



NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 – 2014
PRIMARY 3

SCIENCE

BOOKLET A

24 Multiple Choice Questions (48 marks)

Total Time for Booklets A and B : 1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided.

Marks Obtained

| | | |
|-----------|--|------|
| Booklet A | | / 48 |
| Booklet B | | / 32 |
| Total | | / 80 |

Name: _____ () Class: P 3 _____

Date : 29 October 2014

Parent's signature: _____

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.

1. Roy saw the following things at a park.



Dog



Ant



Lamp post



Tree

Roy classified these things using the characteristics of living and non-living things. Which of the above does not belong to the same group as the others?

- (1) Ant
- (2) Dog
- (3) Tree
- (4) Lamp post

2. The four plants shown in the diagrams below were placed in the same group.



Plant A



Plant B



Plant C

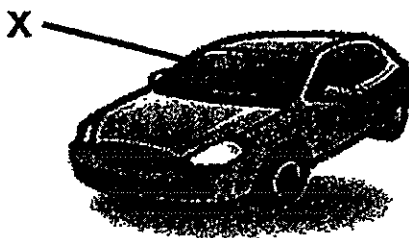


Plant D

The plants belong to the same group because _____.

- (1) they live in water
- (2) they have weak stems
- (3) they are flowering plants
- (4) they reproduce by spores

3. The diagram below shows a car.



Which one of the following materials is suitable for making part X?

- (1) Metal
- (2) Glass
- (3) Rubber
- (4) Ceramic

4. Cotton is a suitable material for making clothing because it _____.

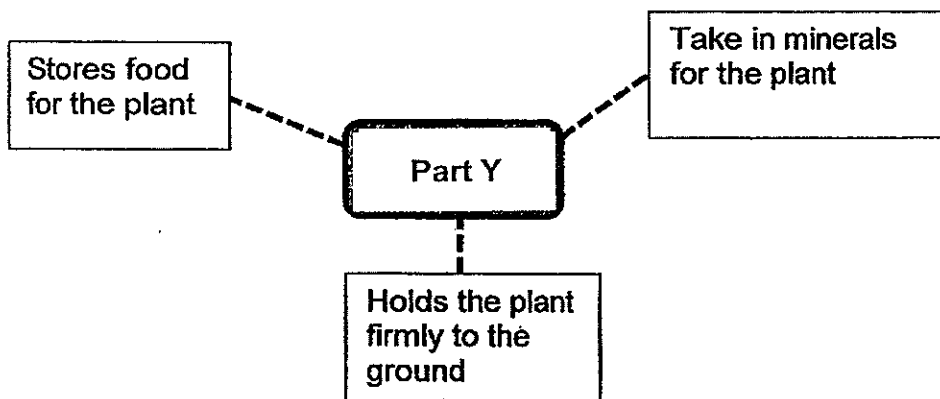
- (1) is weak
- (2) is flexible
- (3) sinks in water
- (4) comes from plants

5. Which of the following is/are **not** the function(s) of the stem of a plant?

- A Holds the plant firmly to the ground.
- B Supports the leaves and helps them to reach for sunlight.
- C Transports food from the leaves to other parts of the plant.

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

6. Study the concept map of one part of the plant (Part Y) below.



Which part of the plant is Part Y most likely to be?

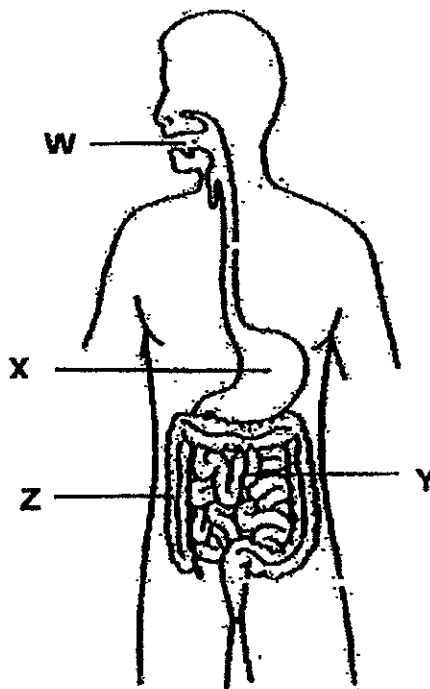
- (1) Leaf
- (2) Root
- (3) Stem
- (4) Flower

7. Which of the following organ(s) is/are part of the skeletal system?

- A Skull
- B Muscles
- C Rib cage
- D Blood vessels

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

8. The diagram below shows a system found in the human body with its parts labelled W, X, Y and Z.



Digestion starts at Part _____ and ends at Part _____.

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

9. How do our teeth help us in the digestion of the food we eat?

- A It cuts and slices food into smaller pieces.
- B It helps to break down some of the food into simple substances.
- C It makes food moist and soft so that the food can be swallowed easily.

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

10. Linda moves Magnet A slowly towards a piece of aluminium foil as shown in the diagram below.



What will Linda observe when Magnet A is moved closer to the aluminium foil?

- (1) The aluminium foil will turn around.
 - (2) The aluminium foil will move towards Magnet A.
 - (3) The aluminium foil will stay at the same position.
 - (4) The aluminium foil will move away from Magnet A.
11. Which of the following objects can be attracted by a magnet?
- (1) Iron nail
 - (2) Copper coin
 - (3) Cotton T-shirt
 - (4) Silver spoon

12. Which of the following objects contains a magnet?

(1) Pencil



(2) Battery



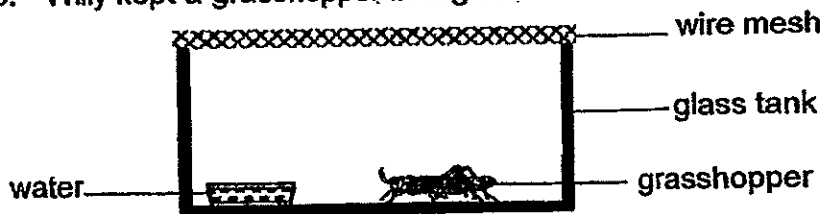
(3) Whiteboard



(4) Doorstop



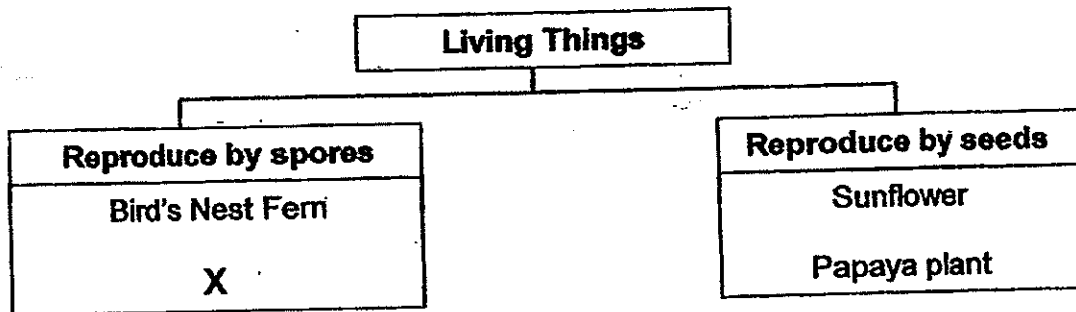
13. Willy kept a grasshopper in a glass tank as shown below.



A few days later, Willy found that the grasshopper had died. Which of the following is the most likely reason for the grasshopper's death?

- (1) It did not have enough air.
- (2) It did not have enough light.
- (3) It did not have enough food.
- (4) It did not have enough space to fly.

14. Study the classification chart below carefully.



What is "X"?

- (1) Ixora
- (2) Grass
- (3) Bacteria
- (4) Mushroom

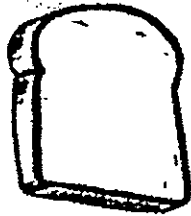
15. Anna observed an animal at the zoo and made the following notes.

It has four legs.
It reproduces by laying eggs.
It has hair as an outer covering.

The animal that Anna observed is most likely a/an _____.

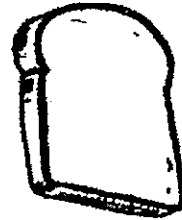
- (1) fish
- (2) bird
- (3) insect
- (4) mammal

16. Dan wanted to find out what is needed for mould to grow. He carried out an experiment with two slices of bread (X and Y) as shown below.



Bread X

Toasted in the oven for 10 min.

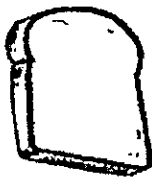


Bread Y

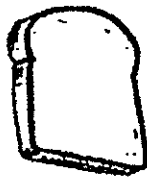
Sprayed with 10ml of water.

Dan put both slices of bread (X and Y) into a cardboard box and left the box at the back of the classroom for one week. Which of the following is Dan most likely to observe after one week?

(1)

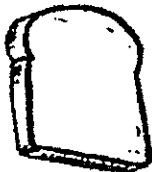


Bread X



Bread Y

(2)



Bread X



Bread Y

(3)



Bread X



Bread Y

(4)



Bread X



Bread Y

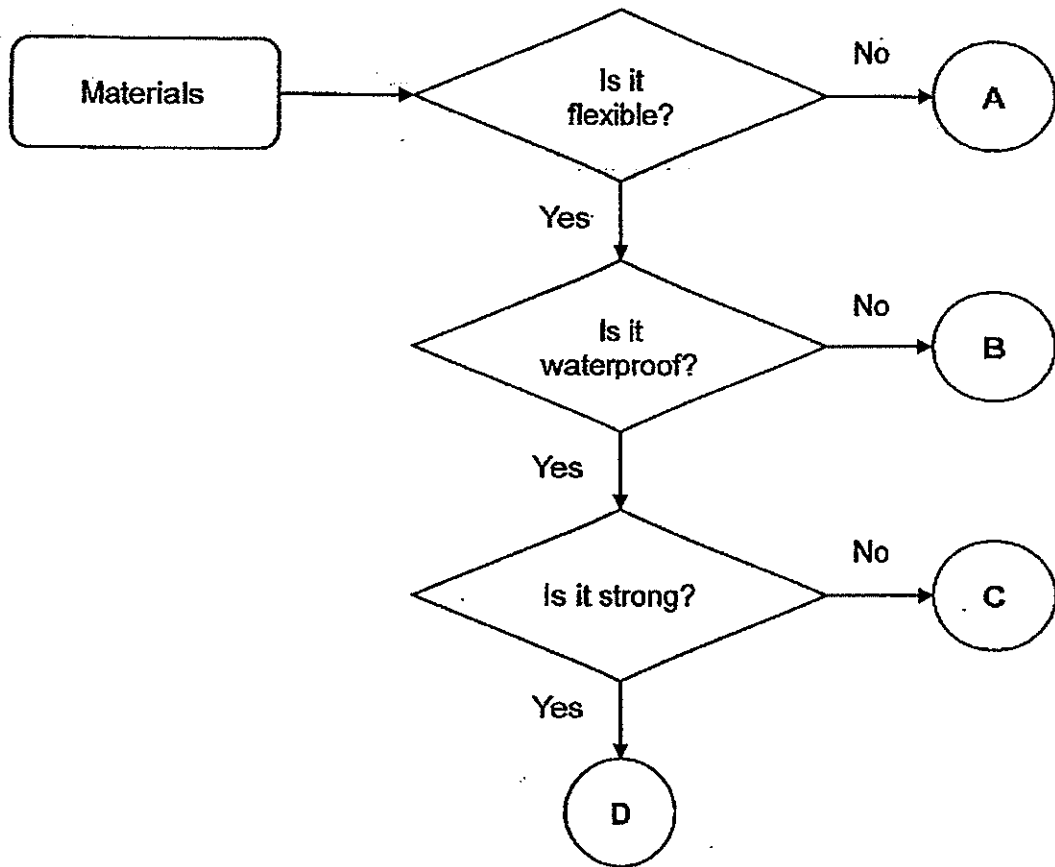
17. Jack wanted to test the strength of four materials (R, S, T and U). He recorded the number of oranges each material can hold before it breaks. His results are shown in the table below.

| Meterial | Number of oranges it holds before breaking |
|----------|--|
| R | 8 |
| S | 2 |
| T | 6 |
| U | 3 |

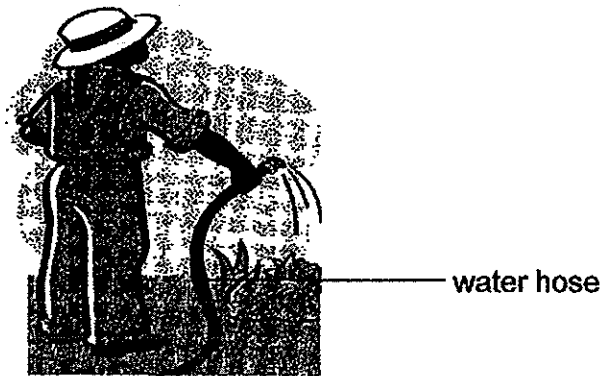
Which of these materials (R, S, T or U) is the strongest?

- (1) R
- (2) S
- (3) T
- (4) U

18. Study the flowchart below.

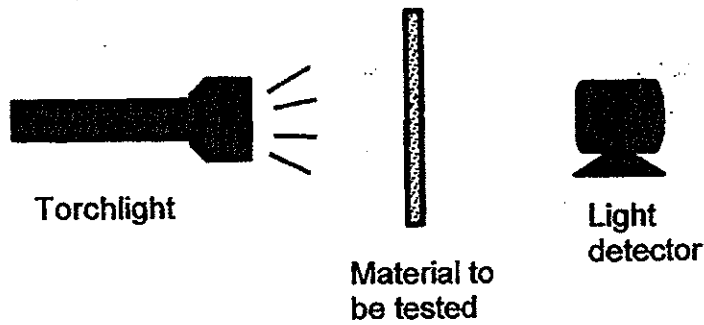


Which of these materials (A, B, C or D) is most suitable for making a water hose?



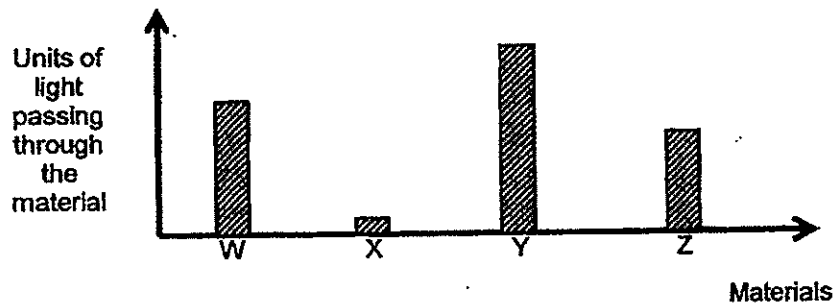
- (1) A
- (2) B
- (3) C
- (4) D

19. Mr Goh wanted to find a suitable material for making curtains. He tested four materials (W, X, Y and Z) with the set-up below.



Mr Goh will shine a torchlight at the material and the light detector will record the units of light that passes through the material.

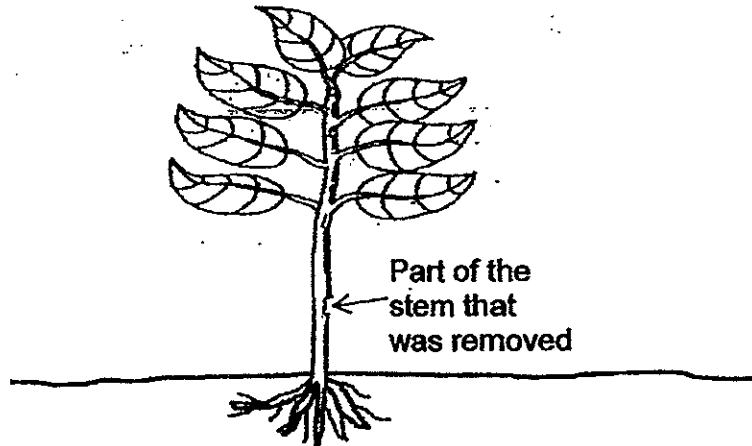
The bar graph below shows the results of his experiment.



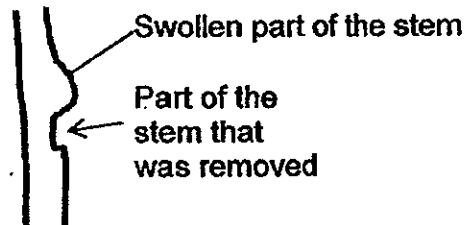
Which material is most suitable for making curtains in Mr Goh's bedroom so that the room will be dark enough for him to take a nap in the afternoon?

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

20. Sam removed a part of the stem as shown in the diagram below.



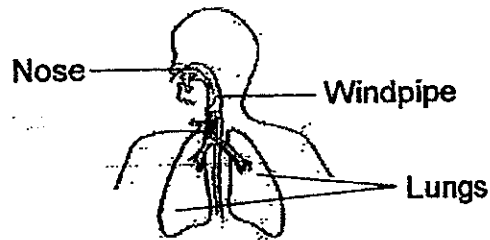
Sam observed the stem after two days and noticed that the part of the stem near the cut was swollen as shown below.



Which of the following best explains why the part of the stem near the cut was swollen?

- (1) A new plant is growing out from the cut part of the plant.
- (2) The cut part of the stem absorbs water and mineral salts from the surroundings.
- (3) The water-carrying tubes of the plant have been removed so the water cannot move down.
- (4) The food-carrying tubes of the plant have been removed so food made by the leaves cannot move down.

21. The diagram below shows the human respiratory system.



Which of the following is/are the function(s) of the respiratory system?

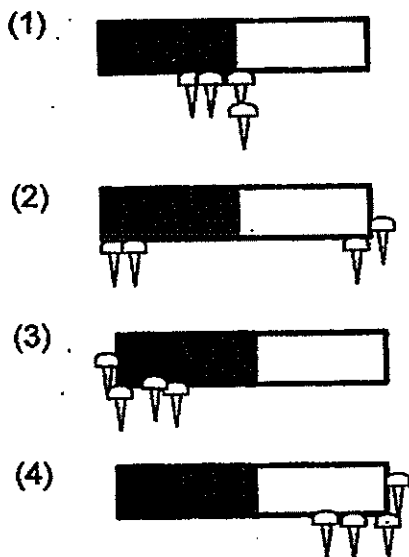
- A Changes the food we eat into simple substances.
- B Takes in oxygen and removes carbon dioxide for the body.
- C Transports oxygen, digested food and waste materials around our body.

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

22. Kiki suffers from food poisoning and passes out watery waste instead of solid waste, which part of her digestive system is not working properly?

- (1) Anus
- (2) Stomach
- (3) Small intestine
- (4) Large intestine

23. Jake lowered a bar magnet into a box of steel thumbtack. Which one of the following diagrams correctly shows how the steel thumbtacks will be attracted to the bar magnet?



24. Bob moved a rod magnet near two objects (K and L), one at a time, as shown in the diagram below.



He recorded his observations in the table below.

| Object | Observation |
|--------|------------------------------|
| K | Attracted by the rod magnet. |
| L | Repelled by the rod magnet. |

Which of the following could likely be Objects K and L?

| | Object K | Object L |
|-----|------------|-------------|
| (1) | Nickel bar | Bar magnet |
| (2) | Steel bar | Iron bar |
| (3) | Iron bar | Plastic bar |
| (4) | Glass bar | Wooden bar |



**NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 – 2014
PRIMARY 3**

SCIENCE

BOOKLET B

10 Open-ended questions (32 marks)

Total Time for Booklets A and B : 1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.

Marks Obtained

Section B

| | |
|--|------------|
| | /32 |
|--|------------|

Name: _____ () **Class: P 3** _____

Date : 29 October 2014

Parent's Signature: _____

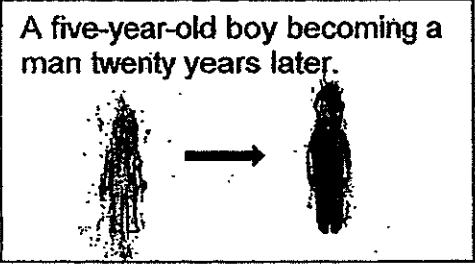
Section B: (32 marks)

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


The number of marks allocated is shown in brackets [] at the end of each question or part of the question.

25. Match each diagram on the left to the characteristics of living things on the right. [2]

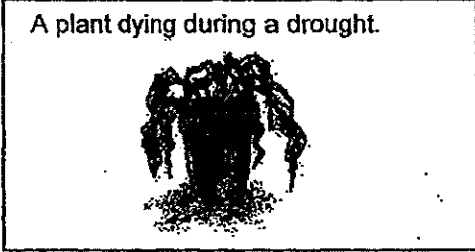
(a) A five-year-old boy becoming a man twenty years later.



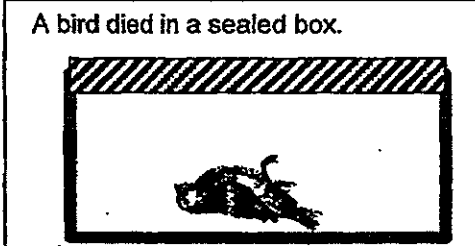
(b) A cat running away from a dog.



(c) A plant dying during a drought.



(d) A bird died in a sealed box.



Living things need air to survive.

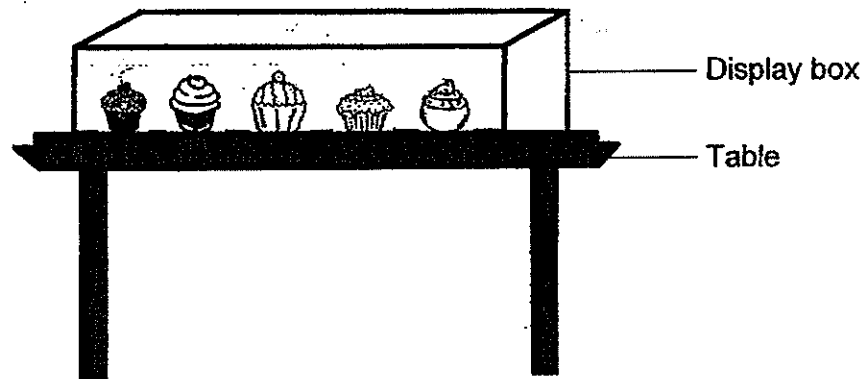
Living things grow.

Living things respond to changes.

Living things need water to survive.

| | |
|-------|---|
| Score | 2 |
|-------|---|

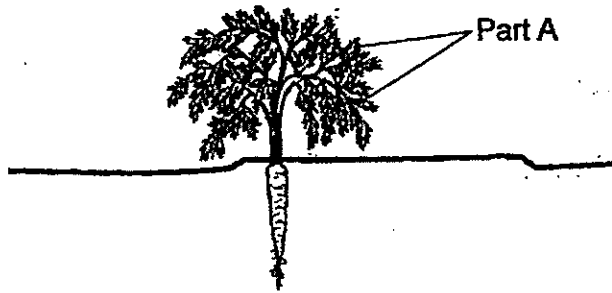
26. Mrs Tan has a cake shop. She displays the cupcakes in her shop in a display box as shown below.



- (a) What is the likely material of the display box? [1]

- (b) Explain why the material stated in (a) is suitable for making the display box. [2]

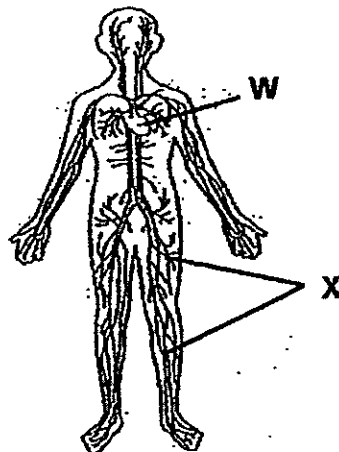
27. Study the diagram of the plant shown below.



(a) Name Part A of the plant. [1]

(b) What does Part A do for the plant? [1]

28. The diagram below shows the human circulatory system.



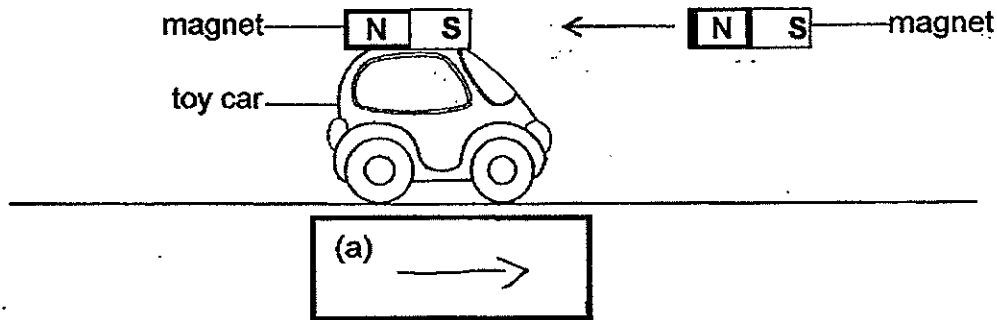
(a) Name Part W and Part X of the human circulatory system above. [2]

W : _____

X : _____

(b) What is the function of the human circulatory system? [1]

29. Wen Jie attached a bar magnet above a toy car. He tried to move the toy car by bringing another magnet close to the toy car as shown in the diagram below.



(a) Draw an arrow (→ or ←) in the box above to show how the car would move when Wen Jie brought the magnet close to the car as shown above. [1]

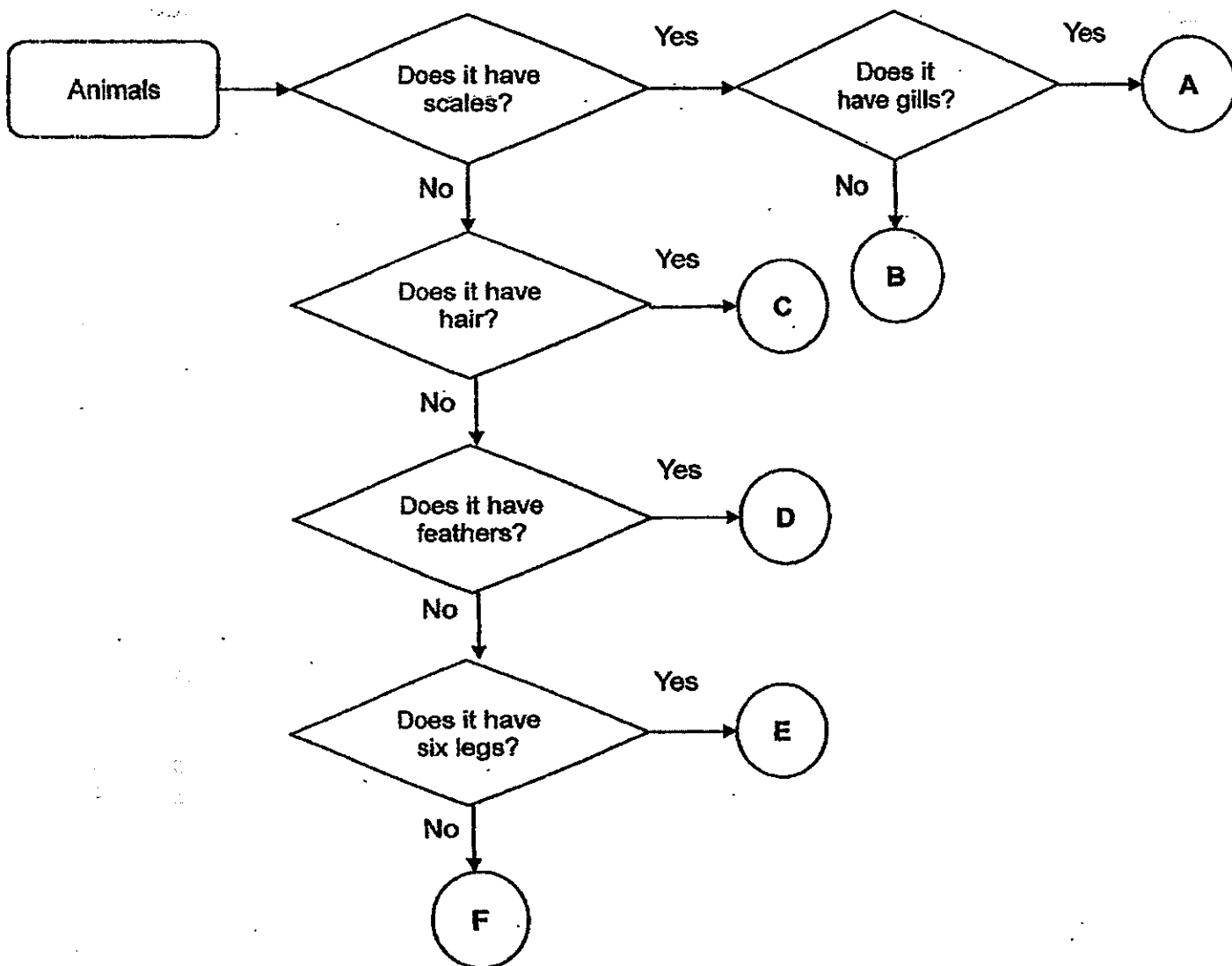
(b) Explain why the toy car would move in the direction that you have drawn in (a). [1]

(c) Wen Jie made some changes to his set-up and observed the effect of each change.

Put a tick (✓) in the appropriate box to indicate what would happen to the toy car when the following changes were made to the set-up. [2]

| Changes made to the set-up | Toy car will remain at the same position. | Toy car will move towards the magnet. | Toy car will move away from the magnet. |
|---|---|---------------------------------------|---|
| Wen Jie turned the magnet that he was holding around so that the South-pole was facing the South-pole of the magnet on the toy car. | | | |
| Wen Jie replaced the magnet above the toy car with a wooden rod. | | | |

30. Study the flow chart below carefully.



(a) Use the helping words in the box below to fill in each blank. [2]

| | | |
|---------|------|------------------|
| mammal | fish | insect |
| reptile | bird | amphibian |

According to the flow chart,

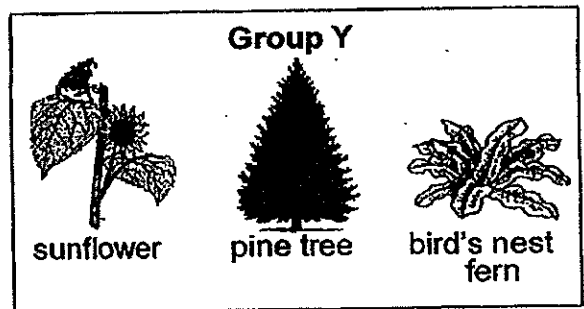
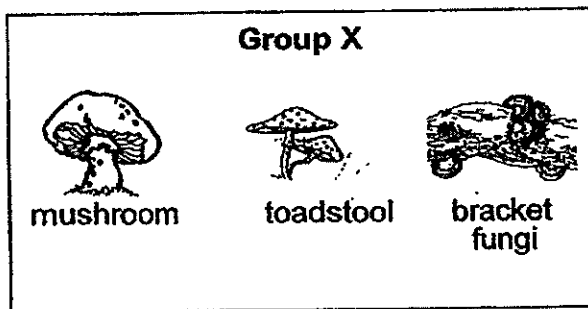
- (i) A is most likely a _____
- (ii) B is most likely a _____
- (iii) C is most likely a _____
- (iv) D is most likely a _____

| | |
|-------|---|
| Score | 2 |
|-------|---|

(b) Based on the flow chart, state one similarity between E and F. [1]

(c) Based on the flow chart, state one difference between E and F. [1]

31. Study the two groups (X and Y) of living things shown below.



(a) Give a suitable heading for each of the groups above. [2]

Group X: _____

Group Y: _____

(b) Which group (X or Y) does the bread mould belong to? [1]

32. Joey conducted some tests on materials A, B, C and D. The results of the tests are shown in the table below. A tick (✓) indicates that the material has the property.

| Property | Materials | | | |
|-----------------|-----------|---|---|---|
| | A | B | C | D |
| Strong | ✓ | | ✓ | ✓ |
| Flexible | | ✓ | | ✓ |
| Waterproof | ✓ | ✓ | ✓ | |
| Transparent | | ✓ | | |
| Floats on water | | ✓ | ✓ | |

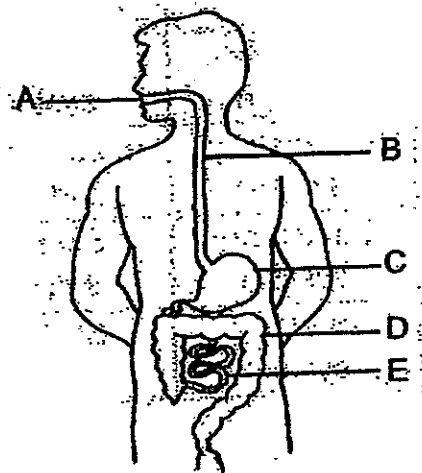
(a) Based on the table above, state two properties of Material A.

[1]

(b) Which material (A, B, C or D) is suitable for making a swimming costume?
Give a reason for your answer.

[2]

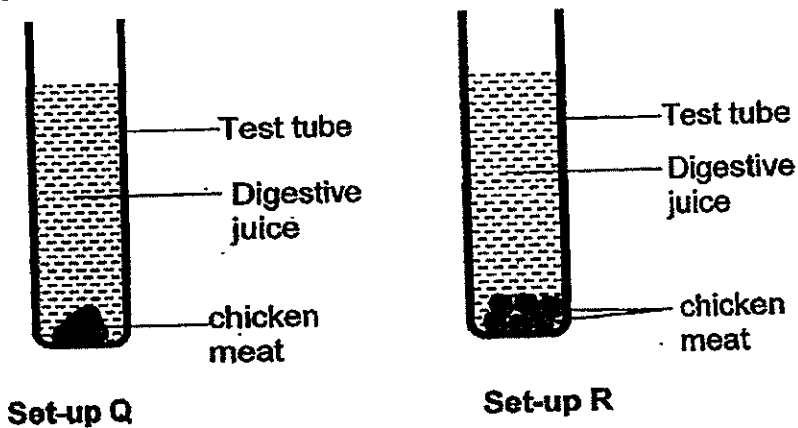
33. The diagram below shows the human digestive system.



(a) Which part (A, B, C, D or E) of the digestive system is not working properly when the following happens? [2]

- (i) Digested food is not absorbed by the body. _____
- (ii) Big pieces of food are swallowed into the stomach. _____

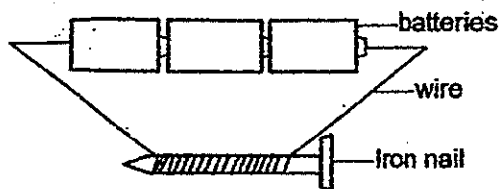
(b) Yanling wanted to find out if the size of food affects how fast they digest. She used two set-ups (Q and R) for her experiment. She mixed 100g of chicken meat with digestive juices in each of the test tube as shown below.



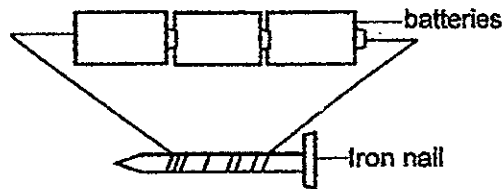
In which set-up (Q or R), will the meat be completely digested first? [2]
Explain your answer.

| | |
|-------|---|
| Score | 4 |
|-------|---|

34. Jerry uses the two set-ups (X and Y) below to make a temporary magnet.



Set-up X



Set-up Y

(a) Which iron nail (X or Y) will become a stronger electromagnet?
Explain your answer.

[1]

(b) State two things that Jerry can do to the set-ups above to get a stronger electromagnet.

[2]

(i) _____

(ii) _____

(c) Using only a box of paper clips, how can Jerry confirm that the electromagnet has become stronger?

[1]

End of paper

Year: 2014

Level: Primary 3

School: Nan Hua Primary School

Subject: Science

Semester: SA2

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

Q25) a) A five-year-old boy becoming a man twenty years later → Living things grow

b) A cat running away from a dog → Living things respond to changes

c) A plant dying during a drought → Living things need water to survive

d) A bird died in a sealed box → Living things need air to survive

Q26) a) Glass

b) It is transparent and could let everybody see what cupcakes available.

Q27) a) Leaves

b) They help to make food for the plant.

Q28) a) W: heart X: Veins

b) The circulatory system transport oxygen, digested food, water and waste materials away from the body.

Q29) a) →

b) Unlike poles attract do the car moved toward the magnet.

c)

| Changes made to the set-up | Toy car will remain at the same position | Toy car will move towards the magnet | Toy magnet will move away from the magnet |
|----------------------------|--|--------------------------------------|---|
| | | | ✓ |

| | | | |
|--|---|--|--|
| | ✓ | | |
|--|---|--|--|

Q30) a) i) fish ii) reptile iii) mammal iv) bird

b) They do not have feathers.

c) E has six legs but F does not have six legs.

Q31) a) Group X: Cannot make their own food

Group Y: Can make their own food

b) Group X

Q32) a) It is strong and waterproof.

b) Material D. It is strong so that you cannot tear it easily and flexible so that you can keep it easily.

Q33)a) i) E

ii) A

b) Set-up R. R is cut into many smaller pieces so the digestive juices can act on a bigger surface of the meat.

Q34) a) Iron nail X It has more wires coiled around it.

b) i) Coil around the wire more on the iron nail.

ii) Put more batteries.

c) The electromagnet can attract more paper clips.