



NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 – 2016
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 _____

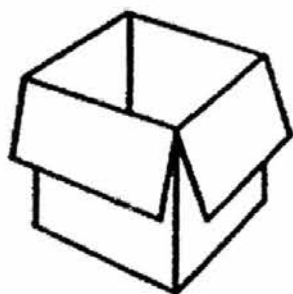
Date : 27 October 2016

Parent's signature: _____

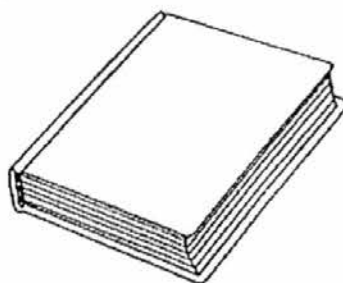
Section A: (24 x 2 marks = 48 marks)

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 diagrams below.



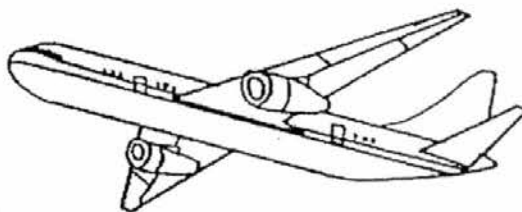
Box



Book



Plant

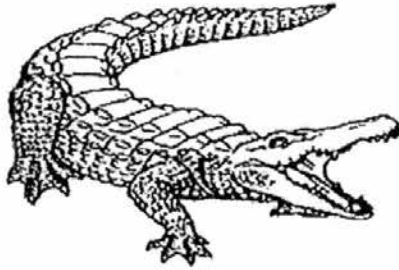


Aeroplane

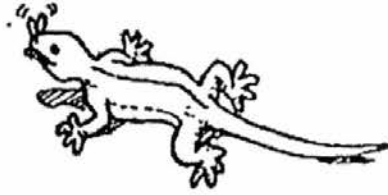
Based on the characteristics of living and non-living things, which one of the following does not belong to the same group as the others?

- (1) Box
- (2) Book
- (3) Plant
- (4) Aeroplane

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



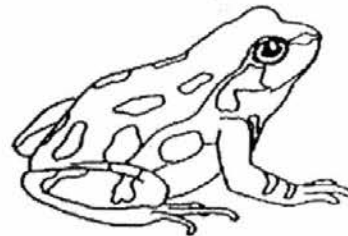
Crocodile



Lizard



Clown fish



Frog

The animals belong to the same group because _____.

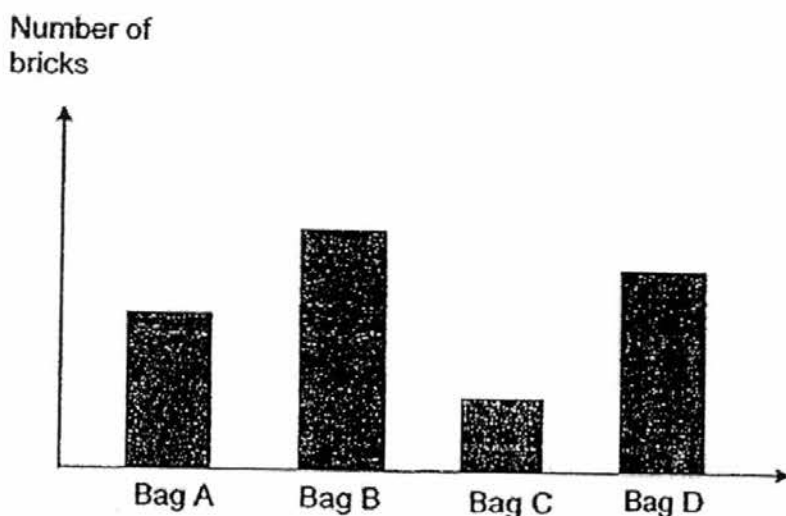
- (1) they lay eggs
 - (2) they can swim
 - (3) they can live on land and in water
 - (4) they have scales as an outer-covering
3. The table below shows the properties of four materials.

Material	Flexible	Transparent	Waterproof
P	Yes	No	No
Q	No	Yes	Yes
R	No	No	No
S	Yes	Yes	Yes

Which one of the following materials is suitable for making a raincoat?

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

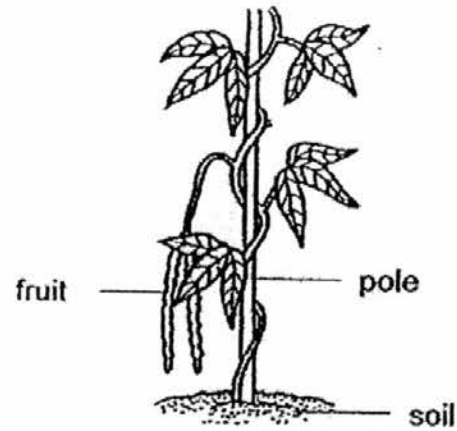
4. The graph below shows the maximum number of bricks that four bags made of different materials could hold before breaking.



Which of the following conclusions **cannot** be drawn from the graph?

- (1) Material of Bag A is stronger than Bag C.
 - (2) Material of Bag D is stronger than Bag A.
 - (3) Material of Bag B has the greatest strength.
 - (4) Material of Bag C is the weakest and is waterproof.
5. Which of the following statements about the stem is **incorrect**?
- (1) It holds the plant firmly to the ground,
 - (2) It holds the leaves up to get as much sunlight as possible.
 - (3) It transports water from the roots to other parts of the plant.
 - (4) It transports food from the leaves to other parts of the plant.

6. The diagram below shows a plant growing in a garden.



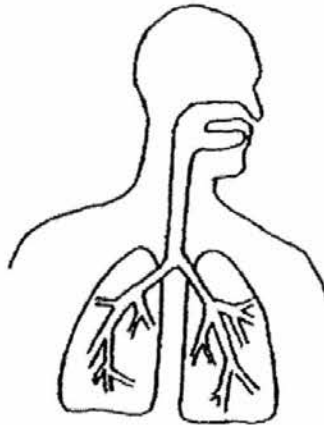
A group of children made the following statements about the plant.

- Alex : This plant has a weak stem.
Bala : This plant has a strong stem.
Candy : This plant is a flowering plant.
Denise : This plant is a non-flowering plant.

Who made the correct statements?

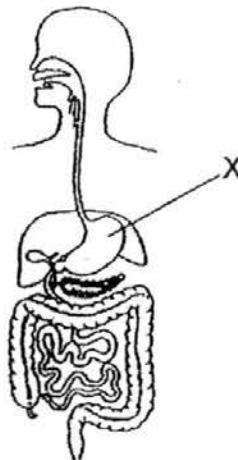
- (1) Alex and Candy
- (2) Bala and Candy
- (3) Alex and Denise
- (4) Bala and Denise

7. The diagram below shows a system in the human body.



Which human body system does it represent?

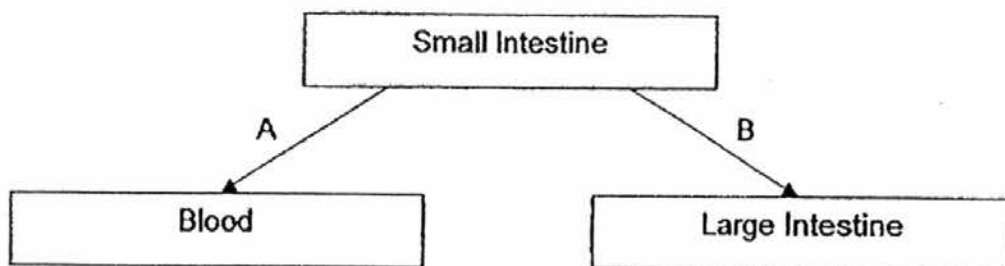
- (1) Skeletal system
 - (2) Muscular system
 - (3) Circulatory system
 - (4) Respiratory system
8. The diagram below shows the digestive system.



Which of the following takes place at part X?

- (1) Water is removed from the undigested food.
- (2) Digested food is absorbed into the bloodstream.
- (3) Food is chewed and grinded into smaller pieces.
- (4) Food is broken down by the digestive juices into simple substances.

9. The diagram below shows the materials that move out of the small intestine into the blood and into the large intestine.



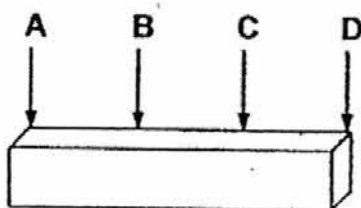
What materials do A and B represent in the diagram above?

	A	B
(1)	Water	Digested food
(2)	Digested food	Undigested food
(3)	Undigested food	Digested food
(4)	Undigested food	Water

10. Which of the following metals is magnetic?

- (1) Iron
- (2) Silver
- (3) Copper
- (4) Aluminium

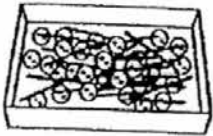
11. Study the diagram below.

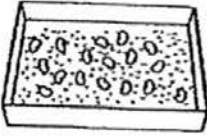


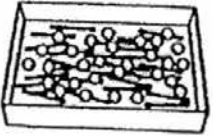
Which parts of the magnet have the strongest magnetic pull?


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

12. There are two types of objects in each of the trays below. Which mixture of objects can be easily separated by using a magnet?

(1)  plastic buttons and steel needles

(2)  beans and sugar granules

(3)  wooden sticks and plastic beads

(4)  steel needles and iron thumbtacks

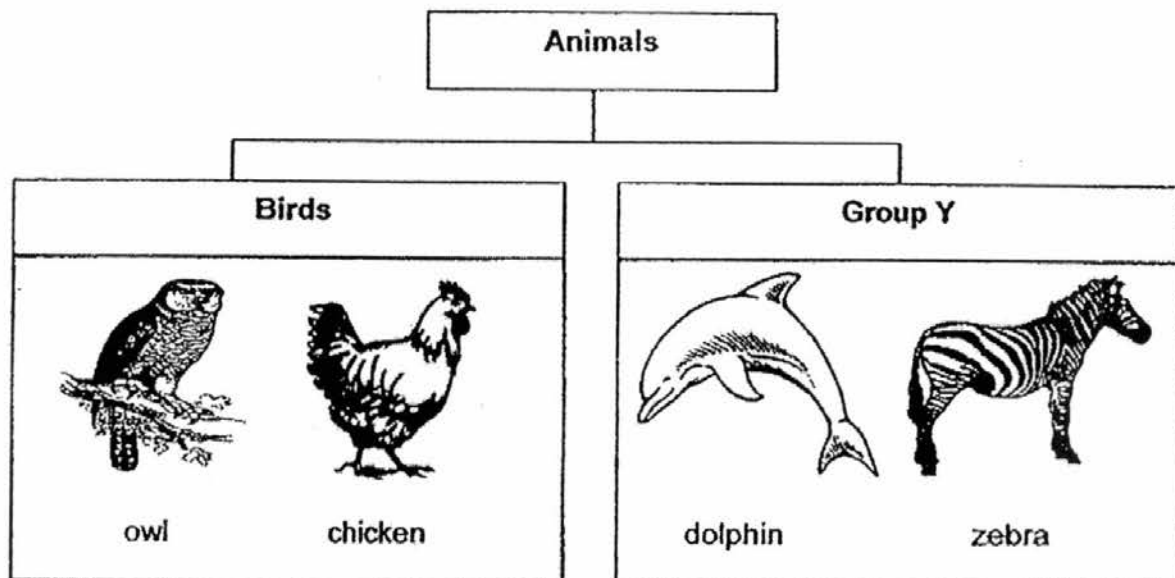
13. Study the table below. A tick (✓) shows that the thing, A, B, C or D, has the characteristics.

	Ability to move from place to place	Needs water	Reproduces	Has legs
A		✓	✓	
B	✓	✓	✓	✓
C	✓	✓	✓	
D	✓			✓

Which of the following is most likely a non-living thing?

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

14. Study the classification chart below carefully.



Which of the following animals belongs to Group Y?

- (1) Bat
 - (2) Shark
 - (3) Ostrich
 - (4) Butterfly
15. Lena observed an adult animal and recorded the following information.

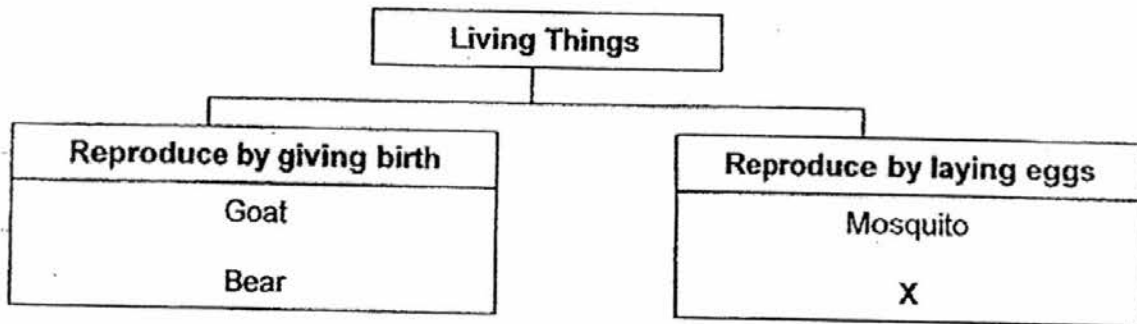
- It lays eggs.
- It has two legs.
- It does not have fins and gills.
- It does not produce milk to feed its young.

What can you conclude about the animal from the information given?

- A The animal is not a fish.
- B The animal is not a bird.
- C The animal is not an insect.
- D The animal is not a mammal.

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

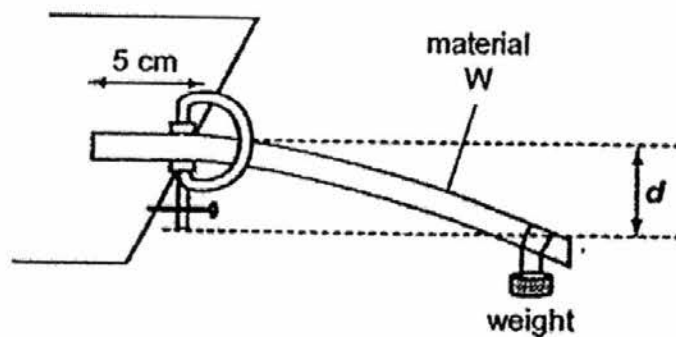
16. Study the classification chart below carefully.



What could "X" be?

- (1) Lion
- (2) Turtle
- (3) Giraffe
- (4) Monkey

17. Ahmad used the following set-up to investigate the flexibility of 4 rods made from different materials. He secured one end of the rod on the table top and put a weight on the other end. He measured the distance of d in centimetres as shown below.

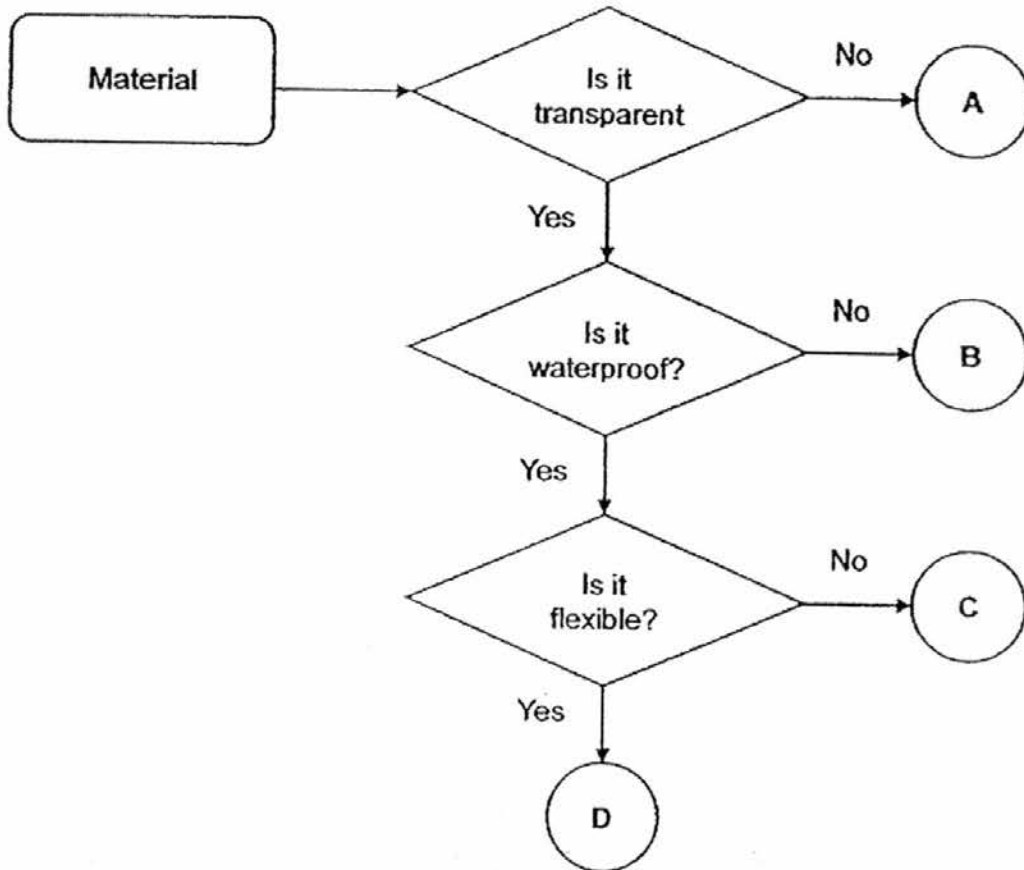


Material	d (cm)
W	8
X	3
Y	0
Z	2

Which of these material is most suitable for making a food tray?

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

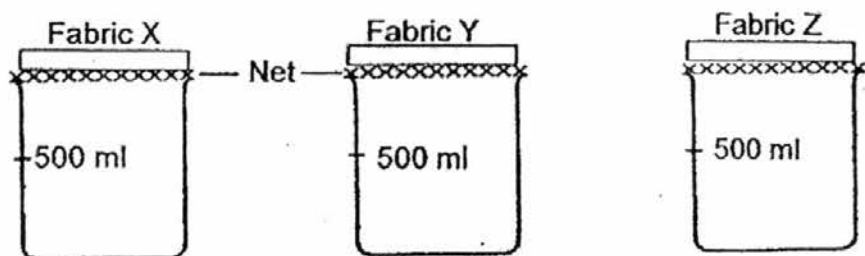
18. Study the flowchart below.



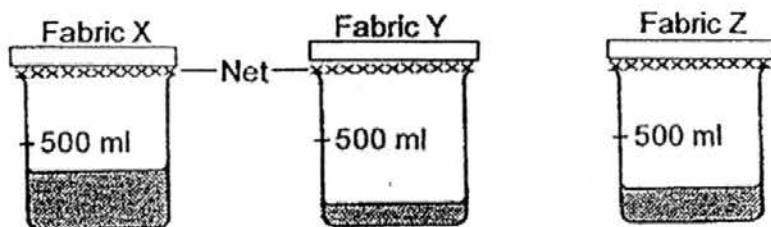
Which of the following letters will most likely represent the lens of spectacles?

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

19. There are 3 different types of fabrics of the same size. Jane folded each of them in the same way and placed them on top of the containers with a net over the opening. She poured 500 ml of water onto each type of fabric.



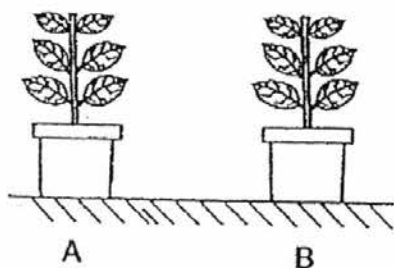
The diagrams below show the observations 5 minutes after pouring the water.



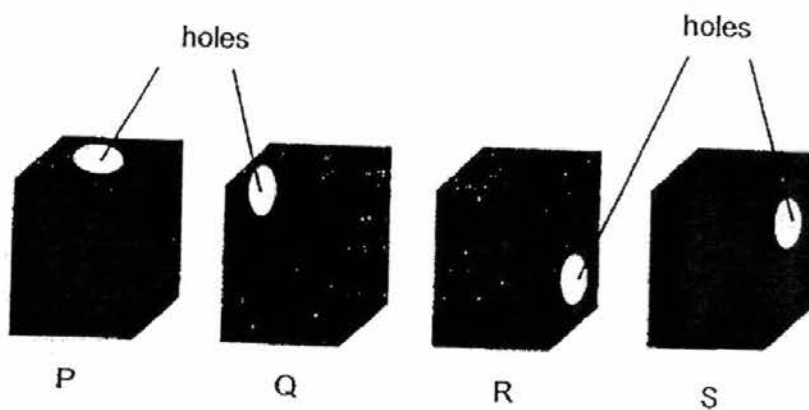
What can you conclude from the observations?

- A Fabric X absorbs the most water.
 - B Fabric Y absorbs less water than Fabric Z.
 - C The fabrics absorb different amounts of water.
 - D All the three types of fabrics are not waterproof.
- (1) B only
(2) A and B only
(3) C and D only
(4) A, C and D only

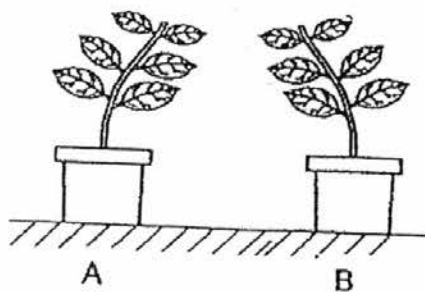
20. Two pots of plants were placed in an open field.



Each pot was covered with one of the black boxes shown below. The black boxes had holes made on different parts of the boxes as shown.



The diagram below shows what the plants looked like after three weeks.

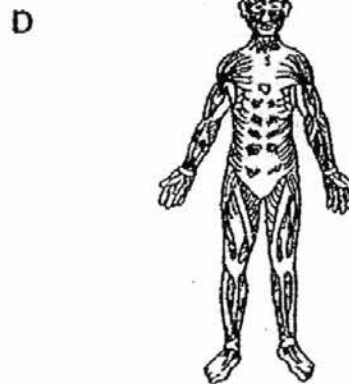
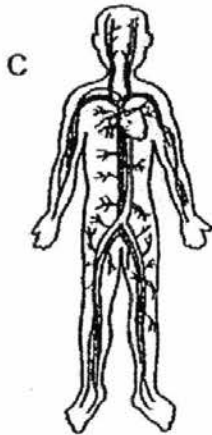
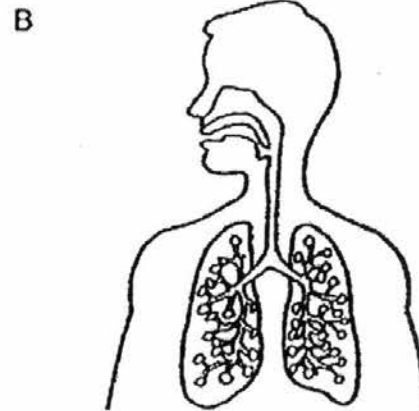


By looking at the plants, we can conclude that Pot A was covered with box _____ and Pot B was covered with box _____.

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

21. Peter is playing soccer in a field.

Which systems work together to enable Peter to play soccer?

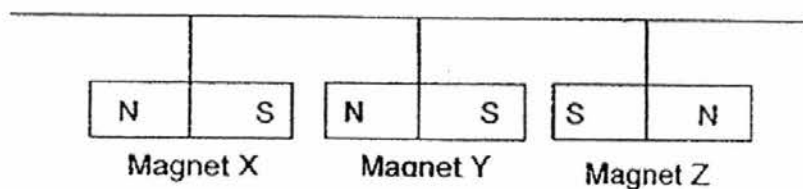


- (1) A and D only
- (2) B and C only
- (3) A, B and D only
- (4) A, B, C and D

22. Constipation is a condition of the digestive system. A person who suffers from constipation has hard and dry waste materials that are difficult to pass out. Which part of the digestive system could possibly have cause this condition and what is the reason?

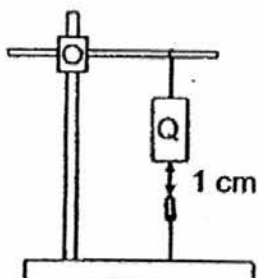
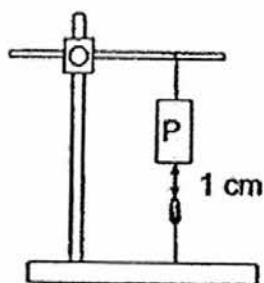
	Digestive organ	Reason
(1)	Small intestine	Too much digested food is absorbed into the bloodstream.
(2)	Small intestine	Too much water is absorbed into the bloodstream.
(3)	Large intestine	Too much water is absorbed from the undigested food.
(4)	Large intestine	Too little water is absorbed from the undigested food.

23. What will happen when three bar magnets are hung in the manner as shown below?

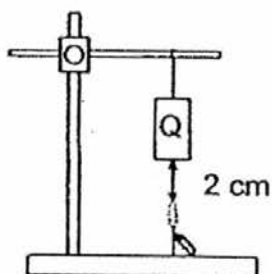
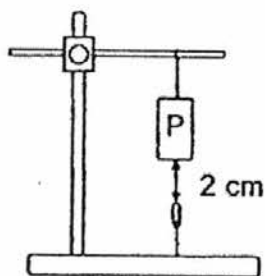


- (1) The magnets remain stationary.
- (2) Magnet Y will start spinning.
- (3) Magnet Y will move towards Magnet X.
- (4) Magnet Y will move towards Magnet Z.

24. There are two bar magnets, P and Q, of the same size. Both magnets can attract a paper clip held by a string even though the magnets are 1 cm above the paper clips. The diagrams below are not drawn to scale.



The experiment is repeated by moving the magnets further away from the paper clips. The observations when the magnets are 2 cm above the paper clips are shown below.



What can you conclude from the observations?

- A Magnets can act at a distance.
- B Unlike poles of the magnet attract.
- C The strength of the magnet is dependent on the size.
- D Magnet P has a stronger magnetic strength than Magnet Q.

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



NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 – 2016
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 : 27 October 2016

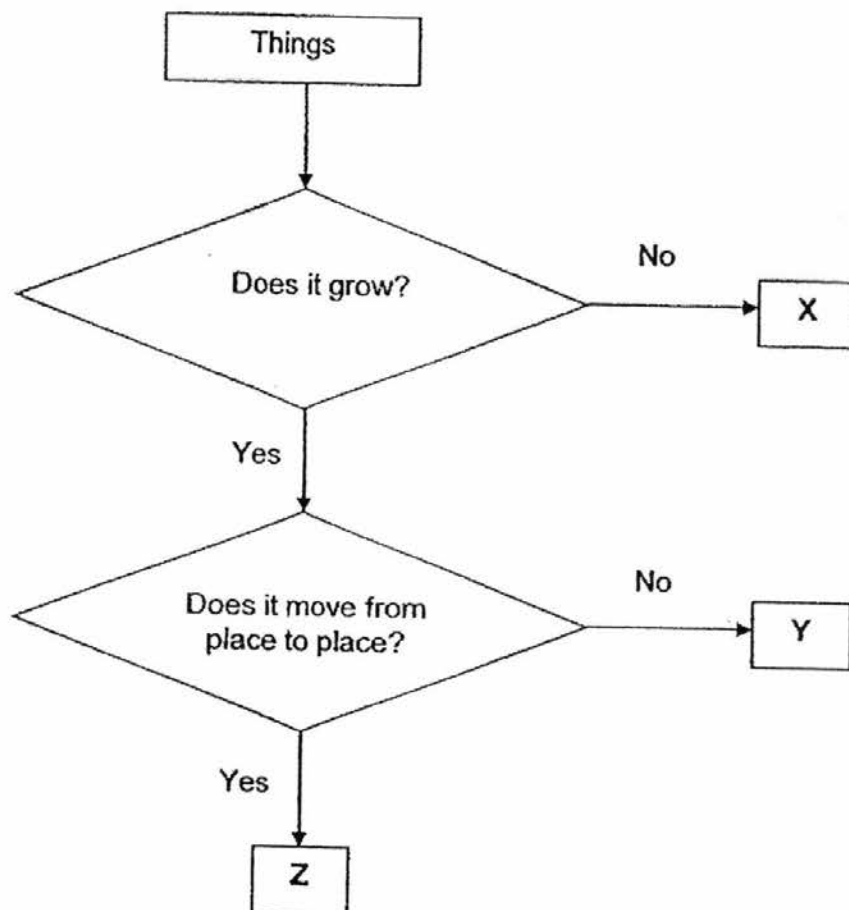
Parent's Signature: _____

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 flowchart below shows the characteristics of three things, X, Y and Z.

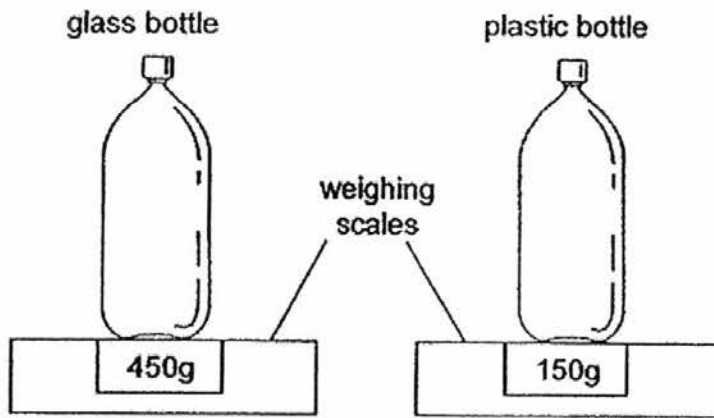


- (a) Based on the flowchart above, list two characteristics of Thing Z. [2]

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

Score	3
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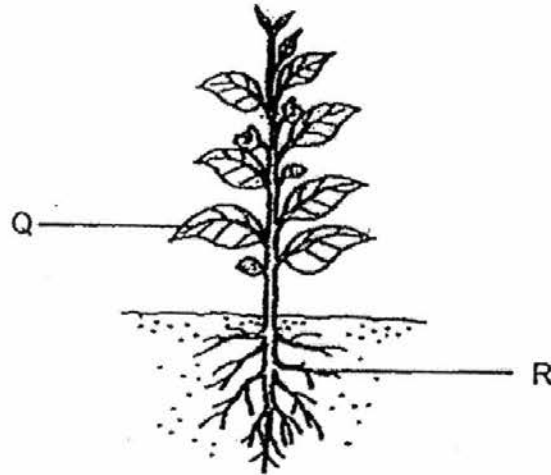
26. The diagrams below show a glass bottle and a plastic bottle of the same size. The bottles were placed on a weighing scale. The mass of each bottle is shown on the weighing scale.



Which bottle will you carry with you during an excursion? Give two reasons to support your answer. [2]

Score	2
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27. Study the diagram of a plant below.



(a) Identify parts Q and R of the plant above.

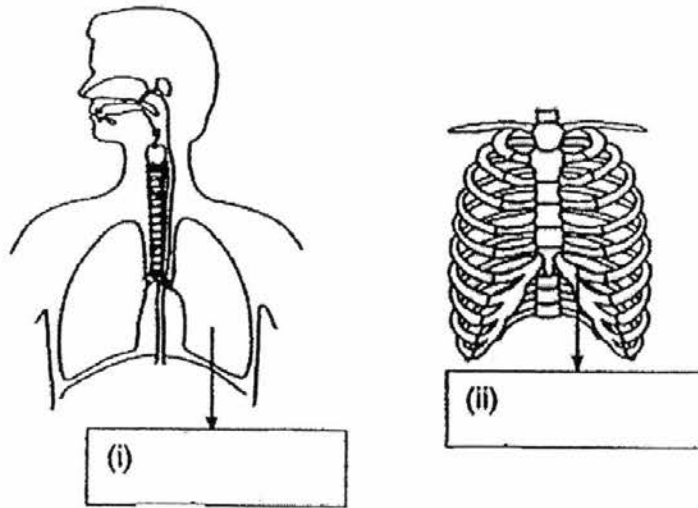
[1]

Part Q : _____

Part R : _____

(b) The plant died when all of its parts Q and R are removed. Give two reasons to explain why the plant died. [2]

28. The diagram below shows parts of two human systems.

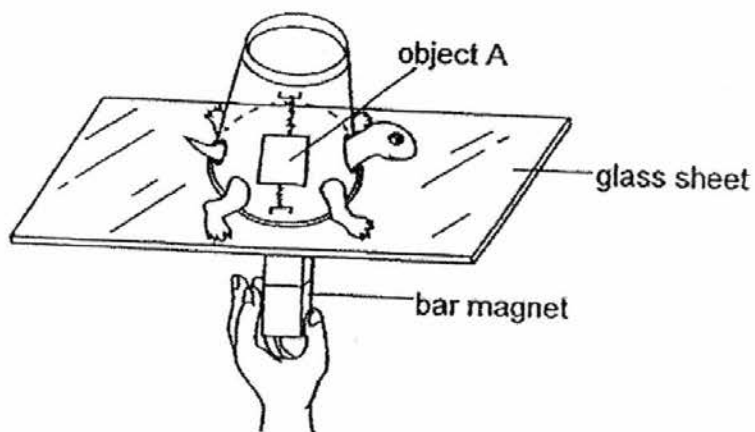


a) Identify the organ and the structure shown above. [1]

b) With reference to the functions of the skeletal system, explain how the structure in (ii) helps the organ in (i). [1]

c) Name the human system that works together with the skeletal system to help different parts of the body to move. [1]

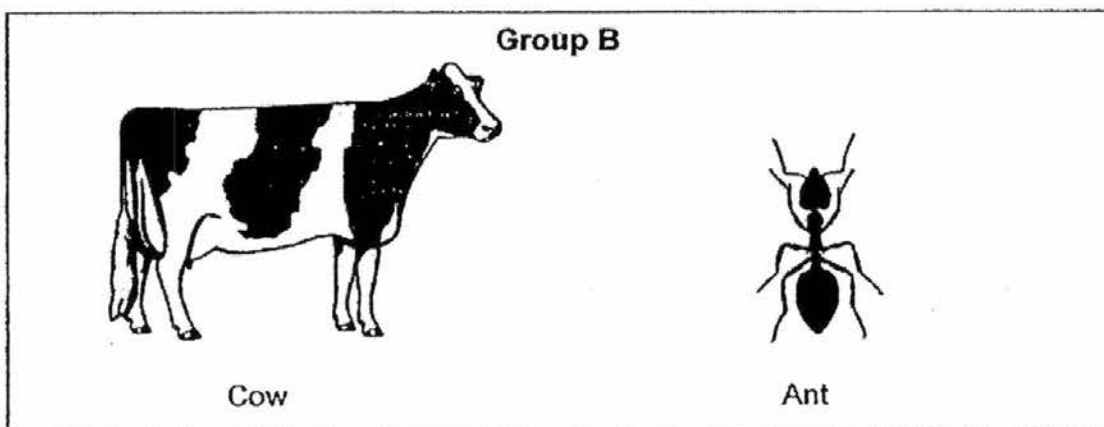
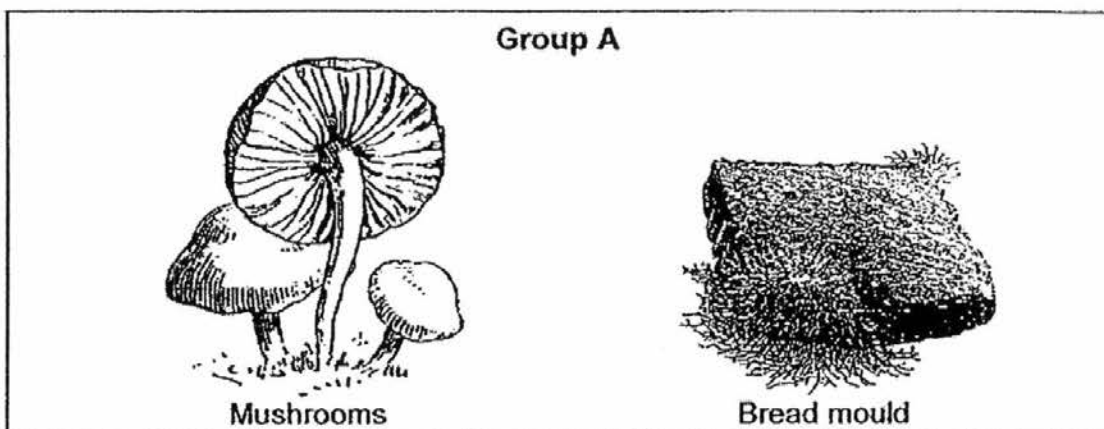
29. Peter made a toy tortoise using a foam cup and fixed an object A inside the cup. He placed the toy tortoise on a thin glass sheet and put a strong bar magnet right under it. As he moved the bar magnet, the toy tortoise did not move.



- (a) Why do you think Peter was not able to move the toy tortoise across the glass sheet? [1]

- (b) What should he do in order to move the toy tortoise using the magnet? Explain your answer. [2]

30. Study the two groups of living things shown below.



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

Group A : _____

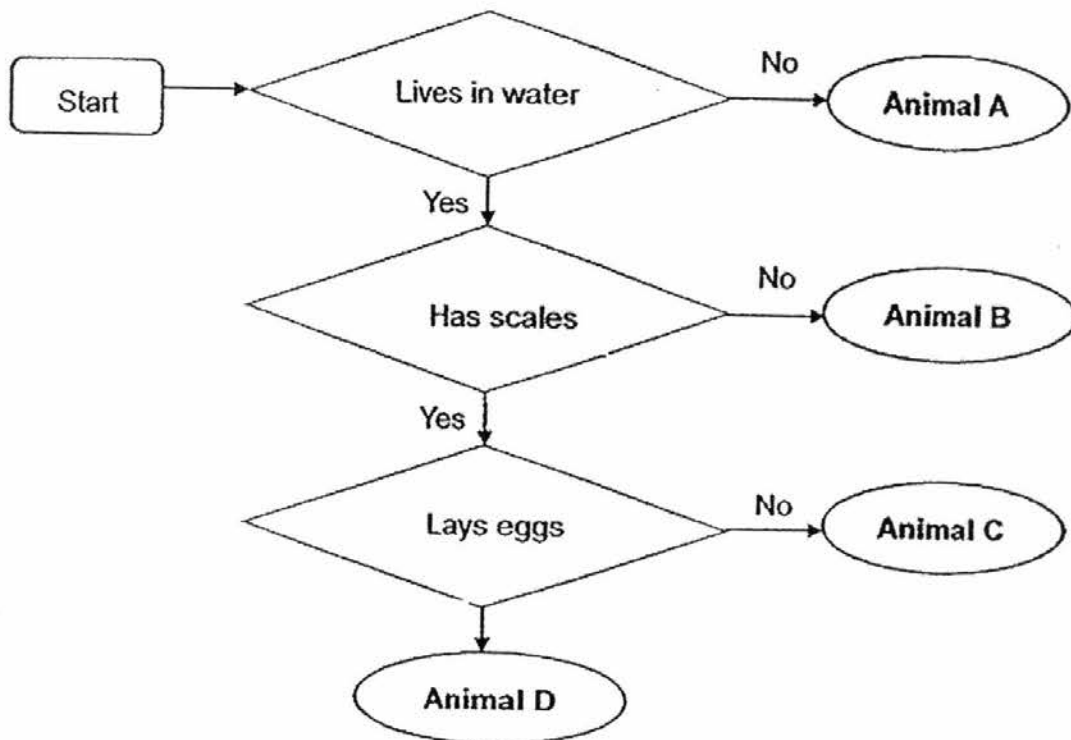
Group B : _____

(b) What is one common characteristic between the living things in groups A and B? [1]

(c) State the difference between the outer coverings of the cow and the ant. [1]

(d) How does the mushrooms and bread mould reproduce? [1]

31. Study the flowchart below carefully.



(a) Based on the flowchart above, state one difference between Animals A and B. [1]

(b) Based on the flowchart above, state two similarities between Animals C and D. [2]

(i)

(ii)

(c) Name the group of animal that Animal D belongs to. [1]

32. Betty conducted some tests to find out the properties of materials P, Q, R and S. The results of the tests are shown in the table below.

Property	Material			
	P	Q	R	S
Breaks easily	No	No	Yes	Yes
Bends easily without breaking	No	Yes	No	Yes
Allows water to pass through	No	No	No	No
Allows light to pass through	No	No	Yes	Yes
Floats on water	Yes	No	No	No

- (a) Based on the table above, state a property shared by the four materials. [1]

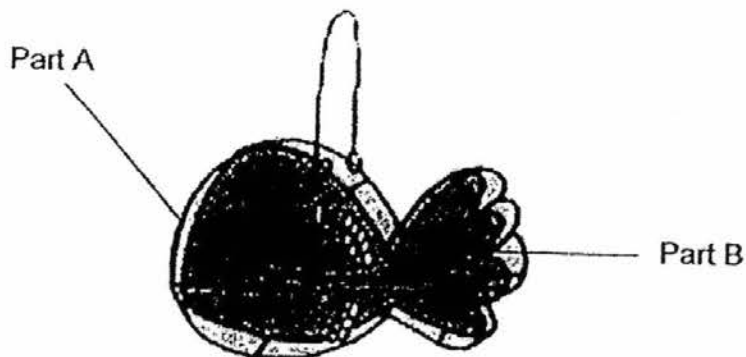
- (b) The diagram below shows a swimming board.



- Which material (P, Q, R or S) is suitable for making the swimming board? Give a reason for your answer [1]

Score	2
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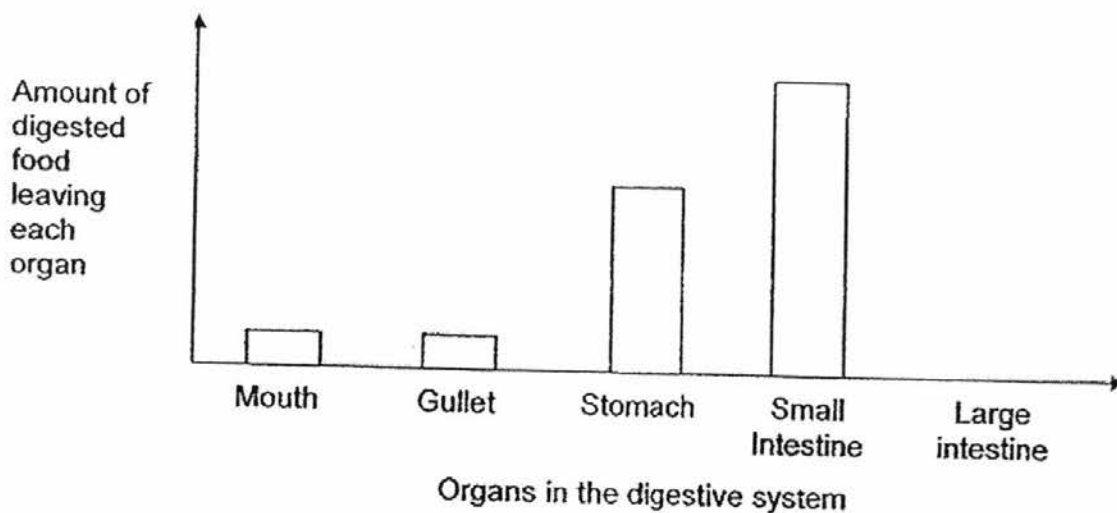
- (c) James wants to make a lantern for the mid-autumn festival. Which material (P, Q, R or S) should he choose to make parts A and B? [1]



Part A: _____

Part B: _____

33. The graph below shows the amount of digested food leaving each organ in the human digestive system.



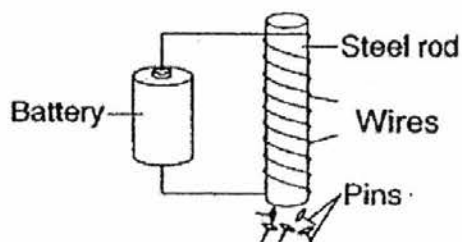
- (a) Based on the graph above, why does the amount of digested food leaving the mouth and the gullet is the same? [1]

Score	2
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- (b) The graph shows that there is no digested food leaving the large intestine. Explain why. [2]

- (c) Andrew said that if he cuts his food into smaller pieces, it will help in his digestion. Do you agree with Andrew? Explain your answer. [1]

34. Randy set up an experiment as shown below.



He conducted the experiment using 4 identical steel rods, A, B, C and D, each with different number of turns of the wire around it. He recorded the number of pins that each steel rod attracted in the table below.

Steel Rod	Number of turns of wire	Number of pins attracted
A	12	3
B	18	5
C	22	6
D	28	8

- (a) Based on the table above, what happens to the number of pins attracted when the number of turns of wire increases? [1]

Score	4
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- (b) Identify the variables in the experiment. Put a tick (✓) in the correct boxes below. [2]

Variables	Constant Variable (variable that is kept the same)	Dependent Variable (variable that is measured)	Independent Variable (variable that is changed)
Size of rod			
Number of turns of wire			
Number of pins attracted			
Number of batteries			

End of Paper

Score	2
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EXAM PAPER 2016 (P3)

SCHOOL : NAN HUA

SUBJECT : SCIENCE

TERM : SA2

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

25)a)It can grow and also can move from place to place.

b)Plant.

26)I would bring the plastic bottle as it is light and won't break easily.

27)a)Q: Leaf R: Root

b)Part R can't absorb anymore mineral salt and water and part Q cannot take food from the sunlight to the plant.

28)a)i)Lung ii)Ribcage b)It will protect the Lung.

c)Muscular system.

29)a)Object A is a non-magnetic material.

b)He should change object A to a magnetic material. The magnet will then be able to attract object A.

30)a)A: Cannot move B: Can move

b)They both reproduce.

c)The outer covering of the cow is fur but the outer covering of the ant is not fur.

d)It reproduce by spores.

31)a)Animal B lives in water but Animal A do not lives in water.

b)i)Both if them live in water. ii)Both of them have scales.

c)Fish.

32)a)All of them do not allow water to pass through.

b)Material P. It floats on water.

c)A: Material Q B: Material S

33)a)There have no digestion taking place in the gullet.

b)Digestion is completed in the small intestine. All the digested food is absorbed into the blood at the small intestine so no digested food goes into the large intestine.

c)Yes, By cutting the food into smaller pieces, there will be more surface area for the digested juices to act on. This will help to increase the speed of digested.

34)a)The more number of wire turn the more pins the steel rod attracted.

b)

✓		
		✓
	✓	
✓		