



NAN HUA PRIMARY SCHOOL  
END-OF-YEAR EXAMINATION 2020  
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 on the Optical Answer Sheet (OAS) provided.

Marks Obtained

Booklet A		/48
Booklet B		/32
Total		/80

Name: \_\_\_\_\_ ( ) Class: P 3 \_\_\_\_\_

Date: 28 October 2020

Parent's signature: \_\_\_\_\_

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This booklet consists of 14 printed pages.

**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) and shade your answer on the Optical Answer Sheet.

1 Study the diagram below.



Sharon and Roy tried to catch butterflies that were resting on the flowers but the butterflies flew away. Based on their observations, they conclude that living things can

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

2 The table below shows how living things can be classified.

<b>Animal</b>	<b>B</b>	<b>Plant</b>
bat	mould	rose plant
<b>A</b>	<b>C</b>	<b>D</b>

Which of the following could A, B, C and D be?

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
(1)	duck	fungus	mushroom	grass
(2)	duck	bacteria	mushroom	grass
(3)	grass	fungus	bacteria	mushroom
(4)	mushroom	fungus	bacteria	grass

3 You can classify an animal as a mammal if it \_\_\_\_\_.

- A has hair
- B can lay eggs
- C has three pairs of legs
- D has young that feeds on its mother's milk

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

4 The table below shows the characteristics of three objects, X, Y and Z.

Object	Characteristics		
	Have legs	Can reproduce	Make its own food
X		✓	✓
Y	✓	✓	
Z	✓		

<b>Key</b> ✓: present
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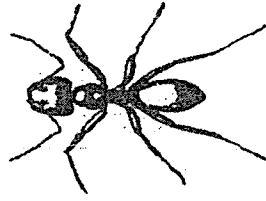
Four pupils made the following statements about the three objects.

- Alice** : X is a plant.
- Benny** : X and Y are plants.
- Cathy** : X and Y are living things.
- Damien** : Z must be a living thing.

Which pupils were correct?

- (1) Alice and Cathy only
- (2) Cathy and Damien only
- (3) Benny and Damien only
- (4) Alice, Benny, Cathy and Damien

5 Study the diagram below.



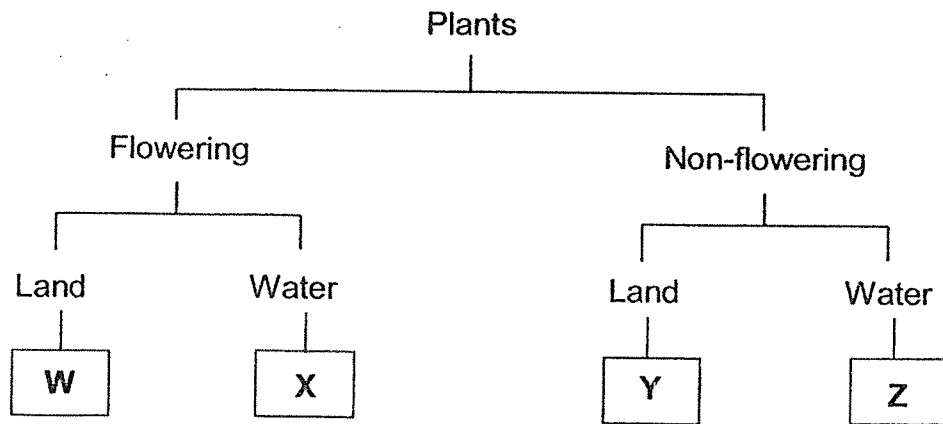
Animal X can be classified as an insect because it \_\_\_\_\_.

- (1) lays eggs
- (2) lives on land
- (3) has a pair of wings
- (4) has three body parts

6 The table below shows the characteristics of two plants, A and B. A tick (✓) shows that the plant has the characteristic.

Plant	A	B
<b>Characteristic</b>		
<b>Bears fruit</b>		✓
<b>Grows on land</b>	✓	✓

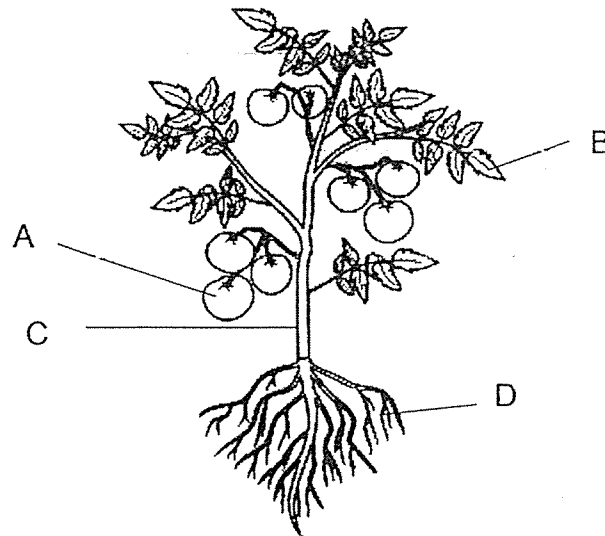
Classification chart



Based on the characteristics given in the table, where should Plants A and B be placed in the above classification chart?

	Plant A	Plant B
(1)	W	Y
(2)	X	Z
(3)	Y	W
(4)	Z	X

The picture below shows a tomato plant.  
Use the diagram to answer Questions 7 and 8.



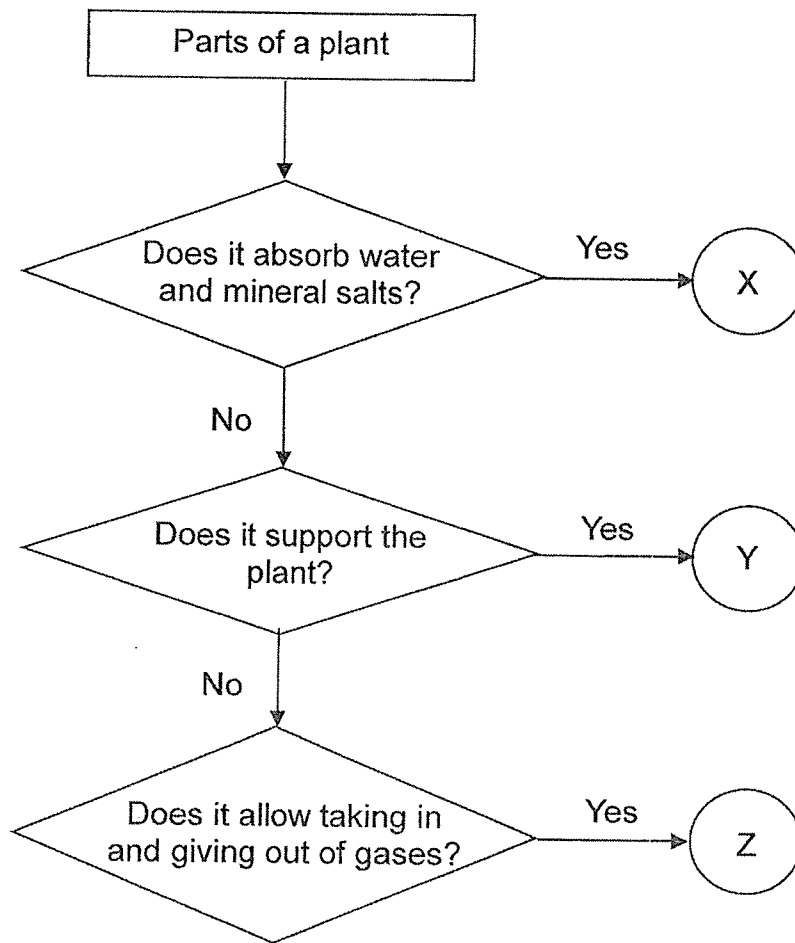
7 Which part, A, B, C or D, helps to hold the plant firmly to the ground?

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

8 Which of the following statements states the function of part C?

- (1) It makes food for the plant.
- (2) It holds the plant firmly to the ground.
- (3) It absorbs water and mineral salts from the soil.
- (4) It carries food, water and mineral salts to all parts of the plant.

9 Study the flow chart below.



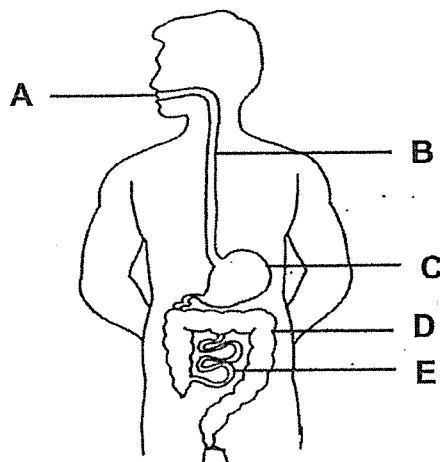
Based on the flow chart above, which of the following correctly matches the letters X, Y and Z to the plant parts?

Parts of a plant			
	Leaf	Stem	Root
(1)	X	Y	Z
(2)	X	Z	Y
(3)	Y	Z	X
(4)	Z	Y	X

10 Which one of the following systems is **wrongly** matched to its function?

	Human system	Function(s)
(1)	Respiratory system	Helps the body to take in oxygen and remove carbon dioxide.
(2)	Muscular system	Protects important organs in the body.
(3)	Circulatory system	Carries oxygen, digested food and waste materials around the body.
(4)	Digestive system	Breaks down the food we eat into simple substances.

The diagram below shows the human digestive system.  
Use the diagram to answer Questions 11 and 12.



11 Which part of the digestive system does water absorption take place?

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

12 Which parts of the digestive system contain digestive juices?

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

13 Kit is chasing after Kat at the playground. Which of the following human systems work together to enable them to run around?

- A Skeletal System
- B Muscular System
- C Circulatory System
- D Respiratory System

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

14 The table below shows the activities taking place in the digestive system. A tick '✓' shows the type of activity taking place.

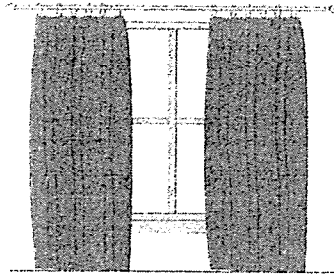
	Parts of the digestive system			
	P	Q	R	S
Digestion takes place		✓	✓	✓
Water is removed from undigested food	✓			
Cut food up into smaller pieces				✓

Which of the following could be P, Q, R and S?

	Parts of the digestive system			
	mouth	small intestine	large intestine	stomach
(1)	Q	P	R	S
(2)	R	S	P	Q
(3)	S	Q	P	R
(4)	S	Q	R	P



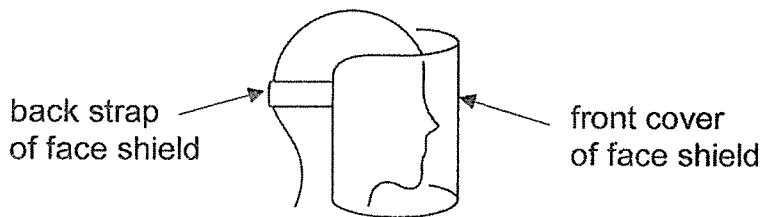
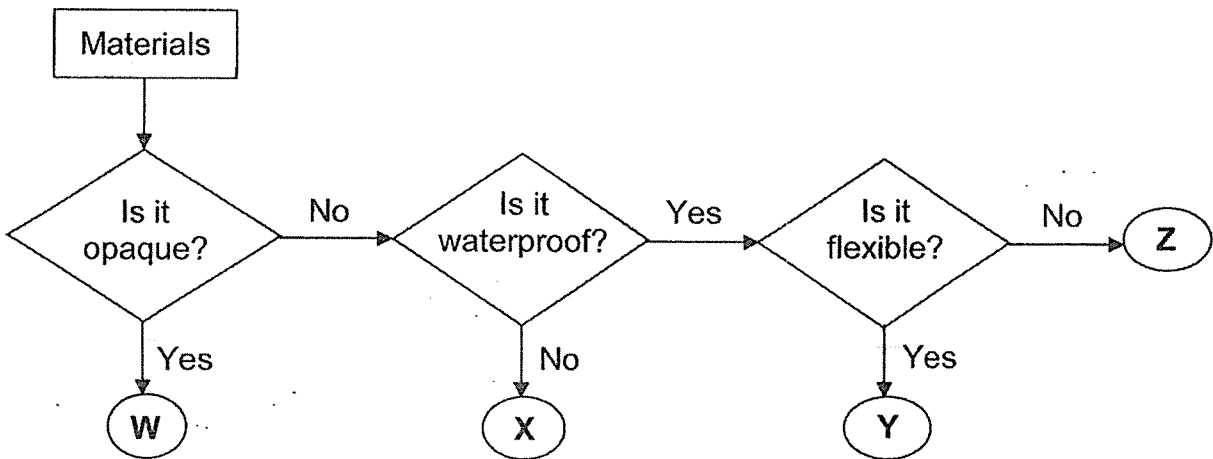
- 15 The diagram below shows a pair of curtains being drawn on a sunny day to block out some sunlight.



Fabric is used to make the curtains because it is \_\_\_\_\_.

- (1) waterproof
- (2) not flexible
- (3) not transparent
- (4) able to float on water

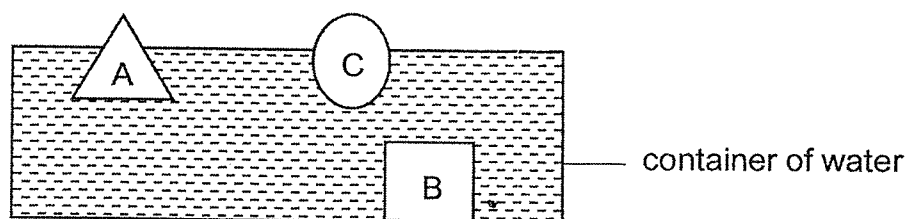
- 16 Study the flow chart below.



Which is the most suitable material to make the front cover of a face shield?

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

- 17 Three objects, A, B and C, each made of different materials, are placed into a container of water. Their positions in water are shown below.



Three pupils each made a statement based on the results above.

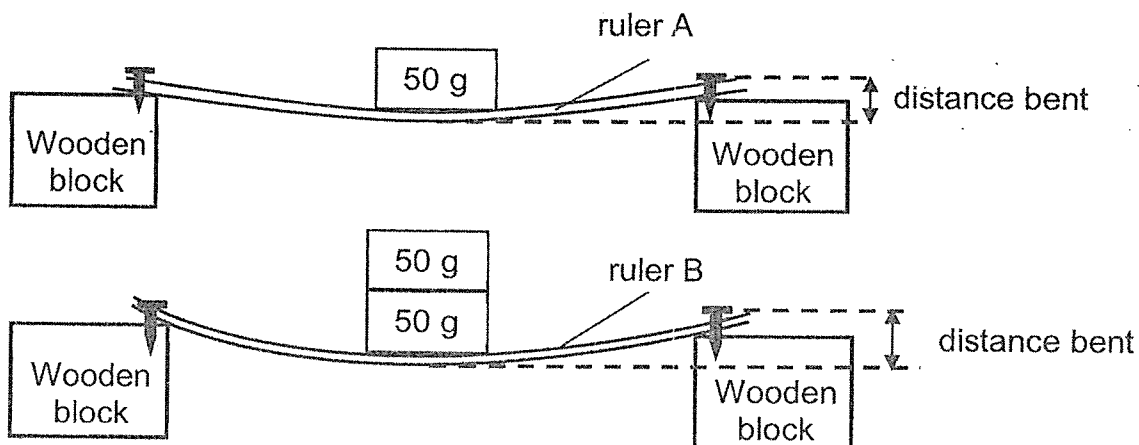
**Kami** : Object C must be a plastic ball.

**Hari** : Object B sinks so it is not waterproof.

**Rani** : Objects A and C are able to float on water.

Who has/have made a correct statement?

- (1) Rani only  
 (2) Kami only  
 (3) Hari and Rani only  
 (4) All three pupils
- 18 Ahmad set up an experiment below to find out which ruler is more flexible. He added a 50 g weight to ruler A and added two 50 g weights to ruler B as shown below.

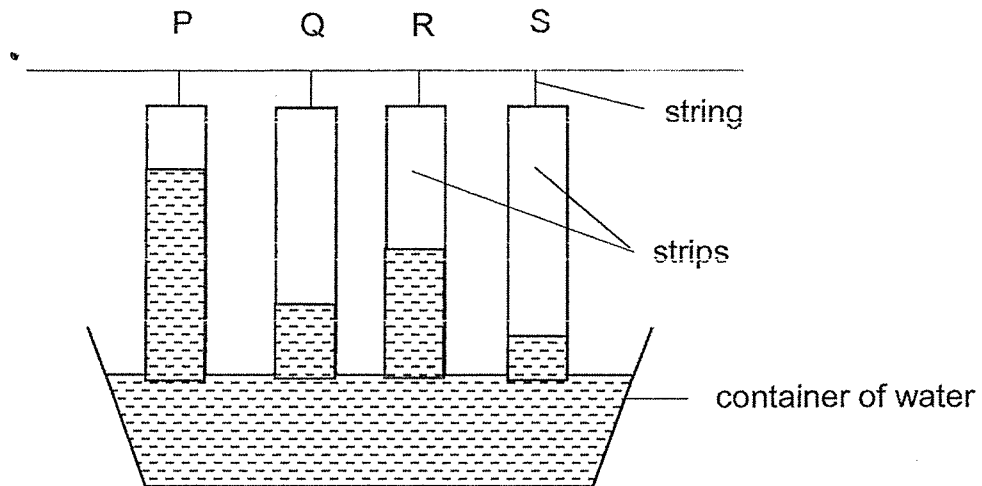


Before measuring the distance bent, how should Ahmad change his setup to ensure a fair experiment?

- (1) Add another 50 g weight to Ruler B.  
 (2) Add another 50 g weight to Ruler A.  
 (3) Remove the 50 g weight from Ruler A.  
 (4) Remove both 50 g weights from Ruler B.

19 Lydia hung four similar strips made of different materials, P, Q, R and S, on a string and dipped them in a container of water as shown below.

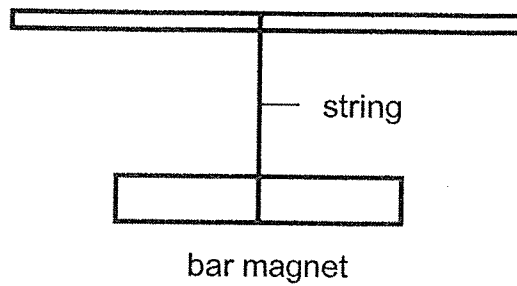
Five minutes later, water rose to different heights on the four strips as shown by the shaded areas below.



Based on the above results, what is the order of the materials, according to their ability to absorb water, starting with the one that absorbs the least water?

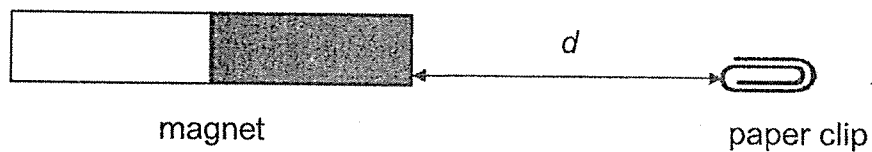
	Absorb the <b>least</b> water		➔	Absorb the <b>most</b> water	
(1)	P	R		Q	S
(2)	Q	S		R	P
(3)	S	Q		P	R
(4)	S	Q		R	P

- 20 A bar magnet was tied to a string as shown below. It was then given a push and left to come to a rest.



Which one of the following statements correctly describes the magnet after it comes to a rest?

- (1) The bar magnet will lose some of its magnetism.
  - (2) The bar magnet will become a stronger magnet.
  - (3) The bar magnet will rest in the East-West direction.
  - (4) The bar magnet will rest in the North-South direction.
- 21 Joseph carried out an experiment with a paper clip and four magnets, E, F, G and H. Using one magnet at a time, he moved the paper clip slowly away from the magnet and recorded the greatest distance,  $d$ , that the magnet could still attract the paper clip.



The table below shows the results of his experiment.

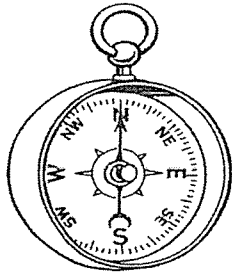
Magnet	E	F	G	H
Distance $d$ (cm)	3	7	4	5

Based on the results, which of the following statements is true?

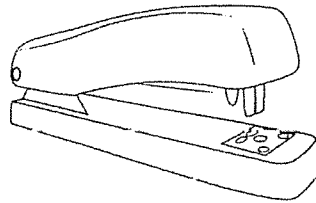
- (1) Magnet H is the strongest.
- (2) Magnet G is stronger than magnet F.
- (3) Only magnet E can attract the paper clip at 3 cm away.
- (4) Only magnet F can attract the paper clip at 6 cm away.

22 Which of the following makes use of magnet(s)?

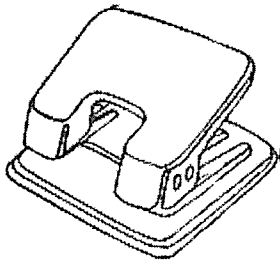
(1) compass



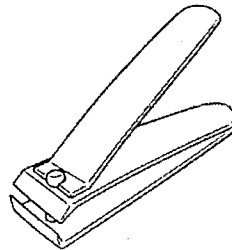
(2) stapler



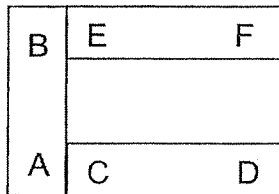
(3) hole puncher



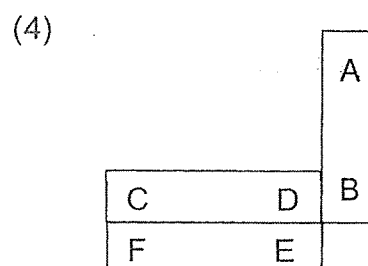
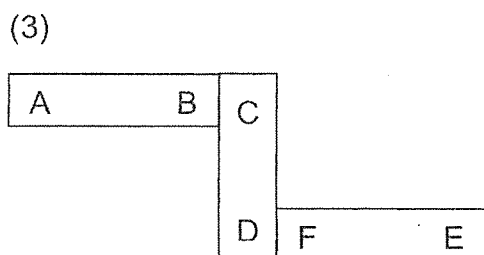
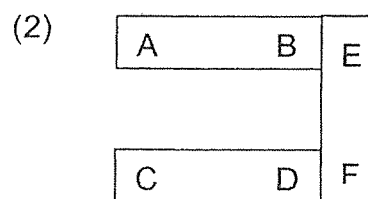
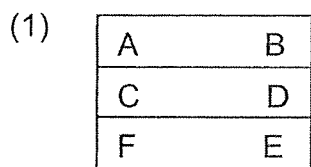
(4) nail clipper



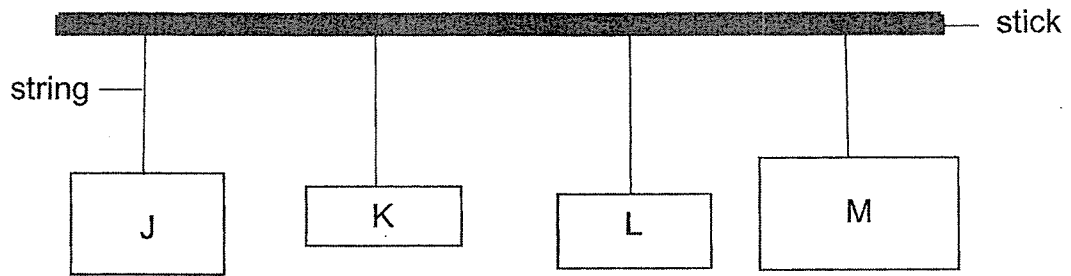
23 Three bar magnets, AB, CD and EF, are arranged as shown below.



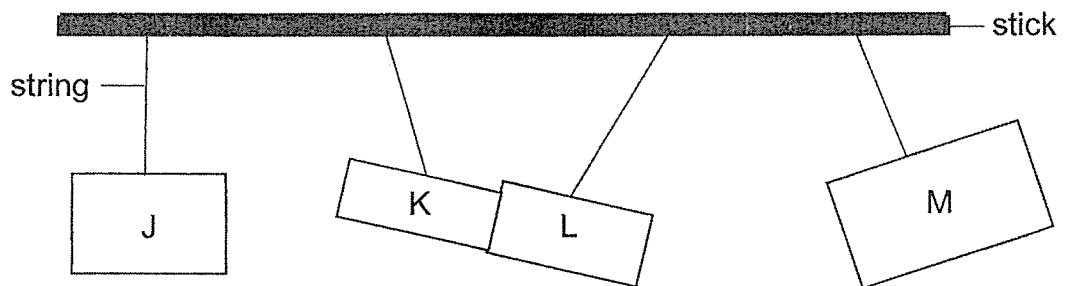
Which one of the following is a possible arrangement of the three magnets?



24 Four objects, J, K, L and M are tied by strings onto a stick as shown below.

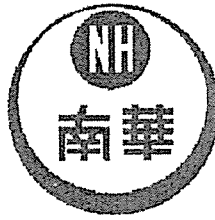


The final positions of the objects were shown below.



If only two of the above objects are magnets, which objects are magnets?

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



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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
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Name: \_\_\_\_\_ (     )     Class: P 3 \_\_\_\_\_

Date: 28 October 2020

Parent's Signature: \_\_\_\_\_

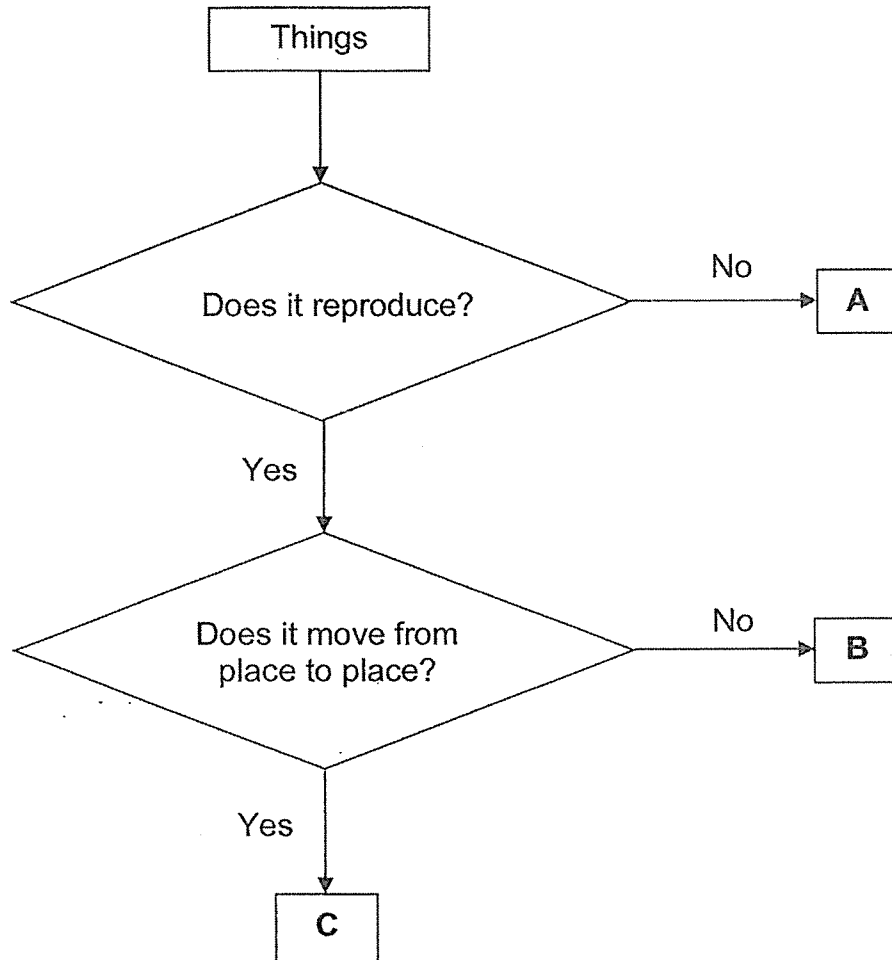
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This booklet consists of 11 printed pages.

**Section B: (32 marks)**

For questions 25 to 34, write your answers in this booklet.  
The number of marks allocated is shown in brackets [ ] at the end of each question or part question.

**25** The flowchart below shows the characteristics of three things, A, B and C.



**(a)** Based on the flowchart above, list two characteristics of **C**. [2]

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**(b)** Based on the flowchart above, which group of living things does **B** belong to? [1]




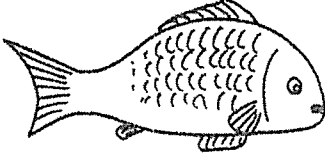
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Score	3
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26 Two groups of living things are shown below.

<b>Group A</b>	
 grass	 moss
<b>Group B</b>	
 rabbit	 fish

(a) Give a suitable heading for each of the groups above. [1]

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

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

(b) State one common characteristic among the living things in groups A and B. [1]

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

(c) State the difference between the outer coverings of the rabbit and the fish. [1]

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

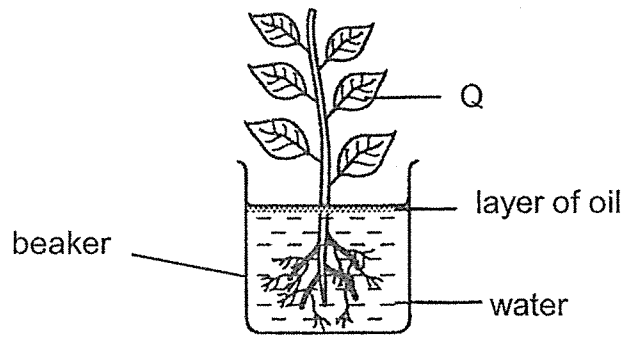
(d) How do the animals in group B reproduce? [1]

Rabbit : \_\_\_\_\_

Fish : \_\_\_\_\_

Score	4
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27 Mel set up an experiment by putting a plant in a beaker of water as shown in the diagram below.



(a) How would the amount of water change in the container after three days? Explain your answer. [2]

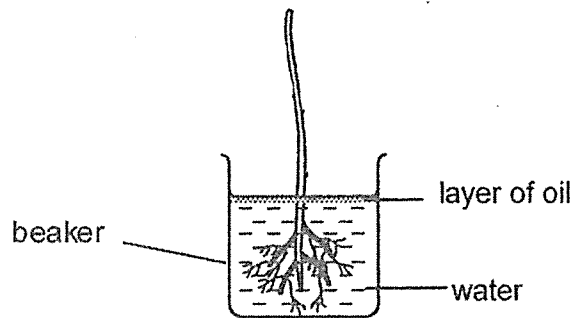
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Mel then removed all of part Q from the plant as shown in the diagram below.



(b) Part Q did not grow back. What would happen to the plant after one month? Explain your answer. [2]

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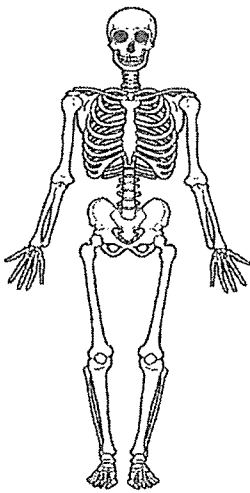
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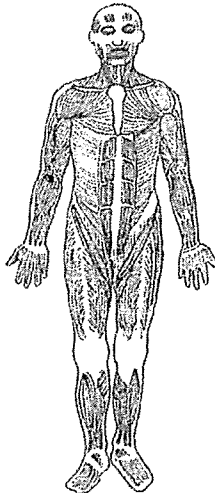
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Score	4
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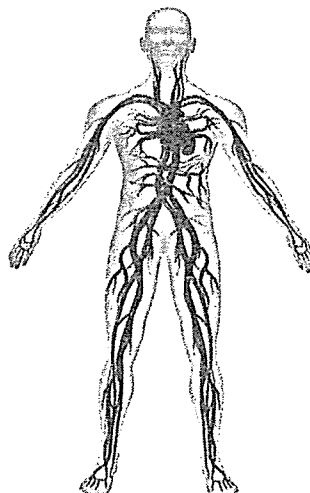
28 The diagrams below show three different human systems.



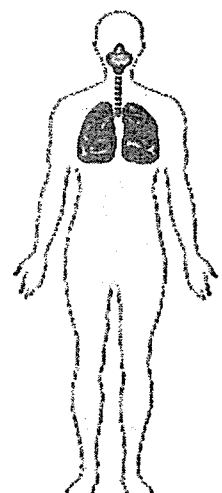
System A



System B



System C



System D

Match the functions below with the correct human system (A, B, C or D) as shown above. [2]

	Function	System
(a)	Gives the body its shape and protect important organs.	
(b)	Transports digested food, oxygen and waste materials around the body.	
(c)	Takes air into the body and removes air from the body.	
(d)	Helps different parts of the body to move.	

Score	2
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- 29 The bar graph below shows the amount of undigested food leaving each organ in the human digestive system.



- (a) Based on the bar graph above, why is the amount of undigested food leaving the mouth the same as the gullet? [1]

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- (b) Based on the bar graph above, where does digestion end? Explain your answer. [2]

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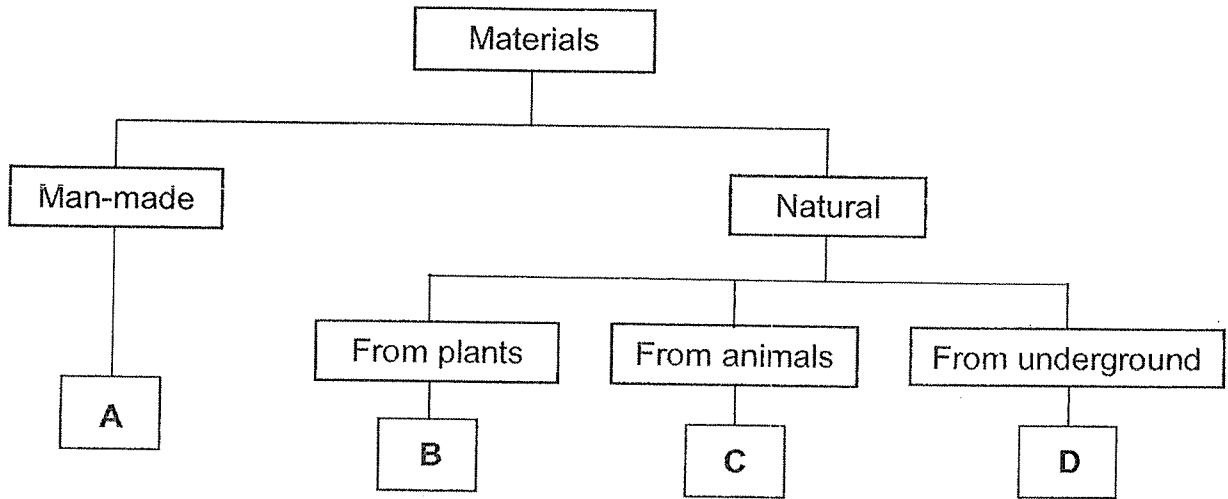
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Score	3
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30 Four materials are listed in the box below.

leather	metal
plastic	wood

(a) Classify these materials into the correct group by writing your answers in the blanks below. [2]



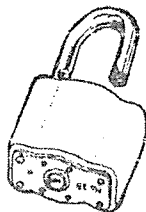
A: \_\_\_\_\_

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

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

D: \_\_\_\_\_

(b) Mr Tan locked his door with a metal padlock before leaving his house for work. He believed that a metal padlock could prevent break-ins by burglars.



State a property of metal that makes it a suitable material for a padlock to prevent break-ins by burglars. [1]

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Score	3
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- 31 Mingxi was given four different materials, P, Q, R and S. He tested the properties of these materials and recorded the results below. A tick (✓) indicates that the material has that property.

Material	Sinks in water	Waterproof	Flexible
P	✓	✓	
Q		✓	
R			✓
S		✓	✓

- (a) State a similarity between material Q and material R [1]

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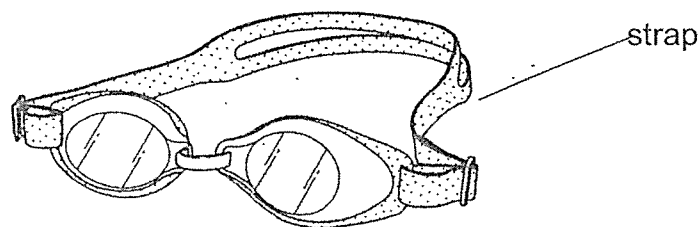
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- (b) State a difference between material R and material S. [1]

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- (c) The diagram below shows a swimming goggles. [1]



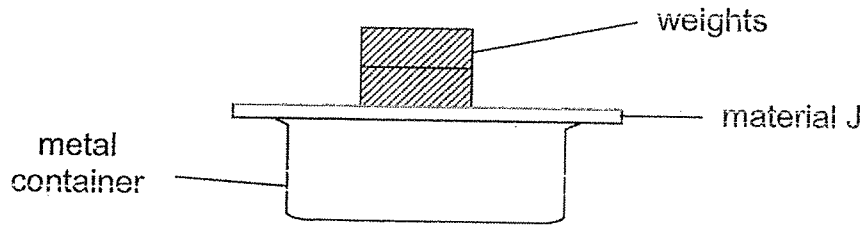
Based on the information given in the table, what is the main reason that material P is **not** suitable for making the strap of a swimming goggles? [1]

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Score	4
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- 32 Tony conducted an experiment with four materials, J, K, L and M. He placed material J over a metal container as shown in the diagram below. He kept adding weights, each of 10 kg, on material J until it broke. He then did the same for materials K, L and M.



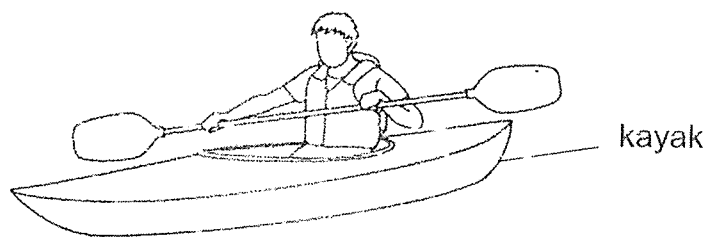
The table below shows the results of his experiment.

Materials	Number of 10-kg weights each material can hold just before it broke
J	6
K	4
L	3
M	2

- (a) Arrange the materials J, K, L and M, according to their strength (from strongest to the weakest). [1]

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_  
**strongest** **weakest**

- (b) The diagram below show a person in a kayak. A kayak looks like a small boat.



Which material, J, K, L or M, is the most suitable for making into a kayak for a person weighing 50 kg? Explain your answer. [2]

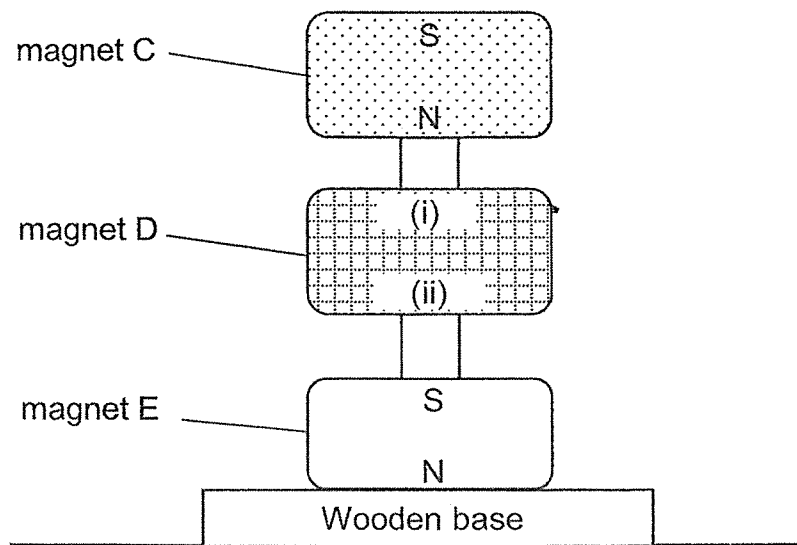
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Score	3
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- 33 Ramu placed three ring magnets, C, D and E, through a holder as shown below. The north and south poles of magnets C and E are shown below.



- (a) Identify the north and south poles of magnet D at positions labelled (i) and (ii). [1]

Position (i) : \_\_\_\_\_ pole

Position (ii) : \_\_\_\_\_ pole

- (b) Explain how magnet D is able to “float” above magnet E. [2]

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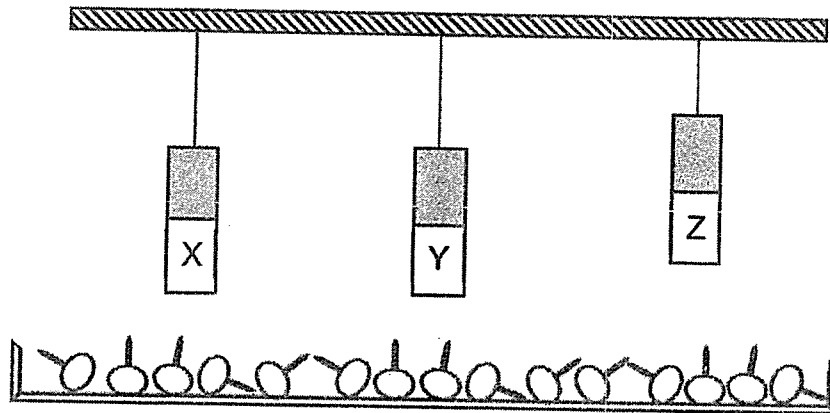
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Score	3
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- 34 Jessie conducted an experiment to compare the magnetic strength of three magnets, X, Y and Z. She hung all the magnets above a tray of iron pins as shown below.



She recorded the number of pins attracted by magnet Y and Z below.

Magnet	Number of pins attracted
X	?
Y	4
Z	4

- (a) If X is the weakest magnet, what is a possible number of pins it can attract? [1]

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- (b) Which magnet, Y or Z, is a stronger magnet? Give a reason for your choice. [1]

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- (c) When all the pins are replaced with plastic beads, no beads are attracted by all three magnets. Explain why this happens. [1]

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End of Paper

Score	3
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SCHOOL : NAN HUA PRIMARY SCHOOL

LEVEL : PRIMARY 3

SUBJECT : SCIENCE

TERM : 2020 SA2

SECTION A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	1	1	1	4	3	4	4	4	2

Q 11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
4	2	4	3	3	3	1	2	4	4

Q 21	Q22	Q23	Q24
3	1	2	4

P3 SC EYE 2020

Answer Key

Qn.	Answer															
25a	C can reproduce. C can move from place to place.															
25b	Plant(s)/Fungus/Fungi															
26a	Group A: Plant(s) Group B: Animal(s)															
26b	Any one of the following:- They can reproduce. They can grow. They can die. They can respond to changes. They need air, food and water to live/survive.															
26c	The outer covering of the rabbit is hair/fur but the outer covering of the fish is scales.															
26d	Rabbit : Giving birth (to young alive) Fish : Laying eggs															
27a	The water level <b>decreased / dropped / became lesser.</b> The <b>roots take in / absorb water</b> from the beaker.															
27b	The plant will <b>die.</b> There are <b>no leaves to make food / carry out photosynthesis</b> for the plant.															
28	<table border="1" data-bbox="316 1355 1204 1758"> <thead> <tr> <th data-bbox="316 1355 367 1422"></th> <th data-bbox="367 1355 997 1422">Function</th> <th data-bbox="997 1355 1204 1422">System</th> </tr> </thead> <tbody> <tr> <td data-bbox="316 1422 367 1512">a)</td> <td data-bbox="367 1422 997 1512">Gives the body its shape and protect important organs.</td> <td data-bbox="997 1422 1204 1512">A</td> </tr> <tr> <td data-bbox="316 1512 367 1601">b)</td> <td data-bbox="367 1512 997 1601">Transports digested food, oxygen and waste materials around the body.</td> <td data-bbox="997 1512 1204 1601">C</td> </tr> <tr> <td data-bbox="316 1601 367 1691">c)</td> <td data-bbox="367 1601 997 1691">Takes air into the body and removes air from the body.</td> <td data-bbox="997 1601 1204 1691">D</td> </tr> <tr> <td data-bbox="316 1691 367 1758">d)</td> <td data-bbox="367 1691 997 1758">Helps different parts of the body to move.</td> <td data-bbox="997 1691 1204 1758">B</td> </tr> </tbody> </table>		Function	System	a)	Gives the body its shape and protect important organs.	A	b)	Transports digested food, oxygen and waste materials around the body.	C	c)	Takes air into the body and removes air from the body.	D	d)	Helps different parts of the body to move.	B
	Function	System														
a)	Gives the body its shape and protect important organs.	A														
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c)	Takes air into the body and removes air from the body.	D														
d)	Helps different parts of the body to move.	B														
29a	There is <b>no digestion</b> taking place in the gullet. / Gullet <b>does not digest</b> food.															
29b	The digestion is completed in the <b>small intestine</b> and the amount of <b>undigested food remains the same in the small intestine and large intestine.</b>															

30a	A: Plastic    B: Wood C :Leather    D: Metal
30b	Metal is <b>strong</b> / <b>does not break</b> easily.
31a	They <b>float</b> on water. / They <b>do not sink</b> in water.
31b	S is waterproof but R is not.
31c	It is <b>not flexible/ stiff</b> to be worn around the user.
32a	J, K , L , M
32b	<b>Material J</b> , it can <b>hold/support a 50kg weight</b> of the user/person <b>without breaking</b> so it is the <b>strongest</b> for making into a kayak.
33a	Position (i) : North pole / N Position (ii) : South pole / S
33b	The <b>like poles</b> of magnet D and E are <b>facing each other</b> and <b>repel</b> . / The <b>south poles</b> of magnet D and E are <b>facing each other</b> and <b>repel</b> .
34a	Any number from 0 to 3 (inclusive).
34b	Z is stronger. <b>Z is further from the pins than Y</b> , yet it <b>attracted the same number of pins</b> as Y.
34c	Plastic is <b>non-magnetic</b> / <b>is not a magnetic material</b> and cannot be attracted to magnets.