

**PRIMARY 3 SCIENCE**  
**SEMESTRAL ASSESSMENT 1**  
**2016**

**BOOKLET A**

**Date : 4 May 2016**  
**Duration : 1 h 20 min**

**Name :** \_\_\_\_\_ (     )

**Class:** Primary 3 (     )

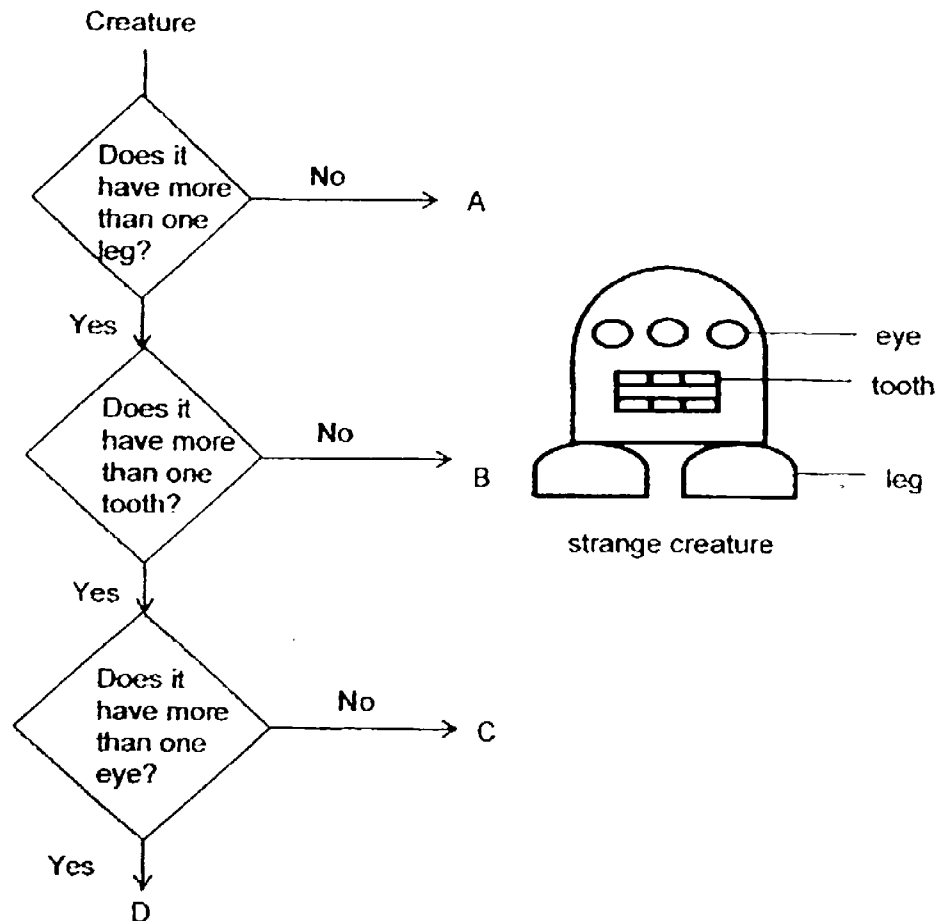
**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.**  
**FOLLOW ALL INSTRUCTIONS CAREFULLY.**

**Booklet A consists of 13 printed pages including this cover page.**

**Section A (24 x 2 marks = 48 marks)**

For each question from 1 to 24, 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. John saw a picture of a strange creature as shown below. He then tried to classify it using a flowchart that he had created.



Based on the flowchart, which letter could correctly represent the creature?

- (1) A  
(3) C

- (2) B  
(4) D

2. John was given the following information about Z.

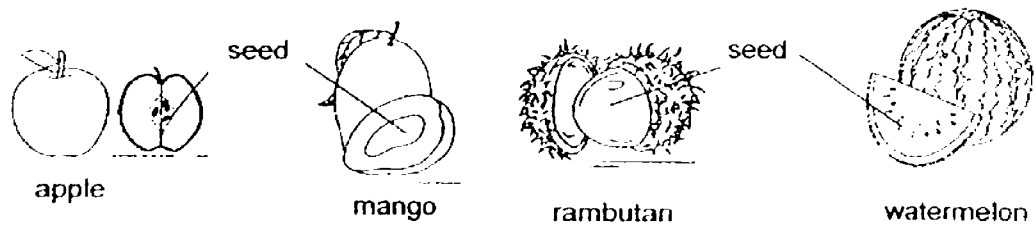
- Z can reproduce.
- Z needs air, food and water.
- Z can respond to changes in the surrounding.

Which of the following could Z represent?

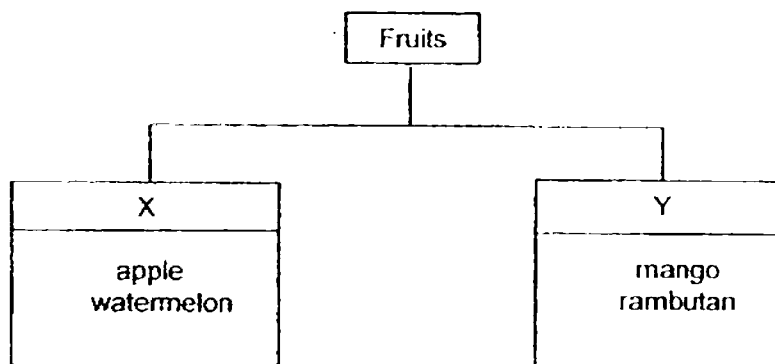
- A Fish  
B Robot  
C Rose plant

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

3. Matthew studied the four fruits below.



He then classified the fruits into the chart below.



Which of the following shows the suitable heading for X and Y?

	X	Y
(1)	Many Seeds	One seed
(2)	Land plant	Water plant
(3)	Flowering plant	Non-flowering plant
(4)	Smooth texture of skin	Hairy texture of skin

4. Rachel observed a plant and concluded that it was a non-flowering plant as it did not bear any flowers.

Her friends said that she was wrong and concluded that it was a flowering plant. They gave the following reasons:-

- A It is a young plant.
- B It reproduces by spores.
- C It is not the correct time to bear flowers.

Which of the reasons given are possible explanations for why the flowering plant did not have flowers?

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

5. Some children were discussing about their observation of plants and made the following statements.

- A All plants need air, food and water.
- B Some leaves are green while others are not.
- C All plants have flowers, stems, leaves and roots.
- D Some plants can make their own food while others cannot.

Which of the above statements are correct?

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

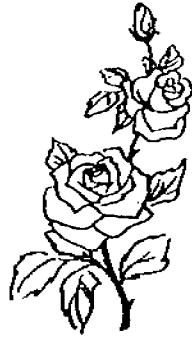
6. Mrs Tan placed a healthy potted plant in the brightly-lit garden of her house and left it unattended for two weeks. It did not rain for the whole two weeks. The picture below shows the plant after two weeks.



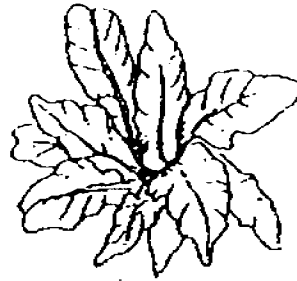
What can be concluded from the result above?

- (1) Plants need air to survive.
  - (2) Plants need soil to survive.
  - (3) Plants need light to survive.
  - (4) Plants need water to survive.
7. Which of the following statements show the importance of plants?
- A Plants can be used for medicine.
  - B Plants can be used to build furniture.
  - C Plants can be food for animals and humans.
- (1) A and B only
  - (2) A and C only
  - (3) B and C only
  - (4) A, B and C

8. The diagram below shows two types of living things.



Rose plant



Bird's nest fern

Which of the following statements **correctly** identify the difference between the rose plant and the bird's nest fern?

- A Rose plant has flowers but bird's nest fern does not have flowers.
- B Rose plant can make food but bird's nest fern cannot make food.
- C Rose plant reproduces by seed but bird's nest fern reproduces by spores.
- D Rose plant grows on the ground but bird's nest fern only grows on other trees.

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

- (2) A and C only
- (4) C and D only

9. Which one of the following characteristics is **not true** of amphibians?

- (1) They reproduce by laying eggs.
- (2) They have scales as their outer covering.
- (3) They breathe through their moist skin in water.
- (4) They breathe through gills when they are young.

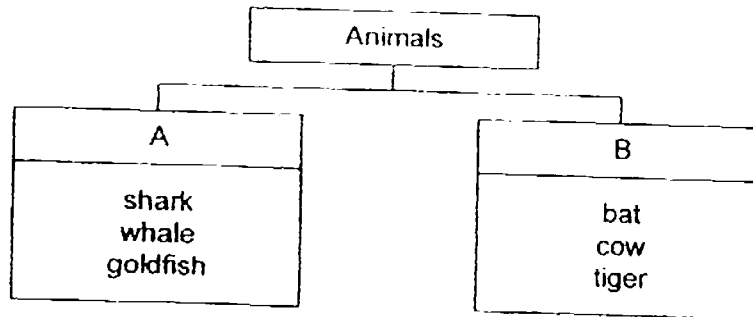
10. Ali, Brenda and Charlie made the following statements about the similarity between birds and insects.

- |         |                             |
|---------|-----------------------------|
| Ali     | They can all fly.           |
| Brenda  | They all lay eggs.          |
| Charlie | They have three body parts. |

Which of the children had made the correct statement?

- |                             |                             |
|-----------------------------|-----------------------------|
| (1) Ali only                | (2) Brenda only             |
| (3) Brenda and Charlie only | (4) Ali, Brenda and Charlie |

11. The animals below had been grouped according to their characteristics.



Which of the following could represent A and B?

	A	B
(1)	Breathes through gills	Breathes through lungs
(2)	Has scales	Has hair
(3)	Lays eggs	Gives birth to young alive
(4)	Lives in water	Lives on land

12. Melissa saw an animal which can fly. She concluded that it is a bird. Which of the following additional characteristics can help her confirm that the animal is a bird?

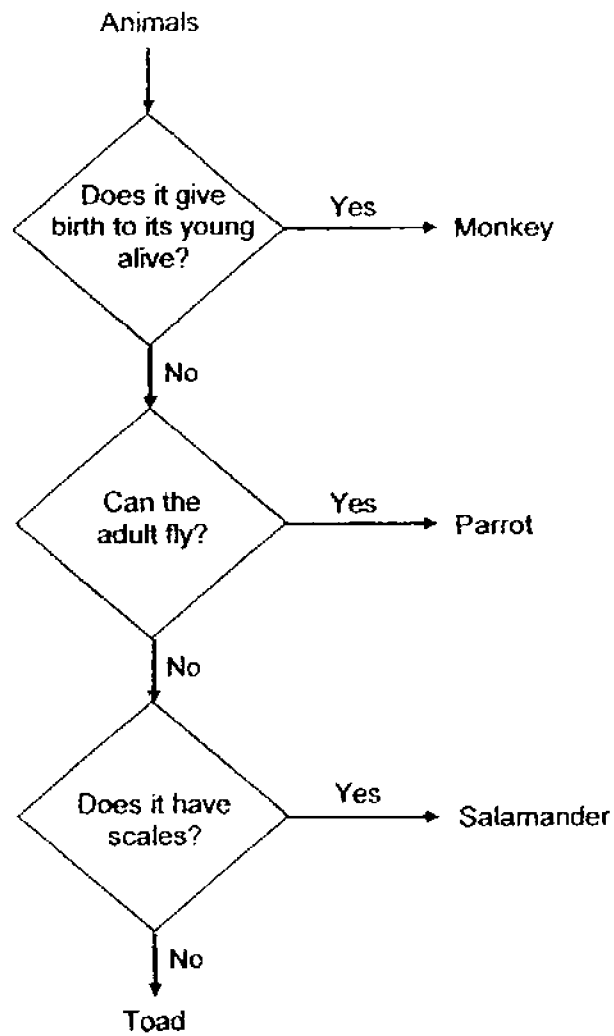
- (1) It has feathers.
- (2) It has two wings.
- (3) It has a pair of feelers.
- (4) It has three body parts.

13. Which of the following options are the characteristics of a fish?

- A They have fins to help them swim.
- B They all reproduce by laying eggs.
- C They have moist skin as their outer covering.
- D They have gills to help them breathe in water.

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

14. Study the flow chart below.

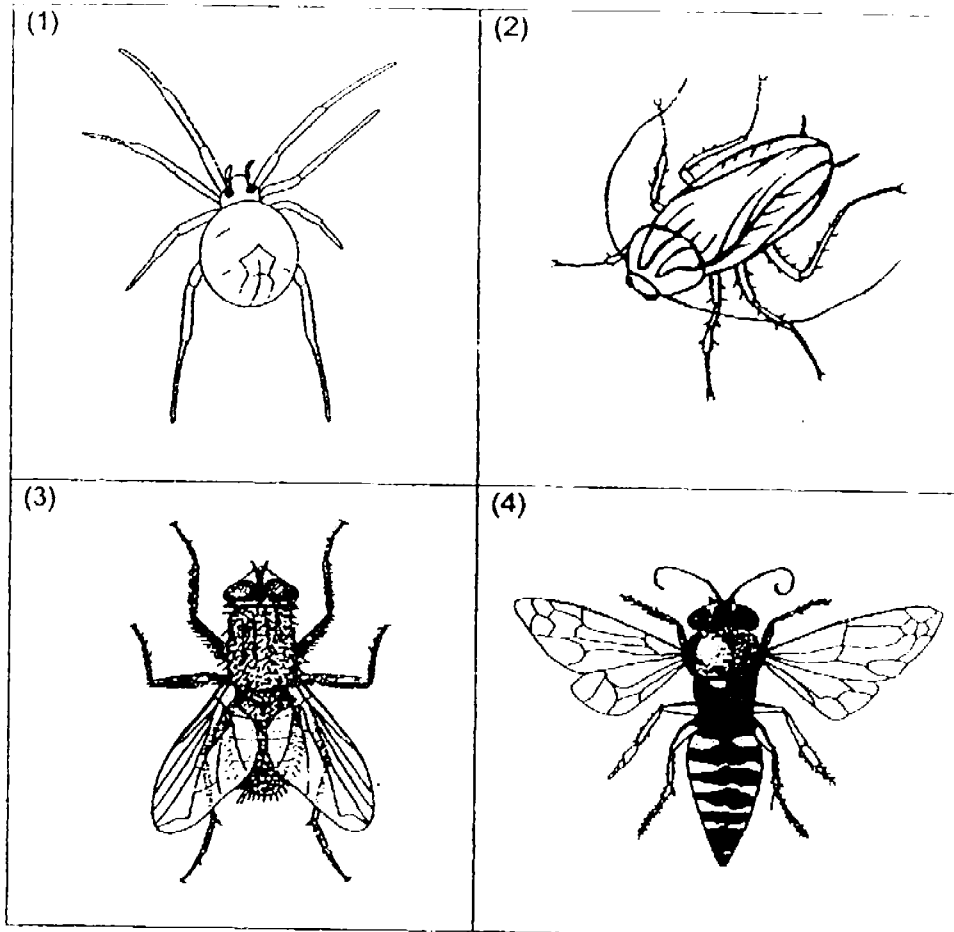


Which one of the following animals had been classified wrongly?

- (1) Toad
- (2) Parrot
- (3) Monkey
- (4) Salamander



15. Edward listed the four animals below as examples of insects. His teacher told him that he had made a mistake. Which animal had he classified wrongly?



16. Andy went to the zoo and saw an animal. He was not sure which group of animals it belongs to. He made the following observations:-

- It has wings.
- It takes care of its young.
- It feeds its young with its milk.

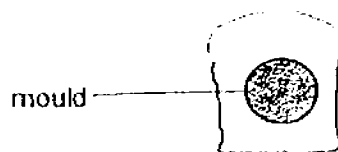
Which group does this animal most likely belong to?

- (1) Birds
- (2) Insects
- (3) Reptiles
- (4) Mammals

17. Mrs Tan kept a slice of bread in her science laboratory as shown below.



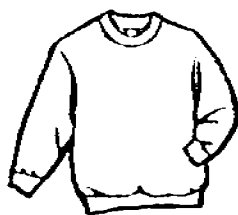
At the start



After two weeks

Based on her observation, which of the following correctly explains the change in the size of the bread?

- (1) The mould provides food to the bread as it grows.
  - (2) The mould turns the bread into mould as it grows.
  - (3) The mould absorbs food from the bread as it grows.
  - (4) The mould uses the bread to make food as it grows.
18. Which of the following statements about bacteria are **true**?
- A Bacteria can be found only in water.
  - B Bacteria need only air and food to grow.
  - C Bacteria have different shapes and sizes.
  - D Bacteria can only be seen with the microscope.
- (1) A and B only
  - (2) A and D only
  - (3) B and C only
  - (4) C and D only
19. Sameer bought a new sweater and described the properties of the material below.



- The material is flexible.
- The material absorbs water.
- The material is made from plants.

Based on his description, which of the following is the most likely material that had been used to make his new sweater?

- (1) silk
- (2) wool
- (3) plastic
- (4) cotton

20. Ranbir was choosing a material for the sole of his running shoes.



He listed a few properties below:-

- A flexibility
- B waterproof
- C transparency
- D floats on water

Which of the properties are important for him to consider when choosing a material for the sole of the shoes?

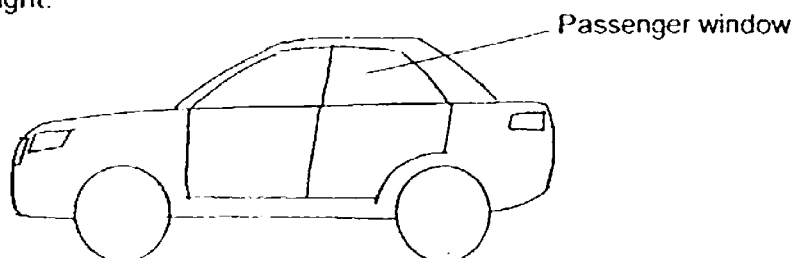
- (1) A and B only
  - (2) A and D only
  - (3) B and C only
  - (4) B, C and D only
21. Jane wanted to test the strength of a plank. Her friends suggested different methods to test for the strength of the plank as follows:-

Adam	Put the plank in water.
Ben	Shine light through the plank.
Cally	Place weights on the plank until it breaks.
Damon	Bend the plank to see how far it can bend.

Which one of her friends had given the correct suggestion?

- (1) Adam
- (2) Ben
- (3) Cally
- (4) Damon

22. Ali wanted to choose a material for the passengers' windows of his car. He wanted the windows to protect the passengers from too much sunlight.



He was given four materials to choose from. The properties of the four materials are found in the table below.

Materials	Strength	Transparency
A	breaks easily	allows some light to pass through
B	does not break easily	allows most light to pass through
C	does not break easily	allows some light to pass through
D	breaks easily	allows most light to pass through

Which one of the materials is the most suitable for him to choose for the passengers' windows?

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

Study the following experiment and answer questions 23 and 24.

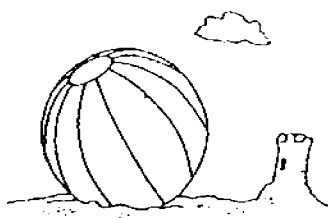
Zhi Wei placed 4 identical cubes made of different materials in 4 different cups. Each cup has 150 ml of water at first. After a minute, he took the cubes out and measured the amount of water left in the cup.

Cubes	Amount of water (ml)	
	Before	After
A	150	100
B	150	150
C	150	80
D	150	115

23. What property was Zhi Wei testing for?

- |     |                           |     |                         |
|-----|---------------------------|-----|-------------------------|
| (1) | strength                  | (2) | transparency            |
| (3) | ability to float on water | (4) | ability to absorb water |

24. Which of the materials, A, B, C or D, should he use to make a beach ball.



(1) A  
(3) C

(2) B  
(4) D

**PRIMARY 3 SCIENCE**  
**SEMESTRAL ASSESSMENT 1**  
**2016**

**BOOKLET B**

Date : 4 May 2016

Duration : 1 h 20 min

Name : \_\_\_\_\_ (     )

Class: Primary 3 (     )

**Marks Scored:**

Booklet A:		48
Booklet B :		32
Total :		80

Any query on marks awarded should be raised by 18 May 2016. 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: .....

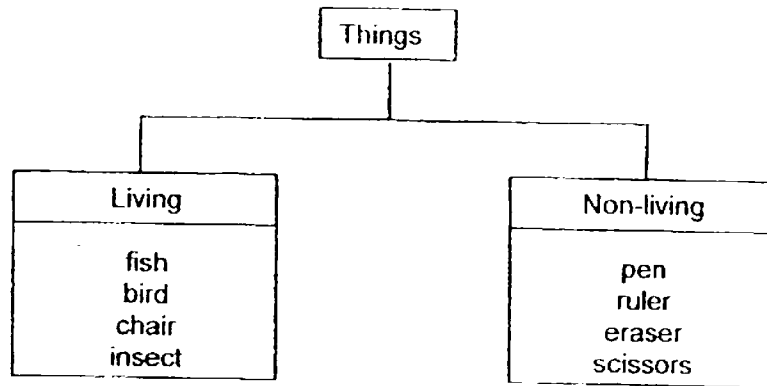
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Booklet B consists of 13 printed pages including this cover page.

**Section B (32 marks)**

Write your answers to questions 25 to 34 in the spaces provided.

25. Study the classification chart below.



(a) Which example had been wrongly classified? [1]

\_\_\_\_\_

(b) Explain your answer in (a) using one of the characteristics of living and non-living things. [1]

\_\_\_\_\_

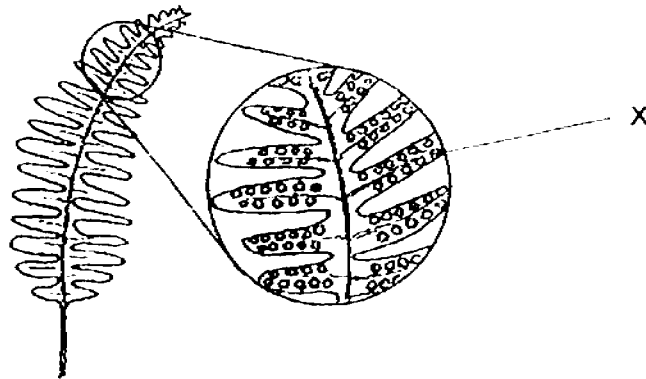
\_\_\_\_\_

(c) In which group should amphibians be placed? Give a reason for your answer. [1]

\_\_\_\_\_

\_\_\_\_\_

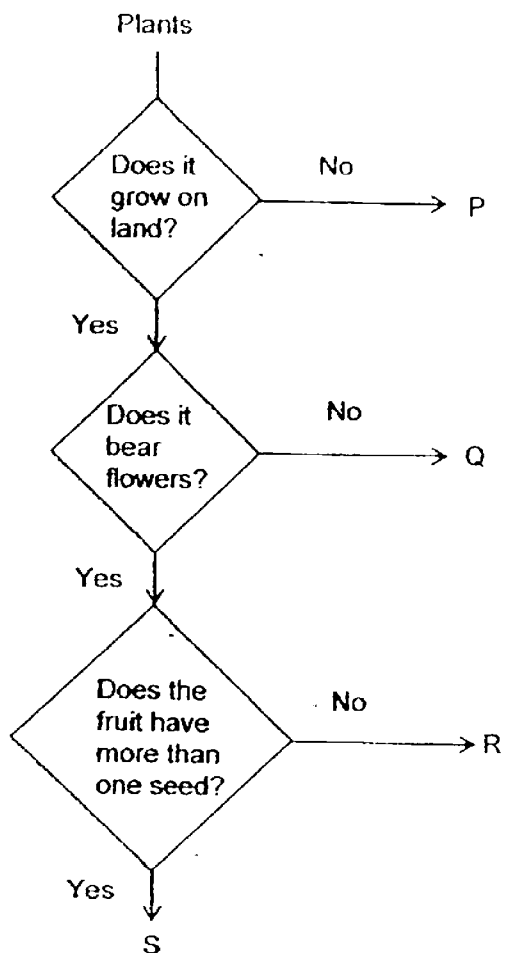
26. Tiffany saw a plant and noticed part X under its leaves as shown in the diagram below. She noticed that the plant did not bear flowers.



- (a) What is part X most likely be? [1]
- \_\_\_\_\_
- (b) Tiffany concluded that the plant is a fern and that it cannot make food. Is the statement correct? Give a reason for your answer. [1]
- \_\_\_\_\_
- \_\_\_\_\_
- (c) Can the fern produce fruits? Explain your answer. [1]
- \_\_\_\_\_
- \_\_\_\_\_



27. Study the following flowchart on plants.



- (a) State all the characteristics of plant R? . [1]

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- (b) Give an example of plant R. [1]

---

A plant has the following descriptions.

- It grows in water.
- The fruit has many seeds.
- It bears flowers only at certain times of the year.

(c) Which plant, P, Q, R or S, suits the above description? [1]

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(d) Using the information given in the flowchart above which letter could correctly represent the examples below? [1]

Moss	Orange

28. Sarah observed Animal X. She went back home and researched on it. She came up with the following statements and concluded that Animal X is a mammal.

- A: It can swim.  
B: It has four legs.  
C: It has hair on its body.  
D: It produces milk for its young.

(a) Based on the statements above, identify **two** statements that help Sarah to confirm that Animal X is a mammal. **Write down the letters.** [1]

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(b) State an example of Animal X. [1]

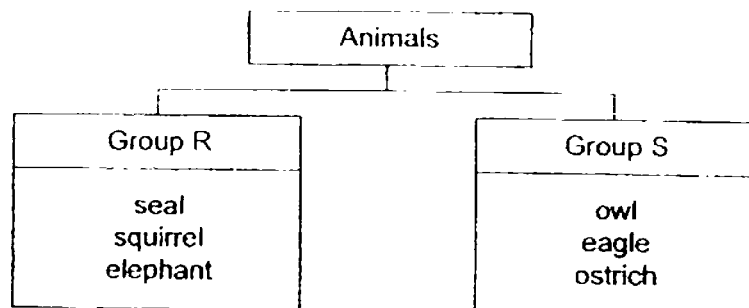
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(c) State another characteristic of mammals **not stated above.** [1]

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29. Study the classification chart below.



- (a) Write the correct animal groups that R and S represents. [1]

(i) R: \_\_\_\_\_

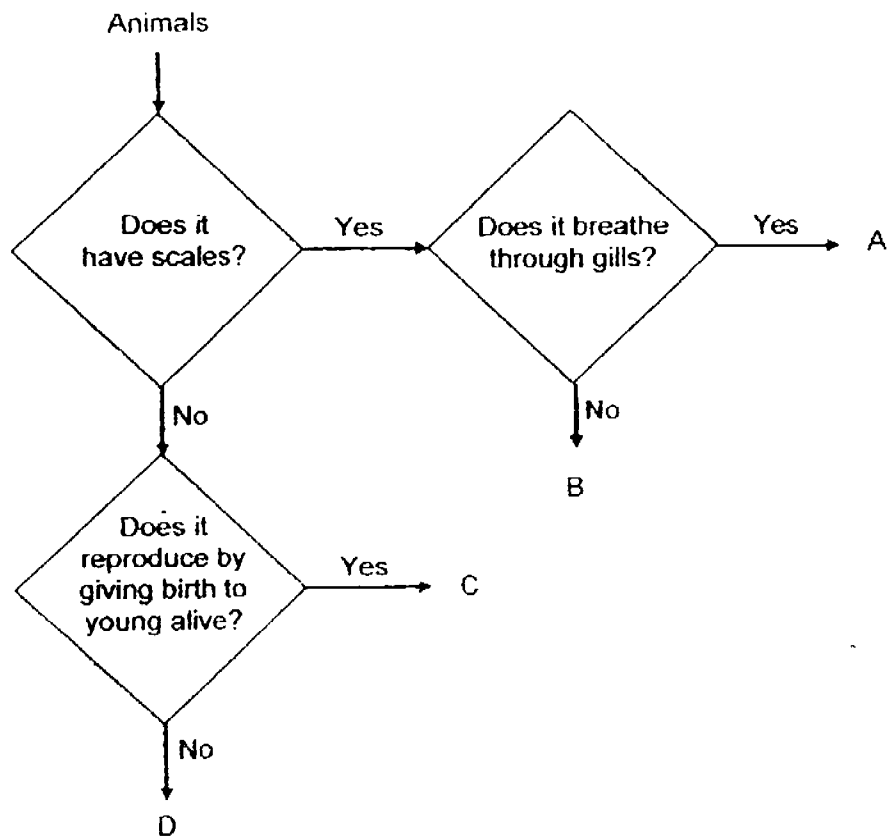
(ii) S: \_\_\_\_\_

- (b) Compare the characteristics of the animals in group R and group S. State **two differences** between the **two groups**.  
(Do not compare their size, shape and colour.) [2]

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

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

30. Study the flow chart below.



(a) Match the four animals below to the letters, A, B, C or D, in the flow chart. [2]

- (i) Dolphin: \_\_\_\_\_
- (ii) Goldfish: \_\_\_\_\_
- (iii) Penguin: \_\_\_\_\_
- (iv) Snake: \_\_\_\_\_

- (b) Describe **all** the characteristics of organism C in the flow chart [1]

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- (c) Based on the flow chart above, state **one similarity** and **one difference** between animal A and animal B? [1]

- (i) Similarity:

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- (ii) Difference:

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- 31 James took three slices of bread. He toasted one slice of bread and then placed it into a bag labelled A. He took another slice of bread and put it into a bag labelled B. For the last slice of bread, he sprinkled some water on the bread and placed it into a bag labelled C. He left all three bags in a warm place for a week.

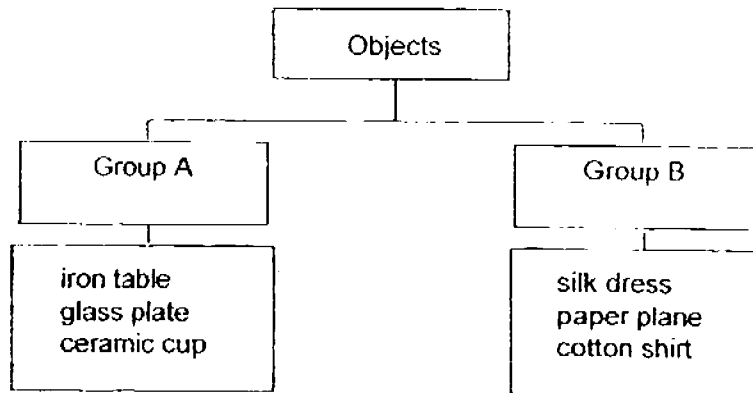
A week later, James recorded his observations in the table below.

Bags	Observation
A	No changes were observed.
B	Three small black spots were observed.
C	One big green spot and one big black spot were observed.

Based on James' results, which of the following statements are true (T), false (F) or not possible to tell (N)? [3]

	Statements	T/ F/ N ?
(a)	The green spot in bag C is bacteria and the black spot is mould.	
(b)	Mould could not grow in bag A as there is no moisture.	
(c)	The three black spots in bag B are three spores.	

32. Six objects had been classified in the chart below.



- (a) Based on the properties of the materials, state a suitable heading that could represent Groups A and B

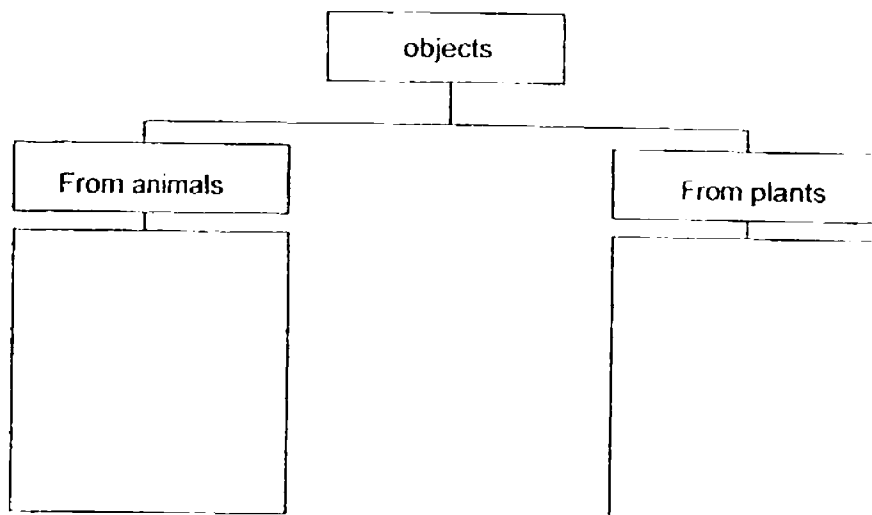
[1]

Group A: \_\_\_\_\_

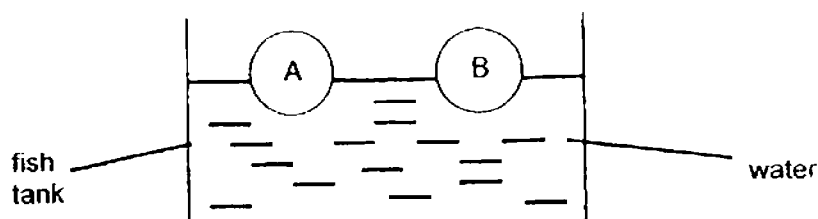
Group B: \_\_\_\_\_

- (b) Reclassify all the **three items** in **group B** into two groups below.

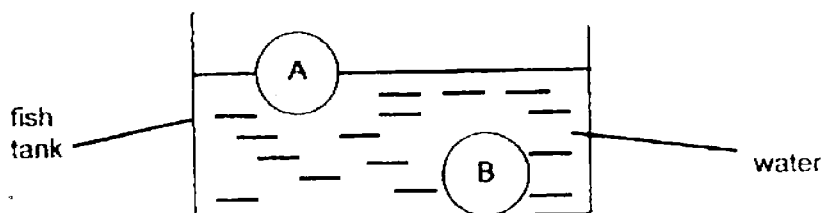
[1]



33. Liam conducted an experiment to find out the ability of some materials to absorb water. He placed 2 balls, A and B, made of different materials in a fish tank filled with water. He observed that both the balls were floating in the water at first as shown in the diagram below



An hour later, he recorded his observation in the diagram below. He realised that ball B had sunk to the bottom of the fish tank, as shown below.



- (i) Based on the property Liam was testing, compare material A and material B. [1]

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- (ii) Which one of the materials, A or B, will be suitable for making a raincoat? Explain your answer. [1]

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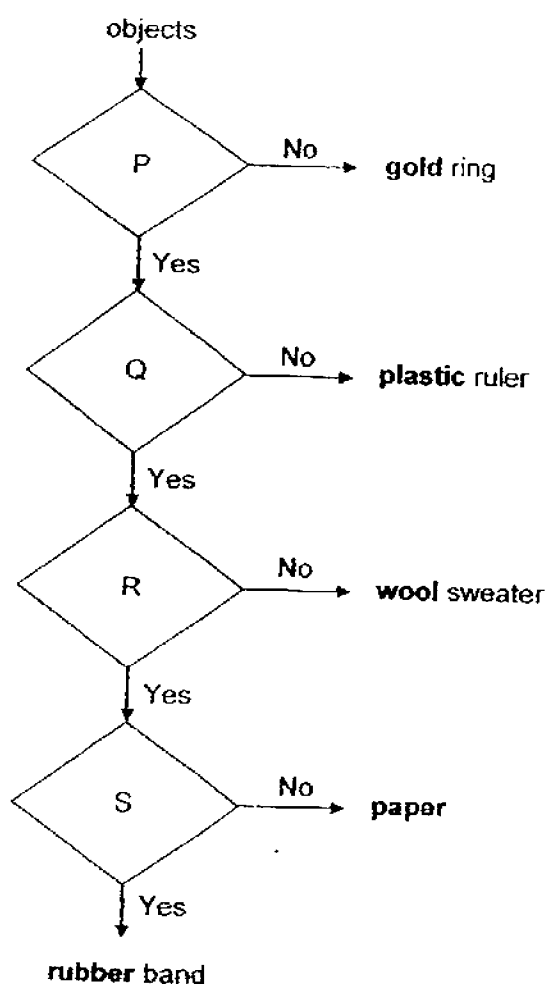
- (iii) Which one of the materials, A or B, will be suitable for making a towel? Explain your answer. [1]

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34. Study the flow chart below.



The letters P, Q, R and S represent the questions in the flowchart.

- (a) The questions are listed in the table below. Fill in the table with the correct letters P, Q, R and S. [2]

Is it made from plants?	Is it waterproof?	Is it flexible?	Is it made from living things?

- (b) Which one of the materials (**in bold**) in the flowchart is suitable to make a basketball. Explain your answer. [1]

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- (c) Which one of the materials (**in bold**) in the flowchart is suitable to make a water bottle. Explain your answer. [1]

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**EXAM PAPER 2016**

**SCHOOL : NANYANG PRIMARY SCHOOL (PRIMARY)**  
**SUBJECT : PRIMARY 3 SCIENCE**  
**TERM : SA1 EXAMINATION**

**BOOKLET A**

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

**BOOKLET B**

**Q25(a)** The chair

**Q25(b)** Living things can response to changes around them and need air, food and water to survive. Non-living things do need air, food and water at all.

**Q25(c)** Living, amphibians can respond to changes around them.

**Q26(a)** Part X is most likely to be spores.

**Q26(b)** No, the fern is a plant and plants can make their own food.

**Q26(c)** No, the fern is a non-flowering plant and non-flowering plant do not bear fruits.

**Q27(a)** Plant R grows on land, bears flowers and has fruits that has one seed.

**Q27(b)** A mango tree

**Q27(c)** Plant P

**Q27(d)**

Moss	Orange
Q	S

**Q28(a)** C and D

**Q28(b)** Tiger

**Q28(c)** Mammals give birth to young alive.

**Q29(a)** (i) R: Mammals, (ii) S: Birds

**Q29(b)**

- (i) Group R has hair as a outer covering but Group S has feather as a outer covering.
- (ii) Group R gives birth to young alive but group S lays eggs.

**Q30(a)** (i) Dolphin: C (ii) Goldfish: A (iii) Penguin: D (iv) Snake: B

**Q30(b)** Organism C does not have scales and it reproduces by giving birth to young alive.

**Q30(c)** (i) Both animals A and B have scales. (ii) Animal breathes through gills but animal B does not breathe through gills.

**Q31(a)** N

(b) T

(C) F

**Q32(a)** Group A: Not flexible, Group B: Flexible

**Q32(b)**

From animals	From Plants
Silk dress	Paper Plane
	Cotton shirt

**Q33**

- (i) Material A cannot absorb water but Material B absorbs water.
- (ii) Material A. It is waterproof. It will keep the person wearing the raincoat dry.
- (iii) Material B. It absorbs water, it will be able to absorb water to dry things.

**Q34(a)**

Is it made from plants?	Is it waterproof?	Is it flexible?	Is it made from living things?
R	S	P	Q

**Q34(b)** Rubber. It is important so that it can be used on wet surface.

**Q34(c)** Plastic. It is light. User is able to carry it easily.