chicken wing
Sand	Rattan basket
Rock	Tissue paper

Give a suitable heading for Group A and B.

	<b>Group A</b>	<b>Group B</b>
(1)	Natural	Man-made
(2)	Never alive	Once alive
(3)	Waterproof	Not waterproof
(4)	Hard	Soft

2. Peter has a three year old pet dog. He realizes that it is much larger than it was a puppy. What characteristic of living things does it show?

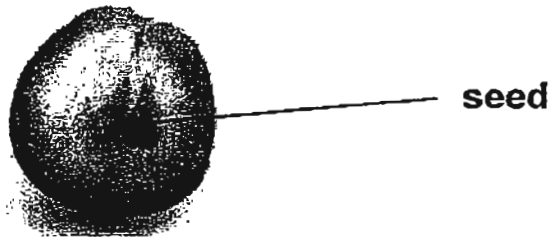
- (1) Living things grow.
- (2) Living things reproduce.
- (3) Living things respond to changes.
- (4) Living things need air, food and water.

3. Which of the following are living things?

- A Coral
- B Puffer fish
- C Clouds
- D Sun

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

4. Look at the grape seed in the picture below.



Which statement about the seed is **false**?

- (1) The seed is a living thing.
- (2) The seed helps a plant to reproduce.
- (3) The seed cannot make food for the plant.
- (4) The seed died when the grapes were plucked.

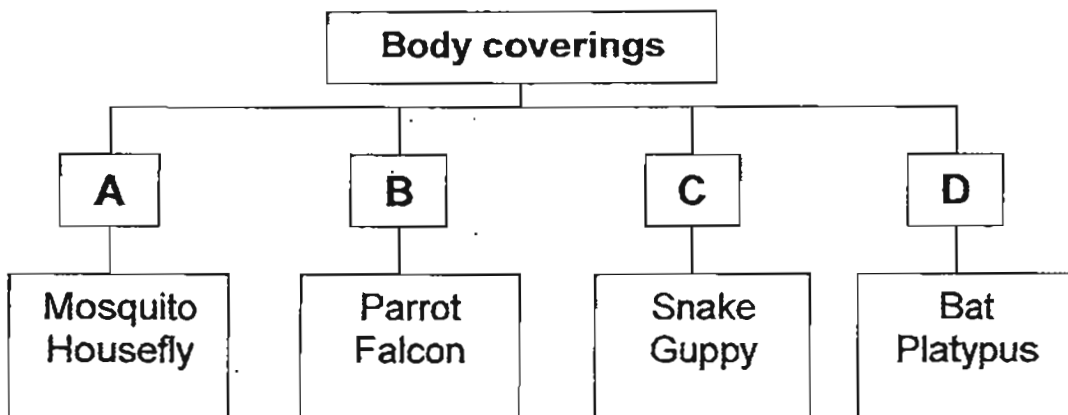
5. Study the characteristics of X and Y in the table below.

Characteristics	X	Y
Able to make food	No	Yes
Able to grow	Yes	Yes
Can reproduce	Yes	Yes
Need air, food and water	Yes	Yes

What can X and Y be respectively?

	X	Y
(1)	Sunflower	Rose plant
(2)	Hamster	Mushroom
(3)	Butterfly	Bougainvillea plant
(4)	Bird's nest fern	Tomato plant

6. The classification chart below shows how some animals are grouped.



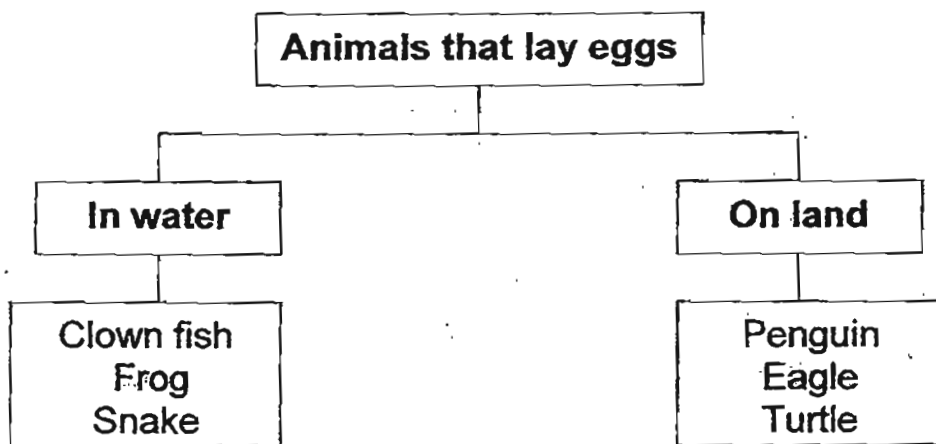
In which group should a penguin be placed?

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

7. Which statement is **false** about all animals?

- (1) They reproduce in the same way.
- (2) They cannot make their own food.
- (3) They have different body coverings.
- (4) They can move from one place to another.

8. Study the classification chart below.



Which animal has been placed in the wrong group?

- (1) Penguin
- (2) Frog
- (3) Turtle
- (4) Snake

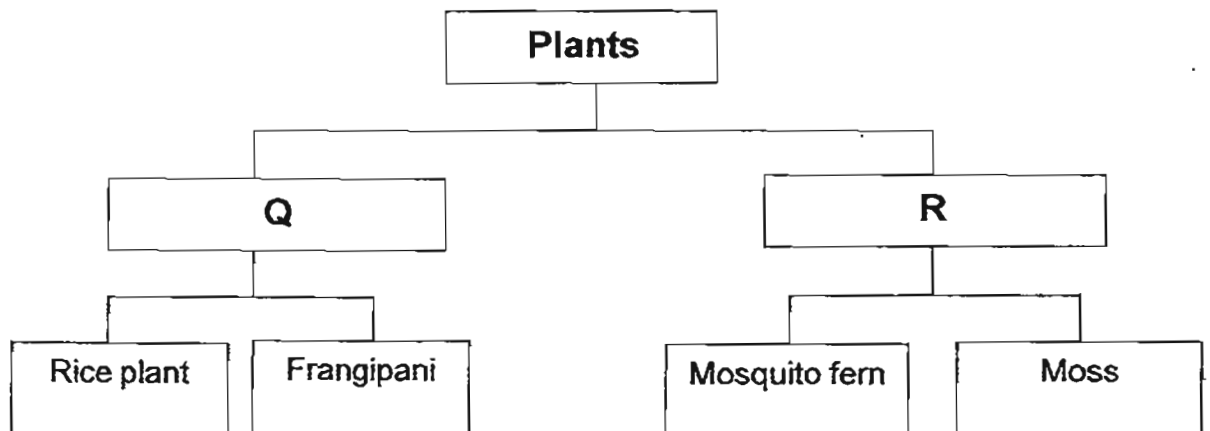
9. Tim observes the following characteristics of an animal.

- A The way it moves.
- B The number of legs it has.
- C The number of body parts it has.
- D The number of stages it has in its life cycle.

From which of the above characteristics would tell him that the animal is an insect?

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

10. Study the chart carefully.



Which one of the following plants should be placed in group Q?

- (1) Sword fern
- (2) Water spangle
- (3) Bird's nest fern
- (4) Coconut palm

11. Look at the pictures carefully.



Leaf X



Leaf Y

In what way is Leaf X different from Leaf Y?

- (1) Leaf X is hairy but Leaf Y is smooth.
- (2) Leaf X is small in size but Leaf Y is big.
- (3) Leaf X is shiny but Leaf Y is not shiny.
- (4) Leaf X has rough edges but Leaf Y has smooth edges.

12. A farmer put some red bean seeds into a small pot of soil and left it in the garden.

The table below shows the growth of the seed over twelve days.

Number of days	Height (cm)
Day 1	0
Day 5	0
Day 12	0

Which one of the following explains the possible results shown in the table above?

- (1) The farmer put the pot in a sunny place.
- (2) The farmer put the pot in a shady place.
- (3) The farmer did not add water to the soil.
- (4) The farmer did not add fertilizer to the soil.

13. Siti wanted to find out if mineral salts are needed for seeds to germinate. Which of the two following set-ups should she use to carry out a fair test?

Set-up	Conditions
A	Dry cotton wool without mineral salts
B	Dry cotton wool with mineral salts
C	Moist cotton wool with mineral salts
D	Moist cotton wool without mineral salts

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

14. Which of the following statements are true about fungi?

- A Fungi are living things.
- B Fungi reproduce by spores.
- C All fungi can make food.
- D All fungi have a cap, gills and stem.

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



15. The table below shows how some things are classified. Which group has been classified wrongly?

	<b>Plants</b>	<b>Micro-organisms</b>	<b>Fungi</b>
(1)	Moss	Bacteria	Mushroom
(2)	Water Lily	Yeast	Toadstool
(3)	Bird's nest fern	Bacteria	Mould
(4)	Bracket fungus	Mould	Water Lily

16. Tim placed a slice of raw fish in the refrigerator and another similar piece of the same size on a kitchen table. He records the time taken for each slice of raw fish to start smelling bad. What was the aim of his experiment?

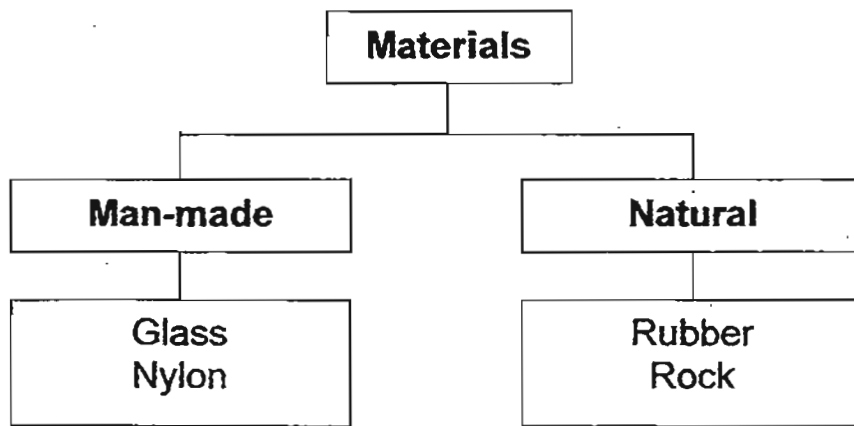
- (1) To find out if a slice of raw fish smells bad.
- (2) To find out if raw fish or cooked fish turns bad faster.
- (3) To find out how temperature affects the growth of bacteria on a slice of raw fish.
- (4) To find out how the surface area of a slice of raw fish affects the time it takes to turn bad.

17. Susan sprayed some water on a piece of bread. It was left in a cupboard for a few days. The bread was later found to have mould growing on it. What are the factors affecting the presence of mould on the bread?

- A Food
- B No air
- C Sunlight
- D Sufficient moisture

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

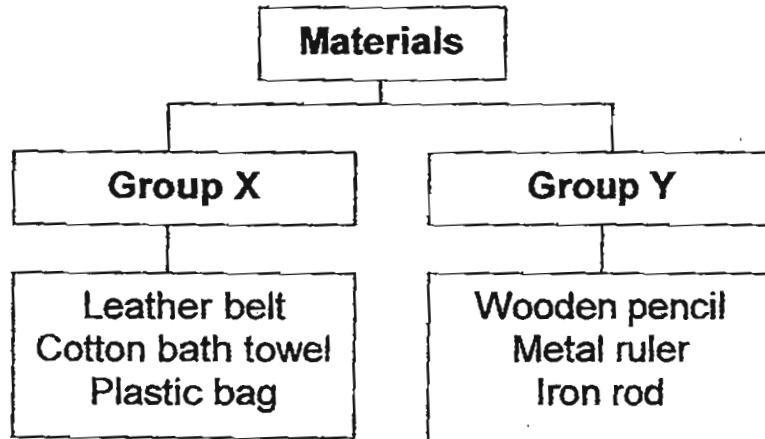
18. Study the classification chart below.



In which of the following groups would you place cotton and plastic in?

	<b>Cotton</b>	<b>Plastic</b>
(1)	Man-made	Natural
(2)	Natural	Man-made
(3)	Natural	Natural
(4)	Man-made	Man-made

19. The classification chart below shows how some objects are grouped into Groups X and Y.



Which of the following headings best describe the objects classified above?

	<b>Group X</b>	<b>Group Y</b>
(1)	Hard	Soft
(2)	Non-breakable	Breakable
(3)	Flexible	Non-flexible
(4)	Made from natural materials	Made from man-made materials

20. Which of the following materials would be a suitable choice for making part X?

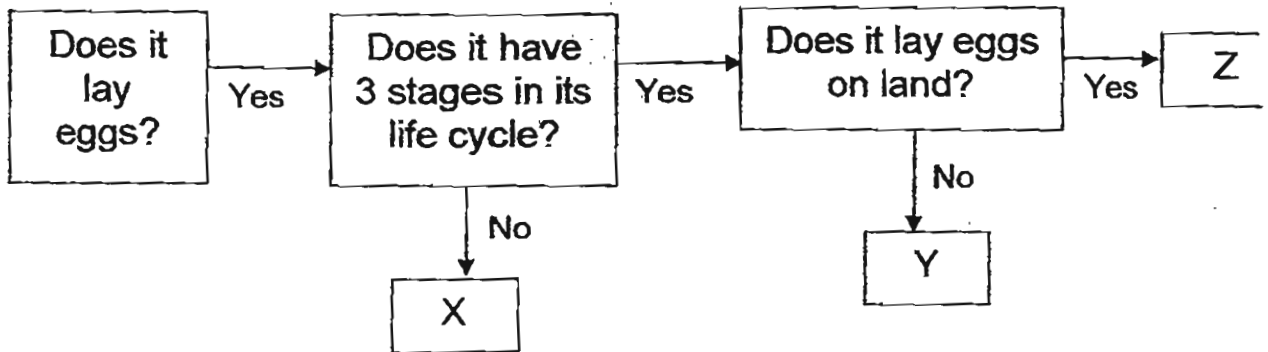


- (1) wood
  - (2) ceramic
  - (3) steel
  - (4) glass
21. Which of the following objects are made from plants?

- A Eraser
- B Tissue paper
- C Plastic shower curtain
- D Silk blouse

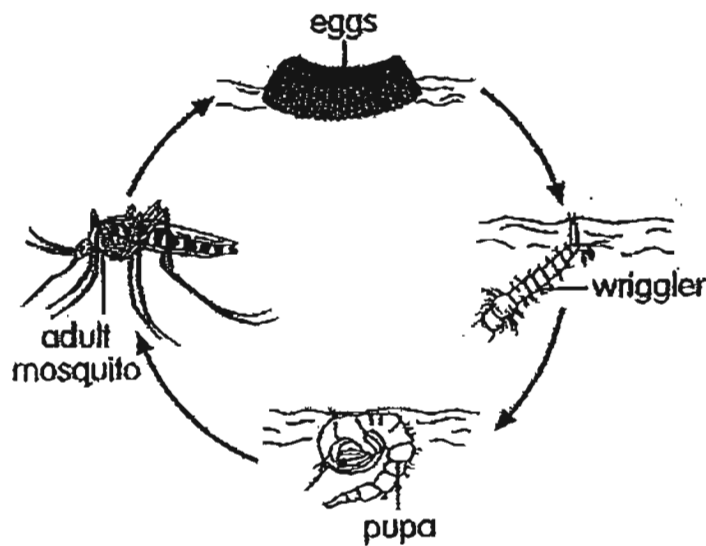
- (1) A and B only
- (2) B and D only
- (3) A, B and D only
- (4) All of the above

22. Based on the flow chart below, what could Animals X, Y and Z be?



	Animal X	Animal Y	Animal Z
(1)	Dragonfly	Chicken	Mosquito
(2)	Cockroach	Dragonfly	Frog
(3)	Butterfly	Duck	Dragonfly
(4)	Mosquito	Frog	Duck

23. The life cycle of the mosquito is shown below.



At which stage of its life cycle is harmful to humans?

- (1) Egg
- (2) Larva
- (3) Pupa
- (4) Adult

24. Which one of the following statements about the life cycle of animals is **true**?

- (1) All the young of the animals look like their parents.
- (2) The lengths of the life cycle of all animals are the same.
- (3) The young go through the same life cycle as their parents.
- (4) All animals have the same number of stages in their life cycle.

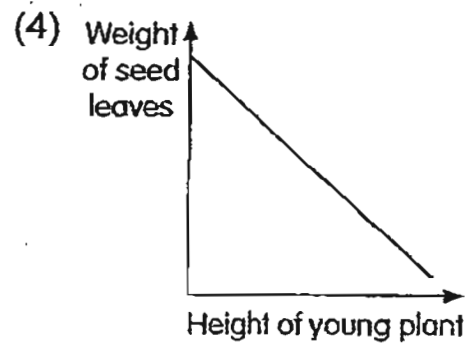
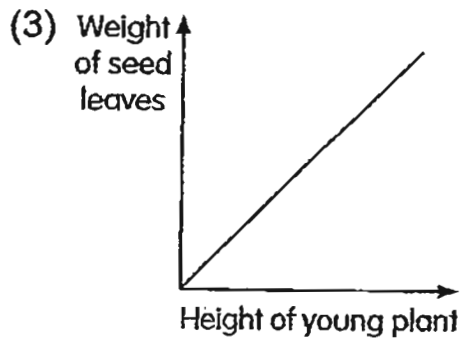
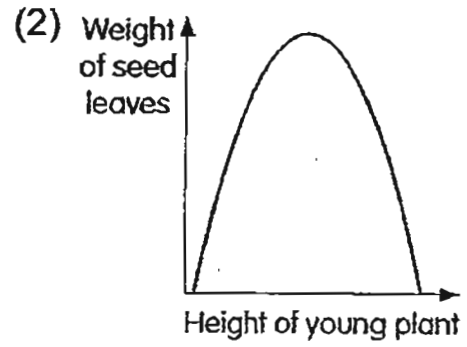
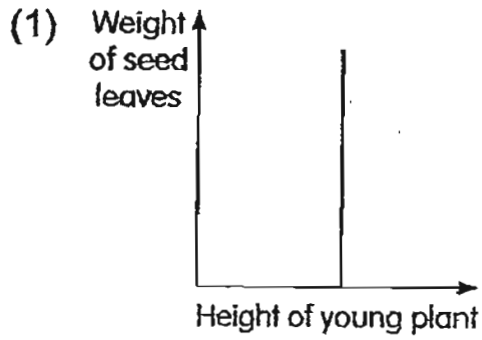
25. A papaya plant is an adult plant when \_\_\_\_\_.

- (1) it has stems
- (2) it bears flowers
- (3) it starts to grow roots
- (4) it is able to make its own food

26. What is the main function of flowers in the life cycle of flowering plants?

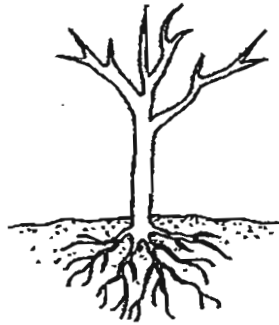
- (1) To make food for the plants.
- (2) To take in sunlight for the plants.
- (3) To take in water for the plants to grow well.
- (4) To bear fruits and seeds for the plants to reproduce.

27. Which of the following graphs show what would happen to the weight of the seed leaves when the young plant grows?





28. Look at the diagram below.



Which one of the following functions can still be carried out by this plant?

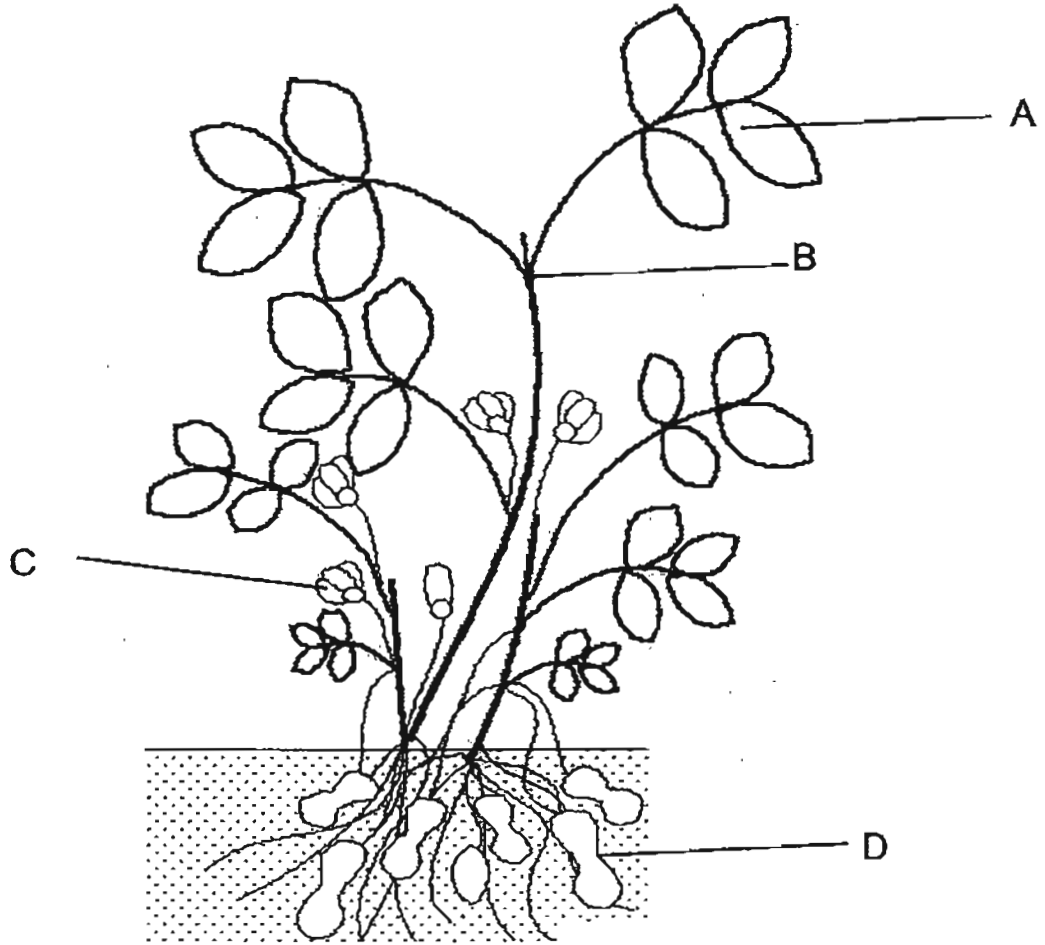
- (1) It can bear flowers and fruits.
- (2) It can make food for the plant.
- (3) It can take in water from the soil.
- (4) It can transport food to all parts of the plant.

29.

The trees in a forest are very tall and thin. Why is that so?

- (1) For birds to live in them.
- (2) To make food for the plant.
- (3) In order to absorb as much water when it rains.
- (4) In order to absorb as much sunlight as possible.

30. The diagram below shows a peanut plant.



Which of the following part is the fruit of the plant?

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

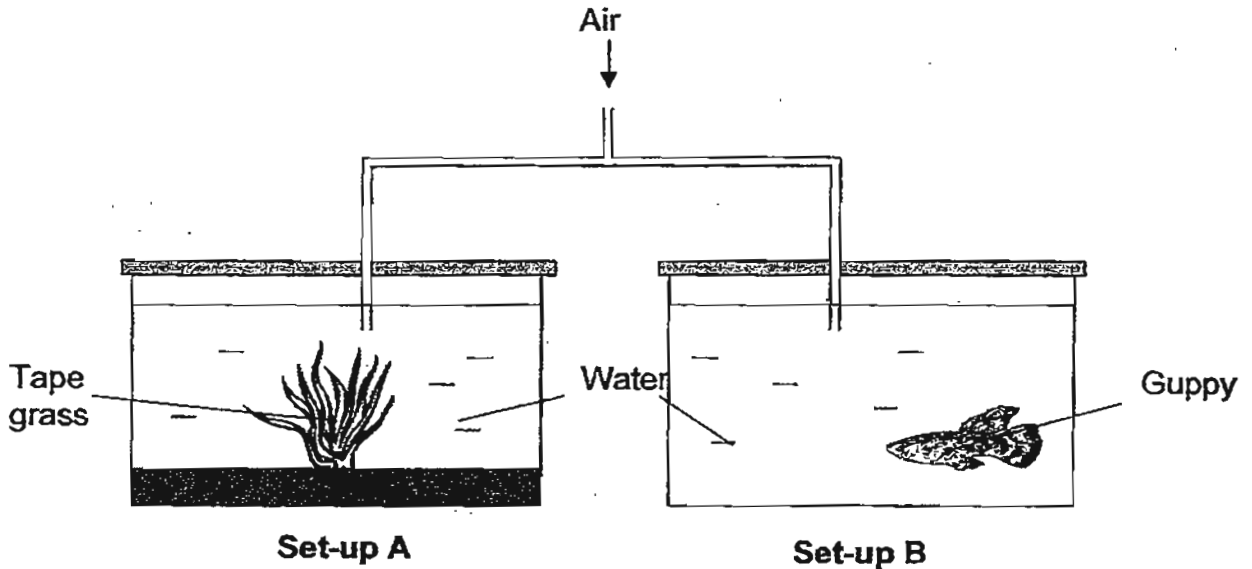
Name: \_\_\_\_\_

Class: 3 ( )

**Section B ( 40 marks)**

For questions 31 to 44, write your answers in the spaces provided.

31. Sam conducts an experiment using the set-ups as shown.



Two tightly sealed glass containers of the same size have the same amount of water with an equal amount of air supplied. Both set-ups are left in the sun for seven days.

(a) What will Sam observe in both set-ups after seven days? [ 1 ]

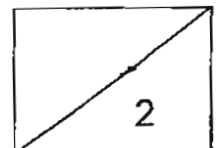
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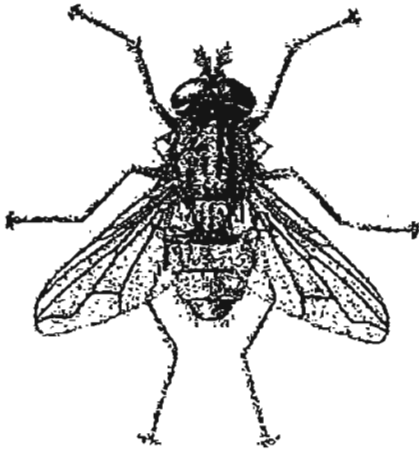
(b) Explain your answer given in (a). [ 1 ]

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32. Look at the two animals shown below. Animals X and Y are not drawn to scale.



Animal X



Animal Y

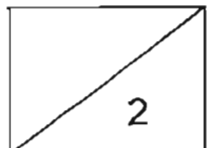
Based on the pictures only, state two physical differences between Animal X and Animal Y. (Do not compare their sizes or movement.) [ 2 ]

(a) \_\_\_\_\_

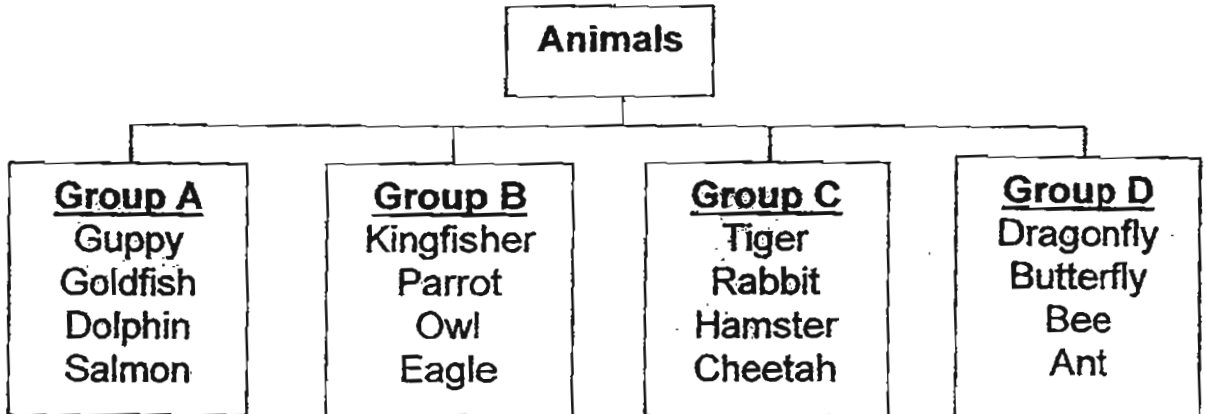
\_\_\_\_\_

(b) \_\_\_\_\_

\_\_\_\_\_



33. Study the classification chart below.



(a) Which animal in the above groupings has been classified wrongly?

Give a reason.

[ 2 ]

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(b) Based on your answer in (a), which group should the animal be placed?

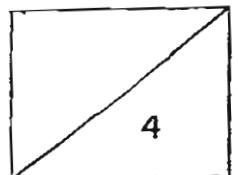
[ 1 ]

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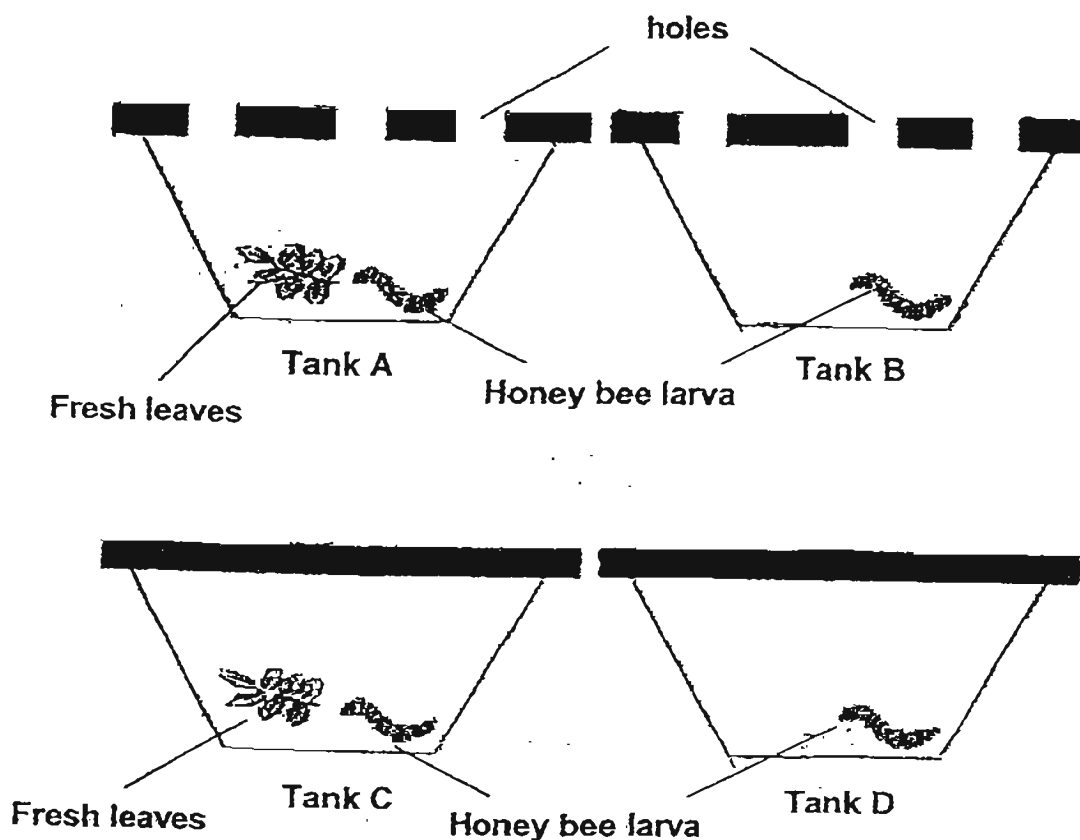
(c) Give a suitable heading for Group B.

[ 1 ]

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34. Wally carried out an experiment. He put some honey bee larvae into four similar glass tanks as shown.



- (a) In which glass tank would the honey bee larva survive the longest?  
Explain your answer. [ 2 ]

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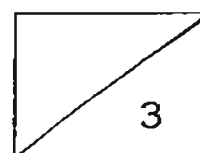
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- (b) Wally wants to find out if living things need air to survive. Which two tanks should he use for his experiment? [ 1 ]

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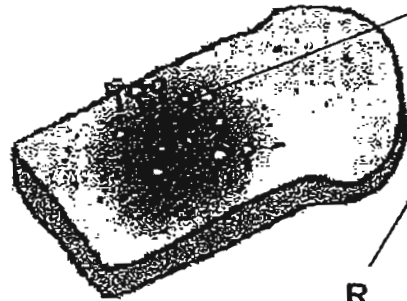
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35. Study the diagrams below.



P



R

(a) Identify the living things shown in the diagrams.

[ 2 ]

P: \_\_\_\_\_

R: \_\_\_\_\_

(b) List two similarities of the two living things shown above.

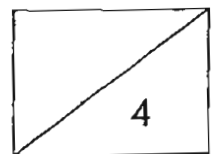
[ 2 ]

(i) \_\_\_\_\_

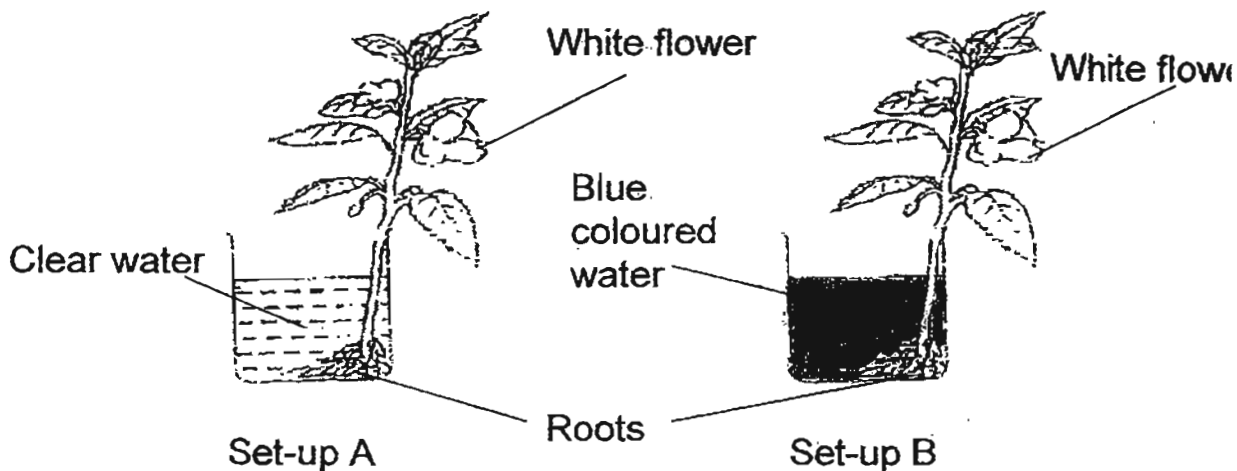
\_\_\_\_\_

(ii) \_\_\_\_\_

\_\_\_\_\_



36. Tom carried out an experiment using two set-ups with the same flowering plant in each. They were placed under similar conditions. However, in Set-up A, the plant was placed in clear water and in Set-up B, the plant was placed in blue coloured water.



- (a) Compare the appearances of the white flower in **both** set-ups after 3 days. [ 2 ]

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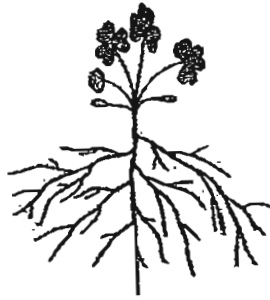
- (b) What was the aim of the experiment? [ 1 ]

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37. Look at the pictures below showing the roots of two different plants.



Plant X



Plant Y

Roots hold plants firmly to the ground. Based on the pictures, answer the following questions.

(a) Which of the two plants would be uprooted more easily? Give a reason for your answer. [2]

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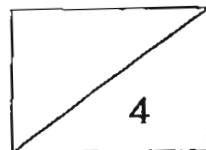
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(b) Name another function of the roots of Plant X and Plant Y.

[2]

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38. Aisha conducted four different types of tests to determine the properties of Materials X, Y and Z. The results were recorded in the table below.

Type of test conducted	Material X	Material Y	Material Z
Is it waterproof?	Yes	No	Yes
Does it break easily?	No	No	No
Is it flexible?	Yes	Yes	No
Does it float or sink?	Sink	Float	Float

(a) Based on the table above, which material would be the best to make a swimming kickboard? [ 1 ]

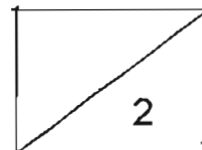
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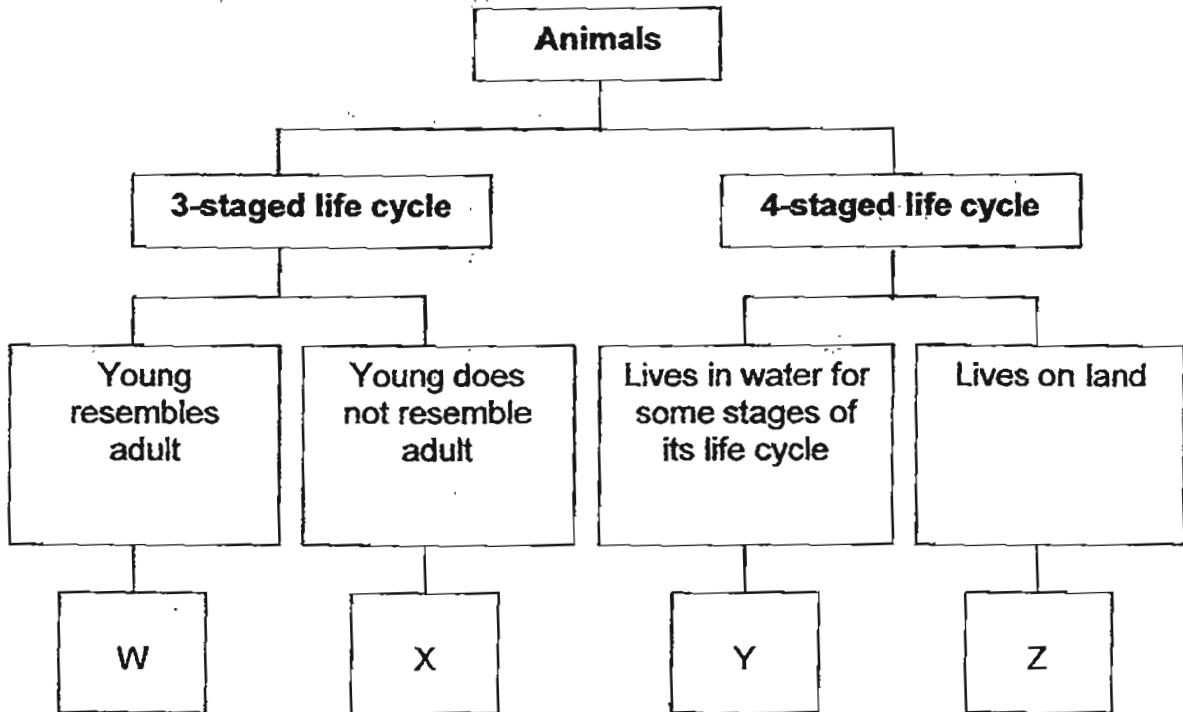
(b) Give a reason for your answer. [ 1 ]

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39. Study the classification chart below carefully.



(a) From the classification chart above, describe Animal Z.

[ 2 ]

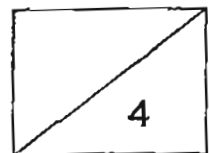
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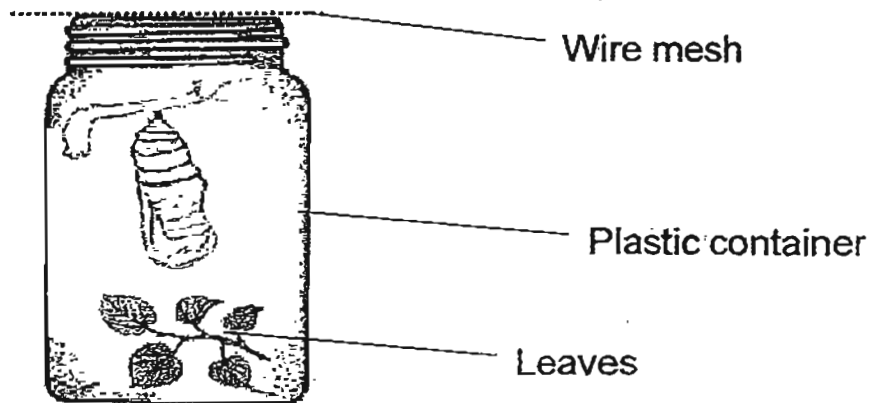
(b) Which letter, W, X, Y or Z, represents each of the following animals? [ 2 ]

(i) cockroach: \_\_\_\_\_

(ii) housefly: \_\_\_\_\_



40. Ali caught a caterpillar and kept it properly in a plastic container covered with a wire mesh. He provided some leaves for it. After some time, he observed some changes as shown in the picture below.



(a) What had happened to the caterpillar?

[ 1 ]

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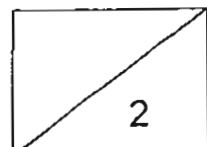
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(b) What is the difference between the life cycle of a butterfly and a grasshopper?

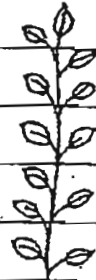

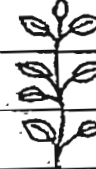








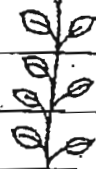




[ 1 ]

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41. Freddy planted 5 pots of bean seedlings. He placed them at the balcony and watered them daily with different amounts of water. He measured the height of the seedlings on the twelfth day. Study his chart below.

POT	A	B	C	D	E
Average height of seedlings in cm	25				
	20				
	15				
	10				
	5				
	0				
	0				
Amount of water given per day	20 cm <sup>3</sup>	35 cm <sup>3</sup>	45 cm <sup>3</sup>	50 cm <sup>3</sup>	80 cm <sup>3</sup>

- (a) From the chart, suggest the least amount of water to give to the seedlings per day to ensure that they grow to at least 20cm in twelve days. [ 1 ]

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- (b) What was Freddy trying to find out from the experiment? [ 1 ]

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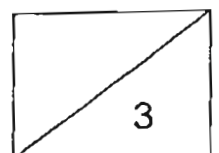
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- (c) What other conditions are important for a seedling to grow well? [ 1 ]

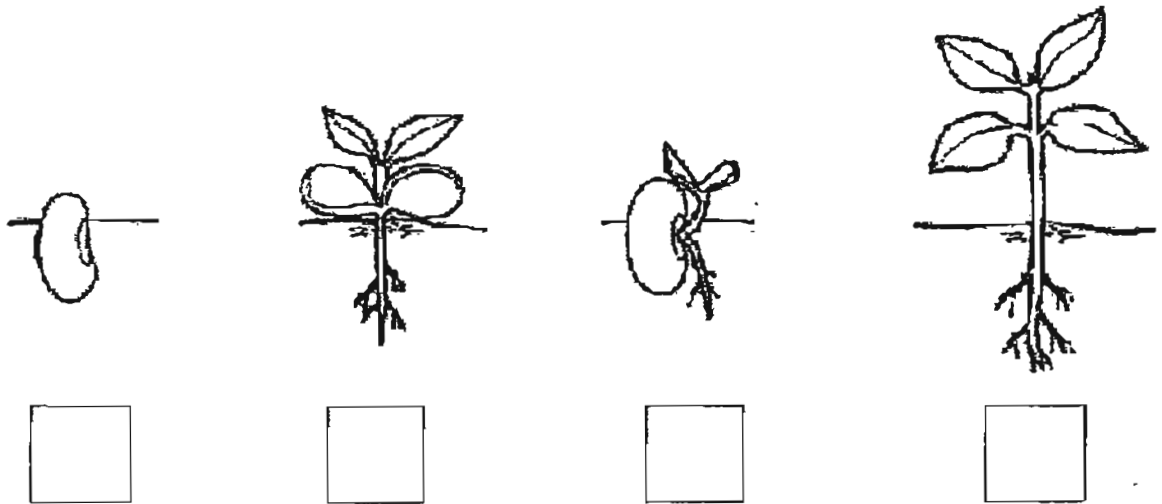
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42. (a) Rearrange the stages of the life cycle of a bean plant as shown in the diagram below. Use 1, 2, 3 and 4 to fill in the boxes. [ 1 ]

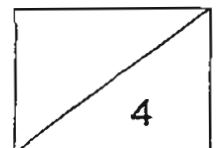


- (b) At which stage will the plant be able to produce fruits and flowers? [ 1 ]

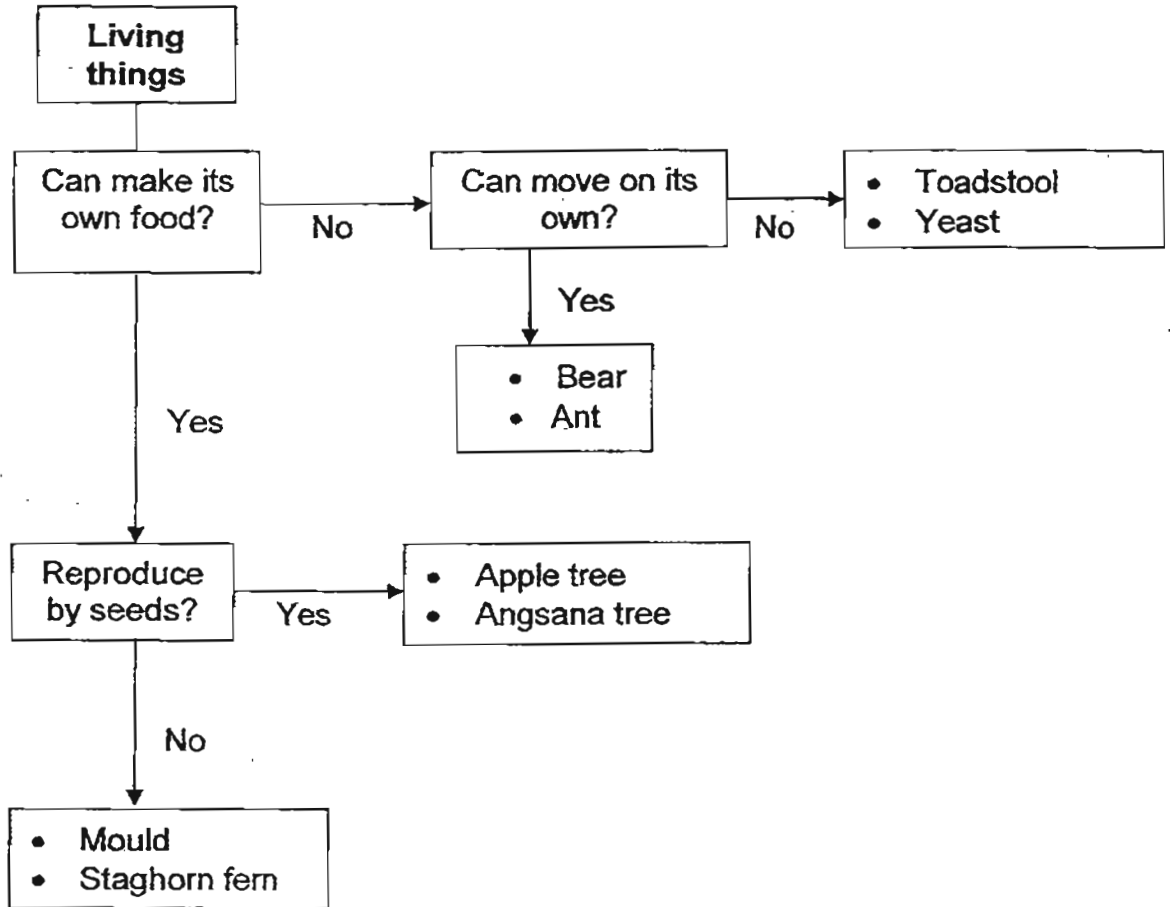
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43. State whether each of the following statements is true (T) or false (F). [ 2 ]

Statement	True/False
(a) All flowering plants reproduce by seeds.	
(b) All non-flowering plants do not produce fruits.	
(c) Plants can only be found on land.	
(d) All plants can make food with air and water.	



44. Study the flow chart below carefully and answer the following questions.



(a) Which living thing in the flow chart has been placed wrongly? [ 1 ]

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(b) Explain your answer in (a). [ 1 ]

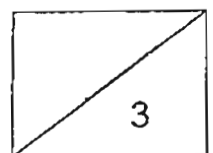
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(c) How does mould reproduce? [ 1 ]

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The End  
Please Check Your Work Carefully.





# ANSWER SHEET

**EXAM PAPER 2011**

**SCHOOL : AITONG  
SUBJECT : PRIMARY 3 SCIENCE**

**TERM : SA2**



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17
2	1	1	4	3	2	1	3	2	4	4	3	4	1	4	3	2

Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30
2	3	1	1	4	4	3	2	4	4	3	4	4

- 31)a)The guppy died and the tape grass did not die.  
b)The guppy has no food while the tape grass can make its own food.
- 32)a)Animal X has three body parts while Animal Y has only one body part.  
b)Animal X has six legs while Animal Y has only four legs.
- 33)a)The Dolphin is a mammal but the rest are fish.  
b)Group C.  
c)Birds.
- 34)a)Tank A. There is air and food.  
b)Tank A and Tank C.
- 35)a)P: Mushroom. R: Mould  
b)i)Both living things are fungi.  
ii)Both living things reproduce by spores.
- 36)a)Set-up A flowers remained white while Set-up B flowers became blue.  
b)Do the roots absorb water to the plant parts.
- 37)a)Plant Y's roots is shorter and not able to hold the plant firmly to the ground.  
b)It takes in water and mineral salt.
- 38)a)Z.  
b)It is waterproof and floats on water.
- 39)a)It has a 4-staged life cycle and lives on land.  
b)i)W. ii)Z.



40)a)It became a pupa.

b)A life cycle of a butterfly is a 4-stage life cycle while the grasshopper has a 3-stage life cycle.

41)a)45cm<sup>3</sup>.

b)To find out if different amount of water affects the growth of plants.

c)Sunlight and air.

42)a)1 3 2 4

b)Stage 4.

43)a)T    b)T    c)F    d)F

44)a)Mould.

b)Mould cannot make its own food.

c)By spores.