



**NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 – 2019
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** _____

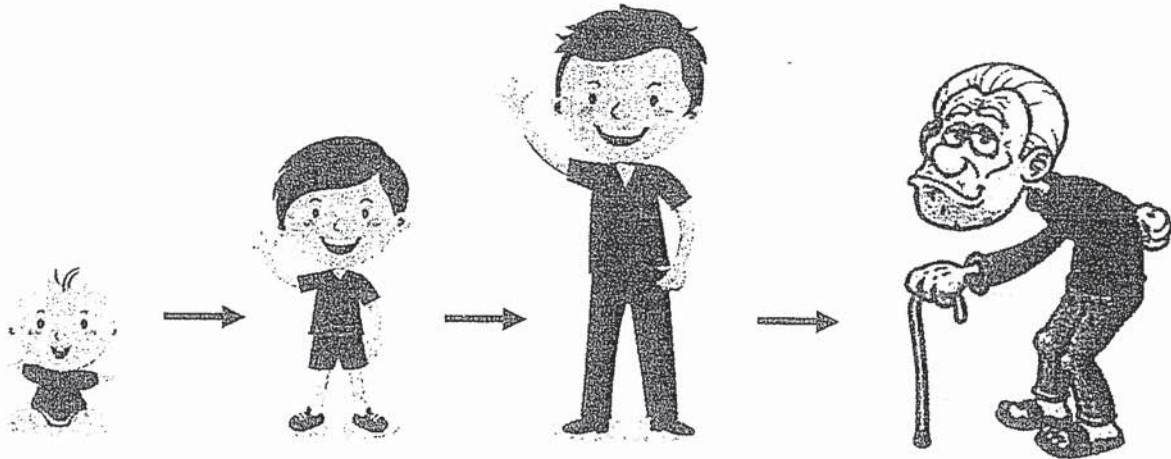
Date : 25 October 2019

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 Study the diagram below.



Which of the following characteristics of living things are shown in the diagram above?

- A They can grow.
- B They can reproduce.
- C They need air, water and food to survive.

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

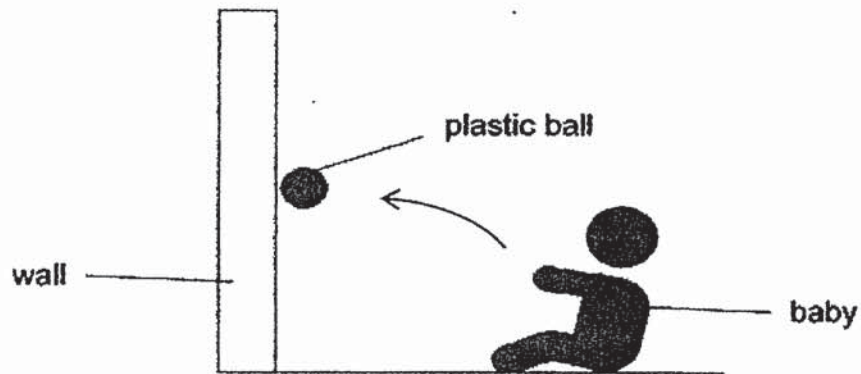
- 2 The table below shows how living things can be classified.

Animals	Plants	C
whale	grass	mould
A	B	D

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

	A	B	C	D
(1)	mammal	fern	Fungi	butterfly
(2)	fern	bacteria	mushroom	butterfly
(3)	caterpillar	fern	Fungi	mushroom
(4)	bat	yeast	Fungi	mushroom

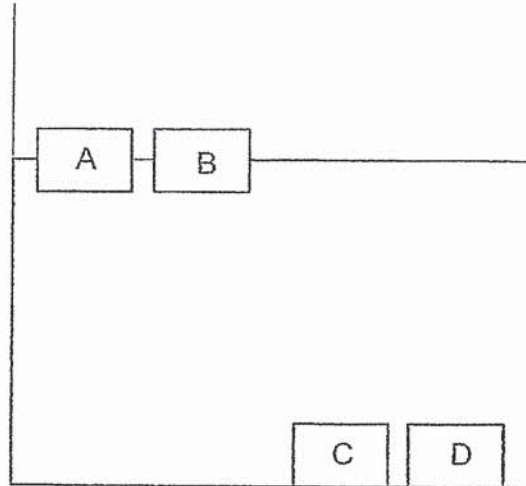
- 3 Mrs Koh's baby likes to throw toys against the wall.



Mrs Koh gives her baby toys that are made of plastic because plastic

- _____.
- (1) is strong
 - (2) is flexible
 - (3) can absorb water
 - (4) can float in water

- 4 Mr Bala placed four blocks made of different materials in the water as shown below.



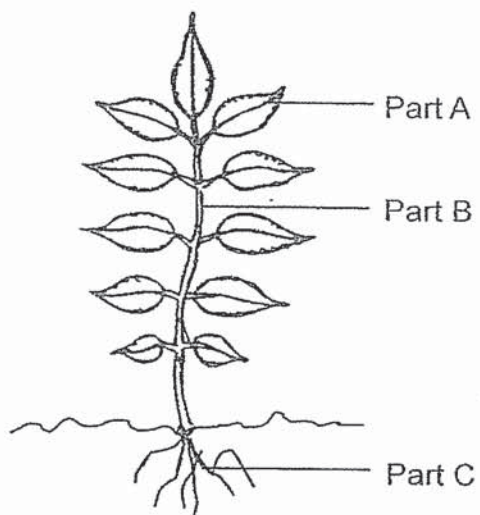
Four of his pupils made the following statements:

- Vicky** : Only blocks A and B float on water.
William : Blocks C and D must be made from the same material.
Xavier : Block D is made of metal
Yanxi : Block B is made of rubber.

Which statement(s) is/are correct?

- (1) Vicky only
- (2) Vicky and William only
- (3) Vicky and Xavier only
- (4) William and Yanxi only

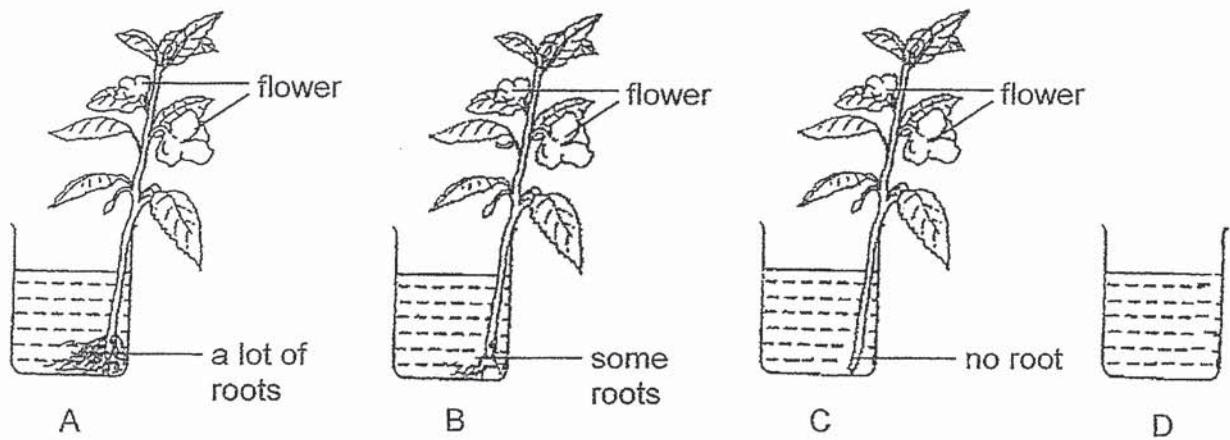
- 5 The diagram below shows a plant.



Which of the following part is matched to the **wrong** function?

	Part	Function
(1)	A	It makes food for the plant.
(2)	B	It keeps the plant upright.
(3)	C	It absorbs water and food from the soil.
(4)	C	It holds the plant firmly to the ground.

- 6 Charlie conducted an experiment as shown below. He placed four set-ups, A, B, C and D near a window of the classroom.



Charlie recorded the amount of water left in each set-up after 5 hours.

Set-up	Amount of water left (ml)
A	50
B	80
C	90
D	100

Charlie was trying to find out if the _____.

- (1) amount of sunlight affects the growth of the plants
- (2) amount of roots affects the amount of water left in the beaker
- (3) plants will grow better when they are placed near the window
- (4) stem of the plant holds the leaves upright to reach for sunlight

- 7 Tom fell and broke his right arm. He was unable to write using his right hand for two months.



Which of the following function(s) of his body system did he lose temporarily?

- A giving his body his shape
 - B protecting important organs
 - C working with the muscles to move his arm
- (1) B only
(2) C only
(3) A and C only
(4) A, B and C
- 8 Darren wrote down some notes on the human digestive system.

- A. Digestion starts from the stomach.
B. Undigested food stays in the large intestine.
C. Digested food is absorbed at the small intestine.
D. Water is absorbed at the large intestine.

Which of the following statement(s) written by Darren is/are **not** correct?

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

9 Which of the following shows how food travels through the digestive system before it gets absorbed by the body?

- (1) mouth → gullet → stomach → small intestine
- (2) mouth → gullet → stomach → large intestine
- (3) gullet → stomach → small intestine → large intestine
- (4) gullet → stomach → large intestine → small intestine

10 Which of the following can be attracted by a magnet?

- (1) gold ring
- (2) plastic bottle
- (3) wooden block
- (4) steel paper clip

11 Three friends made a statement each about magnets.

Alice : Magnets attract magnetic materials.

Betty : Magnets can be made of iron or steel.

Candy : Magnets can repel non-magnetic materials.

Which statement(s) is/are correct?

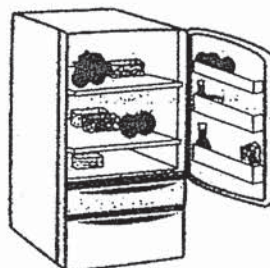
- (1) Alice only
- (2) Alice and Betty only
- (3) Betty and Candy only
- (4) Alice, Betty and Candy

12 Which one of the following objects does **not** make use of magnets?

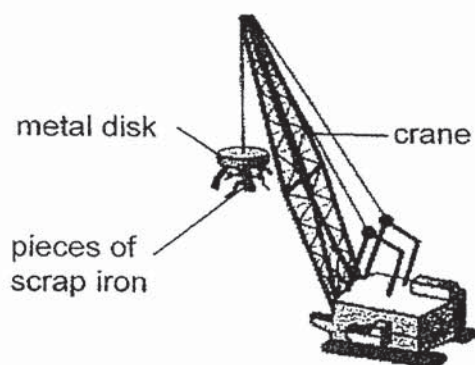
(1) metal chopsticks



(2) refrigerator door



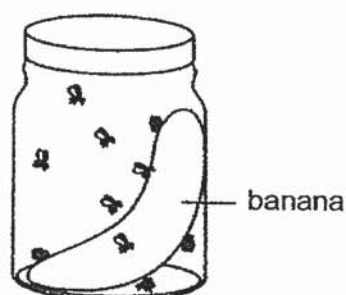
(3) metal scrapyards crane



(4) compass



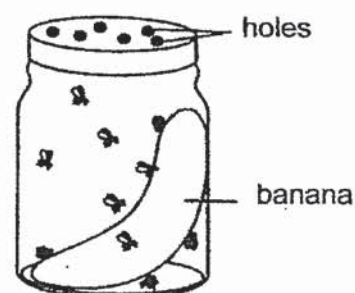
13 Mary placed ten flies in three jars, each having different living conditions.



Jar A



Jar B



Jar C

Arrange the jars in decreasing order of how long the flies will live, starting with the jar that the flies can survive the longest.

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

- 14 The table below shows the characteristics of 3 things, X, Y and Z.

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

Key
✓: present

Four pupils made the following statements about the three things.

Zhiying : X and Y are plants.

Ronnie : Z is a non-living thing.

Doreen : X, Y and Z are living things.

Huabin : X is a plant.

Which pupils were correct?

- (1) Huabin and Ronnie only
- (2) Huabin and Doreen only
- (3) Zhiying and Doreen only
- (4) Huabin, Zhiying and Ronnie

- 15 Jerome sees an animal in the park. He thinks it is a bird since it is able to fly. Which one of the following statements will help him conclude that it is a bird?

- (1) It has a tail.
- (2) It lays eggs.
- (3) It has wings.
- (4) It has feathers.

- 16 Study the diagram below.



animal X

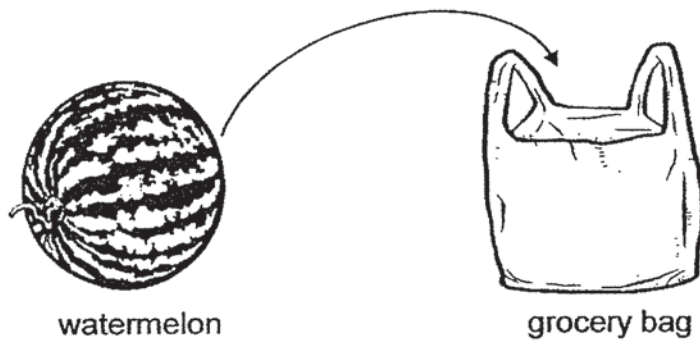
Animal X can be classified as an insect because it _____.

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

- 17 Michael conducted some experiments on materials, T, U, V and W, and recorded his findings on the table below.

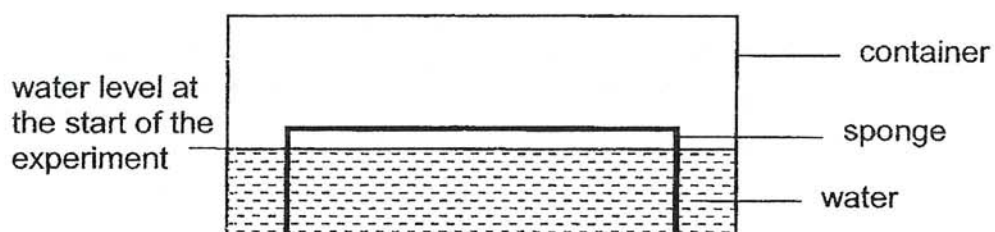
Materials	Numbers of 1kg block the material can hold before it breaks	Flexible	Allow light to pass through
T	7		✓
U	8	✓	
V	4	✓	✓
W	6	✓	✓

Which of the materials, T, U, V and W, are suitable to be made into a grocery bag (shown below) that can carry a 5 kg watermelon?

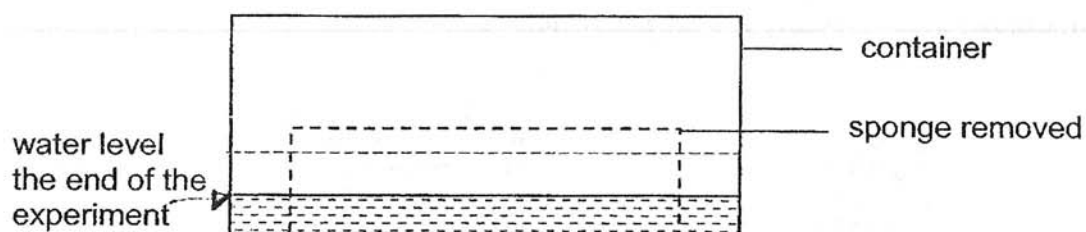


- (1) T and V only
- (2) U and W only
- (3) T, U and W only
- (4) T, U, V and W

- 18 Muthu wanted to find out which type of sponge will absorb more water. He placed a sponge into a container of water as shown in the set below.



After leaving the sponge to absorb the water in the container for 10 seconds, he removed the sponge and measured the drop in the water level.

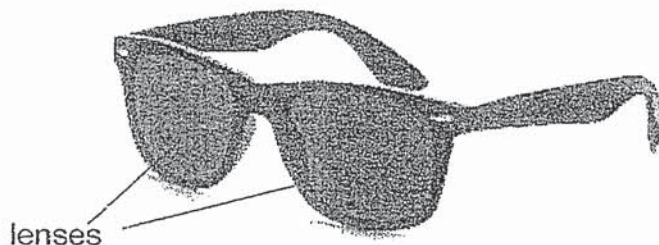


Which two set-ups should he use to ensure a fair test?

Set-up	Type of Sponge	Size	Amount of water in the container at first (ml)
A	X	Small	80
B	X	Big	80
C	Y	Big	80
D	Y	Small	160

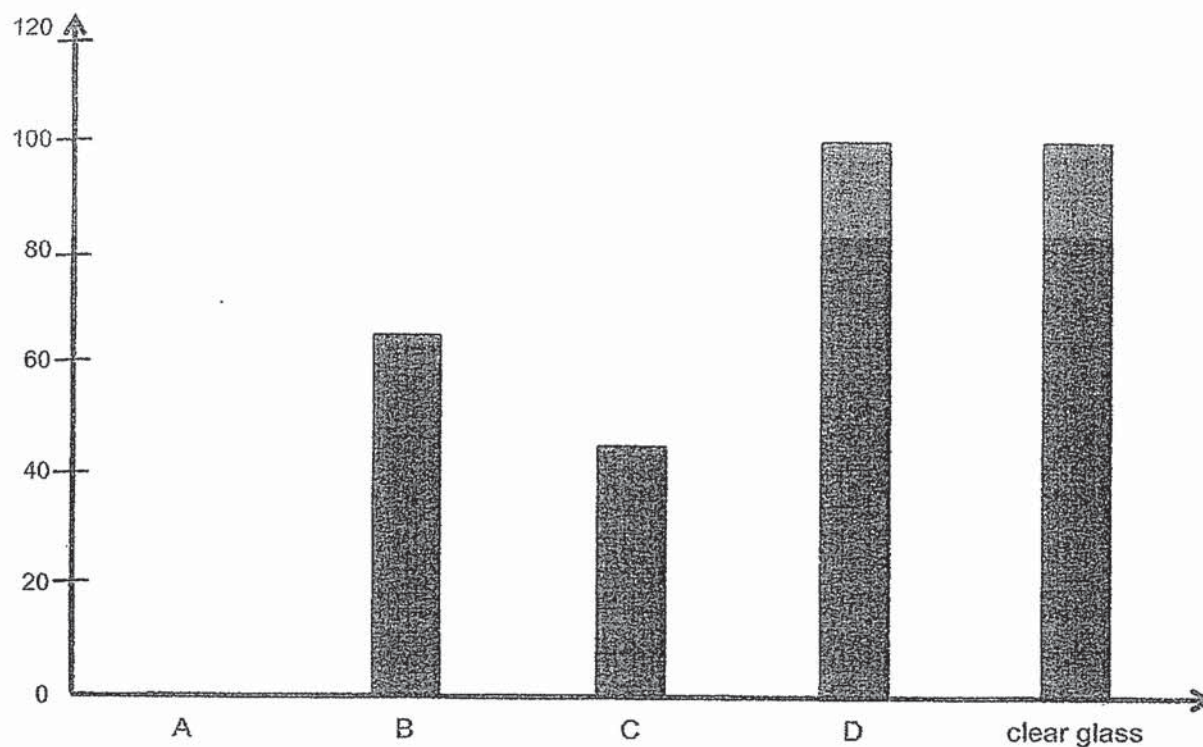
- (1) A and B
- (2) A and D
- (3) B and C
- (4) C and D

- 19 Sunita wears a pair of sunglasses so that she can enjoy the outdoor activity without hurting her eyes. The pair of sunglasses helps to cut down the glare from the strong afternoon daylight.



The graph below shows the amount of light passing through materials A, B, C and D.

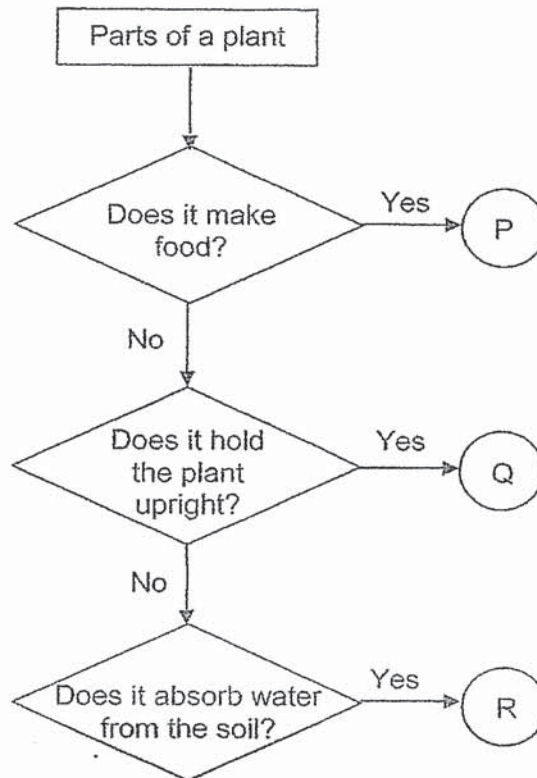
Amount of light that passed through the material (units)



Which of the material(s) is/are most likely used to make the lenses of Sunita's sunglasses?

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

20 Study the flow chart below.



Based on the diagram above, which of the following correctly match the letters P, Q and R to the plant parts?

Parts of the a plant			
	leaf	root	stem
(1)	P	Q	S
(2)	P	Q	R
(3)	P	R	Q
(4)	R	P	Q

- 21 Grandmother is eating her favourite noodles for lunch. Which of the following systems are at work?



	Systems				
	skeletal	digestive	muscular	circulatory	respiratory
(1)	✓	✓	✓		
(2)	✓	✓		✓	
(3)	✓	✓			
(4)	✓	✓	✓	✓	✓

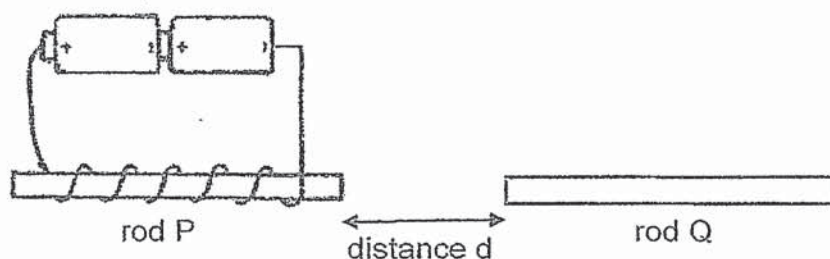
- 22 The table below shows activities taking place in the digestive system. A tick '✓' shows the type of activity taking place.

	Parts of the digestive system			
	P	Q	R	S
Add digestive juices to food	✓		✓	
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	gullet	large intestine	stomach
(1)	P	Q	S	R
(2)	P	Q	R	S
(3)	R	Q	S	P
(4)	S	R	Q	P

- 23 Lily set up an experiment as shown below. She recorded the number of coils around rod P and the distance, d , between the two rods when rod P is able to attract rod Q in the table below.

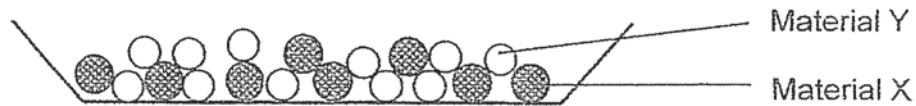


Number of turns of coils on rod P	Distance d (cm)
10	5
15	6
20	7
25	8
30	8

Which one of the following statements is true about her observations?

- (1) As the number of turns of coils on rod P increased, the distance d decreased.
- (2) The like poles of rods P and Q were facing each other.
- (3) Rod P became stronger when the number of turns of coils on rod P increased from 25 to 30.
- (4) Rod Q was a magnetic material.

- 24 Linda had a basket of buttons made from two different materials, X and Y. She did some tests on the properties of the two materials as shown in the table below.



Property	Tests	Material X	Material Y
A	Waterproof	✓	✓
B	Attracted to a magnet	✓	
C	Floats on water		✓

Linda wants to separate the buttons quickly. Which property(ies) can she use to separate the buttons?

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



**NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 – 2019
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 : 25 October 2019

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 The classification table below shows how some organisms are grouped.

Group A	Group B	Group C
fern	cockroach	dog
mould	grasshopper	bat
mushroom	mosquito	monkey

- (a) How are the living things grouped based on their characteristics? [1]

- (b) Based on their characteristics in (a), suggest a suitable heading for group A and B. [1]

Group A: _____

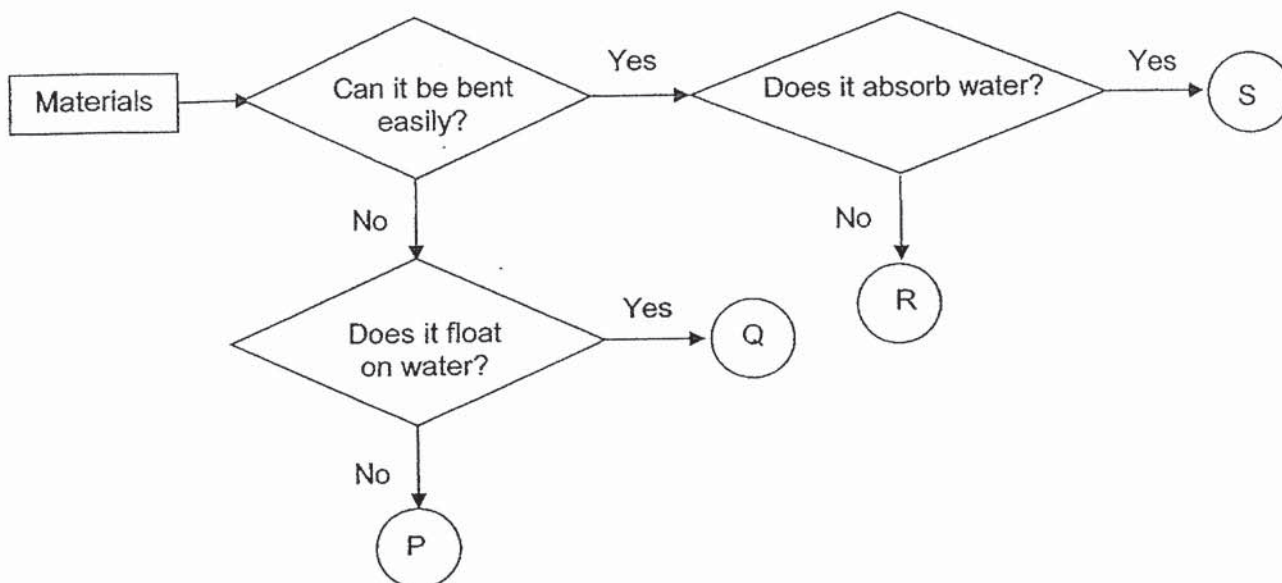
Group B: _____

- (c) Name a living thing that can be classified in group C. [1]

Group C: _____

Score	3
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26 Study the chart below.



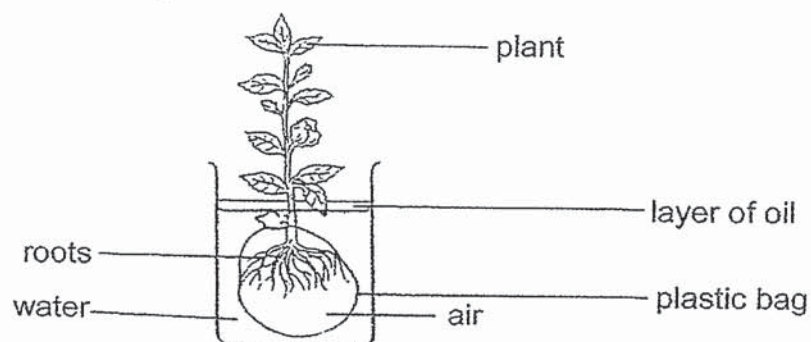
- (a) Mrs Wee bought a pair of gloves to wear while washing dishes so that she could keep her hands dry. Which material, P, Q, R and S, is most likely the material used to make the pair of gloves? [1]

- (b) Based on the chart above, state two properties of material S. [1]

- (c) Based on the chart above, state one difference between materials P and Q. [1]

Score	3
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- 27 Joseph placed the roots of a plant into a plastic bag and wrapped them up before putting the plant into a container of water as shown in the set-up below. A layer of oil was added to prevent losing water to the surrounding. The set-up was left by the window for a few days.

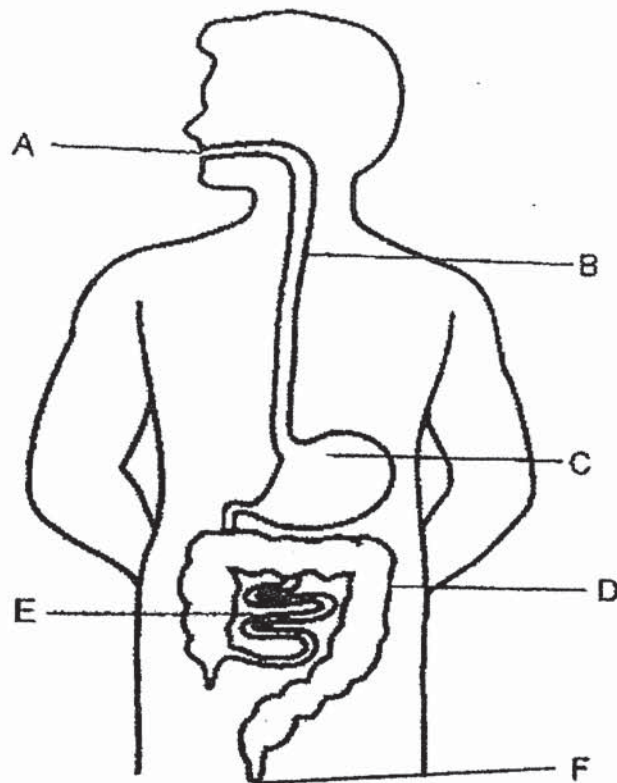


- (a) What would happen to the water level in the water? [1]

- (b) Joseph observed that the plant died after a few days. Explain his observation. [1]

Score	2
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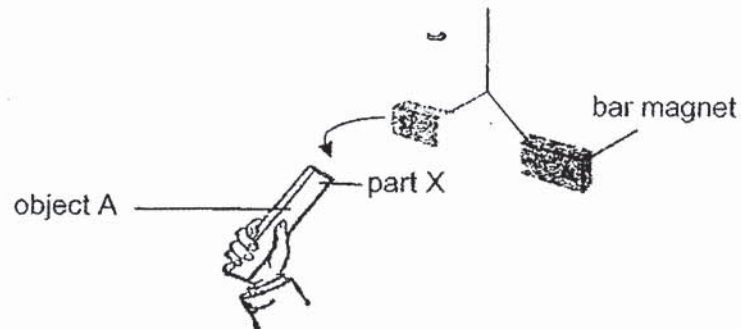
- 28 The diagram below shows a human body system.



- (a) Name the human body system shown above. [1]
-
- (b) List the parts (A, B, C, D, E and/or F) which food must pass through before it enters the blood. [1]
-
- (c) Li Ming has constipation. He has not been able to pass out his stool for a few days. When he finally passes out his stool, he found that his stool is very hard and dry. Which part of the body system above, A, B, C, D, E or F, causes his stool to be so hard and dry? [1]
-

Score	3
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- 29 Melvin wanted to find out if object A is a magnet. He moved object A towards the South pole of the bar magnet that was freely suspended in the air as shown below. The South pole of the bar magnet moved closer towards object A when object A was 2 cm away from the bar magnet.



- (a) Tick (✓) the correct statement. [1]

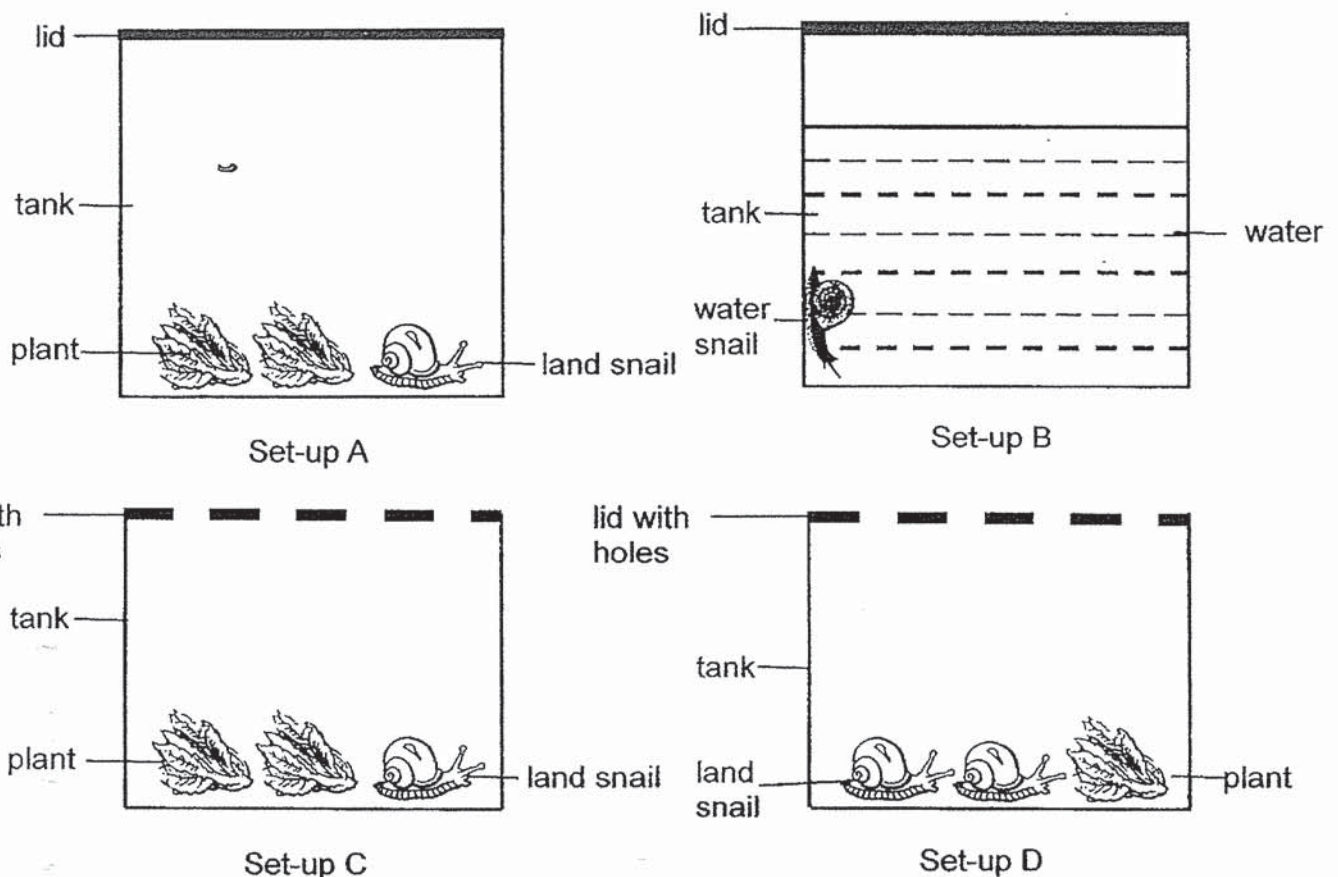
Statement	Tick (✓) if correct
Object A is made of a magnetic material.	
Magnetism can act at a distance from an object.	

- (b) He then removed object A. Which direction will the bar magnet come to rest? [1]

- (c) Melvin then moved part X of object A towards the North pole of the bar magnet. He observed that the North pole of the bar magnet moved away. What could object A be? Explain why. [2]

Score	4
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30 Wenbin was given four set-ups in the Science Laboratory as shown below.



- (a) Wenbin decided to choose set-up A and set-up C for his experiment. Based on the set-ups A and C, what was he trying to find out? [1]

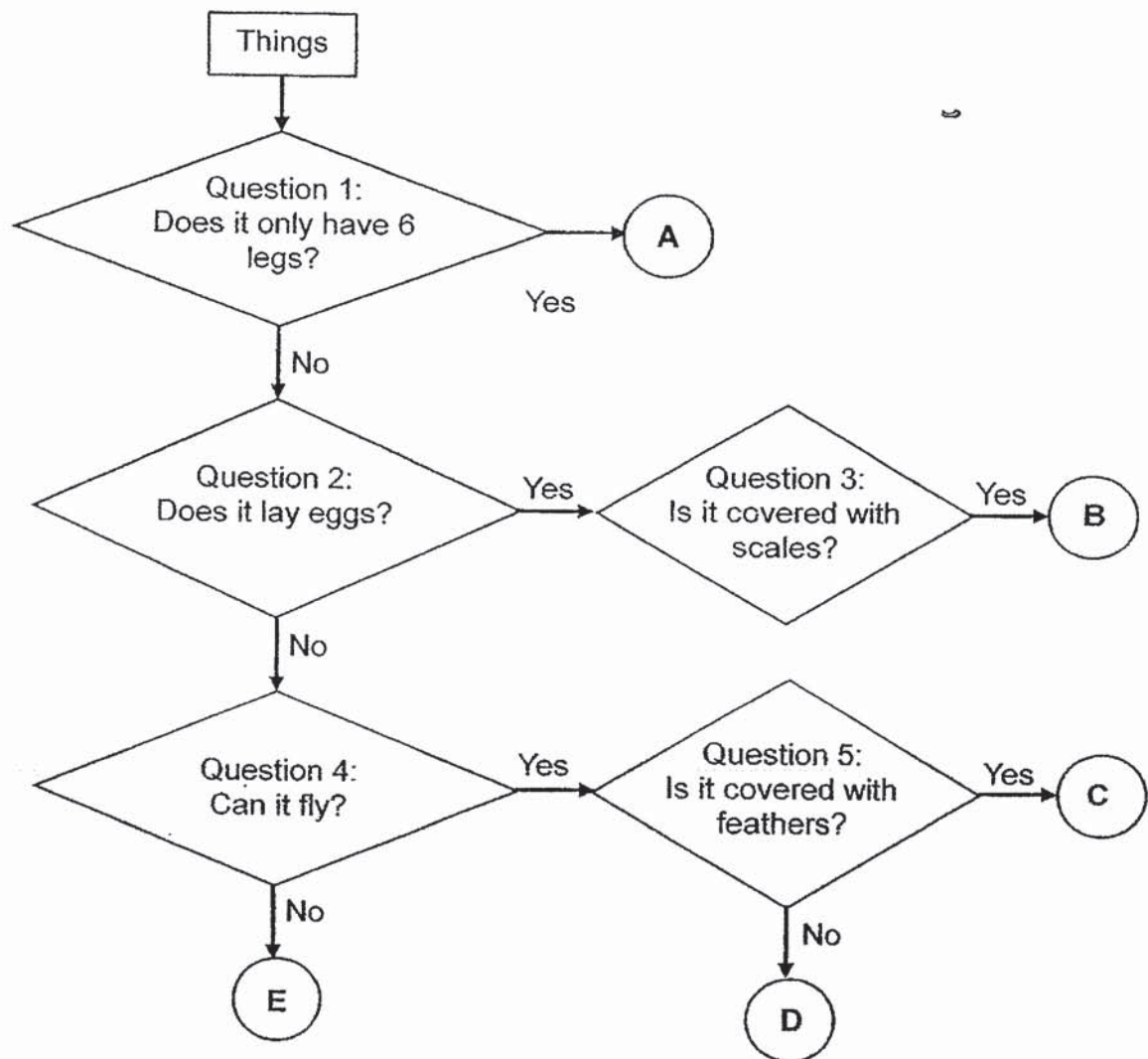
- (b) Tick (✓) all the variables that need to be kept the same for his experiment to work. [2]

Variables	Tick (✓)
Type of snails	
Position of the snails at the start of the experiment	
Number of snails	
Amount of food available	

- (c) Which set-up will allow the snail(s) to survive for the longest time? [1]

Score	4
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- 31 Study the chart below on classifying groups of animals.



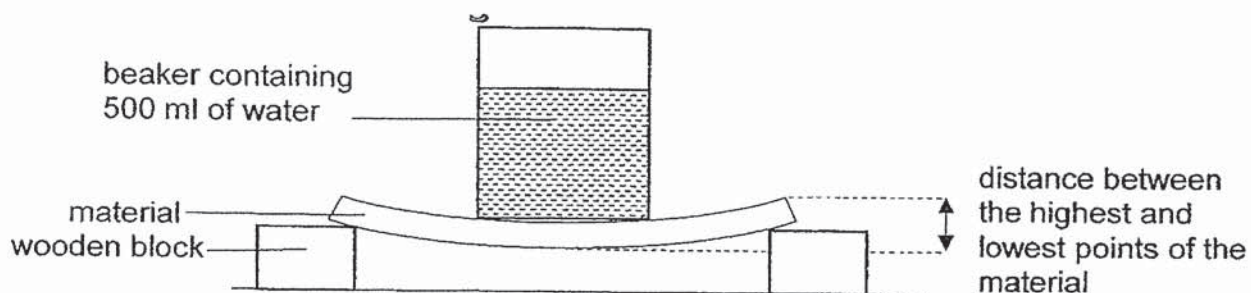
- (a) Jennie was informed that her flowchart was wrong.
Which question, 1, 2, 3, 4 or 5 was wrongly placed? [1]

- (b) Fish M lay eggs and is covered with scales.
Which group, A, B, C, D or E, does fish M belongs to? [1]

- (c) Which group of animals could A belong to? [1]

Score	3
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- 32 Yati conducted an experiment using the set-up below. He wanted to find out which materials, A, B or C, is most suitable to make a food tray.



He recorded the results in the table below.

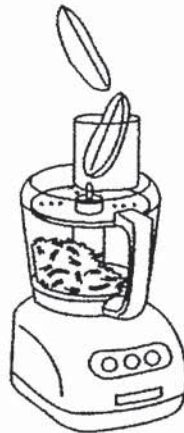
Material	Distance between the highest and lowest points of the material (cm)
A	4
B	2.5
C	1.5

- (a) Based on the information in the table, which material, A, B or C, is most suitable for making a food tray? Explain your answer. [2]

- (b) State one variable of the material that must be kept the same in order for the test to be a fair one. [1]

Score	3
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- 33 The diagram below shows a food processor. The food processor chops the food into smaller pieces.



Mdm Fatimah has a young son who is 9 months old. Besides drinking milk, Mdm Fatimah wants him to try out solid food. She placed a piece of cooked carrot into the food processor before feeding her son.

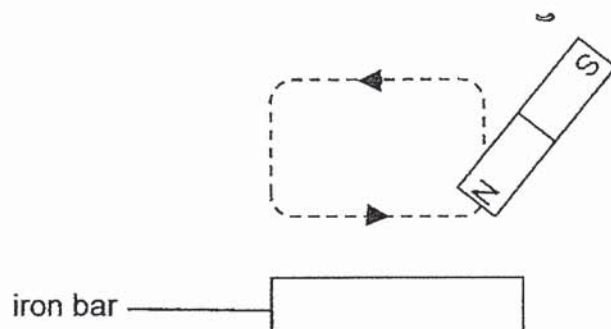
- (a) Explain why the cooked carrot processed by the food processor helps Madam Fatimah's son to digest it faster than one whole piece of cooked carrot. [2]

- (b) Which part of the digestive system does the digested food get absorbed into the blood? [1]

Score	3
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- 34 Rong Ming wanted to find out if he could make an iron bar into a temporary magnet by using a bar magnet.

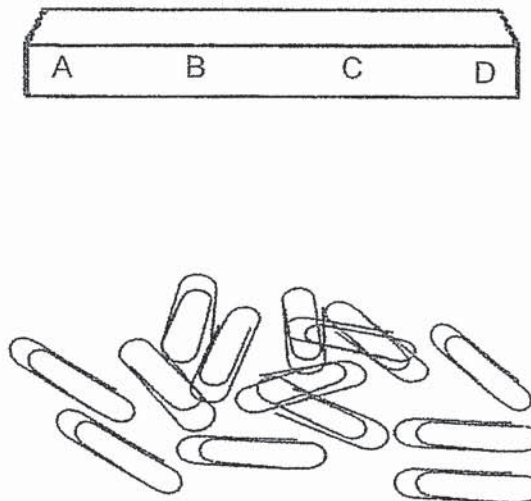
He used the North pole of the bar magnet to stroke the complete length of the iron bar in the direction as shown in the diagram below. He stroked the iron bar five times in the same direction.



- (a) Explain why no steel clips were attracted to the iron bar after stroking. [1]
- _____
- _____
- (b) If the above problem had been fixed by Rong Ming, the iron bar should be able to attract some paper clips. What can he do to increase the number of paper clips attracted to the iron bar? [1]
- _____
- _____
- (c) Name another method to make the iron bar into a magnet [1]
- _____

Score	3
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A bar magnet was placed above some steel clips as shown in the diagram below.



A table is drawn to record the number of steel clips attracted to the different parts of the magnet.

Part of the magnet	Number of steel clips attracted to the bar magnet
A	3
B	1
C	?
D	4

- (d) What could be the possible number of steel clips attracted to part C of the bar magnet? [1]

~ End of paper ~

Score	1
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ANSWER KEY

YEAR : 2019
LEVEL : PRIMARY 3
SCHOOL : NAN HUA PRIMARY SCHOOL
SUBJECT : SCIENCE
TERM : SEMESTRAL ASSESSMENT 2

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

- Q25. (a) They are grouped by how they reproduced.
 (b) Group A: reproduce by spores
 Group B: reproduce by laying eggs
 (c) cat
- Q26. (a) Material R
 (b) Material S can be bent easily and it can absorb water.
 (c) Material P does not float on water, but material Q float on water.
- Q27. (a) It will remain the same.
 (b) The plant's root is wrapped by a plastic bag and it cannot absorb water.
- Q28. (a) Digestive system
 (b) Part A,B,C,E
 (c) Part D
- Q29. (a) Magnetism can act at a distance from an distance.
 (b) North-South direction
 (c) Object A could be a magnet. Magnets can repel and attract while materials can only attract.
- Q30. (a) Does living things need air to survive.
 (b) Type of snails, Number of snails, Amount of food available
 (c) Set-up C
- Q31. (a) Question 5
 (b) Group B
 (c) Insects
- Q32. (a) Material C. The distance between the highest and lowest points of the material is the smallest, so material C is the least flexible, making it most suitable to be used to make a food tray.
 (b) The thickness of the material.
- Q33. (a) The smaller piece of cooked carrot has a bigger surface area in contact with the digestive juice so the smaller piece of cooked carrot can be digested faster than the whole piece of cooked carrot.
 (b) The small intestine

- Q34. (a) He did not stroke the iron bar enough times.**
(b) Increase the number of strokes.
(c) Electrical method
(d) 2 steel clips

2
3/10,