



Pei Hwa Presbyterian Primary School  
Second Semestral Assessment – 2010

Science  
Primary 3

(Time: 1 hour 30 minutes)

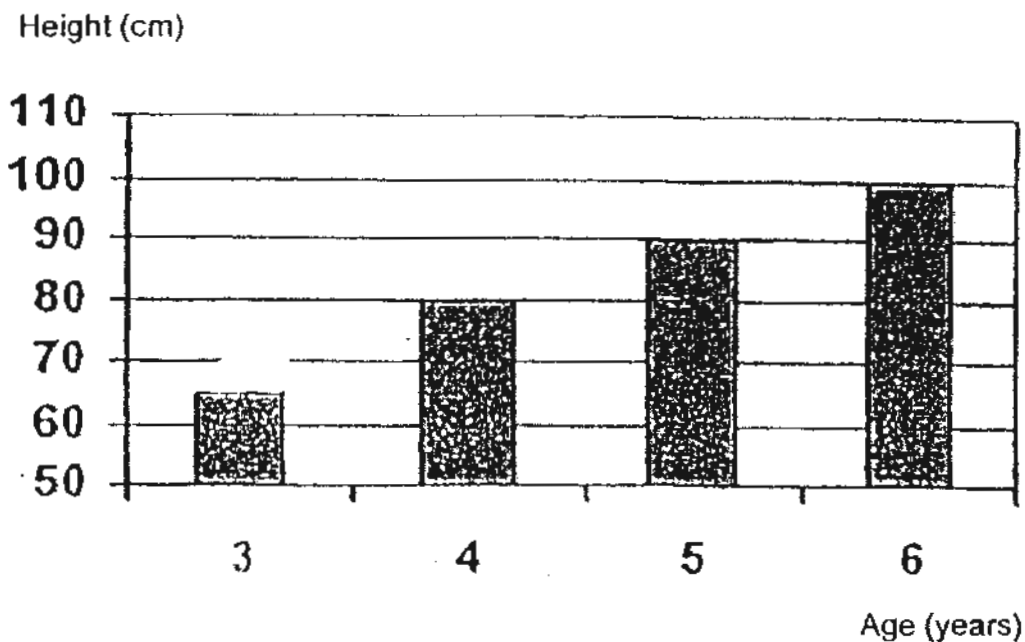
Booklet A	/ 60
Booklet B	/ 40
Total	/ 100

**BOOKLET A (30 X 2 = 60 MARKS)**

For each question from 1 to 30, four options are given. Only one of them is correct. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

- 1 The graph below shows how John's height changed since he was three years old.

John's Height



John has grown \_\_\_\_\_ cm from 3 years old to 6 years old.

- (1) 25
- (2) 30
- (3) 35
- (4) 40

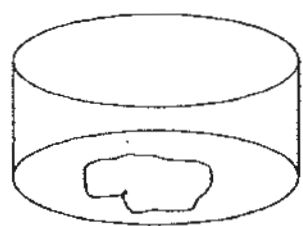
2. Animals will die within a few minutes if they do not have \_\_\_\_\_.

- (1) air
- (2) food
- (3) shelter
- (4) sunlight

3. When a pin pricks our finger, we withdraw our hand immediately because we \_\_\_\_\_.

- (1) can reproduce
- (2) can respond to change
- (3) need air, food and water
- (4) move from one place to another

4. Kenneth grew some bacteria in a container as shown in the diagram below.



Container with some bacteria

He supplied the bacteria with sugar solution. At regular intervals, he counted the number of patches of bacteria under a microscope. The table below shows his results.

Time / hour	0	2	4	6	8	10	12
No. of patches of bacteria	1	1	2	2	4	4	8

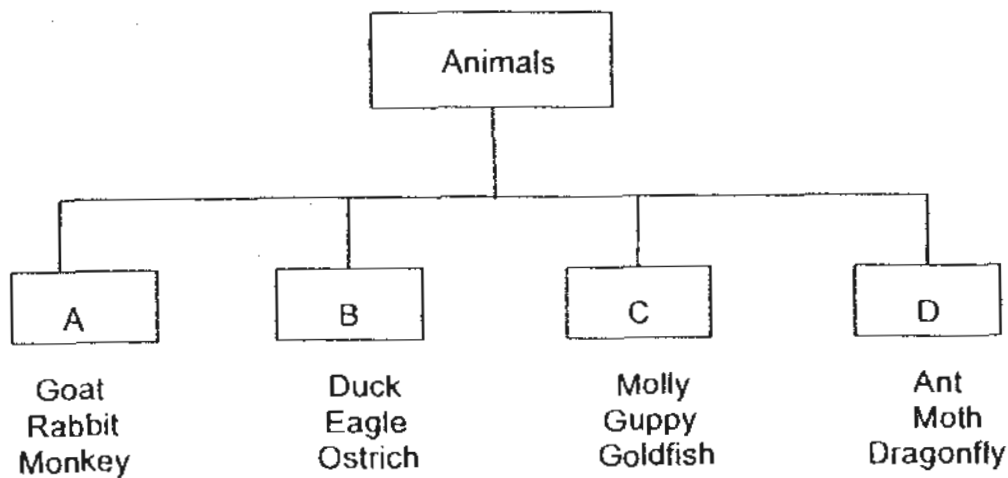
What could Kenneth infer from the results? The bacteria can \_\_\_\_\_.

- (1) cause illness to human beings
- (2) grow very rapidly after 12 hours
- (3) cause food to decompose quickly
- (4) multiply in the presence of sugar solution

5 When a goat gives birth to a kid, we say that it \_\_\_\_\_.

- (1) grows
- (2) reproduces
- (3) moves by itself
- (4) responds to surrounding changes

6 Below shows how some animals are grouped.



In which group would the animal, 'platypus', belong to?

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

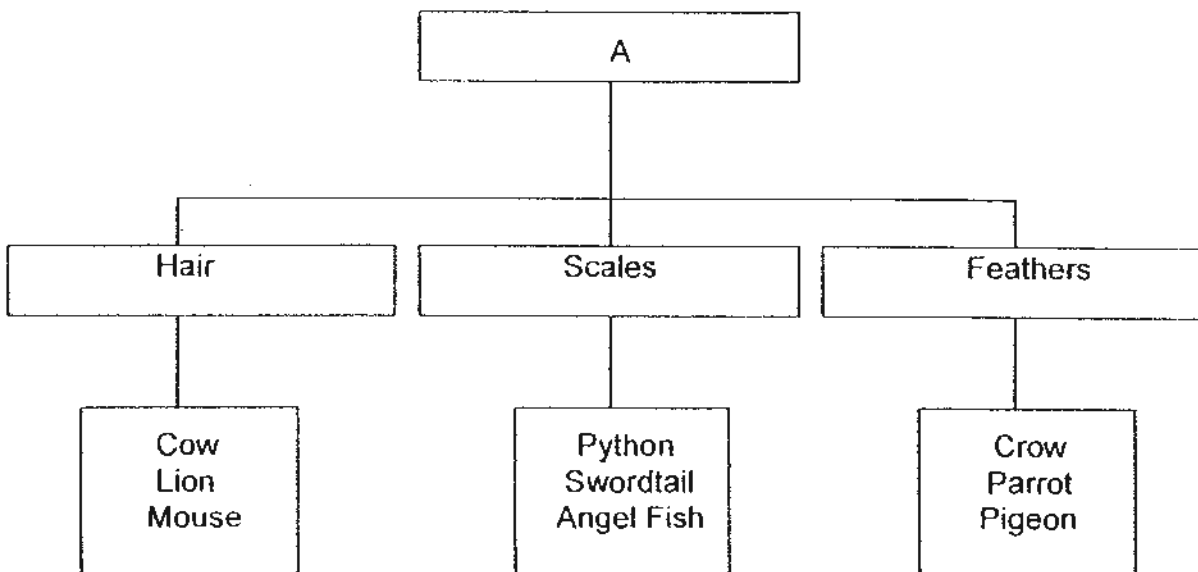
7 Which one of the following animals reproduces differently from the others?

- (1) Rat
- (2) Owl
- (3) Dolphin
- (4) Rhinoceros

8 Which one of the following is not true of a dragonfly?  
It \_\_\_\_\_.

- ~~(X)~~ can fly
- ~~(Z)~~ lay eggs
- ~~(S)~~ has wings
- ~~(A)~~ has feathers

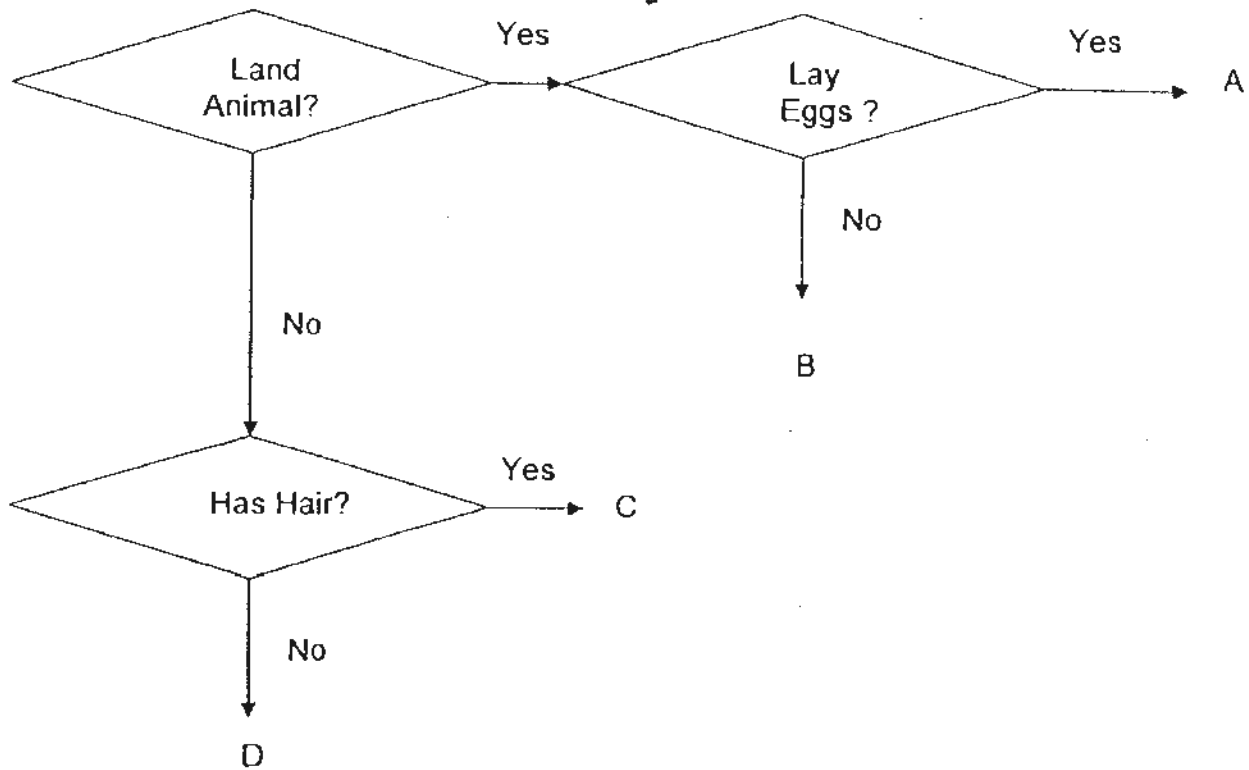
9. Look at the classification chart below.



Which of the following is the most suitable heading for 'A'?

- (1) Movement
- (2) Body covering
- (3) Breathing method
- (4) Reproduction method

10 Study the flowchart on the classification of animals below.



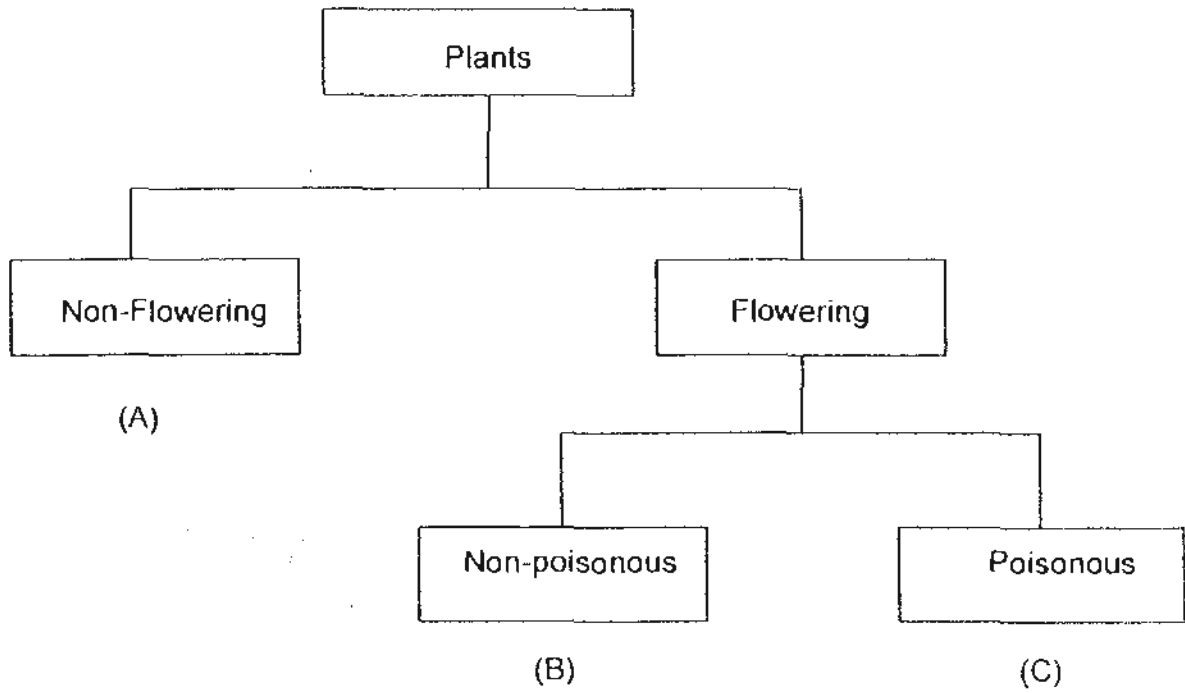
Based on the chart, animal \_\_\_\_\_ is the shark and animal \_\_\_\_\_ is the peacock.

- C; A
- C; B
- D; A
- D; B

11 Gary kept a fish in a water tank. He made the following observations about the fish. Which one of his observations does not tell you that his fish is a living thing ?  
It \_\_\_\_\_.

- (1) swims in water
- (2) has a beautiful tail
- (3) lays eggs periodically
- (4) feeds on bread crumbs

12 Study the classification table below.



Which of the following shows A, B and C correctly?

	A	B	C
(1)	Durian	Sunflower	Hibiscus
(2)	Hydrilla	Rose	<del>Dairy</del> Daisy
(3)	Conifer	Papaya	Orchid
(4)	Tree Fern	Coconut	Allamanda

13 Which one of the following is a flowering plant?

- (1) Pine
- (2) Moss
- (3) Morning Glory
- (4) Water Spangle

14 The table below shows four animals and how they move.

	Animal	Movement
A	Mynah	Flies
B	Turtle	Runs
C	Snake	Glides
D	Donkey	Glides

Which of the above are matched correctly ?

- (A) A and C only
- (B) B and D only
- (C) A and D only
- (D) B and C only

15 Which of the following statement(s) about micro-organism is(are) true?

- A Some can be very tiny.
- B Some can be used to make food.
- C Some can be found in our intestine.

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

16 Which of the following belongs to the fungi group?

- A Yeast
- B Puffball
- C Frangipani
- D Bracket Fungus

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

- 17 A teacher asked 4 pupils to give an example to show how fungi are useful. The following statements are their answers.

Daniel        Some can be eaten.  
Leo            Some have medicinal value.  
Elizabeth     All of them can glow at night.  
Raj            All of them can photosynthesize in the day.

Who made the true statements?

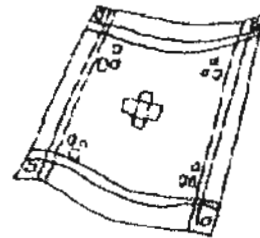
- (1) Raj only  
(2) Daniel and Leo only  
(3) Daniel and Elizabeth only  
(4) Leo and Raj only
- 18 The items below are made of cloth.



Skirt



Shirt

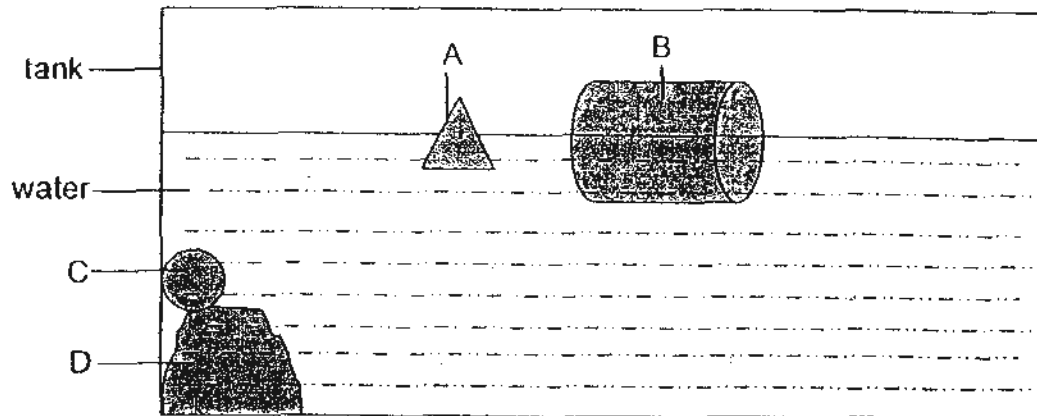


handkerchief

Why is cloth a suitable material for making the above mentioned items?  
Cloth \_\_\_\_\_.

- A is soft  
B is heavy  
C is flexible
- (1) A only  
(2) A and C only  
(3) B and C only  
(4) A, B and C

- 19 Jeremy placed some objects into a tank of water to test whether they would float or sink as shown in the diagram below.

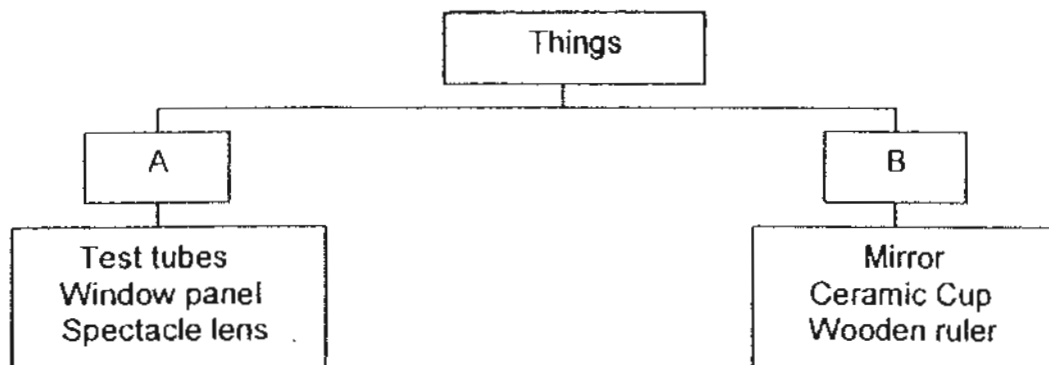


From your observation, which of the objects float?

- (1) A and B only  
 (2) A and C only  
 (3) A, B and C only  
 (4) A, B, C and D only
- 20 A pupil wrote down some descriptions about 4 materials. Which material is matched wrongly to the description?

	Description	Material
<del>(*)</del>	It is soft and it comes from plants.	wool
<del>(2)</del>	It is usually clear, hard and breakable.	glass
<del>(3)</del>	It comes from tree. It does not allow light to pass through.	wood
<del>(4)</del>	It is a natural material and it comes from the skin of animals.	leather

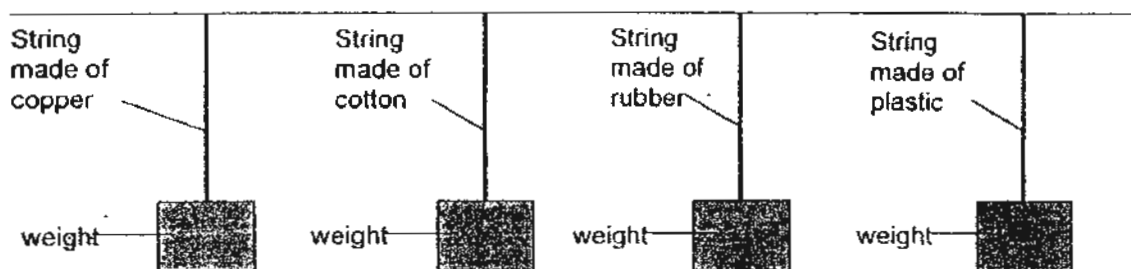
21 Look at the chart below.



Which one of the following would be suitable headings for "A" and "B"?

	A	B
(1) <input checked="" type="checkbox"/>	Break easily	Do not break easily
(2) <input checked="" type="checkbox"/>	Made of glass	Not made of glass
(3) <input checked="" type="checkbox"/>	Hard materials	Soft materials
(4) <input type="checkbox"/>	Allow light to pass through	Do not allow light to pass through

22 Jane carried out an experiment to find out the strength of four strings made of copper, cotton, rubber and plastic as shown below. The strings were of the same length and thickness. She hung weights on them till they broke.



She recorded the data in a table as shown below:

Materials	Maximum weight hung before the string broke (kg)
Copper	350
Cotton	150
Rubber	250
Plastic	200

Based on the data in the table above, which one of the materials is the weakest?

- (1) Cotton
- (2) Plastic
- (3) Rubber
- (4) Copper

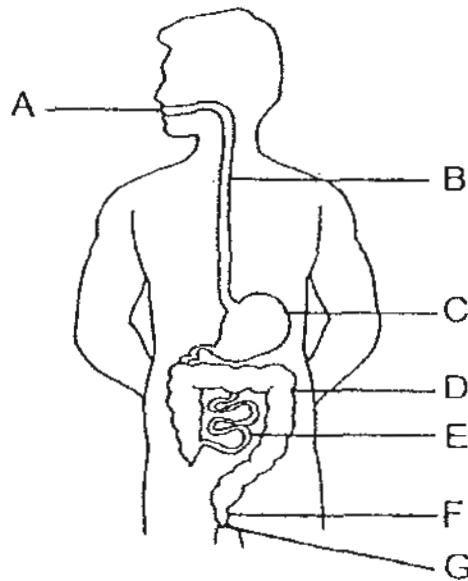
23 Which one of the following is an organ found in the human digestive system?

- ~~(X)~~ Heart
- (2) Gullet
- ~~(8)~~ Windpipe
- ~~(4)~~ Blood Vessels

24 Which one of the following in the human body has the same function as the tubes in a stem that carry food from the leaves to the different parts of the plant?

- ~~(1)~~ Gullet
- ~~(2)~~ Windpipe
- ~~(8)~~ Blood vessels
- (4) Small intestine

Study the diagram below and answer Questions 25 and 26.



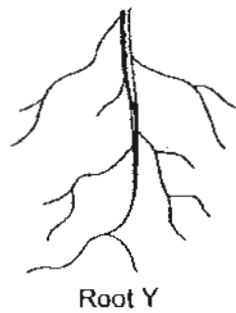
25 What is the function of the part labeled D? It \_\_\_\_\_.

- (1) absorbs digested food
- (2) digests the food partially
- (3) produces some digestive juices
- (4) absorbs water from undigested food

26 In which part of the human system does digested food enter the bloodstream?

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

27 Study the following two types of roots.



In what way(s) does root Y help the plant more than root X? They can \_\_\_\_\_

- A trap more sunlight
- B hold the plant more firmly in the soil
- C absorb water from a greater area of soil
- D transport more food to the other parts of the plant

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

28 Which of the following plants store food in their roots?

- A Carrot
- B Turnip
- C Tomato
- D Beetroot

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

29 All of the following objects are made from things that were once alive except for the

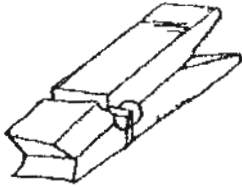
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(1)



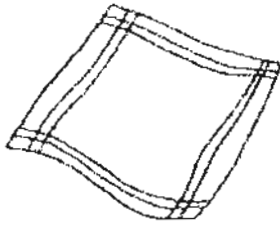
Woollen Sock

(2)



Wooden Peg

(3)



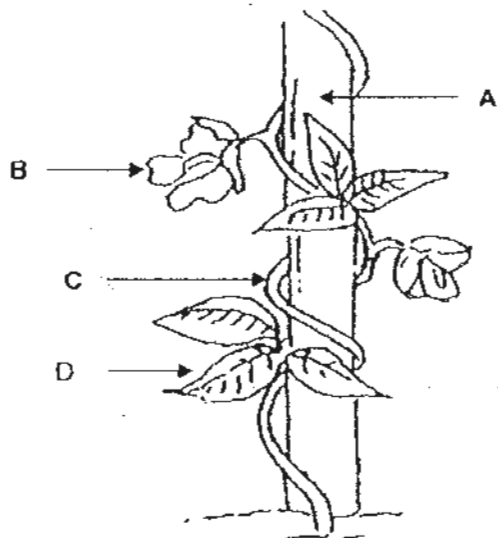
Cotton Cloth

(4)



Plastic Ruler

30 The diagram below shows a plant growing in the garden.



Which part, A, B, C or D is the stem of this plant?

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



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Primary 3

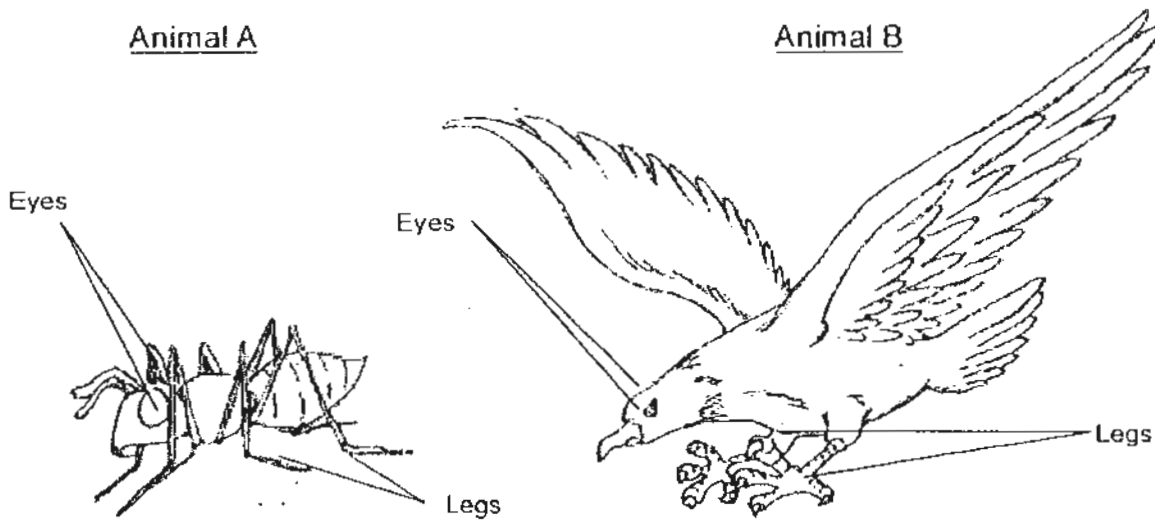
(Time: 1 hour 30 minutes)

Booklet A	60
Booklet B	40
Total	100

**Booklet B (40 marks)**

Write your answers to questions 31 to 44 in the spaces provided.

31 The picture below shows two animals.



- a) Based on your observation of the animals in the above pictures, state two similarities between them. [2]

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- b) State one difference between them in terms of their movement. [1]

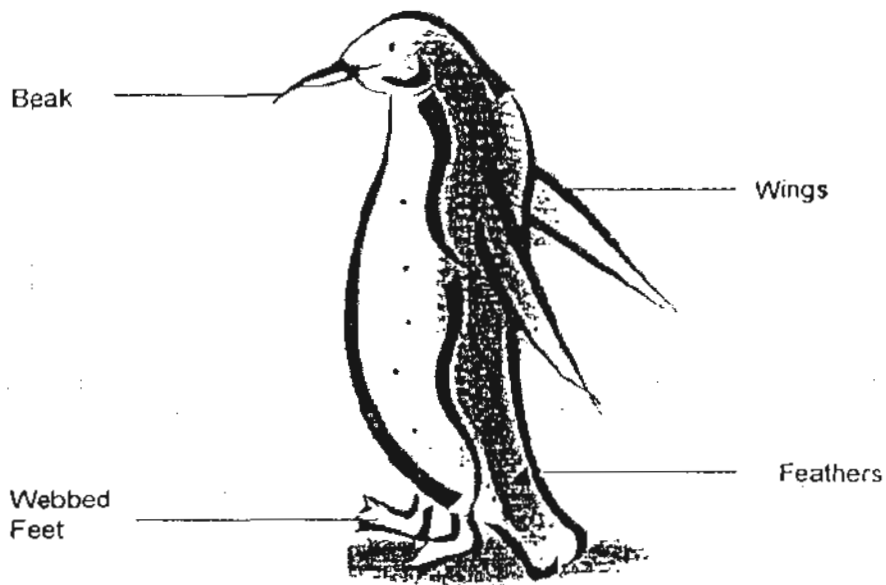
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- c) Explain why Animal B is not an insect. [1]

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32 The diagram below shows a penguin with its parts labeled.



a) State the function of each part of the penguin. [2]

i)	Webbed Feet	
ii)	Beak	

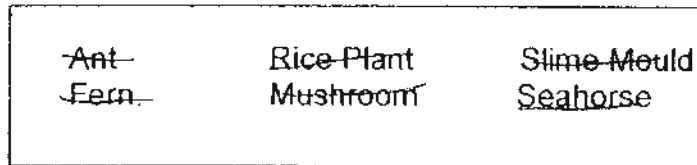
b) Is a penguin a bird? Explain your answer. [2]

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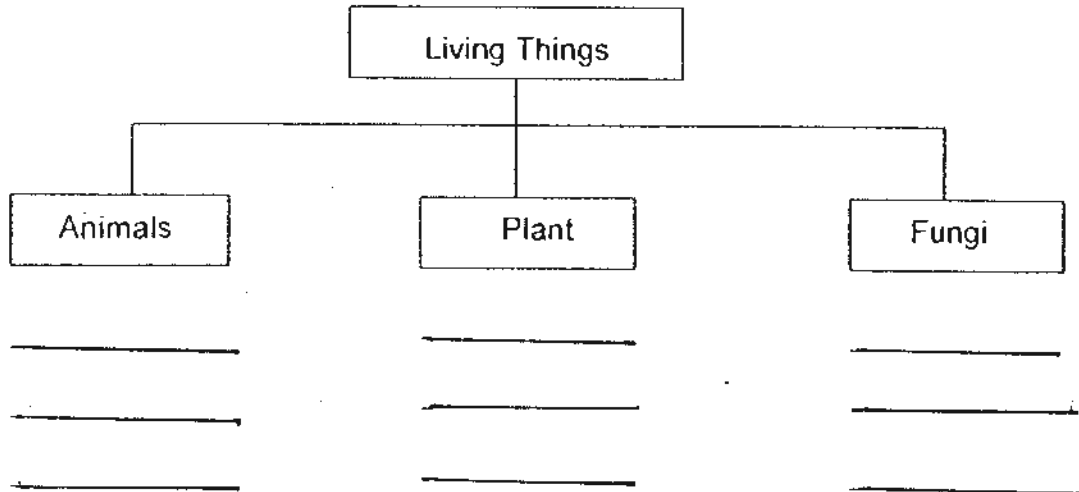
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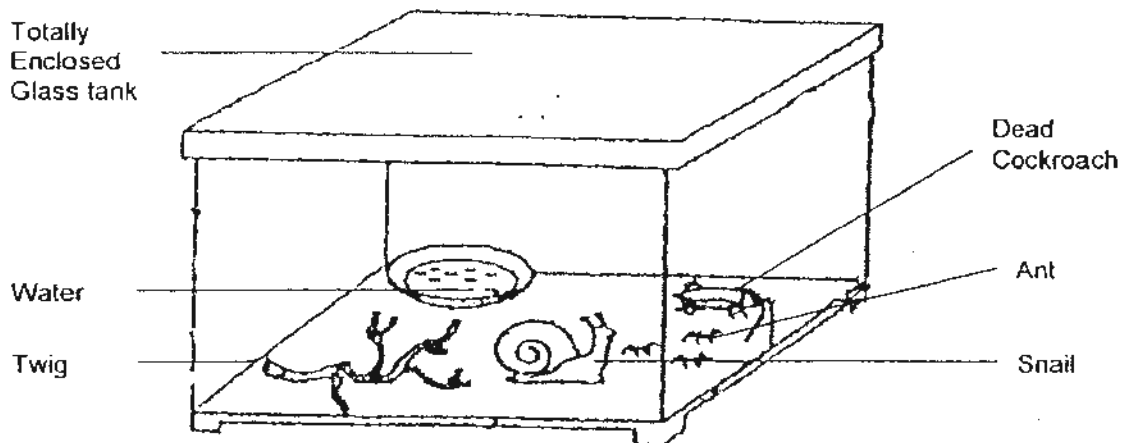
33 The box below shows some living things.



Complete the classification chart below by putting the above living things in the correct group. [3]



34. The following picture shows some living and non-living things in a glass tank.



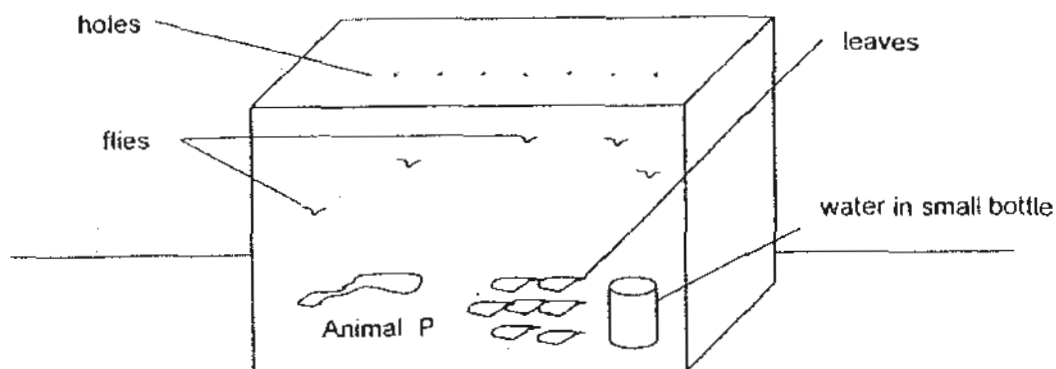
a) How many living things can be found in the tank? [1]

\_\_\_\_\_

b) Name the non-living things in the tank that were once alive? [2]

\_\_\_\_\_

35 Henry did an experiment with Animal P as shown in the diagram below.



He put Animal P in a transparent container and placed some houseflies, water and some leaves in the container. He made some holes on the container so that air could enter and leave the container throughout the experiment. The holes were, however, too small for the houseflies to escape. The amount of leaves and number of houseflies left for the next few days were recorded as shown in the table below.

Day	Amount of leaves	Number of Houseflies
Tuesday	65 g	5
Wednesday	55g	5
Thursday	36 g	5
Friday	24g	5

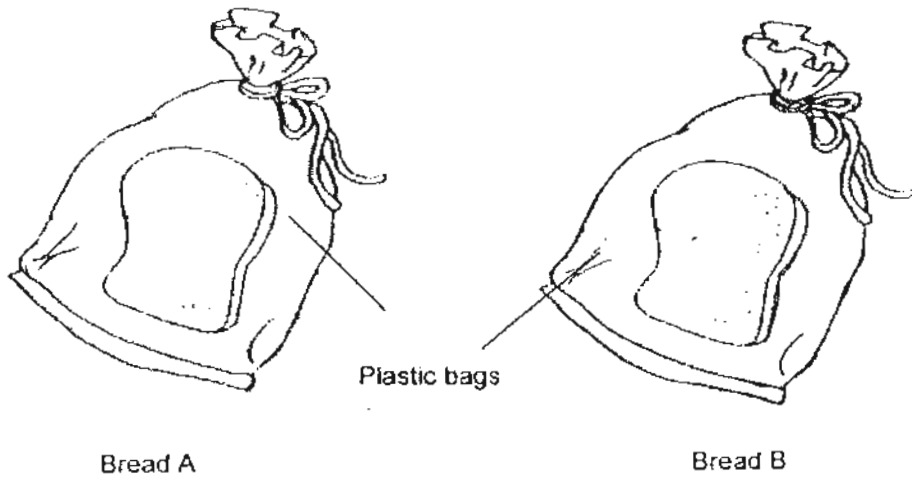
a) What did Animal P feed on ? [1]

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b) What could Animal P most likely to be ? [1]

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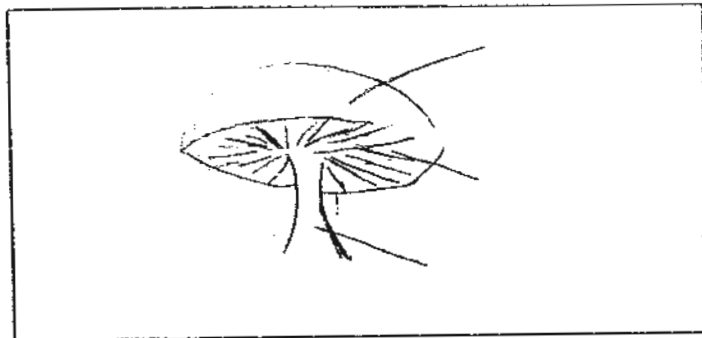
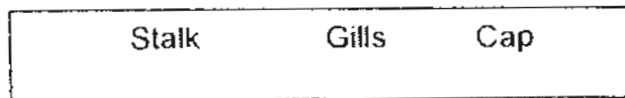
- 36 Vivien conducted an experiment with two pieces of bread. She added a few drops of water to Bread A while she kept Bread B very dry. She then put the two pieces of bread in separate transparent plastic bags as shown below.



After a few days, Vivien found that Bread A turned mouldy while Bread B did not.

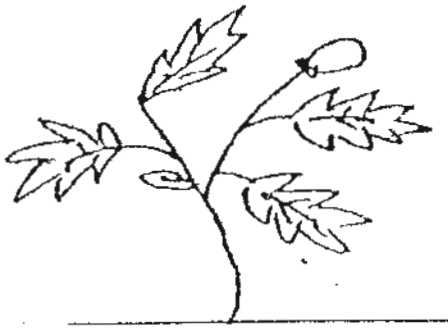
Explain why Bread B did not turn mouldy. [2]

- 37 a) Draw a mushroom in the box and label the following parts on your diagram. [2]

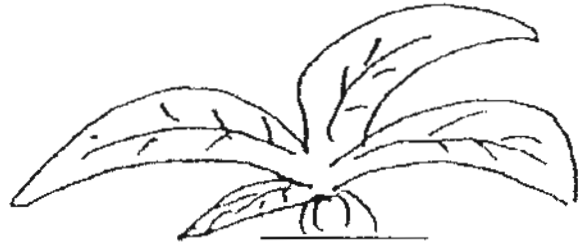


- b) Where can you find the spores of the mushrooms? [1]

38 The pictures below show a tomato plant and a Bird's Nest Fern.



Tomato Plant



Bird Nest's Fern

a) How do the above plants obtain their food? [1]

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b) How do the above plants reproduce? [1]

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39 Study the table below.

Group	A	B	C
Objects	Needle	Sweater	Tissue
	Pin	Blanket	Storybook

a) In which group would you place a coin? [1]

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

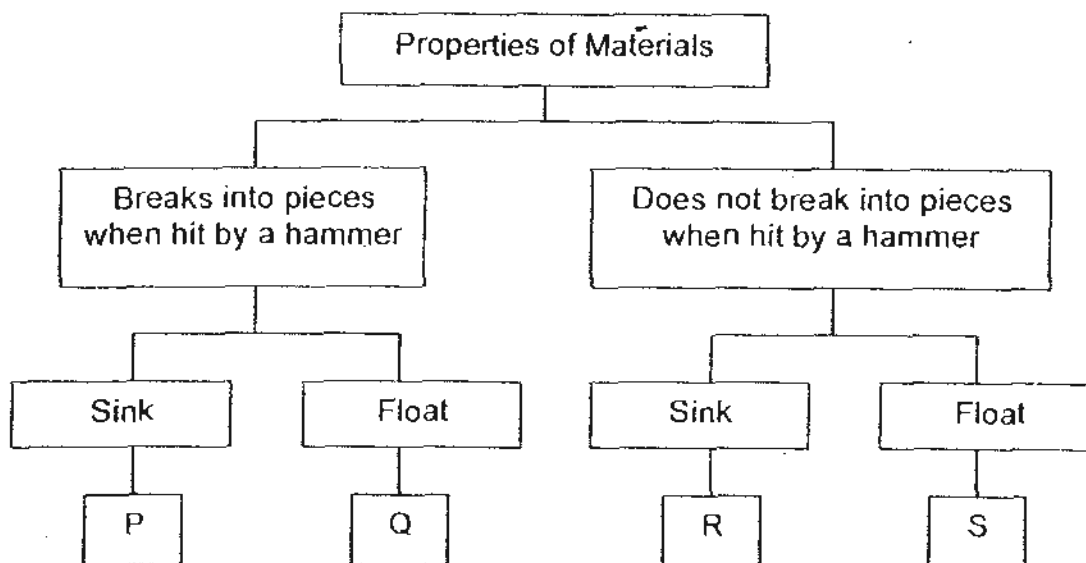
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c) Raincoats are made of plastic. Give a reason why this material is suitable for making rain coat. [1]

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40 Study the classification chart below.



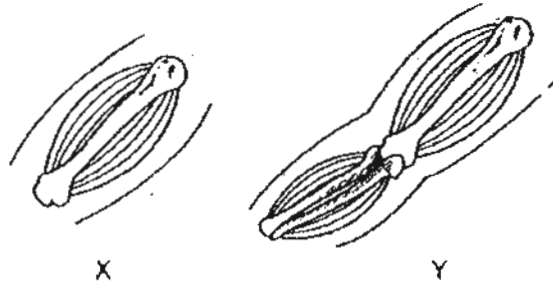
a) Fill in the blanks with P, Q, R or S. [1]

- i) \_\_\_\_\_ can be a metal ruler.
- ii) \_\_\_\_\_ can be a styrofoam cup.

b) If an engineer had to build a ship, which material should the engineer choose (P, Q, R or S)? Explain your answer. [1]

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41 a) Look at the diagram below.


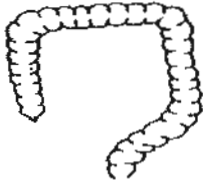
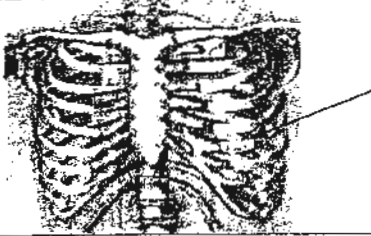
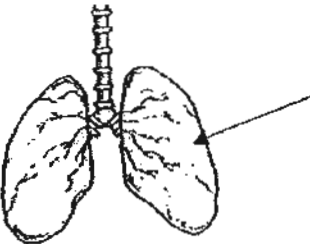


Y can bend but X cannot bend. What is the reason?

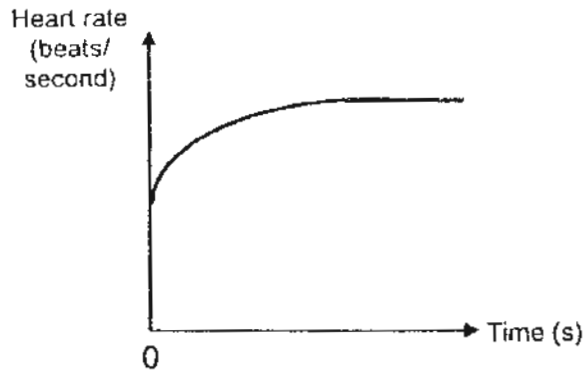
[1]

b) Label the following parts that are found in our body system.

[2]

	Parts	Name
i)		
ii)		
iii)		
iv)		

- 42 Uncle Tommy went for a 45 minutes jog around the park. The following line graph shows the changes in his heart rate during the 45-minute jog.



- a) Why did his heart rate increase while he was jogging?

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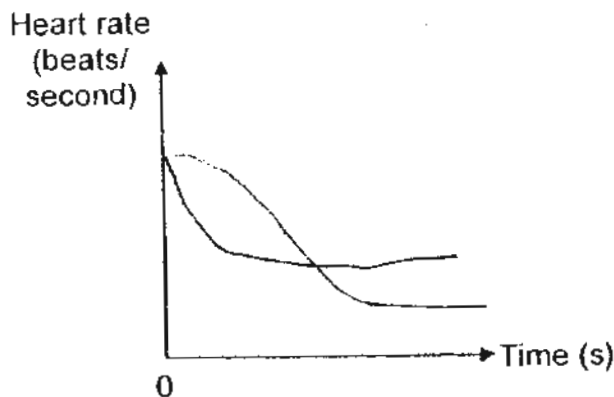
- b) Besides heart rate, what else, in relation to the respiratory system would also increase when Uncle Tommy was exercising? [1]

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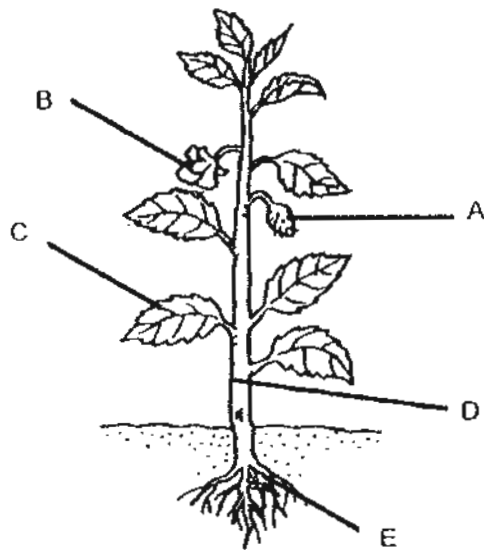
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- c) When Uncle Tommy had completed his 45 minutes of jogging around the park, he sat down to rest. He also measured his heart rate every 5 minutes for the next 20 minutes. Then, he plotted a line graph to show the changes in his heart rate.

Draw a line graph below to show the changes in his heart rate after the 45-minute jog. [1]



43 The diagram below shows a balsam plant with parts labeled A to E.



a) Complete the table by writing the letters A, B, C, D or E to identify the correct parts of the plant. [1]

	Function	Part of plant
(i)	It allows the plant to stand upright.	
(ii)	It contains seeds, which can grow into young plants.	

b) What would happen to the plant if the following parts are missing? [2]

i) Part B

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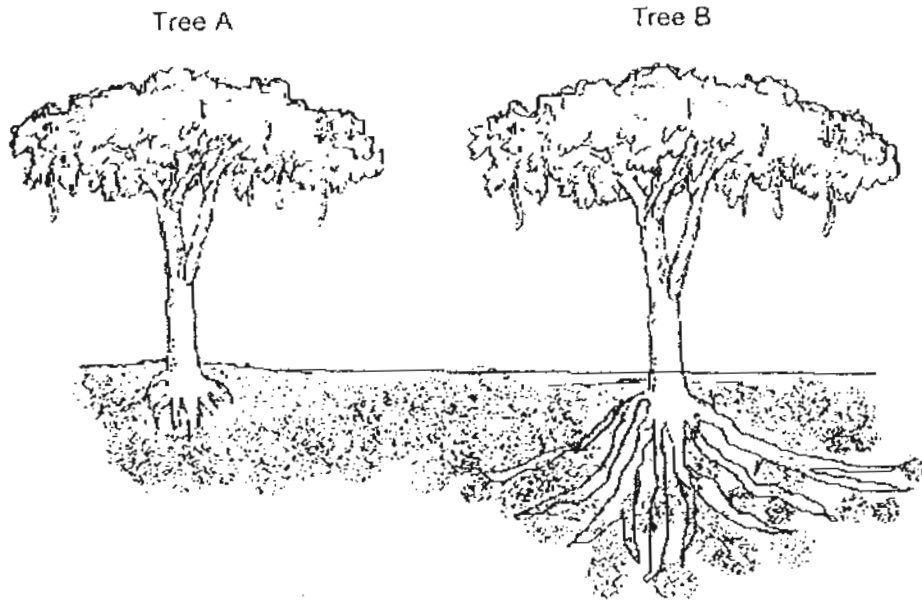
ii) Part C

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44 Two similar types of trees are found growing near the road.



a) Which tree (A or B) should be cut down to ensure the safety of road users, especially on rainy or windy days ? [1]

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b) Explain your answer in (a). [2]

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----- End of Paper -----

# ANSWER SHEET

**EXAM PAPER 2010**

**SCHOOL : PEI HWA PRIMARY  
SUBJECT : PRIMARY 3 SCIENCE**

**TERM : SA2**

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

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

31)a)They both have legs and eyes.

b)Animal A crawls but animal B flies.

c)Animal B does not have a pair of antennae, and does not have 3 pairs of legs.

32)a)i)Helps the penguin swim well.

ii)Helps the penguin catch its food.

b)Yes it si. It has 2 wings feathers and a beak.

33)Animals : Ant, Seahorse

Plant: Rice Plant, Fern

Fungi: Mushroom, Slime Mould

34)a)4 living things can be found.

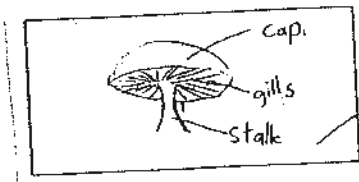
b)The non-living things that were once alive are the twig and the dead cockroach.

35)a)It feeds on leaves.

b)It is most likely to be a caterpillar.

36)Mould likes to give in moist conditions but bread B was dry.

37)a)



b)At the gills.

38)a)They make their own food in the presence of sunlight, carbon dioxide and water.

b)The tomato plant reproduces by seeds, while the bird nest fern reproduces by spores.

39)a)In group A.

b)The objects in the table are grouped according to their materials, and the objects in group A are made of metal and the coin is made metal.

c)Plastic is light, flexible and waterproof.

40)a)i)R ii)Q

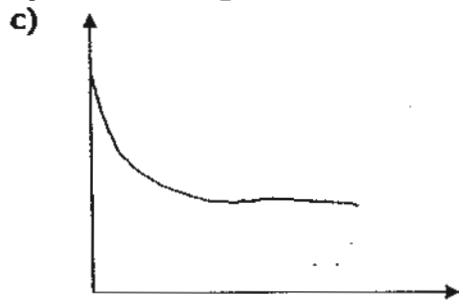
b)Material S. A ship needs to float, and must not break easily.

41)a)Y is made of 2 connected bones and they form a movable joint, but X does not have a movable joint.

b)i)skull ii)large intestine iii)ribcage iv)lungs

42)a)His heart needed to pump more containing oxygen and to all parts of the body so that he has enough energy to jog.

b)His breathing rate would also increase.



43)a)i)D ii)A

b)i)The plant would not be able to bear fruit to reproduce.

ii)The plant would not be able to trap sunlight to make food and will die.

44)a)Tree A should be cut down.

b)The roots of tree A are too short and spread over a small area. It could not hold the tree firmly to the ground.