



PEI HWA PRESBYTERIAN PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 2

PRIMARY 3  
SCIENCE  
(BOOKLET A)

25 OCT 2019

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

Class: Responsibility \_\_\_\_\_

Total time for Booklets A and B: 1 h 30 min

**INSTRUCTIONS TO CANDIDATES**

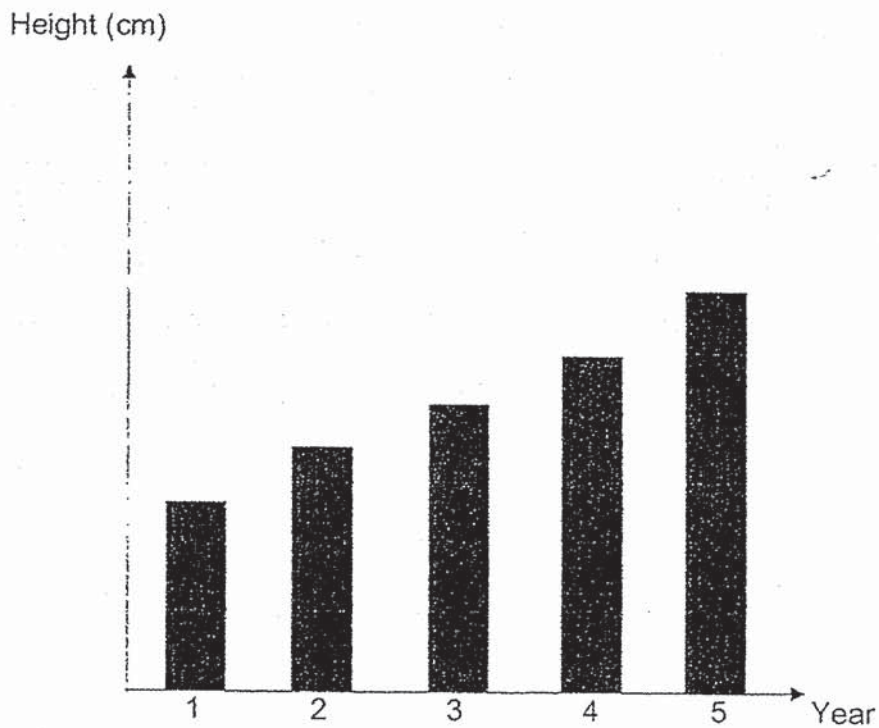
1. Write your Name, Class and Register No. in the spaces provided above.
2. DO NOT turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers on the Optical Answer Sheet (OAS) provided.

This booklet consists of 14 printed pages, excluding the cover page.



For each question from 1 to 24, four options are given. One of them is the correct answer. Make your choice and shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet provided. (48 marks)

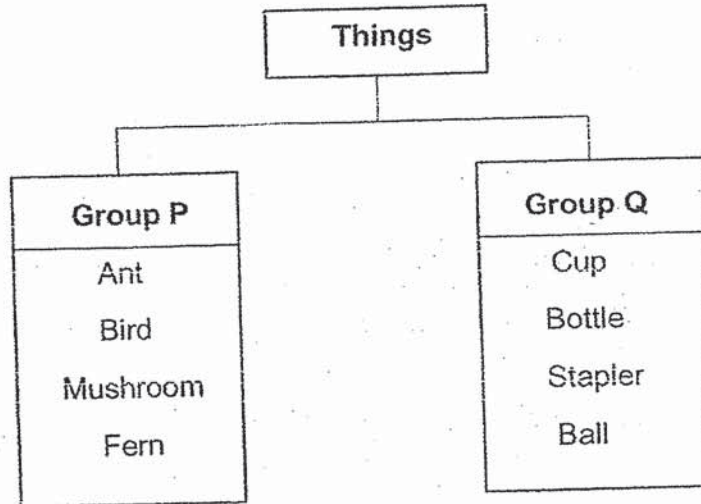
1 The graph below shows Mary's height over a period of 5 years.



Which of the following characteristics describes the observation from the graph above?

- (1) Living things can grow.
- (2) Living things cannot move.
- (3) Living things can reproduce.
- (4) Living things respond to changes around them.

- 2 The classification chart below shows how some things are grouped.



Which of the following describes how the 2 groups of things are grouped?

	Group P	Group Q
(1)	Cannot grow	Can grow
(2)	Cannot reproduce	Can reproduce
(3)	Cannot respond to changes	Can respond to changes
(4)	Need air, food and water	Do not need air, food and water

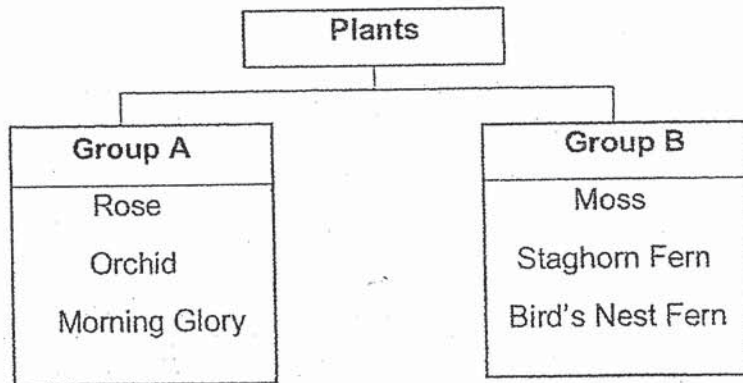
- 3 Mary observed some things. A tick (✓) shows that it has the characteristic. A cross (X) shows that it does not have the characteristic.

Things	Reproduces	Respond to changes	Need air, food and water
Bat	X	✓	✓
Moss	X	✓	✓
Clock	✓	✓	X
Water Lily	✓	✓	✓

Which one of the things correctly describes a living thing?

- (1) Bat  
 (2) Moss  
 (3) Clock  
 (4) Water Lily

4 Denny classified some plants as shown below.



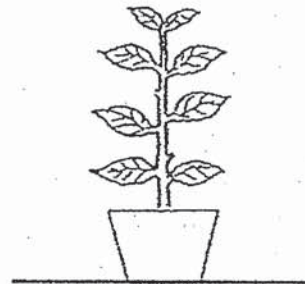
Which of the following are suitable headings for Groups A and B?

	<b>Group A</b>	<b>Group B</b>
(1)	Land Plants	Water Plants
(2)	Fungi	Flowering Plants
(3)	Flowering Plants	Non-flowering Plants
(4)	Non-flowering Plants	Fungi

5 Jenny observed plants, X and Y, in her school garden.



Plant X

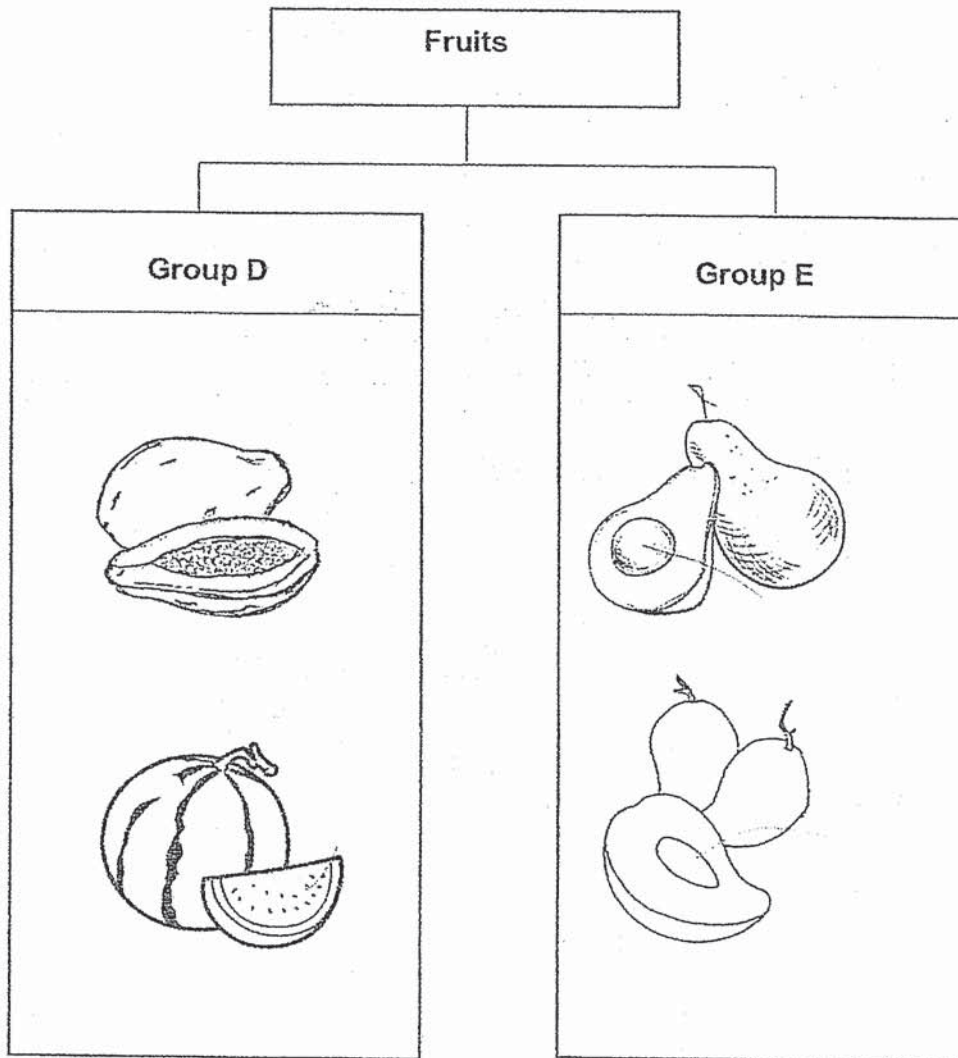


Plant Y

Based on the diagrams above, what is the difference between the two plants?

- (1) Plant X cannot make its own food but Plant Y can.
- (2) Plant X has no flower at all but Plant Y has flowers.
- (3) Plant X has ~~strong~~<sup>weak</sup> stem but Plant Y has ~~weak~~<sup>strong</sup> stem.
- (4) Plant X does not have leaves but Plant Y has leaves.

6 The classification chart below shows how some fruits are classified.



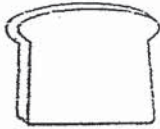
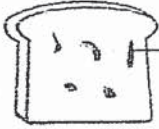
They are classified according to \_\_\_\_\_.

- (1) shapes
- (2) the skin texture
- (3) where they grow
- (4) the number of seeds

7 Which one of the following is a fungi?

- (1) Rose
- (2) Orchid
- (3) Bacteria
- (4) Bread Mould

8 Tricia added different amount of water on two similar pieces of bread, P and Q. She then observed the amount of bread mould growing on the bread after 7 days and recorded her observations in the table below.

	Bread P	Bread Q
Amount of water added to the bread (ml)	0	20
Amount of bread mould observed after 7 days		

Patches of bread mould

Based on her experiment, bread mould grows better \_\_\_\_\_.

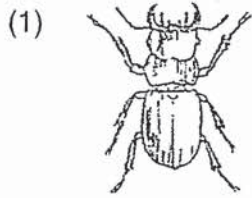
- (1) in the dark
- (2) when there is water
- (3) in the presence of light
- (4) on Bread P than on Bread Q

9 Which of the following pairs is correctly grouped?

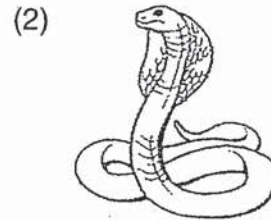
	Living Thing	Non-living Thing
(1)	Fire	Water
(2)	Rock	Goldfish
(3)	Yeast	Radio
(4)	Shadow	Mushroom



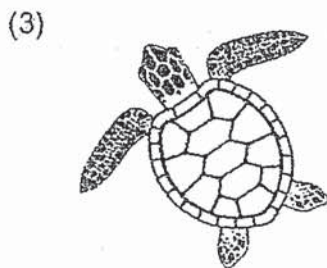
10 Which one of the following animals does not belong to the same animal group as the rest?



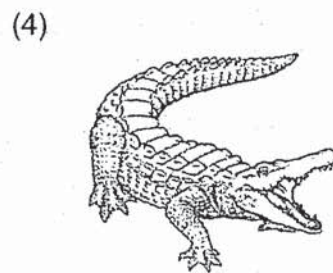
Beetle



Snake

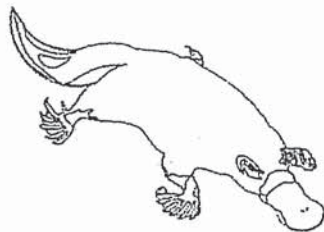


Turtle



Crocodile

11 Look at the diagrams below carefully.



Platypus



Dog

Both animals are mammals as it has \_\_\_\_\_.

- (1) fur
- (2) feathers
- (3) dry scales
- (4) moist skin

12 Study the three animals shown below.



Bee



Bird



Bat

What are the physical characteristics do they have in common?

They have \_\_\_\_\_.

- (1) wings and legs
- (2) six legs and a tail
- (3) beak and a pair of wings
- (4) six legs and a pair of eyes

13 Tina observed two animals, E and F, and recorded her observations in the table below.

Animal E	Animal F
<ul style="list-style-type: none"> <li>• give birth to live young</li> <li>• has a pair of wings</li> <li>• has two legs</li> <li>• has hairs on body</li> </ul>	<ul style="list-style-type: none"> <li>• lay eggs</li> <li>• has a pair of wings</li> <li>• has two legs</li> <li>• has feathers on body</li> </ul>

Which animal groups do animals E and F belong to?

	Animal E	Animal F
(1)	reptile	bird
(2)	amphibian	insect
(3)	mammal	bird
(4)	mammal	insect

14 Gina wrote down some notes about Bird X as shown below.

- Has a pair of small wings
- Has feathers
- Has a heavy body
- It stays away from water

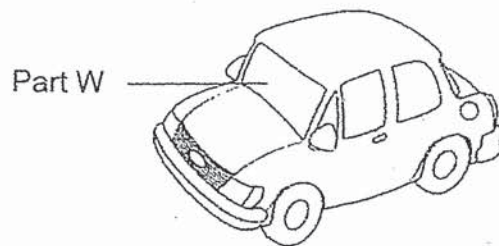
When Gina showed her notes to four classmates, they made the following comments:

- Adrian: Bird X has scales.  
Billy: Bird X can fly in the air.  
Candy: Bird X cannot fly at all.  
Diana: Bird X can swim in the river.

Based on the notes written by Gina, which of her classmates made a correct comment?

- (1) Adrian
- (2) Billy
- (3) Candy
- (4) Diana

15 Study the picture of a car carefully.



Which material is most suitable to make Part W so that the driver could see the road?

- (1) Wood
- (2) Glass
- (3) Fabrics
- (4) Ceramics

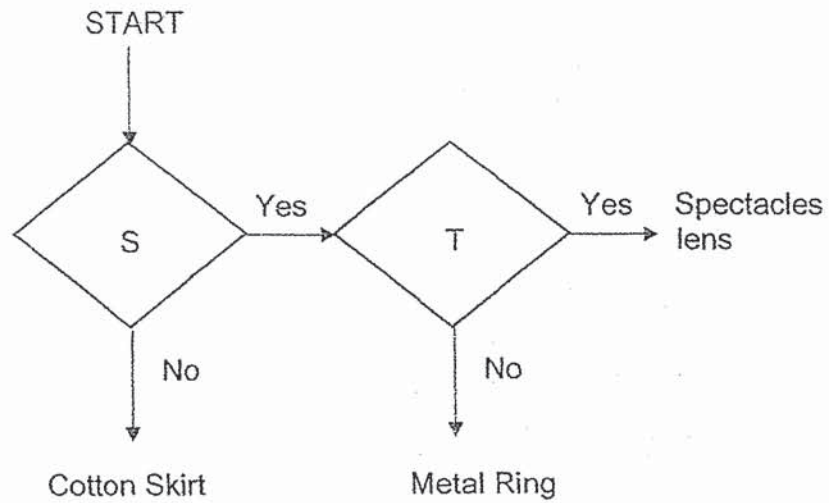
- 16 Janet wanted to make a beach ball. The table below shows the properties of the materials given to her.

Material	Flexible	Waterproof	Breaks Easily
J	No	No	Yes
K	Yes	Yes	No
L	No	Yes	Yes
M	Yes	No	No

Based on the information above, which one of the materials is most suitable for making the beach ball?

- (1) J
- (2) K
- (3) L
- (4) M

17 Study the flow chart below carefully.



Which one of the following represents the missing questions, S and T, in the flow chart?

	S	T
(1)	Does it absorb water?	Is it flexible?
(2)	Does it allow most light to pass through?	Is it strong?
(3)	Does it absorb water?	Does it allow most light to pass through?
(4)	Is it waterproof?	Does it allow most light to pass through?

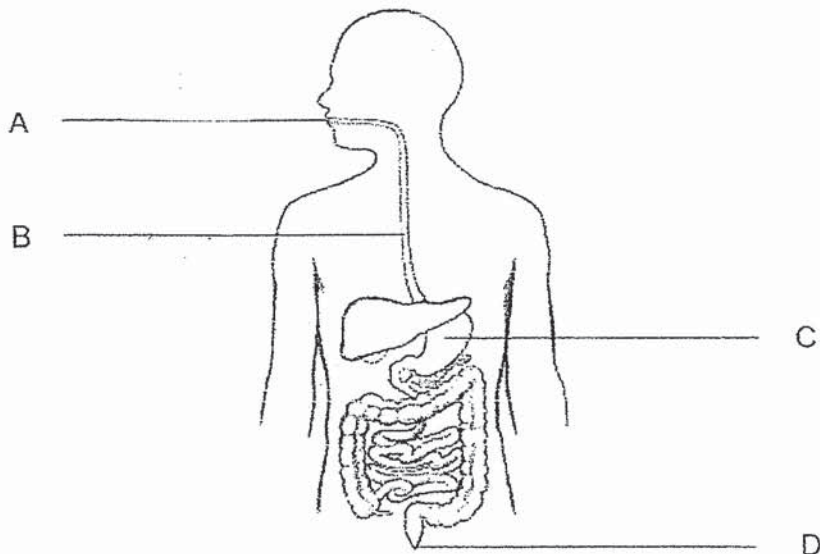
- 18 Xiang Ting needs to choose a material to build Part K of a camping tent.



Which of the following properties should she consider when choosing a material?

- A flexibility
  - B waterproof
  - C ability to float on water
- (1) A only  
(2) B only  
(3) C only  
(4) A and B only

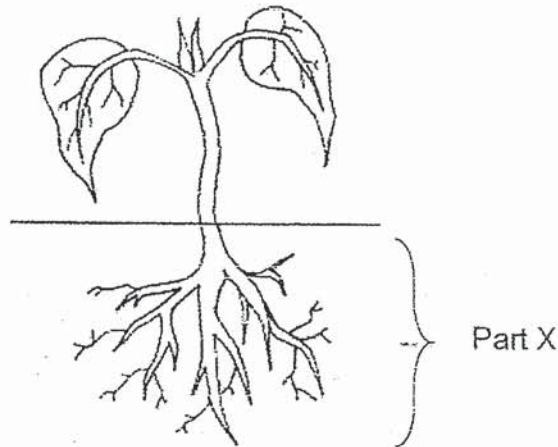
- 19 Which two parts do not produce digestive juices?



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

- 20 Which of the following human body systems have to work together in order for the digested food to be transported to all parts of our body?
- (1) Skeletal and Muscular Systems
  - (2) Digestive and Skeletal Systems
  - (3) Digestive and Circulatory Systems
  - (4) Respiratory and Circulatory Systems
- 21 Which two statements are the functions of the large intestine in the digestive system?
- A Breaks down digested food
  - B Absorbs water from digested food
  - C Absorbs water from undigested food
  - D Pushes undigested food to the anus
- (1) A and C
  - (2) B and D
  - (3) B and C
  - (4) C and D
- 22 Which of the following statements is true?
- (1) All plants grow in water.
  - (2) Only green plants bear flowers.
  - (3) All plants reproduce by spores.
  - (4) Plants respond to changes in different ways.

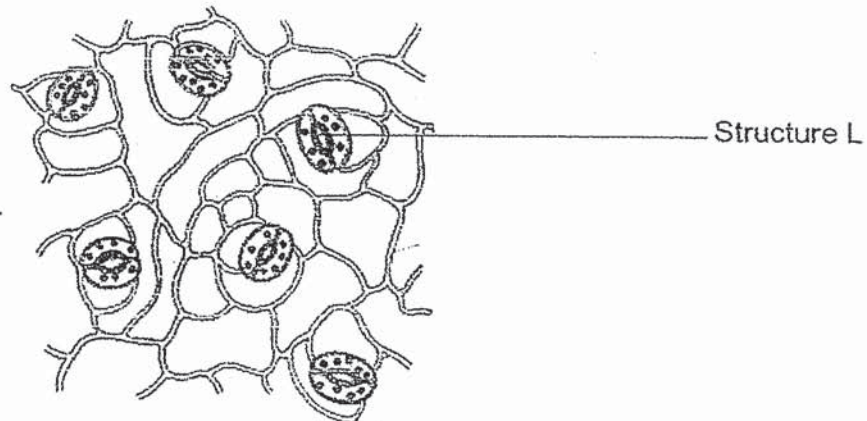
23 Francis observed the following plant in the garden.



Which one of the following is true when Part X is being removed?

- (1) The plant is still kept upright.
- (2) The plant will still continue to survive.
- (3) The plant will still stay firmly in the ground.
- (4) The plant will not absorb water and mineral salts from the ground.

24 Look at the diagram below carefully.



The above Structure L was found on plants. What could Structure L be?

- (1) Fruit
- (2) Flower
- (3) Leaf vein
- (4) Tiny opening





PEI HWA PRESBYTERIAN PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 2

PRIMARY 3  
SCIENCE  
(BOOKLET B)

25 OCT 2019

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

Class: Responsibility \_\_\_\_\_

Parent's Signature

Total time for Booklets A and B: 1 h 30 min

**INSTRUCTIONS TO CANDIDATES**

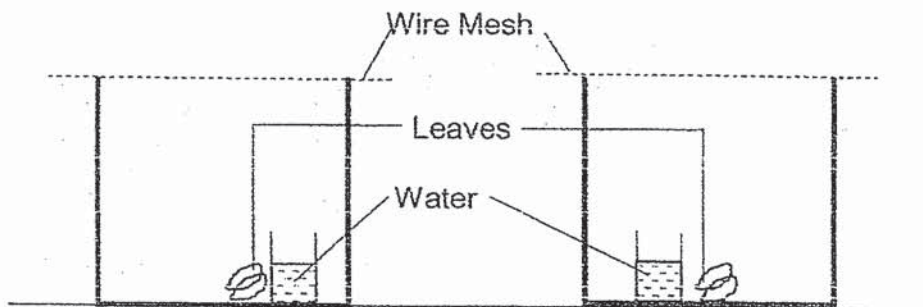
1. Write your Name, Class and Register No. in the spaces provided above.
2. DO NOT turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write all your answers in this booklet.

Marks (Booklet A) :	48
Marks (Booklet B) :	32
Total Marks (Booklets A & B) :	80

This booklet consists of 11 printed pages, excluding the cover page.

Write your answers to the questions 25 to 33 in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part question.  
(32 marks)

- 25 Zechariah carried out an experiment by placing 400g of leaves and 100 ml of water in each of the two large containers. He put wire mesh to cover both containers. The grasshopper was placed only in one of the containers. The amount of leaves left in each container was recorded after 15 days in the diagram below.



Amount of leaves	
at the start	400g
in the end	320g

Amount of leaves	
at the start	400g
in the end	400g

- (a) Put a tick (✓) in one of the boxes in the diagram above to show where the grasshopper can be found. [1]

Question 25 continues on page 16

He also took down the mass of the grasshopper over 15 days and recorded in the table below.

Day	Mass of grasshopper (g)
1	10
5	?
10	13
15	15

- (b) Based on the table above, which characteristic of living thing did the grasshopper show over 15 days? [1]

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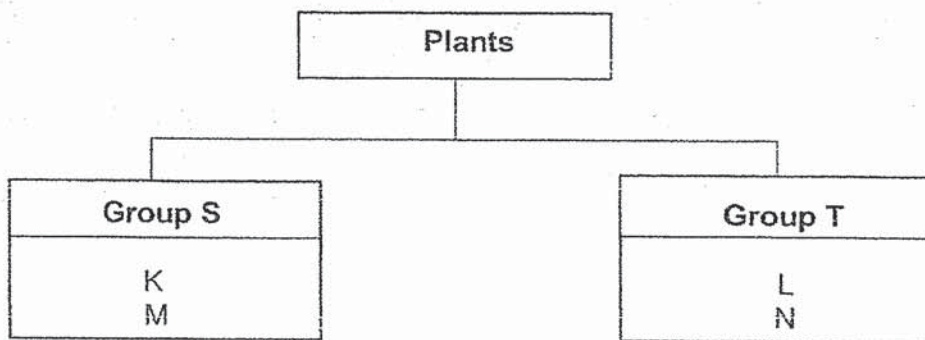
- (c) What was the possible mass of the grasshopper on Day 5? [1]

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- 26 Yancey recorded the characteristics of plants (K, L, M and N) in the table below. A tick (✓) shows that it has the characteristic while a cross ( X ) shows that it does not have the characteristic.

Plant	Has flowers	Lives on land	Lives in water
K	✓	✓	X
L	X	✓	X
M	✓	X	✓
N	X	X	✓

Yancey made use of the information above to draw a classification chart as shown below.

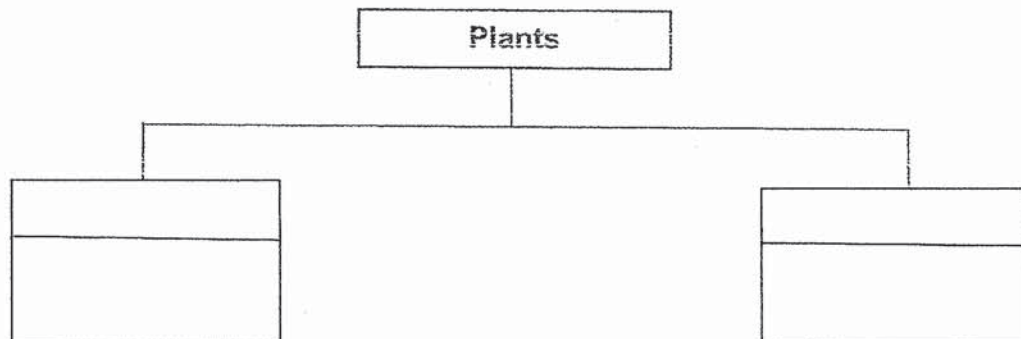


- (a) What should the sub-headings for Groups S and T be? [1]

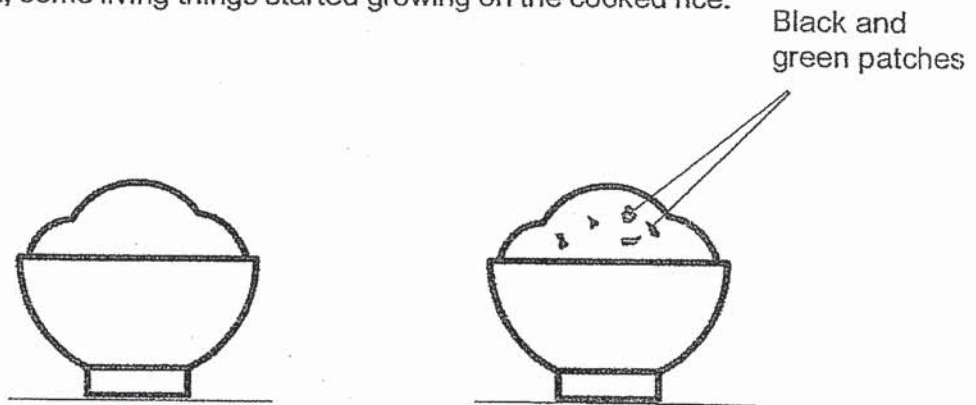
Group S: \_\_\_\_\_

Group T: \_\_\_\_\_

- (b) Based on the information collected by Yancey, classify the 4 plants, K, L, M and N in the classification chart below. Provide suitable sub-headings in the chart. [2]



- 27 David left a bowl of cooked rice on a table as shown in the diagram below. After one week, some living things started growing on the cooked rice.



Bowl of cooked rice at the start

Bowl of cooked rice one week later

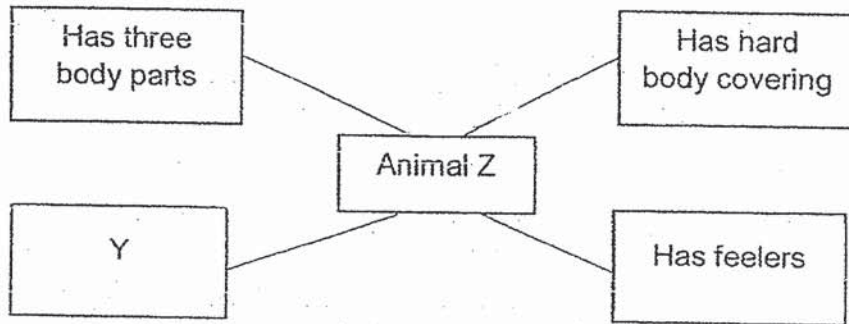
- (a) Based on the diagram above, what group of living things do the black and green patches belong to? [1]

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- (b) One week later, David observed that the black and green patches have covered the whole bowl of cooked rice. Based on his observation, which characteristic of living things does this show? [1]

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28 Kelly observed Animal Z and wrote some characteristics shown below.



(a) Which animal group could Animal Z belong to? [1]

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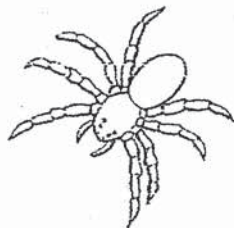
(b) What physical characteristics could Y represent? [1]

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(c) Give an example of Animal Z. [1]

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(d) Look at the diagram of Animal G below carefully.



Can Animal G be in the same group as Animal Z? Give a reason for your answer. [1]

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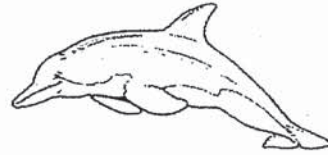
29 Look at the pictures of the animals below carefully.



Goldfish



Whale



Dolphin

- (a) Based on your observation, write down one similar physical characteristic among the three animals. (Do not compare shape, size and colour) [1]

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- (bi) State one difference between the goldfish and the dolphin, in terms of the way they reproduce. [1]

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- (bii) State one difference between the goldfish and the whale, in terms of the way they breathe. [1]

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- (c) What body covering does the goldfish have? [1]

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- 30 Judy had 2 bags, X and Y, made of different materials. She wanted to know which bag was stronger. She put metal balls into Bag X until it was torn. She then repeated the experiment with Bag Y. Her results are shown in the table below.

Number of metal balls	Bag X	Bag Y
1	Not torn	Not torn
2	Not torn	Not torn
3	Torn	Not torn
4	Torn	Not torn

- (a) What was the maximum number of metal balls that can be placed into Bag X before it was torn? [1]

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- (b) What could Judy conclude about the strength of the two bags? [1]

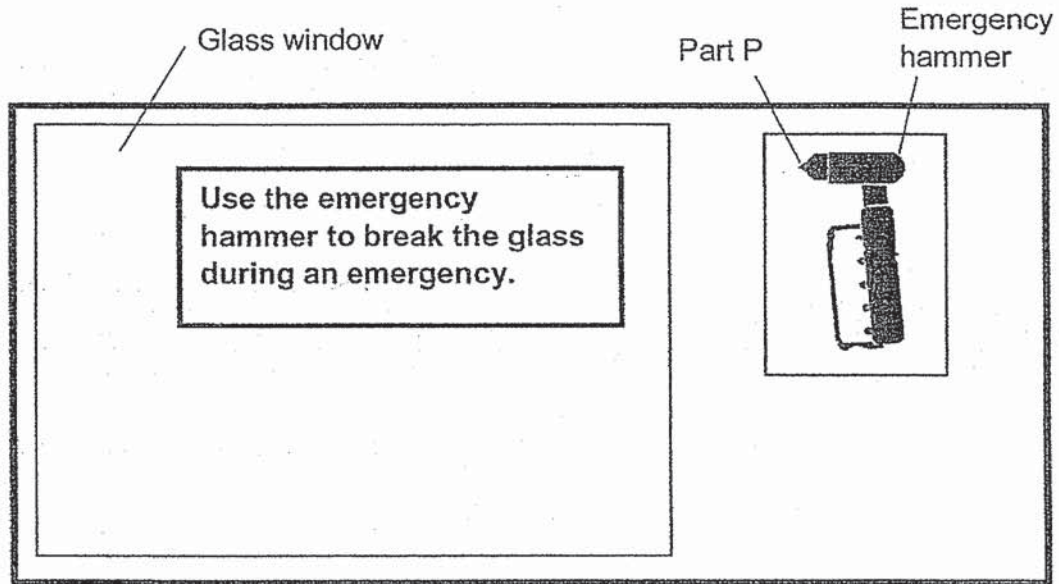
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Question 30 continues on page 22



Judy saw an emergency hammer made of metal in a public bus. It had a message attached on the glass window, next to the emergency hammer as shown below.



An inner section of a public bus

- (c) What material is Part P most likely made of so that it can be used to break the glass? Circle your answer. [1]

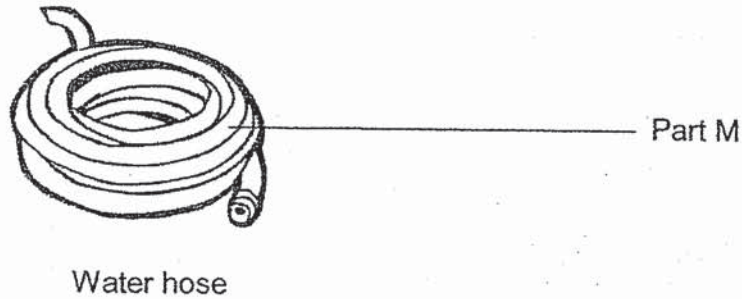
Metal                      Glass                      Ceramic                      Cloth

- (d) What is the property of the material chosen in (c) that makes Part P suitable to break the glass? [1]

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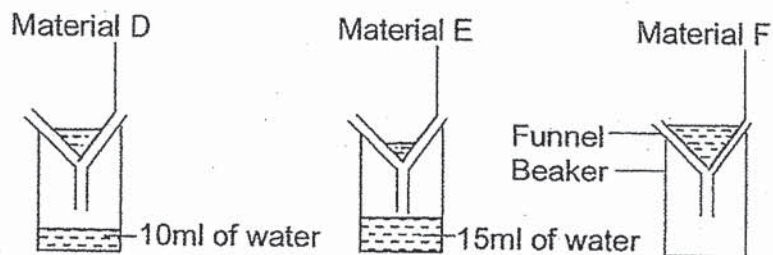
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- 31 The diagram below shows a water hose. The water hose can be rolled up easily after it has been used to water the plants.



- (a) Which material is suitable to make Part M? [1]
- \_\_\_\_\_
- (b) Can Part M be made of wood? Give a reason for your answer. [1]
- \_\_\_\_\_

Sam set up an experiment with 3 identical beakers and funnels. He put same size Materials D, E and F in each funnel. Then, he poured 20 ml of water into each funnel. The diagrams below show the amount of water in each set up after 20 ml of water was poured in.



- (c) Based on the experiment above, which material (D, E or F) is most suitable to make an ice cube tray? [1]
- \_\_\_\_\_
- (d) Give a reason for your answer in (c). [1]
- \_\_\_\_\_

32 (a) Read the statements carefully. Put a tick (✓) in the correct boxes. [2]

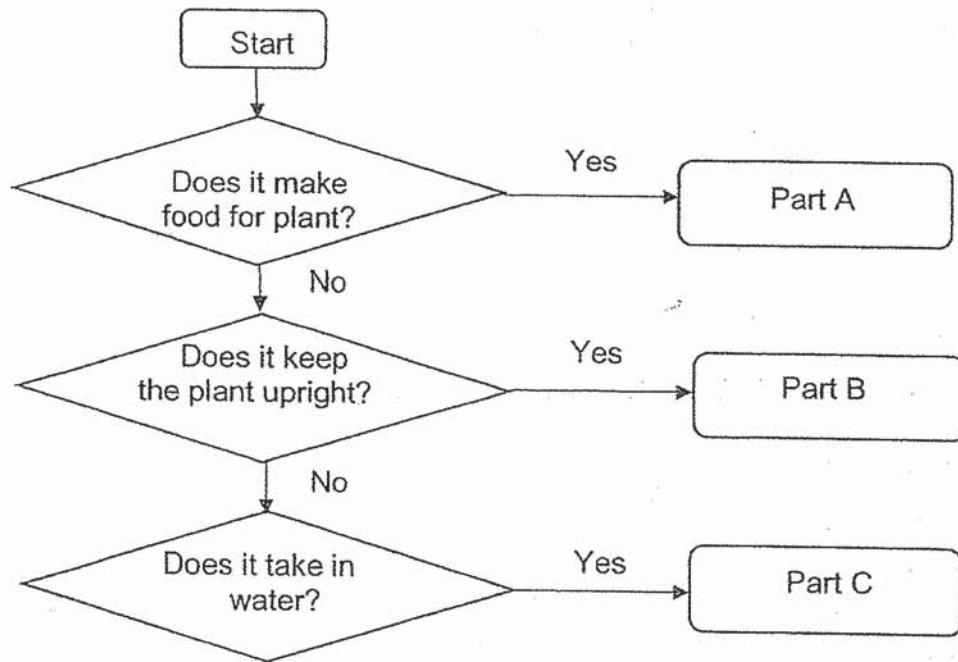
Statements about human digestive system	True	False
i) Saliva in mouth does not digest food at all.		
ii) The gullet is the tube that connects the mouth and the stomach.		
iii) Digestive juice is present in the stomach.		
iv) The digestion ends in the large intestine.		

(b) Fill in the blanks with suitable words. [2]

Digested food is absorbed into the (i) \_\_\_\_\_

and (ii) \_\_\_\_\_ is absorbed into the large intestine.

33 The flow chart below describes the main functions of 3 plant parts.



(a) What could A, B and C represent?

[3]

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

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

C: \_\_\_\_\_

(b) Why is it important for Part B to keep the plant upright?

[1]

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--End of Paper--



# ANSWER KEY

YEAR : 2019  
 LEVEL : PRIMARY 3  
 SCHOOL : PEI HWA PRESBYTERIAN PRIMARY SCHOOL  
 SUBJECT : SCIENCE  
 TERM : SA2

## BOOKLET A

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

## BOOKLET B

Q25a)

Amount of leaves  
 at the start 40.0g  
 in the end 32.0g

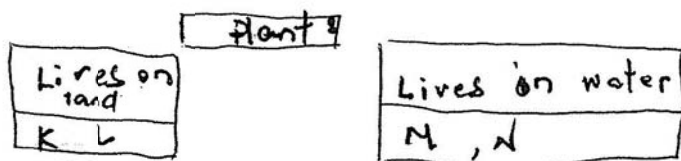


- b) The grasshopper showed that living things grow.  
 c) The final mass of the grasshopper on Day 5 is 12g.

Q26a) Group S: Flowering

Group T: Non-Flowering

b)



Q27a) The black and green patches belong to the fungi group.

b) This shows that living things reproduce.

Q28a) Animal Z belongs to the insect animal group.

b) Y could represent that Animal Z has 3 pairs of legs.

c) Ant

d) Spider cannot be in the same group as Animal Z. Animal G has more than six legs and has less than three body parts.

Q29a) All three animals have a tail/eyes/fins.

bi) The goldfish reproduce by laying eggs but the dolphin reproduce by giving birth to their young alive.

bii) The goldfish breathe through gills but the whale breathe through lungs.

c) The goldfish have scales as their body covering.

Q30a) The maximum number of metal balls that can be placed into Bag X before it was torn is 2.

b) Judy could conclude that Bag Y is stronger than Bag X.

c) Metal

d) The property of the material chosen is (c) is strength so that the hammer will not break when you use it to break the glass.

Q31a) Rubber

b) Part M cannot be made out of wood. Wood is not flexible so it cannot be rolled up after use.

(c) Mat

d) Material is waterproof as the water on it does not flow into the beaker.

Q32ai) False

ii) True

iii) True

iv) False

bi) Walls of the small intestine

ii) The water of the undigested food

Q33a) A = leaves    B = Stem    C = Roots

b) It is important for part B to keep the plant upright so that the leaves can absorb enough sunlight to make sufficient food for the plant to survive.

3  
END