



PEI HWA PRESBYTERIAN PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 2

PRIMARY 3  
SCIENCE  
(BOOKLET A)

28<sup>th</sup> OCT 2022

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 9 printed pages, excluding the cover page.

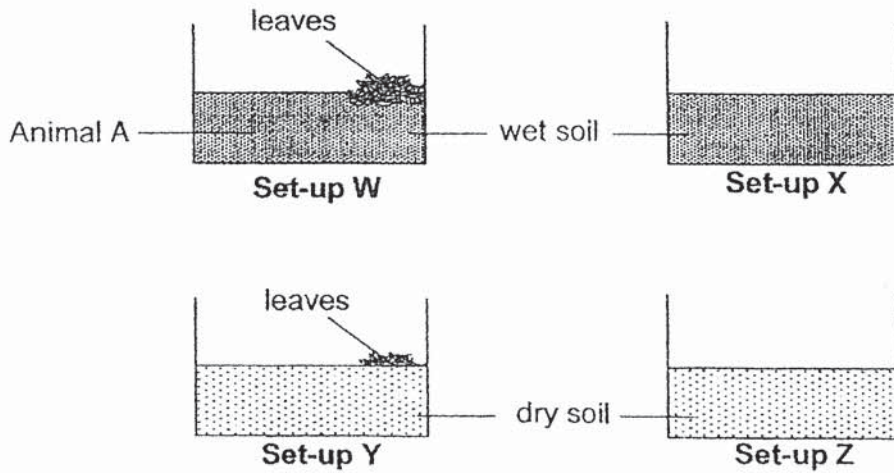


For each question from 1 to 24, four options are given. One of them is the correct answer. Make your choice and shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet provided. (48 marks)

1 Which one of the following examples does **not** show the characteristic of living things?

- (1) A forest fire burning.
- (2) A butterfly laid 100 eggs.
- (3) A plant grew 5 cm taller compared to a week ago.
- (4) A lady jumped out of fright when she saw a cockroach.

2 Elmer designed 4 set-ups, W, X, Y and Z, as shown below. He placed animal A in each of the set-ups.



Which two set-ups should Elmer use to show that water is needed for animal A to survive?

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

3 Lucas quickly ran to find a shelter when it rained. This shows that living things \_\_\_\_\_.

- (1) grow
- (2) reproduce
- (3) need water
- (4) respond to changes

4 Which two living things reproduce by spores?

A



B



C

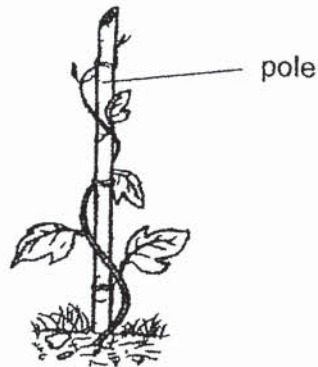


D



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

5 The diagram below shows a plant.



Based on the diagram above only, which of the following statements is true about the plant?

- (1) It is a water plant.
- (2) It has a weak stem.
- (3) It is a flowering plant.
- (4) It cannot make its own food.

6 Which of the following is true about plants?

- (1) All plants bear fruit.
- (2) All plants are found on land.
- (3) The moss is a flowering plant.
- (4) Most plants can make their own food.

7 Which of the following statements shows a similarity between fern and mushroom?

- (1) Both are microorganisms.
- (2) Both can make its own food.
- (3) Both are non-flowering plants.
- (4) Both do not reproduce by seeds.

8 Which statement(s) describe fungi correctly?

A	They are non-flowering plants.
B	They feed on dead and living organisms.
C	Some of them are edible.

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

9 Karen has a condition called Athlete's foot. Athlete's foot is a fungal infection that affects the skin on the feet.

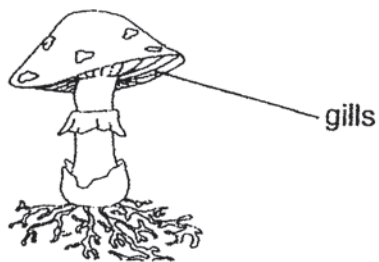


What advice would you give her to prevent more growth of fungi on her feet?

- (1) Keep the feet dry.
- (2) Wet her feet often.
- (3) Wrap feet with warm towel often.
- (4) Scratch her feet to remove the fungi.

- 10 Which of the following is true about mould?
- (1) They reproduce by laying eggs.
  - (2) They need air and water to grow.
  - (3) They disappear after a few more days.
  - (4) They grow faster at places with more light.

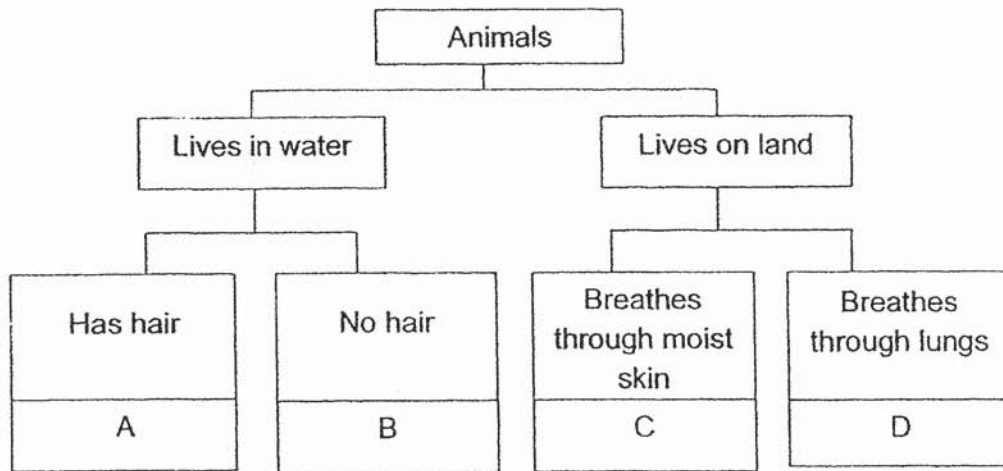
- 11 The diagram below shows a mushroom.



S is found in the gills. What is the function of S?

- (1) It makes food for the mushroom.
  - (2) It provides food for the mushroom.
  - (3) It helps the mushroom grow bigger.
  - (4) It helps the mushroom to reproduce.
- 12 Wei Shan removed the roots from a plant. She then grew the plant in the soil of her garden and watered the plant daily.
- Which could be a possible reason why the plant died after one week?
- (1) The plant is unable to bear fruits.
  - (2) The stem takes in too much water.
  - (3) Food is not made by the roots of the plant.
  - (4) Water is not carried to different parts of the plant.

13 Study the classification diagram below.



Which letter represents a shark?

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

14 Leroy saw Animal Y in a park and recorded his observations of Animal Y:

- It can fly.
- It has feathers.
- It has two legs.

What could Animal Y be?

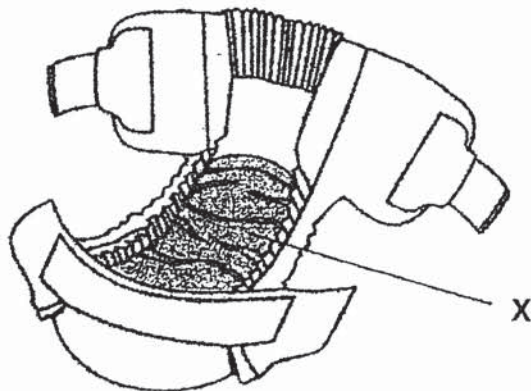
- (1) Bat
- (2) Eagle
- (3) Ostrich
- (4) Mosquito

15 Nathan observed Animal Z had a hard outer covering. What other characteristic could he observe to confirm its animal group?

- (1) It has wings.
- (2) It has scales.
- (3) It has a beak.
- (4) It has six legs.

- 16 The picture below shows a baby diaper. It is worn around the bottom and between the legs of a baby.

Part X (shaded) is where the baby's wet waste materials are contained.



What propertie(s) of material is / are **required** to make part X of the diaper?  
A tick (✓) shows the presence of the property.

	Flexible	Strong	Waterproof
(1)	✓	✓	✓
(2)		✓	✓
(3)		✓	
(4)			✓

- 17 There are 4 pieces of sponges of similar size and thickness but made of different materials, P, Q, R and S.

Jolin soaked each sponge in four separate cups that are filled up with 100 ml of water. She then took out the sponges from the cups.

The diagram below shows the amount of water left in the cups.

80 ml left	20 ml left	100 ml left	50 ml left

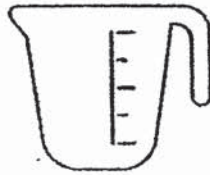
Which one of the materials will be the most suitable to make a raincoat?

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

- 18 The diagram below shows a chair, a measuring cup, and a swimming lifebuoy. Plastic is used to make the objects.



Chair



Measuring Cup



Swimming Lifebuoy

What property must the plastic have for each of these objects to work?

	Chair	Measuring Cup	Swimming Lifebuoy
(1)	strong	allow light to pass through	able to float
(2)	able to float	waterproof	allow light to pass through
(3)	allow light to pass through	strong	flexible
(4)	flexible	able to float	waterproof

- 19



Which two properties of the window allow Sarah to see the water droplets outside the window?

- (1) strong and flexible
- (2) strong and not waterproof
- (3) allow light to pass through and flexible
- (4) allow light to pass through and waterproof

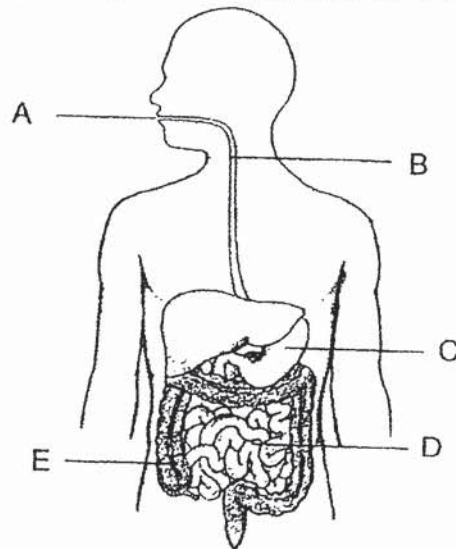
20 The circulatory system \_\_\_\_\_.

- (1) carries useful substances to all parts of the body
- (2) removes unwanted solid waste materials from our body
- (3) takes in air into our body and removes air from our body
- (4) breaks down food we eat into substances our body can use

21 Which one of the following actions involves the digestive and muscular system?

- (1) A girl blowing a balloon.
- (2) A boy chewing a piece of cookie.
- (3) A pitcher plant trapping a housefly.
- (4) A plant reaching out to the sunlight to make food.

22 The human digestive system is shown in the diagram below. The organs that make up the system are marked A to E.



Which organs contain digestive juices?

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

23 The diagram below shows a chilli plant.



How does Part Z get its food?

- (1) It makes its own food.
- (2) It absorbs food from the soil.
- (3) The food is transported from Part Y.
- (4) The food is transported from the red chillies.

24 The photograph below shows the palm trees when blown by strong wind.



3 students explained why the palm trees did not fall.

- Leroy: The leaves on the tree blocked the wind.
- Bernice: The trees had strong and thick stems.
- Muthu: The roots held the trees firmly to the ground.

Which of the student(s) are correct?

- (1) Leroy and Bernice only
- (2) Leroy and Muthu only
- (3) Bernice and Muthu only
- (4) Leroy, Bernice and Muthu



PEI HWA PRESBYTERIAN PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 2

PRIMARY 3  
SCIENCE  
(BOOKLET B)

28<sup>th</sup> OCT 2022

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

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

Parent's Signature

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

**INSTRUCTIONS TO CANDIDATES**

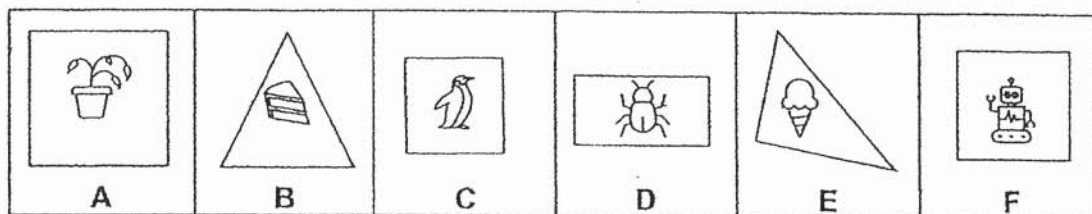
1. Write your Name, Class and Register No. in the spaces provided above.
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4. Answer all questions.
5. Write all your answers in this booklet.

Marks (Booklet A) :	<b>48</b>
Marks (Booklet B) :	<b>32</b>
Total Marks (Booklets A & B) :	<b>80</b>

This booklet consists of 9 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 The diagram below shows six stickers, A, B, C, D, E and F, with different number of sides.



(a) Leanne classified the stickers into 2 groups, P and Q, as shown in the table below:

Group P	Group Q
A	B
C	E
D	
F	

Which sticker is placed in the wrong group? [1]

\_\_\_\_\_

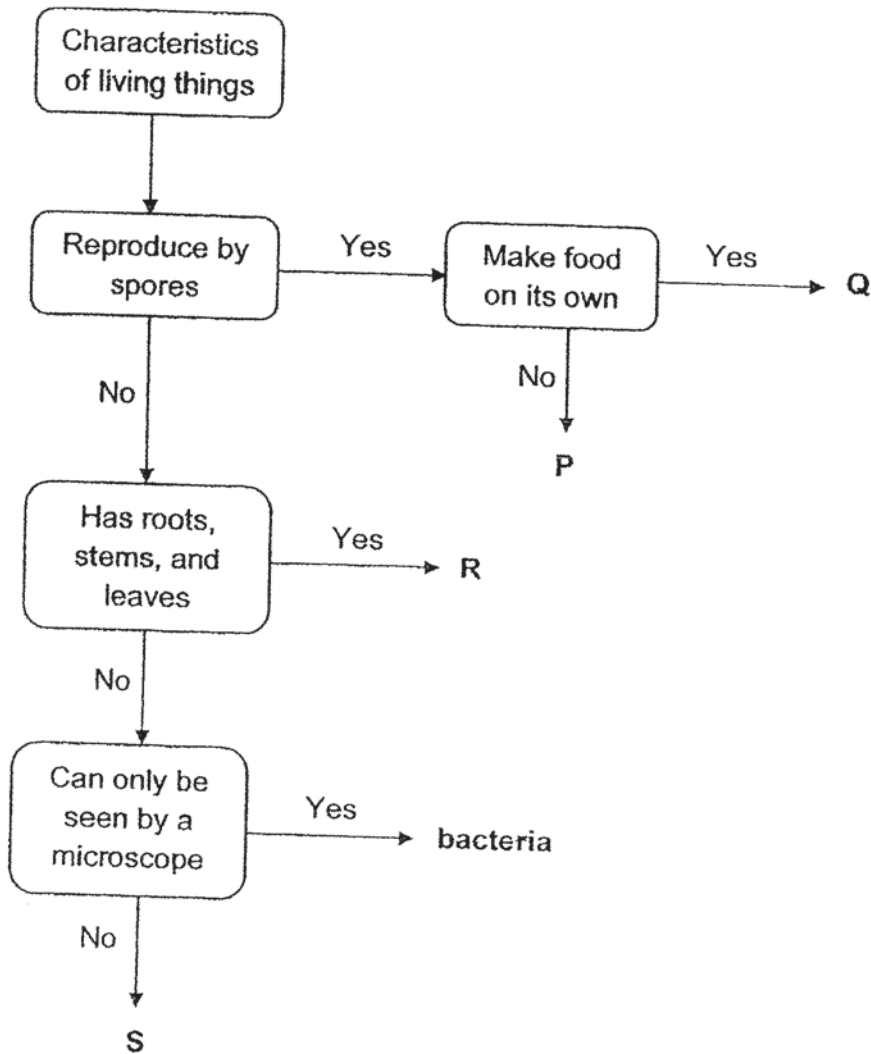
(b) What is **another** way of classifying the 6 stickers? [2]

Write two suitable headings for the groups.

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

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

26 The flowchart below is used to identify the different groups of living things.



(a) Which letter represents a fern? [1]

\_\_\_\_\_

(b) Which group of living things does P represent? [1]

\_\_\_\_\_

(c) What is the difference between bacteria and R? [1]

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

27 Joseph had two identical slices of bread. He toasted one of the slices and then left both slices of bread in two identical sealed glass jars. Toasting removes water from the bread.

The diagram below shows what he observed two weeks later.



(a) Joseph concluded that the black spots are bacteria. Do you agree with him? [1]  
Why?

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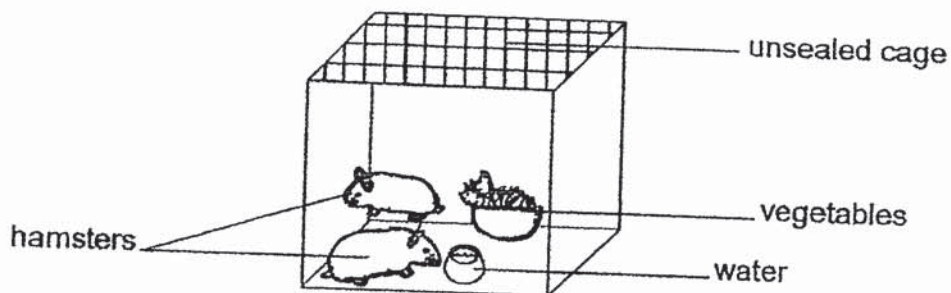
(b) Based on the information above, which jar contains the toasted bread? [2]  
Explain your choice.

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- 28 Avalynn placed her pet hamsters, X and Y, in an unsealed cage with vegetables and water.



She gave vegetables and water every day. She did not buy any new hamsters.

- (a) Avalynn wrote down observations about the pet hamsters over a period of 2 years.

Tick (✓) the characteristic of animals shown by the observations in the table [2]

Observations	Animals grow	Animals reproduce	Animals respond to changes
"There were 5 hamsters now!"			
"Y was shivering on that rainy day!"			
"X's mass was 2 kg more than when I first bought him!"			
"Y bit my finger the first time I pick her up!"			

- (b) Avalynn wrote that the 3 baby hamsters were hatched from eggs.

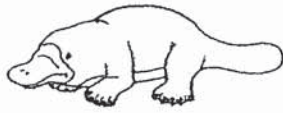
(i) Was she correct? \_\_\_\_\_

[1]

(ii) Give a reason for your answer.

[1]

29 The diagram below shows 3 animals.



platypus



bat



butterfly

- (a) State how the bat and the platypus are similar in their outer covering. [1]

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- (b) Which of the animals above reproduces the same way as a dolphin? [1]

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- (c) What is the difference in physical characteristic of the bat and the butterfly? [1]  
(Do not compare size, shape and colour.)

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- (d) Name one other animal group that has a similar physical characteristic as both the bat and the butterfly. [1]

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- 30 Ayden carried out an experiment using three bags of the same size and thickness made of different materials, J, K and L. He added tennis balls, one at a time, to each bag until the bag broke. The number of tennis balls needed to break each bag was recorded in the table below.

Material of bag	Number of tennis balls needed to break the bag
J	75
K	20
L	43

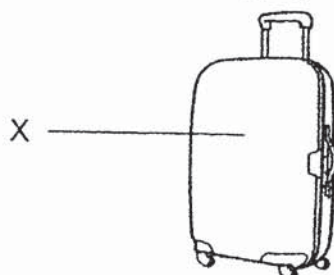
- (a) Which property of materials was Ayden testing? [1]

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- (b) Material K was cardboard. Predict how many tennis balls will be needed to break a bag made of tissue paper. [1]

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- (c) Ayden wants to make a travel luggage.



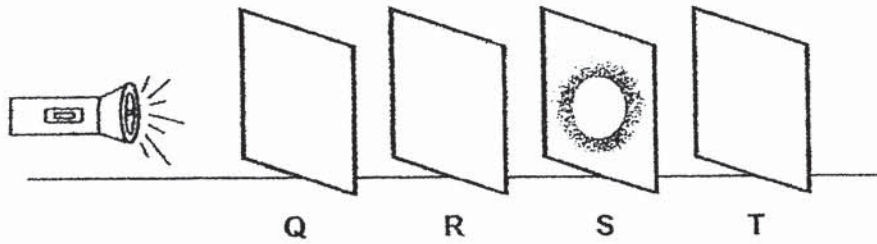
- (i) Which material, J, K or L is most suitable for making part X of the travel luggage? [1]

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- (ii) Give a reason for your choice. [1]

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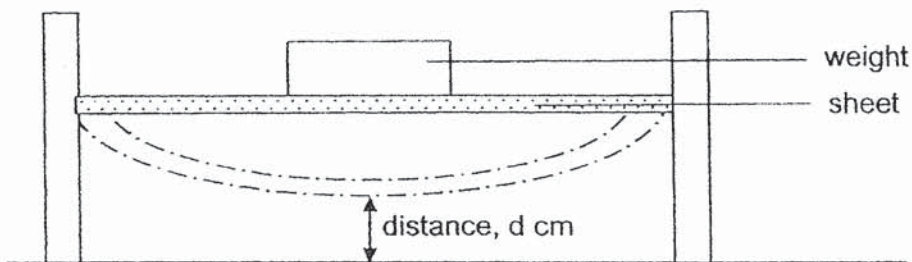
31 Raj placed sheets of the same sizes but made of different materials, Q, R, S and T in a row. He then shone the torchlight facing the sheets, as shown in the diagram below.



(a) Each statement is either true or false. [1]  
For each statement, put a tick (✓) to indicate your answer.

Statement	True	False
Sheet R does not allow light to pass through.		
Sheet S does not allow light to pass through.		

(b) Raj performed another experiment and put a weight in the middle of each sheet and measured distance,  $d$ .



(i) Which property of material was Raj testing? [1]

\_\_\_\_\_

(ii) He recorded his results in the table below. [1]

Sheet	Distance, $d$ (cm)
Q	10
R	25
S	2
T	?

Sheet T bent less than Q. What is a possible distance,  $d$ , for sheet T?

\_\_\_\_\_ cm

- 32 Sam ate 30 g each of three different types of food, A, B and C. All the food he ate can be digested in the human digestive system.

The table below shows the amount of undigested food for each food type when in different parts of the body.

Food Type	Amount of undigested food / g			
	At the beginning	In the mouth	In the gullet	In the stomach
A	30	30	30	30
B	30	20	20	20
C	30	30	30	20

- (a) Based on information in the table, in which part of the digestive system is Food Type A digested? [1]

\_\_\_\_\_

- (b) Which type(s) of food starts to be digested in the stomach? [1]

\_\_\_\_\_

- (c) Why was the amount of undigested food in the mouth and gullet the same? [1]

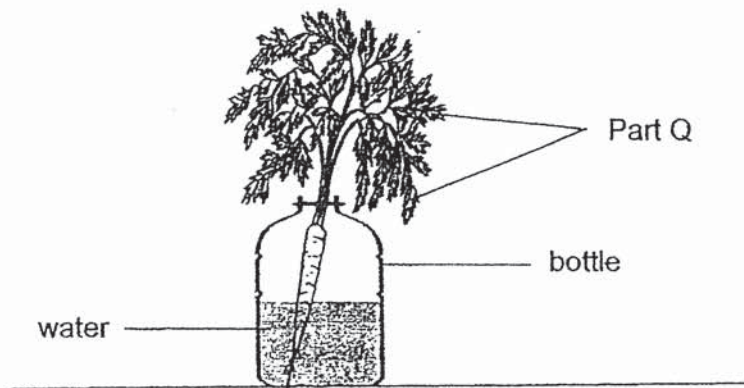
\_\_\_\_\_

\_\_\_\_\_

- (d) If Sam chewed food type B for longer period of time, what would be a possible amount of undigested food left before it enters the stomach? [1]

\_\_\_\_\_ g

33 Gemma set up an experiment using plant P as shown below.



(a) (i) State what happens to the amount of water in the bottle after a few hours. [1]

\_\_\_\_\_

(ii) Give a reason to the observation in (a)(i). [1]

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

(b) What is the function of part Q? [1]

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

(c) Plant P produces flower. [1]

State another characteristic which shows that plant P is a flowering plant.

\_\_\_\_\_

~ End of Paper ~



EXAM PAPER 2022

LEVEL

SCHOOL

SUBJECT

TERM

PRIMARY 3

PEI HWA PRESBYTERIAN PRIMARY SCHOOL

SCIENCE

SEMESTRAL ASSESMENT 2

BOOKLET A

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

BOOKLET B

Q25. a)

D

b)

4 sides, 3 sides

Q26. a)

Q

b)

Fungi

c)

R has roots, stems and leaves, but bacteria does not.

Q27. a)

I do not agree because the black spots are mould.

b)

Jar M. Toasting removes water from the bread.

Q28. a)

animals reproduce, animals respond to changes, animals grow, animals respond to changes

b) (i)

No

(ii)

Hamsters are mammals, who give birth to its young alive.

Q29. a)

Both of them have hair.

b)

Bat

- c) The bat has 2 legs, the butterfly has 6 legs.
- d) Birds

- Q30.
- a) Strength
  - b) 10
  - c) (i) Material J  
(ii) It is the strongest material.

- Q31.
- a) False, True
  - b) i) Flexibility  
ii) 20 cm

- Q32.
- a) Small intestine
  - b) Type C
  - c) There is no digestion taking place in the gullet as it does not have any digestive juices.
  - d) 10 g

- Q33.
- a) i) The amount of water decreases.  
ii) The roots of Plant P absorb water to be transported to part Q.
  - b) It makes food for the plant.
  - c) It bears fruits.