

**NANYANG PRIMARY SCHOOL**

**PRIMARY THREE SCIENCE**

**SEMESTRAL ASSESSMENT 1  
2013**

**BOOKLET A**

**Date : 14 May 2013**

**Duration : 1 h 45 min**

**Name : \_\_\_\_\_ (      )**

**Class: Primary 3 (      )**

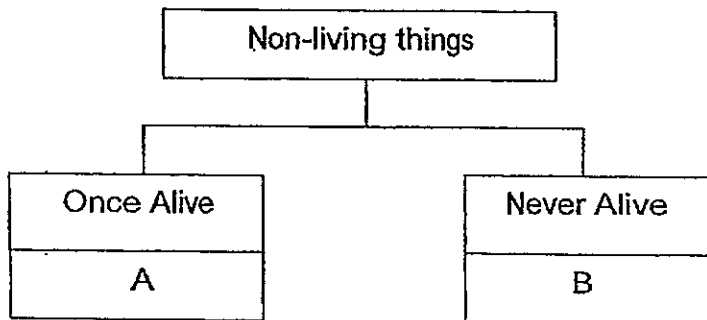
**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.  
FOLLOW ALL INSTRUCTIONS CAREFULLY.**

**Booklet A consists of 16 printed pages including this cover page.**

**Section A (30 x 2 marks = 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). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet provided.

1. Study the classification chart below.



Which one of the following best represents objects A and B?

	A	B
(1)	eraser	cotton socks
(2)	potato chips	toilet paper
(3)	plastic ruler	metal fork
(4)	silk scarf	diamond ring

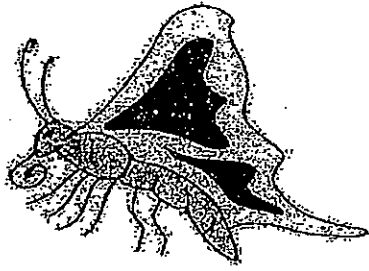
2. Which one of the following statements shows that living things respond to changes in the surrounding?

- A A boy put on a jacket in a cold cinema.
- B An alarm clock was set to ring at 7 a.m.
- C The leaves of the rain tree close in the evening.
- D A dog picked up a toy which was thrown to him.

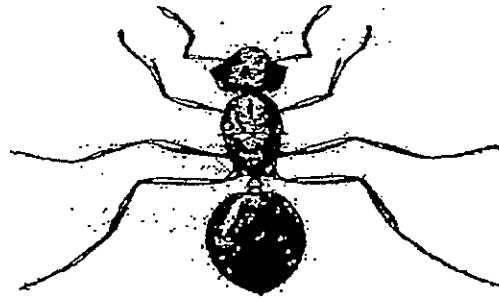
- (1) A, B and C only
- (2) A, B and D only
- (3) A, C and D only
- (4) B, C and D only



5. Andrea observed the following four animals.



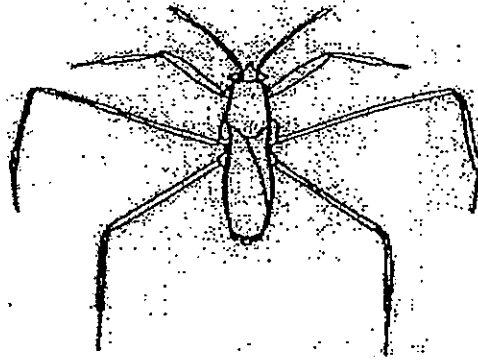
W



X



Y



Z

She classified the animals into two groups as shown in the table below.

Group A	Group B
W X Z	Y

Which of the following best represent headings for groups A and B?

	A	B
(1)	Has 6 legs	Has 8 legs
(2)	Has wings	Does not have wings
(3)	2 pairs of wings	1 pair of wings
(4)	No feelers	Has feelers

6. Charlene observed the characteristics of 3 different types of organisms, A, B and C. She then recorded her observations as shown in the table below. A tick (✓) indicates that the organism has a particular characteristic.

Characteristic	Organisms		
	A	B	C
It has flowers.		✓	
It is found on land.	✓		✓
It can make its own food.		✓	✓

Based on her observations, which of the following best represent organisms A, B and C?

	A	B	C
(1)	mushroom	pine tree	hydrilla
(2)	rose plant	hydrilla	ladder fern
(3)	ladder fern	duckweed	pine tree
(4)	mould	water lily	bird's nest fern

7. During a trip to the school eco-garden, Cindy was asked to look out for a type of aquatic plant. Before the trip, her teacher had given her some descriptions about the aquatic plant.

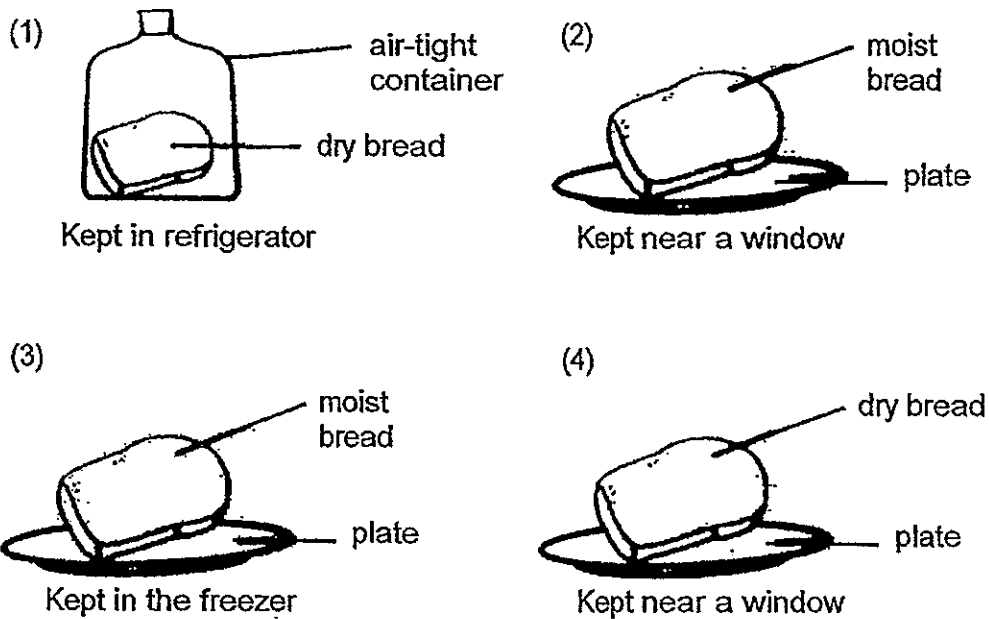
Based only on Cindy's observation, which of the following descriptions given by her teacher would help her to identify the aquatic plant?

- A It has an edible fruit.
- B It can float on the water
- C It has a swollen leaf stalk.
- D It has purple coloured flowers.
- E It can be grown in different types of water.

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



10. Four pieces of bread were left undisturbed for a week as shown below. Which bread was most likely to have mould growing on it first?



11. Hafiz classified the following organisms into two groups, as shown in the classification table below.

X	Y
papaya tree tomato plant frangipani tree	moss toadstool staghorn fern

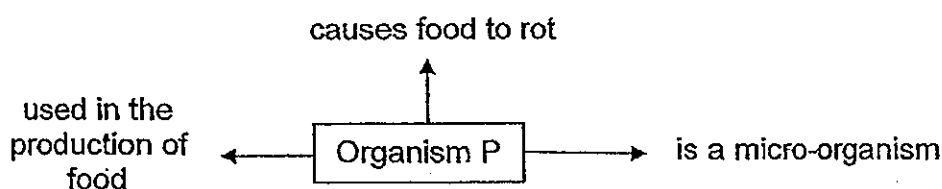
Which one of the following best represents the headings, X and Y?

	X	Y
(1)	Non-poisonous plant	Poisonous plant
(2)	Can make food	Cannot make food
(3)	Flowering plant	Non-flowering plant
(4)	Reproduce by seeds	Reproduce by spores

12. Which one of the following sets consists of a floating plant, a partially submerged plant and a fully submerged plant?

- (1) water lily, cattail, cabomba
- (2) hydrilla, cabomba, duckweed
- (3) water hyacinth, water lily, hydrilla
- (4) water hyacinth, duckweed, cattail

13. Nathan made some observations about organism P and recorded his observations in the chart as shown below.



Which of the following could represent organism P?

- (1) yeast and bacteria
- (2) yeast and toadstool
- (3) bracket fungus and mould
- (4) bracket fungus and bacteria

14. Study the table below.

	Organisms	
	G	H
Does it have green leaves?	No	Yes
Does it make its own food?	Yes	Yes
Does it have fragrant flowers?	Yes	No
Does it float on water?	No	No

Which one of the following can be definitely be concluded based on the table above?

- (1) Both G and H are plants.
- (2) Both G and H are land plants.
- (3) G is a toadstool but H is a plant.
- (4) G is a flowering plant while H is a non-flowering plant.



15. Study the two groups of living things listed below.

A	B
Platypus	Dog
Goldfish	Molly
Cockroach	Whale

Which characteristic has been used to classify the living things?

- (1) Number of legs
- (2) Form of movement
- (3) Type of body covering
- (4) Reproduction methods

16. Which one of the following animals lays eggs?

- (1) Fly
- (2) Bat
- (3) Lion
- (4) Whale

17. The characteristics of two animals are given in the table below. A tick (✓) means the animal possess that characteristic.

Characteristic	Animal X	Animal Y
Able to fly		
Gives birth to young alive		✓
Have hair as their body covering		✓

From the information given above, which of the following animals best represents X and Y?

	Animal X	Animal Y
(1)	Owl	Lizard
(2)	Eel	Spiny anteater
(3)	Kiwi	Bear
(4)	Parrot	Whale

18. A group of pupils came across animal Z. They made the following statements about this animal.

- It can fly.
- It has six legs.
- It reproduces by laying eggs.

What could animal Z be?

- (1) Ostrich
- (2) Penguin
- (3) Dragonfly
- (4) Seahorse

19. Which one of the following is a characteristic that all insects have?

- (1) They can fly.
- (2) They have two body parts.
- (3) They breathe through their breathing holes.
- (4) They have eight jointed legs attached to the thorax.

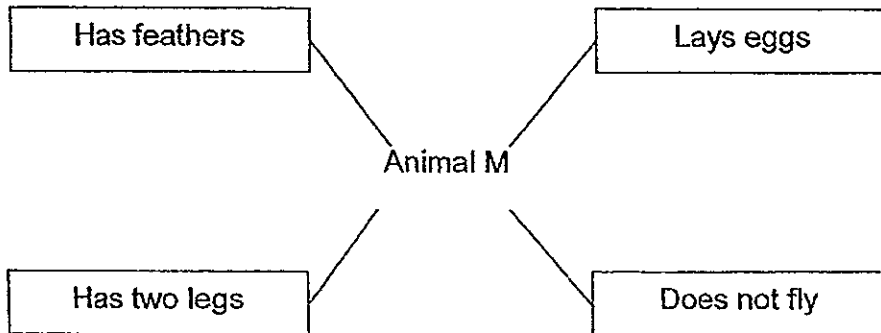
20. Which pair of animals has been classified ~~wrongly~~ <sup>correctly</sup>?

	Has hair	Has scales
(1)	tiger	tortoise
(2)	duck	goldfish
(3)	rabbit	eel
(4)	crocodile	earthworm

21. Which one of the following comparisons between a crow and bat is true?

	Crow	Bat
(1)	Can fly	Cannot fly
(2)	Has hair	Has feathers
(3)	Lays eggs	Gives birth to young alive
(4)	Suckles its young	Does not suckle its young

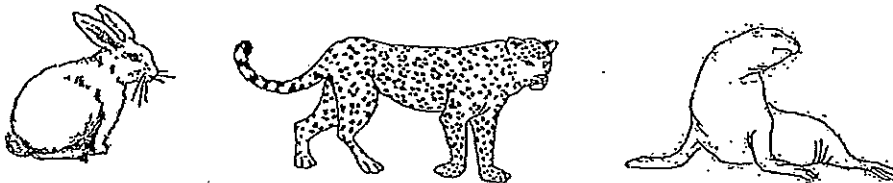
22. Study the information about animal M in the graphic organiser below.



Which one of the following animals best represents animal M?

- (1) Emu
- (2) Seagull
- (3) Dragonfly
- (4) Silverfish

23. Study the animals shown below.

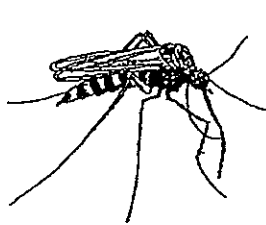


Which of the following statements are true for all the animals above?

- A They have hair.
- B They are warm-blooded.
- C They reproduce by laying eggs.
- D They breathe through their lungs.

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

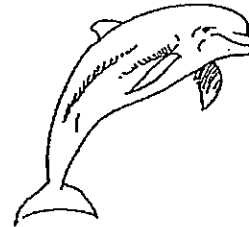
24. Karen had to classify the <sup>three</sup> four animals shown below.



mosquito

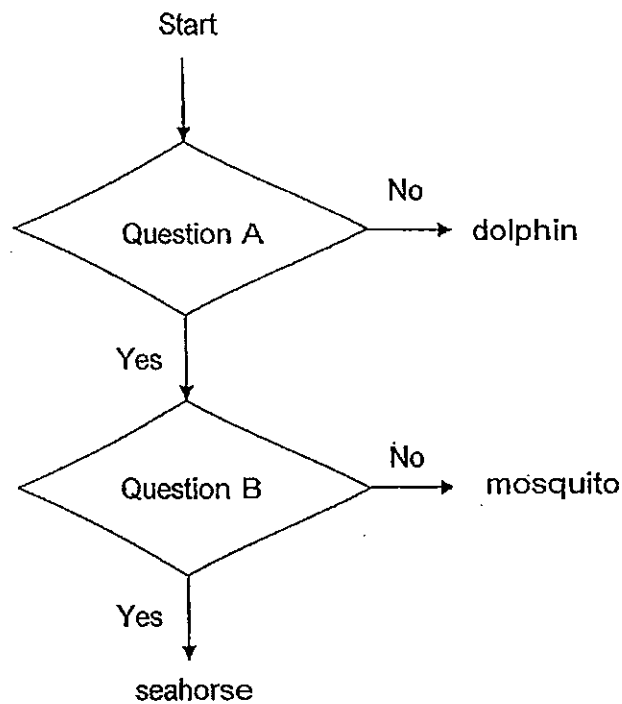


seahorse



dolphin

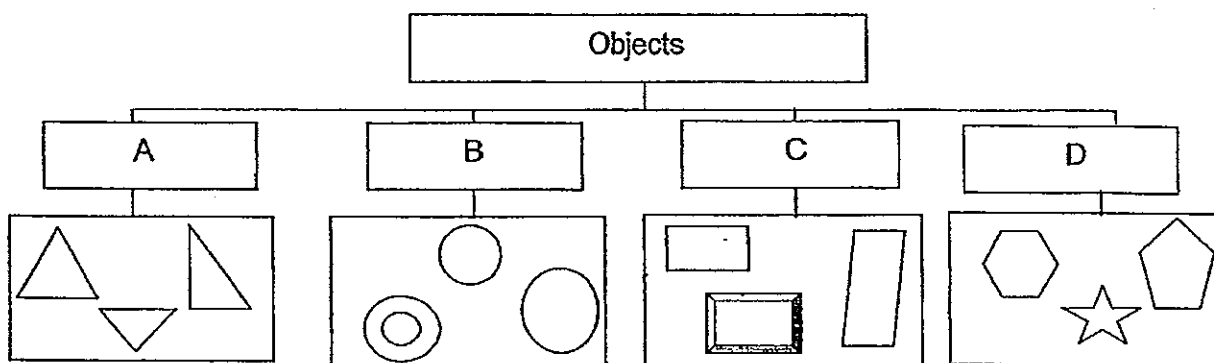
She classified them with the help of the chart below.



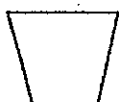
Which of the following could represent Questions A and B?

	Question A	Question B
(1)	Does it lay eggs?	Does it breathe through gills?
(2)	Does it breathe through gills?	Does it lay eggs?
(3)	Does it lay eggs?	Does it have wings?
(4)	Does it breathe through gills?	Does it have wings?

25. Sally classified the following shapes into four groups as shown below.



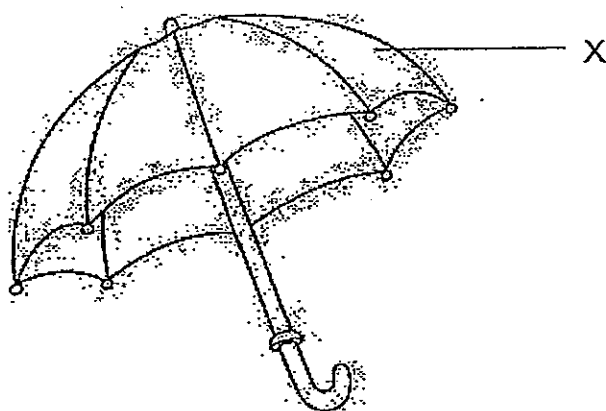
In which group should she place the object shown below?



- (1) A
- (3) C

- (2) B
- (4) D

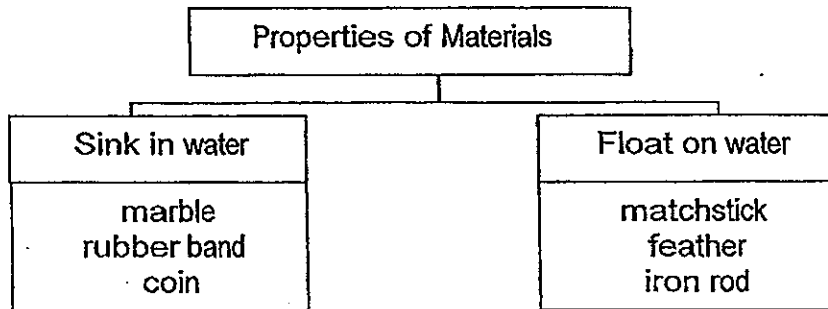
26. Study the picture below.



Which of the following are the characteristics that the material for part X must have?

- (1) waterproof and hard
- (2) transparent and hard
- (3) waterproof and flexible
- (4) transparent and flexible

27. Carl conducted an experiment to find out if some objects would sink or float in water. He did this by putting the objects into a basin of water. He filled in the classification chart below based on what he observed but made a few mistakes.



Which of the following objects had been classified wrongly?

- (1) ~~needle~~ <sup>iron rod</sup> and coin
- (2) marble and feather
- (3) marble and matchstick
- (4) rubber band and iron rod
28. Li Li wanted to compare the hardness of four different materials, A, B, C and D. She scratched them, one at a time, with rods made from wood, plastic and metal.

She recorded her observation in the table below.

A tick (✓) indicates the presence of scratch mark made by each rod on the materials.

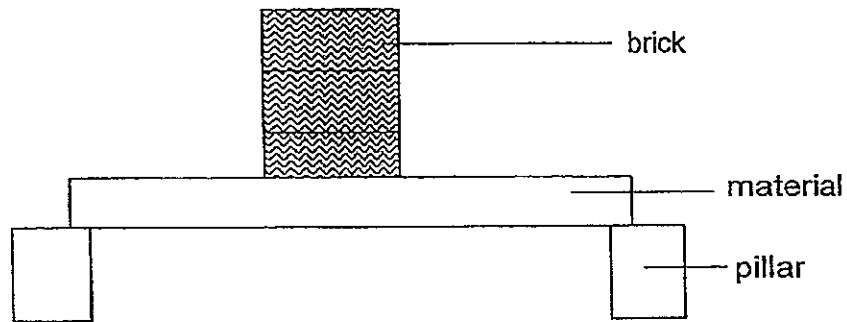
Material	Presence of scratch marks made by		
	Plastic rod	Wooden rod	Metal rod
A	✓	✓	✓
B			✓
C		✓	✓
D			

Which of the following statements is true based on the experiment above?

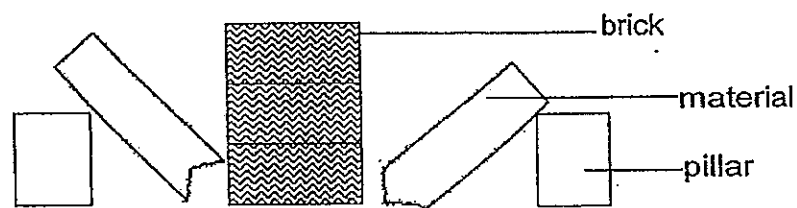
- (1) Material A is the hardest of all.
- (2) Material B is harder than material A.
- (3) Material C is harder than material B.
- (4) Material C is able to scratch material D.

For Questions 29 and 30, refer to the diagram below.

An experiment was carried out as shown in the diagram below. Four different types of materials, W, X, Y and Z, were placed over two pillars at one time. Bricks were stacked on the material until it broke.

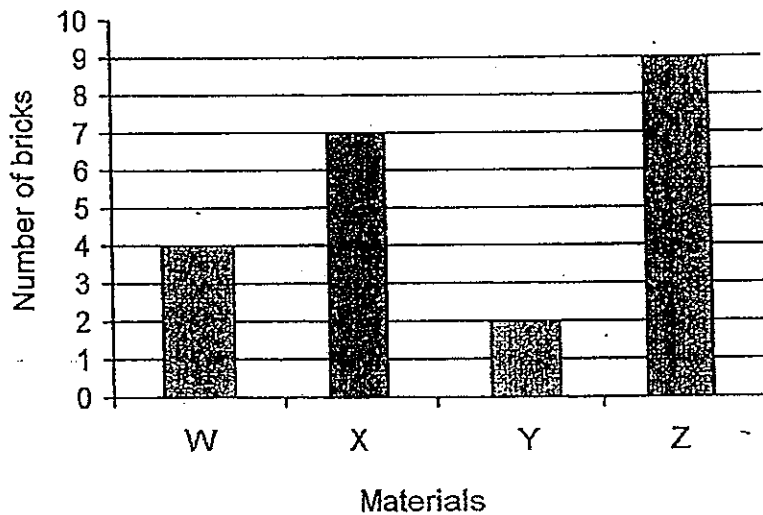


Before the experiment



After the experiment

The bar graph below shows the number of bricks placed on each of the materials before it broke.



29. What was the aim of this experiment?

- (1) To find out which material bends easily.
- (2) To find out which material is the hardest.
- (3) To find out which material is the strongest.
- (4) To find out which material is the least flexible.

30. Which material, W, X, Y or Z, would be the most suitable to make a bench?

- (1) W
- (3) Y

- (2) X
- (4) Z



**NANYANG PRIMARY SCHOOL**

**PRIMARY THREE SCIENCE**

**SEMESTRAL ASSESSMENT 1  
2013**

**BOOKLET B**

Date : 14 May 2013

Duration : 1 h 45 min

Name : \_\_\_\_\_ (    )

Class: Primary 3 (    )

Marks Scored:

Booklet A:		60
Booklet B :		/40
Total :		100

Any query on marks awarded should be raised by 22 May 2013. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

Parent's signature: .....

**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.  
FOLLOW ALL INSTRUCTIONS CAREFULLY.**

Booklet B consists of 12 printed pages including this cover page.

**Section B (40 marks)**

Write your answers to questions 31 to 44 in the spaces provided.  
Marks will be deducted for misspelt key words.

31. Four insects, A, B, C and D, of the same kind were kept under different living environment as shown in the table below. A tick (✓) indicates the presence of the condition given to the insect.

Insects	Conditions for animals			
	Air	Food	Water	Sunlight
A	✓		✓	✓
B	✓	✓		✓
C	✓	✓	✓	
D		✓	✓	✓

Based on the basic needs of living things, arrange the insects from the insect that will die first to the insect that will die last. [2]

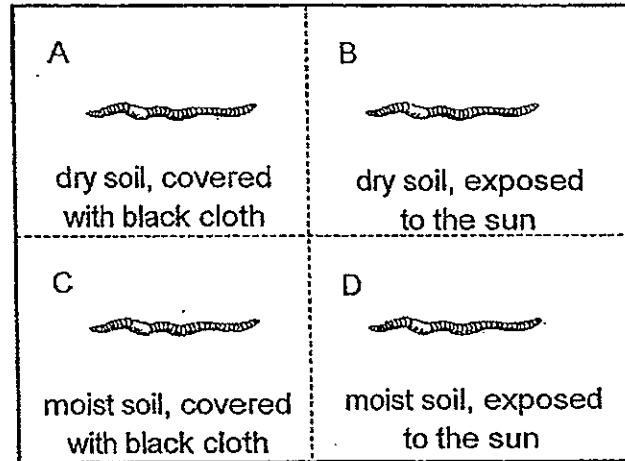
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Insect dies first  → dies last

32. Draw lines to correctly match the animals shown below to the way that they move. [2]

penguin	❖		❖	hopping and flying
ladybird	❖		❖	hopping and swimming
frog	❖		❖	walking and swimming
sparrow	❖		❖	crawling and flying

33. The diagram below shows a tray which has been divided into four equal sections, A, B, C and D. Sections A and C are covered with a black cloth while sections B and D are exposed to the sun for the duration of the experiment. One earthworm is placed on each section of the tray and it is free to move around the entire tray.



- (a) i) After a few hours, in which of the ~~trays~~ <sup>section</sup> would most of the earthworms be found? [1]

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- ii) Explain your answer in (i). [1]

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- (b) State two characteristics of living things that are shown in this experiment. [2]

1) 

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2) 

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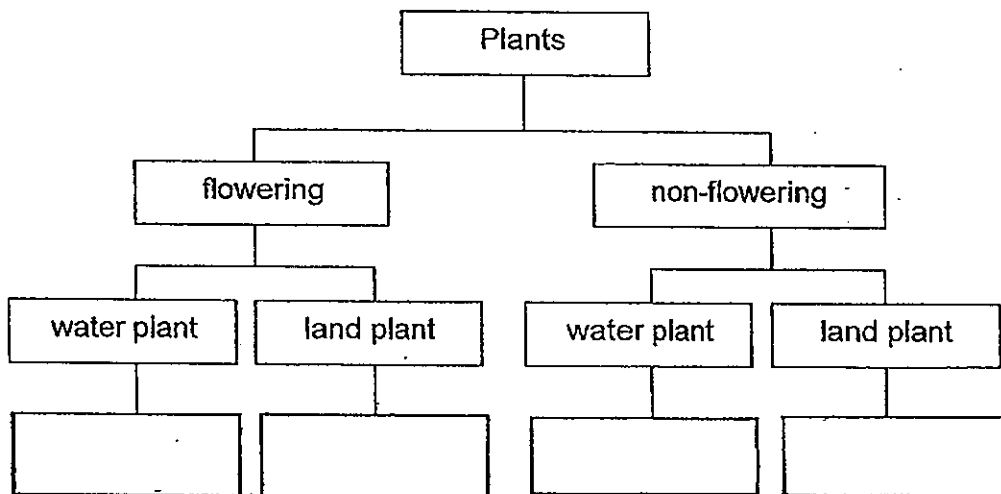
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34. The following table provides some information on four plants, W, X, Y and Z, based on two characteristics. A tick (✓) shows that the plant has the characteristic.

Characteristics	Plant W	Plant X	Plant Y	Plant Z
Bears fruit		✓	✓	
Grows in water		✓		✓

- (a) Based on the information given in the table above, group all the plants by placing the letters, W, X, Y and Z in the correct boxes provided below.

[2]



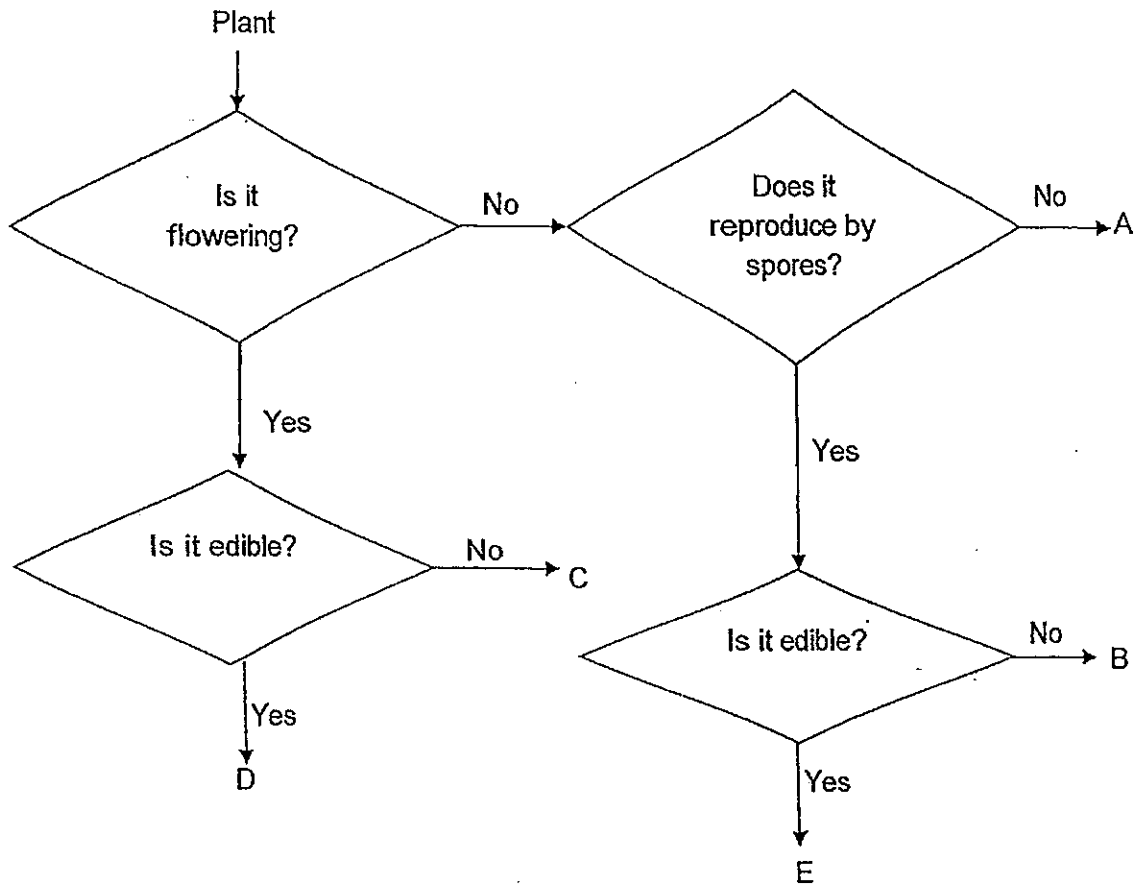
- (b) Based on the information given in the table above, give an **example** of Plant X and Plant W.

[1]

Plant X : \_\_\_\_\_

Plant W : \_\_\_\_\_

35. Study the flowchart below carefully.



(a) Which letters, A, B, C, D or E, could represent the plants shown below? [2]

(i) Rambutan tree : \_\_\_\_\_

(ii) Pine tree : \_\_\_\_\_

(b) Based on the flowchart above, state one **similarity** between plants B and C. [1]

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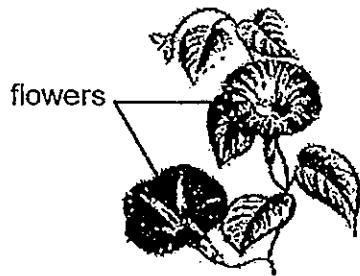
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36. Sandy made a few statements about plants.

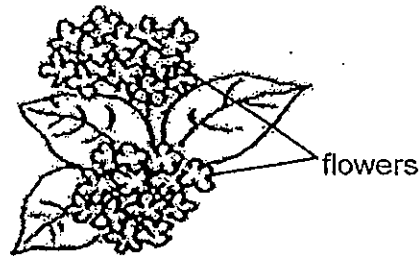
(a) For each of the following statements below, put a tick [✓] in the correct box to indicate if the statements are True or False. [2]

Statement	True	False
A plant that is observed to have no flowers during winter is definitely a non-flowering plant.		
Pong pong is a non-flowering plant.		
All non-flowering plants reproduce by seeds.		
Elodea is a fully submerged plant.		

(b) Keith also observed two types of plants, E and F, at the garden, as shown in the diagrams below.



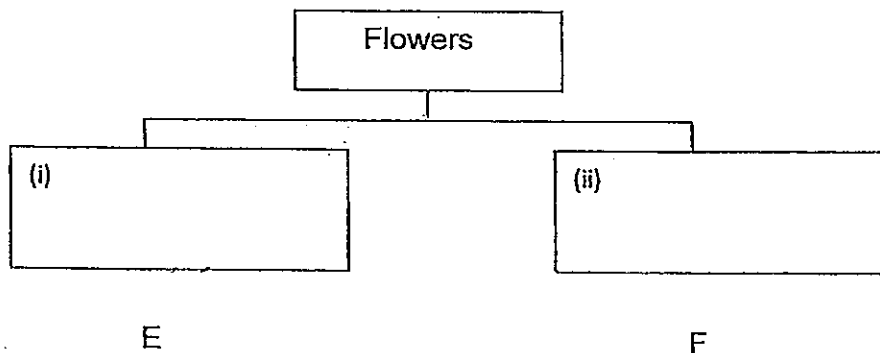
E



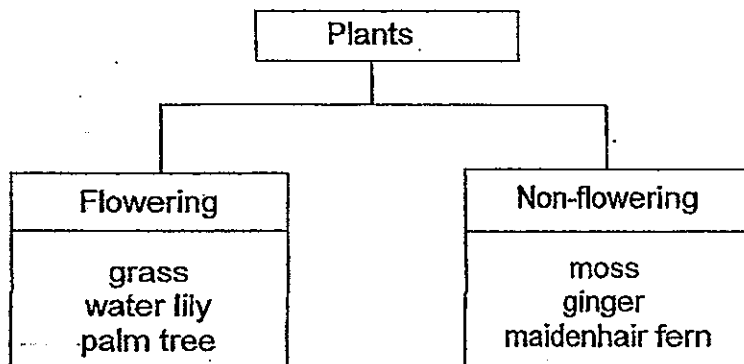
F

The classification chart below shows plants E and F which had been classified based on the way their flowers grow.

Provide the sub-headings to complete the classification chart. [1]



37. Study the classification chart below.



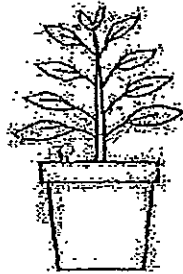
(a) Which one of the organisms above had been classified wrongly? [1]

\_\_\_\_\_

(b) Classify the six plants above in another way, using a different characteristic.

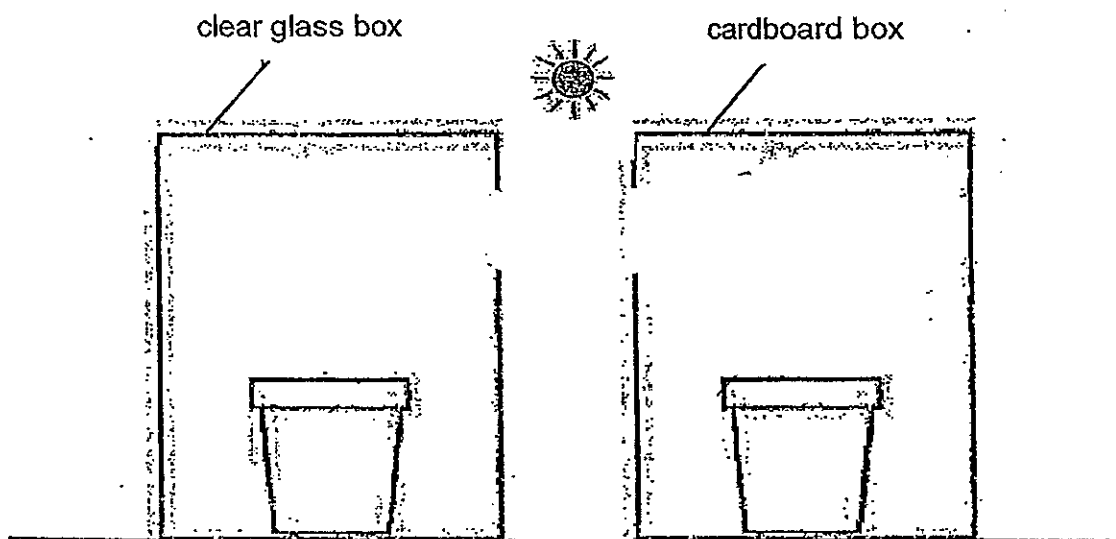
Give a heading for the classification table below. [2]

38. Xin Hui bought two similar pots of plants, like the one shown in the diagram below.



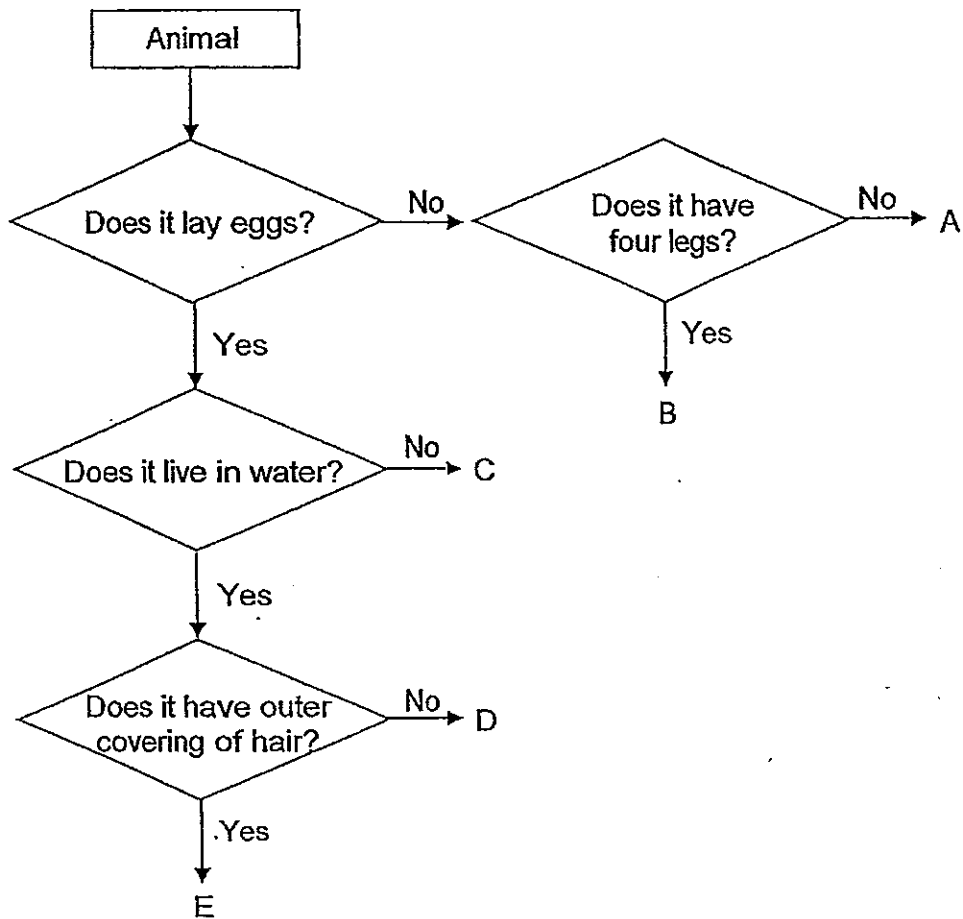
She placed one pot of plant in a **clear glass box** and another pot of plant in a **cardboard box**. Both plants were placed in a sunny area and watered every day.

Draw how both plants in each box would look like after a week. [2]





39. Study the flow chart below.



(a) Describe the characteristics of animal B. [1]

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(b) Give an example of an animal that can be represented by E. [1]

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(c) John said that the swordtail is an example of animal C. Explain whether John had given a correct example of animal C. [2]

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40. Study the classification table below. The animals have been grouped based on their outer covering.

Animals		
Group P	Group Q	Group R
Goat	Kiwi	Snake
Whale	Duck	Goldfish
Spiny anteater	Sparrow	Crocodile

- (a) State a suitable heading for groups P, Q and R. [3]

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

Group Q: \_\_\_\_\_

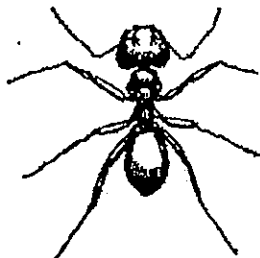
Group R: \_\_\_\_\_

- (b) Explain why 'frog' could not be classified in the table above. [1]

\_\_\_\_\_

\_\_\_\_\_

41. Study the diagrams below. Based only on the diagrams, state one similarity and one difference between animal X and Y. Do not compare their shape, size and colour. [2]



Animal X



Animal Y

Similarity: \_\_\_\_\_

\_\_\_\_\_

Difference: \_\_\_\_\_

\_\_\_\_\_

42. Salina took out an orange from her cupboard. It had been left there for a month and she found a patch of green substance growing on it.

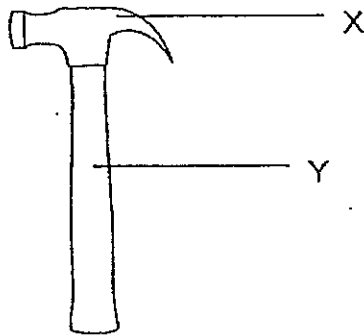
(a) What could the green substance be? [1]

\_\_\_\_\_

(b) How did the green substance get onto the orange? [1]

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

43. The diagram below shows a hammer.



(a) Identify suitable materials used to make parts X and Y. [1]

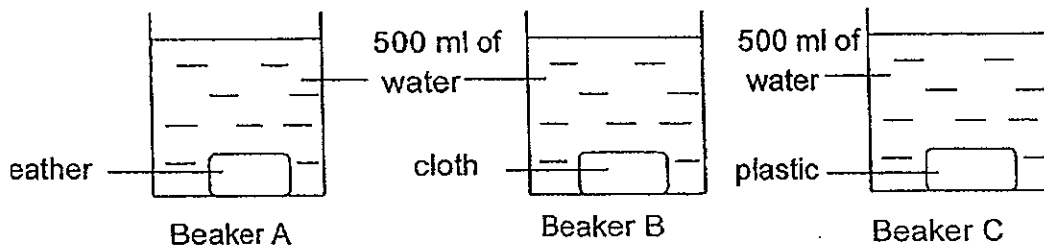
Part X: \_\_\_\_\_

Part Y: \_\_\_\_\_

(b) State the property of the material used to make Part X.  
Explain why this property makes the material suitable to be used  
in the hammer. [2]

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

4. Three different materials of the same shape and size were placed into beakers containing 500 ml of water each, as shown in the diagrams below.



After 30 minutes, the materials were then removed from the beaker and the amount of water left in each beaker was recorded.

- (a) Fill in the amount of water that would be left in beaker C in the table below. [1]

Beakers	Amount of water left in the beaker (ml)
A	480
B	420
C	

- (b) Which material, leather, cloth or plastic; is the most suitable for making a kitchen rag? Explain your answer. [2]

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~ End of Paper~

# ANSWER SHEET

**EXAM PAPER 2013**

**SCHOOL : NANYANG PRIMARY SCHOOL**

**SUBJECT : PRIMARY 3 SCIENCE**

**TERM : SA1**

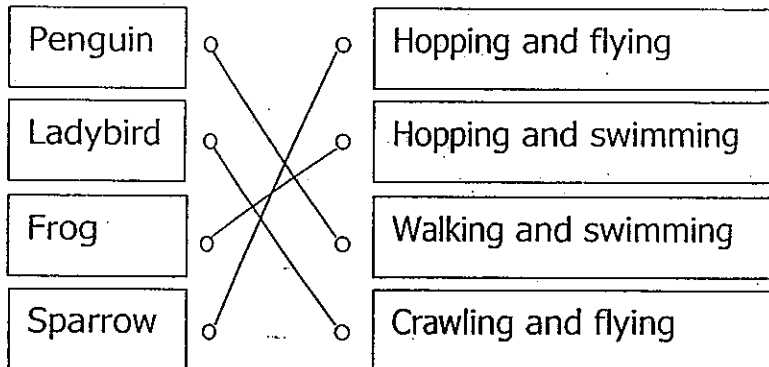
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17
1	3	3	2	1	4	2	1	4	2	4	3	1	1	4	1	3

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

Section B

Q31) D, B, A, C

Q32)



Q33)

a)i) Section C

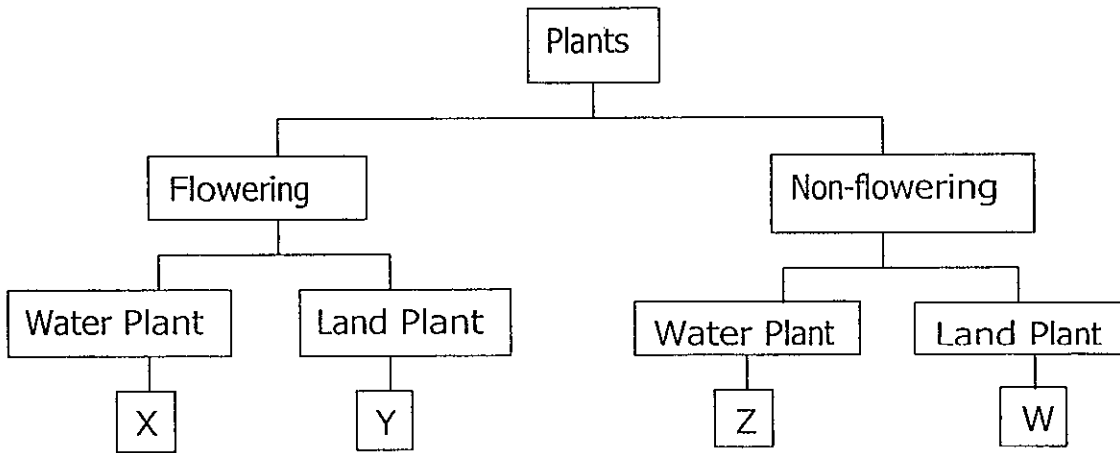
ii) Earthworms like moist and dark places

b) 1) Living things respond to changes

2) Living things move by themselves

Q34

a)



b) Plant X: Water Lily

Plant W: Dragonscale fern

Q35

a) i) D

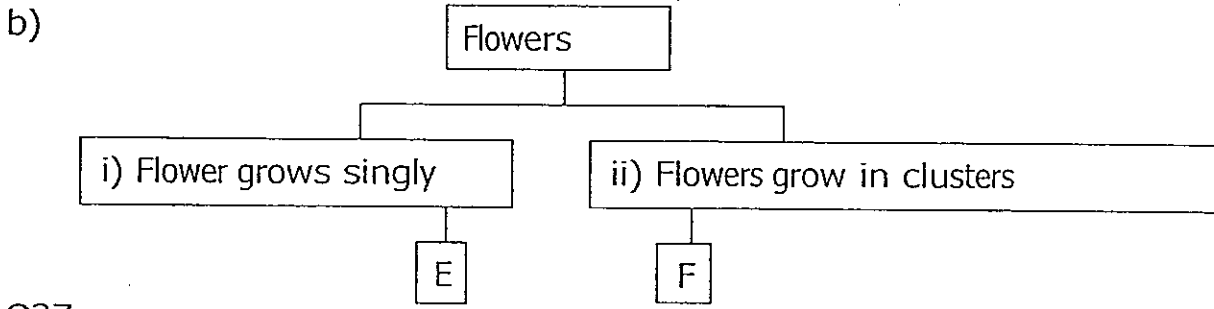
ii) A

b) Both are not edible

Q36

a)

Statement	True	False
A plant that is observed to have no flowers during winter is definitely a non-flowering plant		✓
Pong pong is a non-flowering plant		✓
All non-flowering plants reproduce by seeds		✓
Elodea is a fully submerged plant	✓	



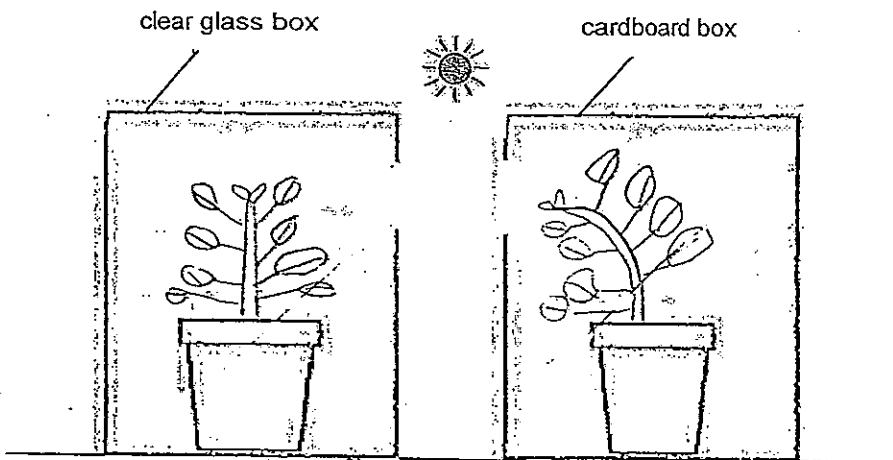
Q37

a) Ginger

b)

Reproduce by seeds	Reproduce by spores
Grass Water Lily Palm tree Ginger	Moss Maidenhair Fern

Q38



Q39

a) It does not lay eggs and it has four legs

b) Duck-billed platypus

c) No. A swordtail does not lay eggs and lives in water

Q40

a) Group P: Hair

Group Q: Feathers

Group R: Scales

b) Its outer covering is not hair, feathers or scales

Q41) Similarity: Both have six jointed legs  
Difference: Animal Y has wings while animal X does not

Q42

- a) Mould
- b) The spores landed on the orange and grew

Q43

- a) Part X: Metal  
Part Y: Wood
- b) Strong. It will not break easily

Q44

a)

Beakers	Amount of water left in beaker (ml)
A	480
B	420
C	500

- b) Cloth. It absorbs the most water