



**CATHOLIC HIGH SCHOOL
PRIMARY 4
MID YEAR EXAMINATION 2009**

SCIENCE

Name: _____ ()

Class : Primary 4 _____

Date : 18 May 2009

BOOKLET A

30 Questions
60 Marks

Total Time for Booklets A & B : 1 hour 45 minutes

Instructions to Candidates

Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.

6044

209

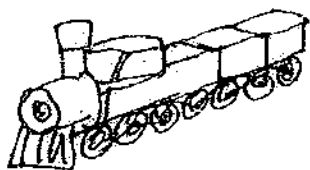
Section A: Multiple Choice Questions (60 marks)

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

1. Which one of the following is a characteristic of all living things?

- (1) They can grow.
- (2) They cannot reproduce.
- (3) They make their own food.
- (4) They need water and food only.

2. Look at the objects shown below.



Toy train



Dictionary

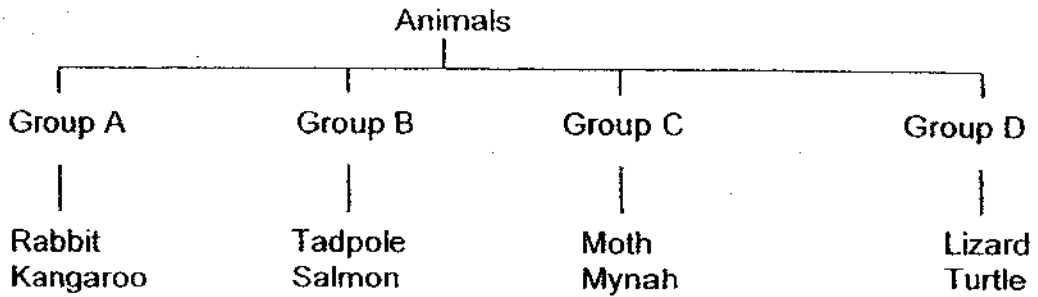


Doll

What do you observe about all the three objects?

- (1) They can move by themselves.
- (2) They do not need air, water and food.
- (3) They are all made from things that were once alive.
- (4) They are all made from things that were never alive.

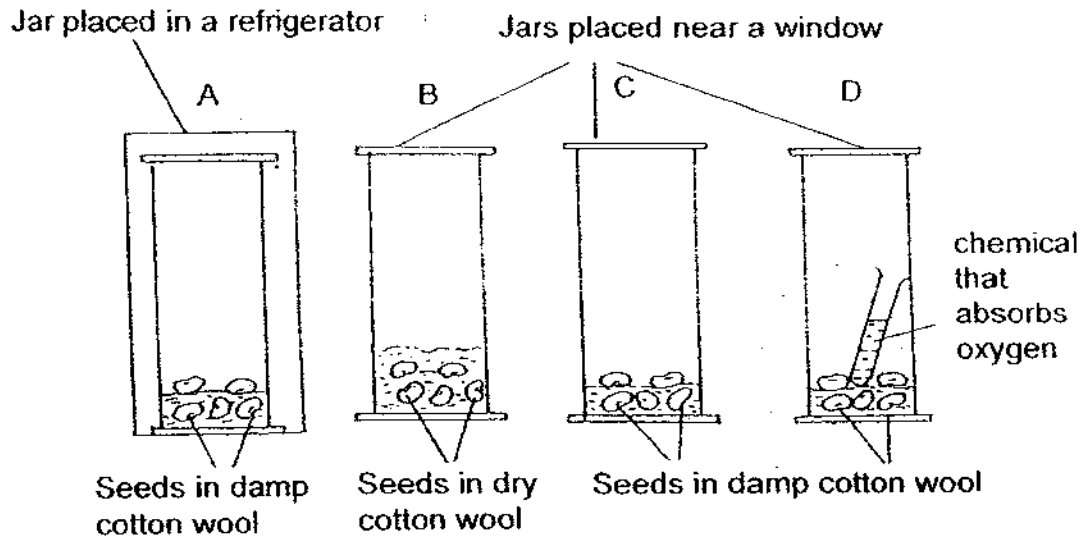
3. Study the classification diagram shown below.



The animals are grouped according to _____

- (1) how they move
- (2) where they live
- (3) what they feed on
- (4) what their body coverings are

4. Each of the following jars contains five similar pea seeds put under different conditions. Jars B, C and D are placed near a window while Jar A is placed in a refrigerator.



The seeds in Jar _____ will have the best chance to develop into seedlings.

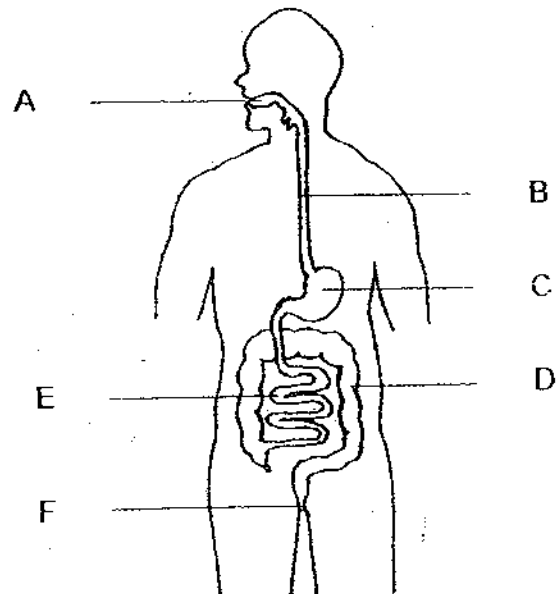
- (1) A
- (2) B
- (3) C
- (4) D

5. Our _____ must work together so that we can move different parts of our body.

- A veins
- B muscles
- C bones

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

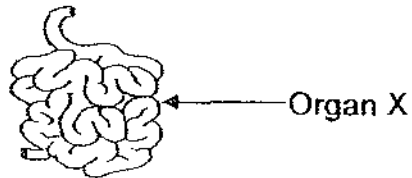
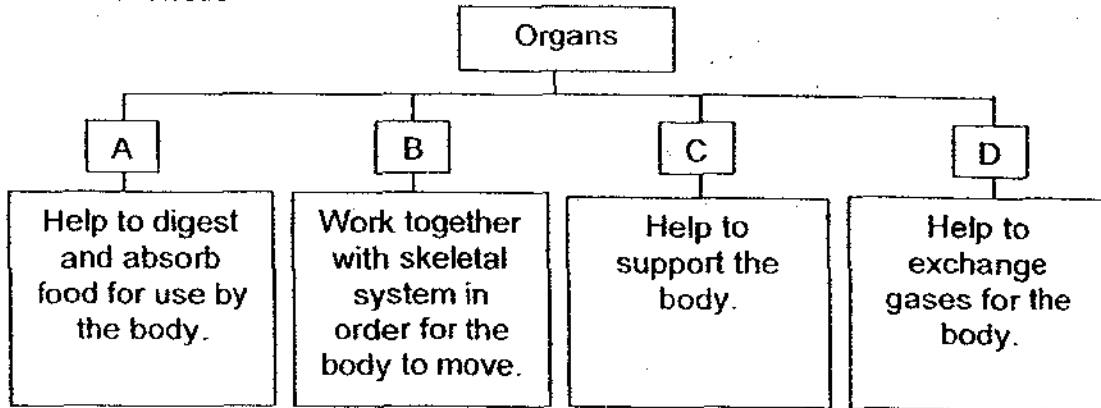
6. The diagram below shows the digestive system of a human body.



Where does digestion take place?

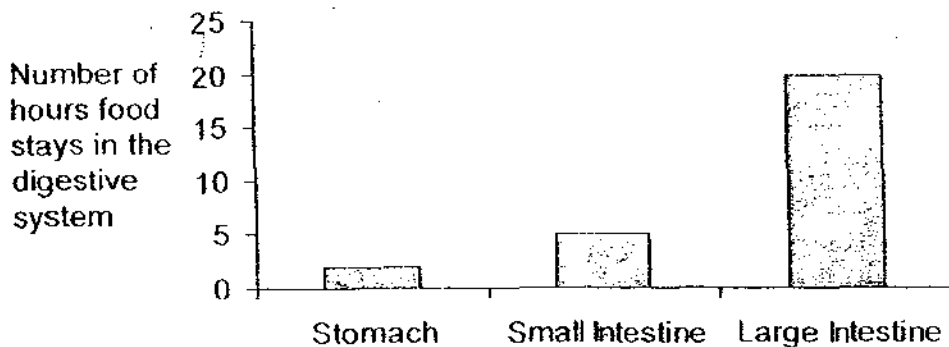
- (1) A and F only
- (2) B and F only
- (3) C, D and E only
- (4) A, C and E only

7. The classification diagram below shows the different systems in the body and their functions.



Which body system does Organ X belong to?

- (1) A
 - (2) B
 - (3) C
 - (4) D
8. The bar chart below shows the number of hours food stays in different parts of the digestive system.



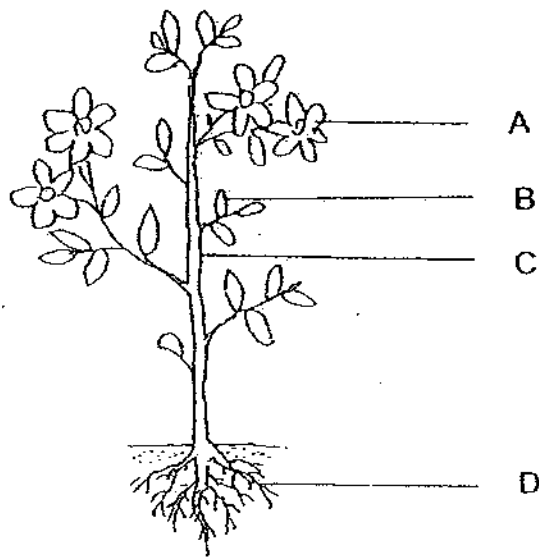
What is the number of hours that food stays in the small intestine?

- (1) 1
- (2) 5
- (3) 15
- (4) 20

9. Which one of these statements is true about a fruit?

- (1) It protects the seeds.
- (2) It can grow into a new plant.
- (3) It can make food for the plant.
- (4) It takes in nutrients and water.

10. Identify the parts A, B, C and D of the plant.



| | A | B | C | D |
|-----|--------|--------|--------|--------|
| (1) | Leaf | Root | Flower | Stem |
| (2) | Root | Flower | Leaf | Stem |
| (3) | Stem | Leaf | Root | Flower |
| (4) | Flower | Leaf | Stem | Root |

11. Some water containing red dye was poured into the soil of a potted plant. After a few hours, some parts of the flowers and leaves turned red.

Which of the following statements describes what had happened?

- A Water is taken in by the roots.
- B Water is transported to the leaves.
- C Water is transported to the flowers.
- D Water is carried through the stem.

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

12. A young seedling can grow from a seed under favourable conditions.

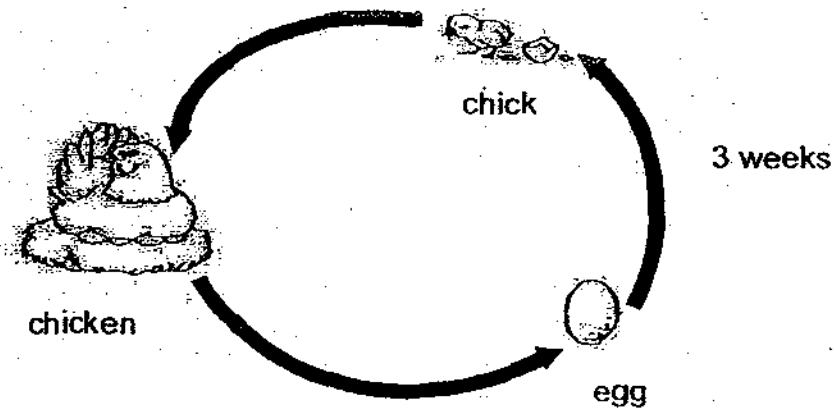


seedling

Which one of the following statements about the seedling is true?

- (1) The seedling gets its food from its seed leaves.
- (2) The roots of the seedling grow towards sunlight.
- (3) The shoot of the seedling continues to grow downwards.
- (4) The seed needs only air and water to develop into a seedling.

13. In a laboratory, a group of pupils was shown the life cycle of a chicken as shown below.



The pupils made the following statements.

- A A chicken has a 3-stage life cycle.
- B The chick closely resembles its parents.
- C The egg needs constant warmth for 21 days before it becomes a chick.

Which of the following statements made by the pupils is/are correct?

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

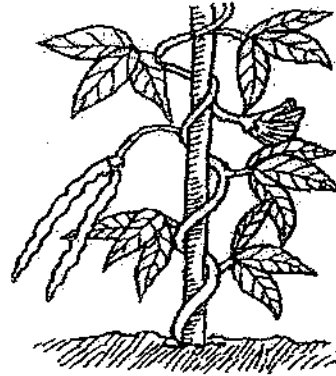
14. Rakesh made the following observations about the growth of a green bean plant.

| Day | Length of Root/ cm | Length of Shoot/ cm | Number of Leaves |
|-----|-----------------------|------------------------|------------------|
| 0 | 0 | 0 | 0 |
| 2 | 1 | 0 | 0 |
| 4 | 2 | 1 | 0 |
| 6 | 4 | 4 | 2 |
| 10 | 6 | 7 | 4 |

From which day can the plant start making its own food?

- (1) Day 2
- (2) Day 4
- (3) Day 6
- (4) Day 10

15. The diagrams below show a seedling and an adult plant.



Which of the following is true for both the adult plant and seedling?

- A Make its own food.
 - B Absorb water through its roots.
 - C Take in mineral salts through its roots.
 - D Have seeds.
- ① A and B only
 - ② B and C only
 - ③ A, B and C only
 - ④ B, C and D only
16. The table below shows the height of a seedling recorded over a period of 6 weeks.

| Week | Height of seedling/ cm |
|------|---------------------------|
| 1 | 4 |
| 2 | 7 |
| 5 | 16 |
| 6 | 19 |

Assuming that the seedling grows at the same rate, what would be the height of the seedling in week 4?

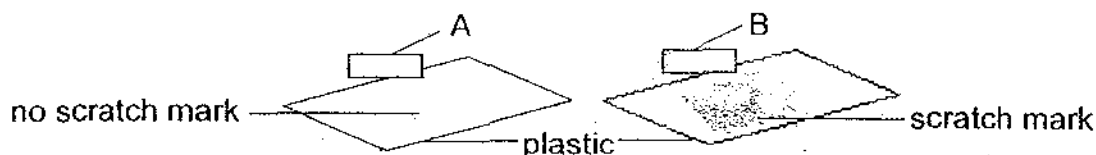
- (1) 7 cm
- (2) 10 cm
- (3) 13 cm
- (4) 15 cm

17. Joey performed an experiment on 10g of green beans. Refer to her results shown below to answer the following question.

| Dish | Condition of green beans | Presence of water, air and warmth | Average growth after one week/ cm |
|------|--------------------------|-----------------------------------|-----------------------------------|
| 1 | Raw | Yes | 4 |
| 2 | Boiled | Yes | 0 |
| 3 | Raw | No | 0 |

What conclusion can Joey draw from her results?

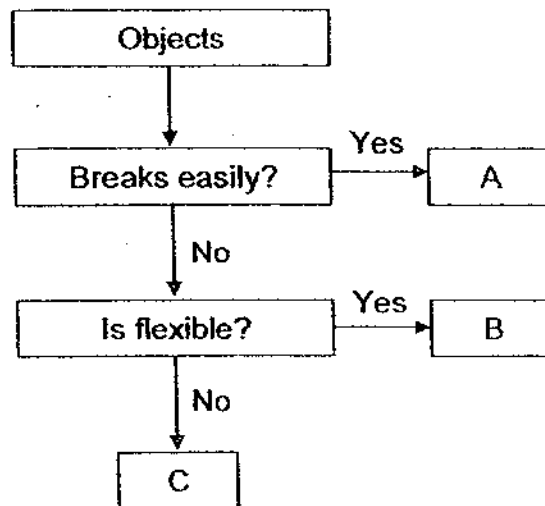
- (1) The boiled beans are non-living things and hence cannot grow.
 - (2) Green beans will grow under any condition as long as they are not boiled.
 - (3) The raw beans cannot grow in the presence of water, air and warmth.
 - (4) You should use different types of beans in order to see growth in all three dishes.
18. Joanna tried to test how hard objects made of materials A and B are by rubbing the objects on two identical plastic sheets.



Which of the following shows the hardness of objects A and B in the correct order?

| | Hardest | → | Softest |
|-----|---------|---|-------------|
| (1) | A | → | B → plastic |
| (2) | A | → | plastic → B |
| (3) | B | → | plastic → A |
| (4) | plastic | → | A → B |

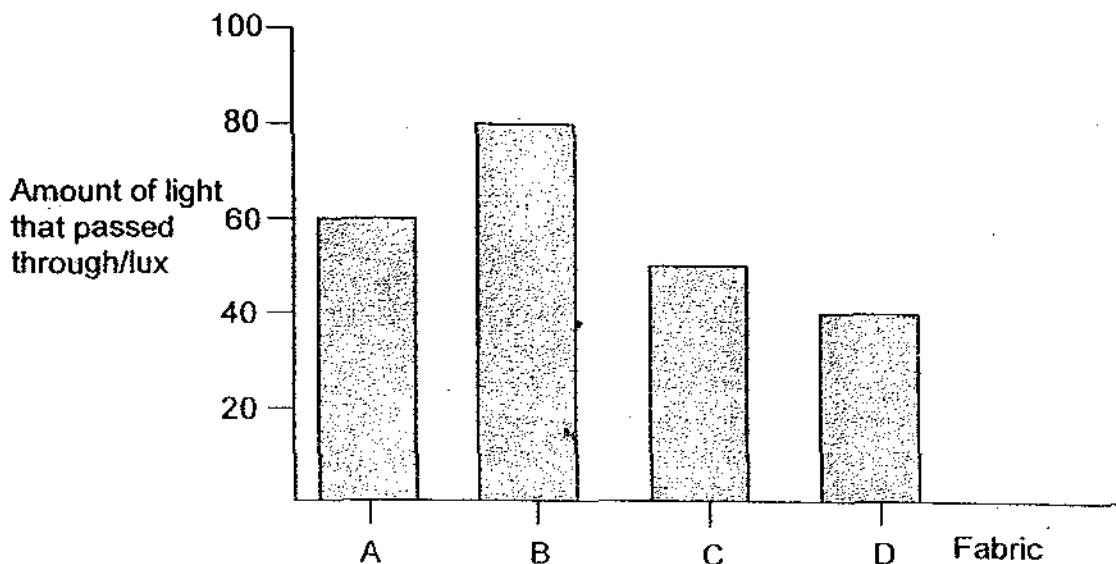
19. The flowchart below shows the properties of some objects.



Which of the following could A, B and C represent?

| | A | B | C |
|-----|-------------|--------------|--------------|
| (1) | Glass mug | Rubber tyre | Wooden ruler |
| (2) | Glass mug | Wooden ruler | Plastic cup |
| (3) | Plastic cup | Wooden ruler | Glass mug |
| (4) | Rubber tyre | Glass mug | Wooden ruler |

20. Mrs Tan wanted to make a new set of curtains that would prevent as much sunlight as possible from entering her bedroom. The graph below shows how much light passes through four samples of fabric-A, B, C and D.



Which fabric should she choose to make her curtains?

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

21. A freely-hanging bar magnet always comes to rest in a _____ direction.

- (1) east-west
- (2) north-east
- (3) south-west
- (4) north-south

22. What will happen when a rod magnet is cut into two equal halves?

- (1) The rod magnet will gain strength.
- (2) Each half will become a magnet itself.
- (3) The rod magnet will lose all its strength.
- (4) One half will become the North pole and the other half will become the South pole.

23. Which of the following pictures shows what you will most likely observe after you pour some iron filings onto a magnet?

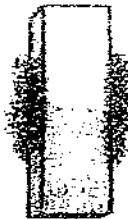
(1)



(2)



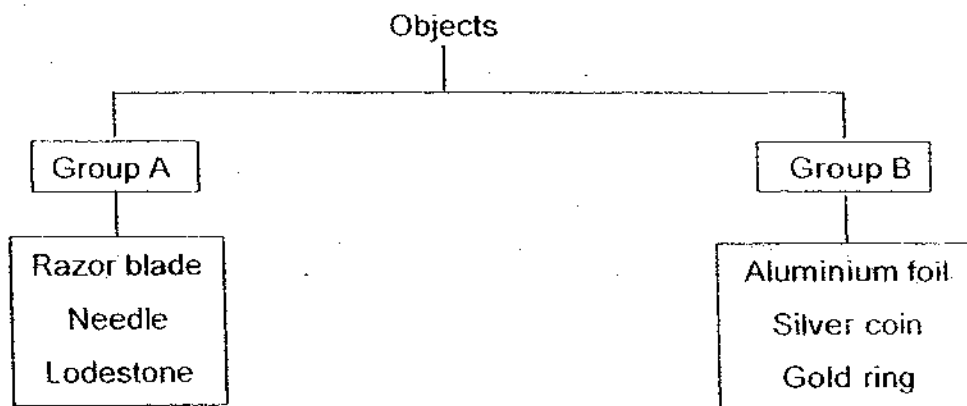
(3)



(4)



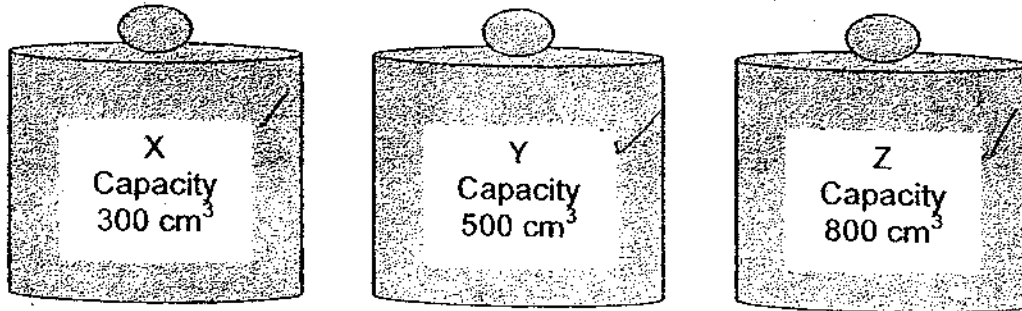
24. The classification diagram below shows how some objects are grouped.



Which one of the following objects can be classified under Group B?

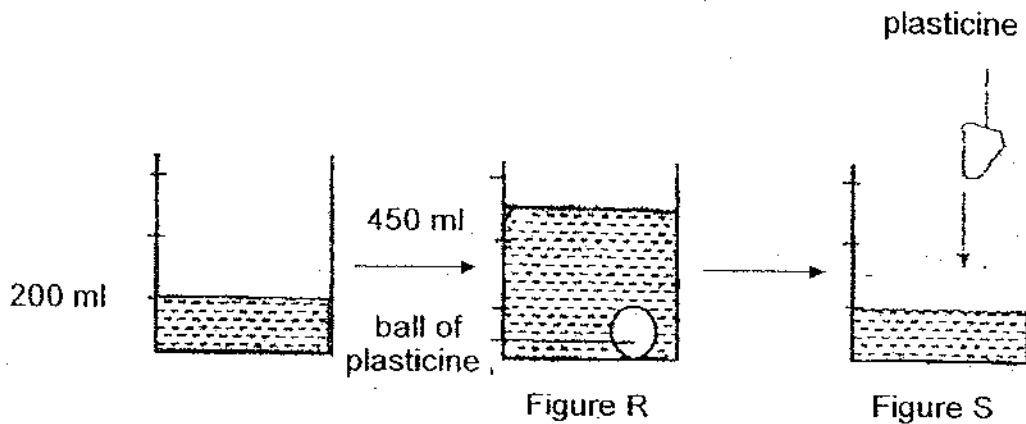
- (1) Iron nail
- (2) Nickel coin
- (3) Copper wire
- (4) Steel paper clip

25. Which of the following containers can be used to store 500cm^3 of oxygen?



- (1) Y only
- (2) Z only
- (3) Y and Z only
- (4) X, Y and Z

26. A ball of plasticine was put into a beaker containing 200 ml of water. The water rose to 450 ml, as shown in the Figure R.

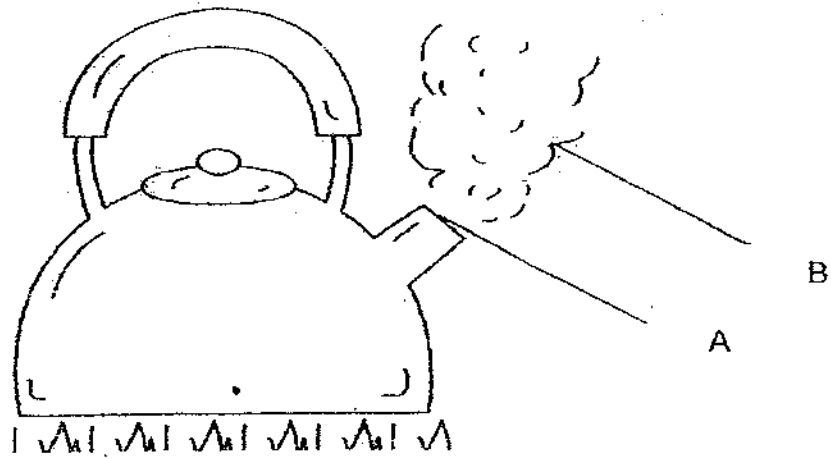


The plasticine was then taken out and moulded into another shape. It was put into the beaker again as shown in Figure S.

What would the water level be in Figure S?

- (1) 300 ml
- (2) 350 ml
- (3) 450 ml
- (4) 500 ml

27. Mary is boiling water in a kettle.



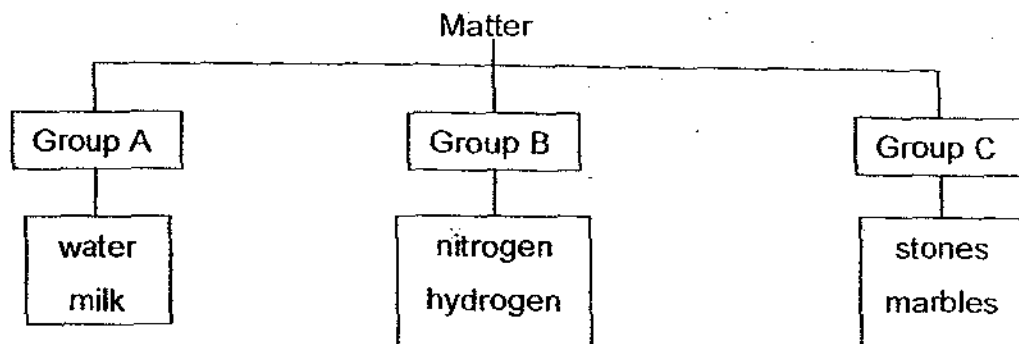
What is present in regions A and B?

| | A | B |
|-----|----------------|----------------|
| (1) | Air | Water Droplets |
| (2) | Steam | Air |
| (3) | Steam | Water Droplets |
| (4) | Water Droplets | Steam |

28. Which of the following are classified correctly?

| | Matter | Non-Matter |
|-----|---------|------------|
| (1) | Snow | Dew |
| (2) | Laser | Air |
| (3) | Clouds | Shadow |
| (4) | Thunder | Dust |

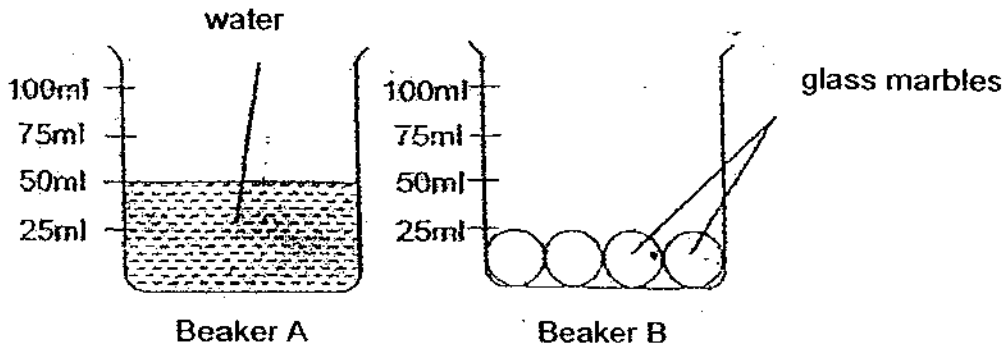
29. Study the diagram below.



Which of the following can be placed in groups A, B and C respectively?

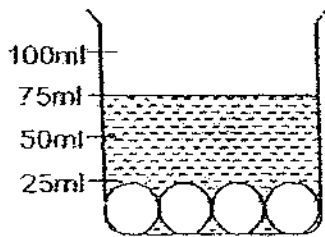
| | Group A | Group B | Group C |
|-----|---------|----------------|----------------|
| (1) | Honey | Plasticine | Oxygen |
| (2) | Honey | Oxygen | Plasticine |
| (3) | Honey | Helium | Carbon dioxide |
| (4) | Honey | Carbon dioxide | Alcohol |

30. Beaker A was filled with water to the 50 ml mark. In Beaker B, 4 glass marbles were placed inside as shown. All the water in Beaker A was then poured into Beaker B.

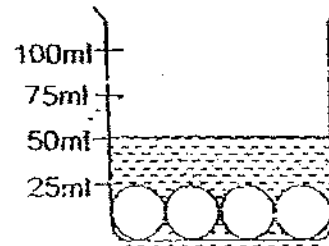


Which of the following shows the level of water in Beaker B after the water has been poured?

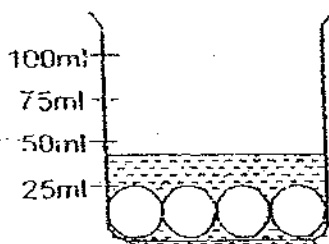
(1)



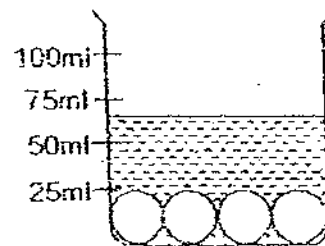
(2)



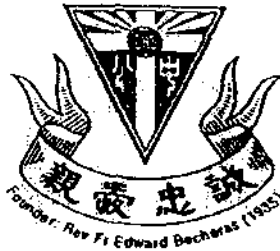
(3)



(4)



END OF SECTION A



**CATHOLIC HIGH SCHOOL
PRIMARY 4
MID YEAR EXAMINATION 2009**

SCIENCE

Name: _____ ()

Class : Primary 4 _____

Date : 18 May 2009

BOOKLET B

14 Questions
40 Marks

Total Time for Booklets A & B: 1 hour 45 minutes

Instructions to Candidates

Follow all instructions carefully.
Answer all questions.

Parent's Signature: _____

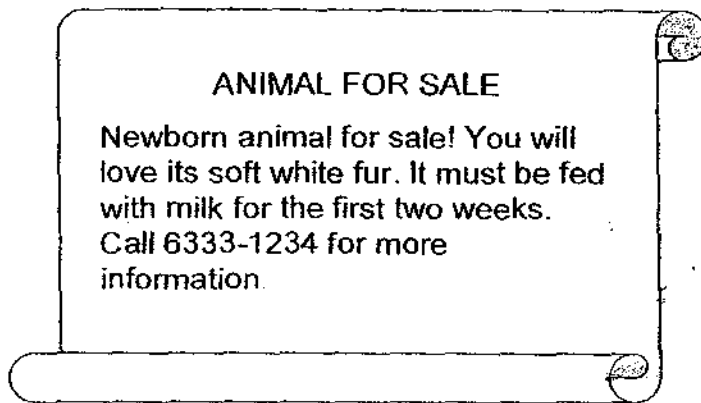
Date: _____

| Score | |
|-----------|-----|
| Section A | 60 |
| Section B | 40 |
| Total | 100 |

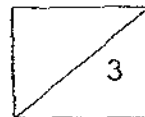
Section B: Open-Ended Questions (40 marks)

Read the following questions carefully and write your answers in the space provided. The maximum mark that can be awarded is shown at the end of each question or part-question.

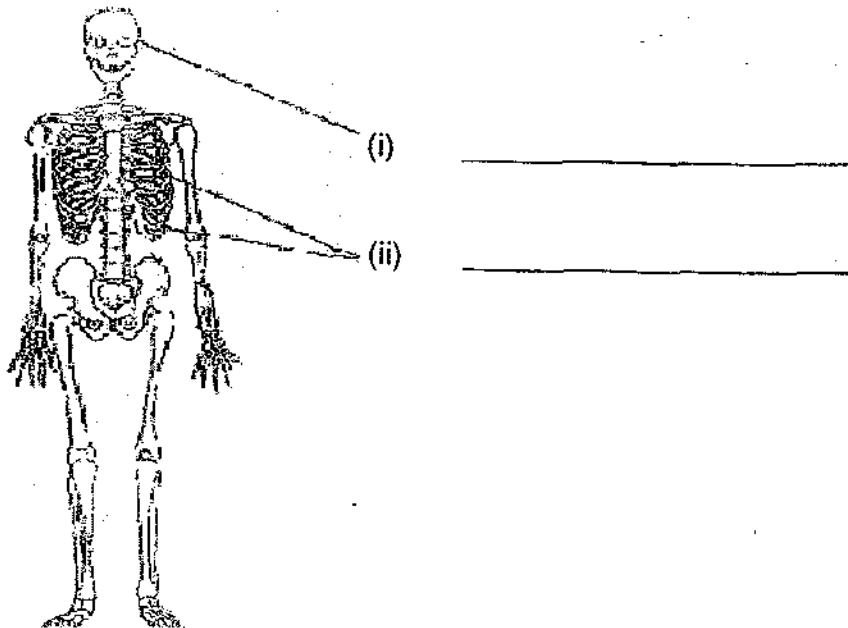
31. Study the poster below.



Based on the information given, which group does the animal described in the poster belong to? Based on the advertisement above give two reasons for your answer. [3]

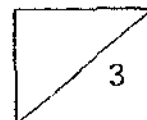


32. (a) Name the two different parts of the skeleton shown below. [1]

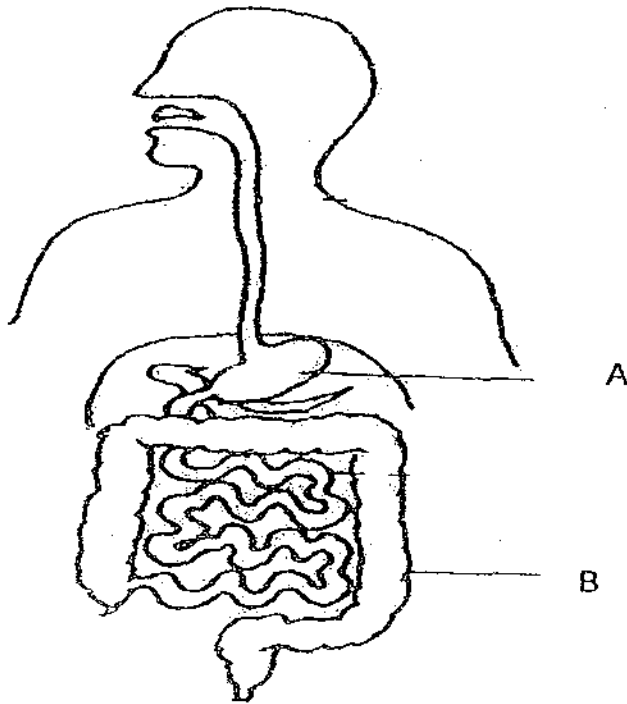


(b) State one function that these two parts of the skeleton have in common. [1]

(c) Which system does the skeletal system work with to help us to move? [1]



33. The figure below shows our digestive system.



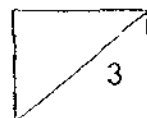
(a) Name the following parts of the digestive system. [1]

A _____

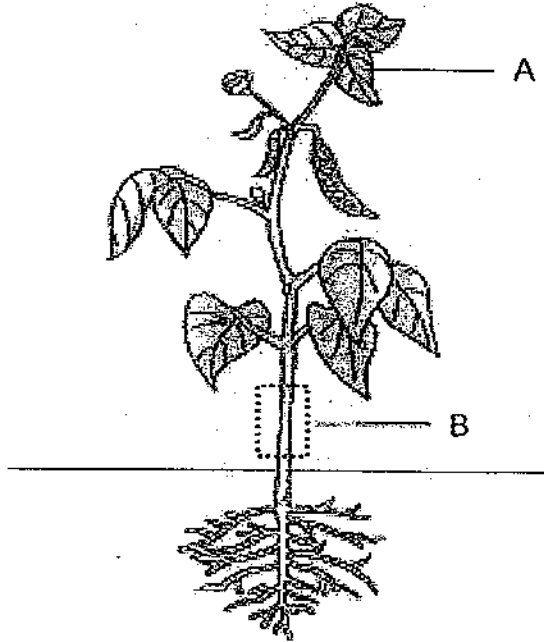
B _____

(b) What happens at Part B of the digestive system? [1]

(c) What will the waste material be like if part B of the digestive system is not working well? [1]

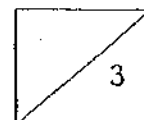


34. The diagram below shows a fully grown plant.

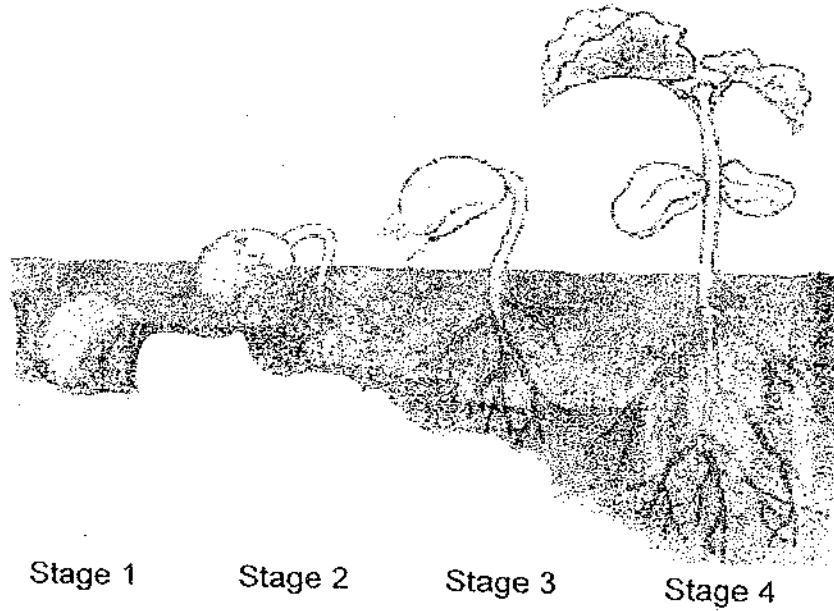


(a) Weiling removed the outer ring of part B and the plant died within the next few days. Why did the plant die after the outer ring of part B was removed? [1]

(b) How would part A be affected if it was covered entirely with black paper? [2]



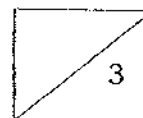
35. The diagram below shows how a bean seed develops.



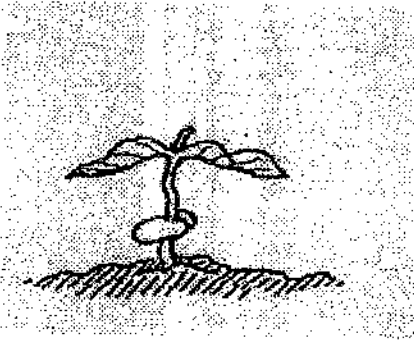
(a) Name the process that the bean seed is going through. [1]

(b) Fill in the blanks below which describes the process in part (a). [2]

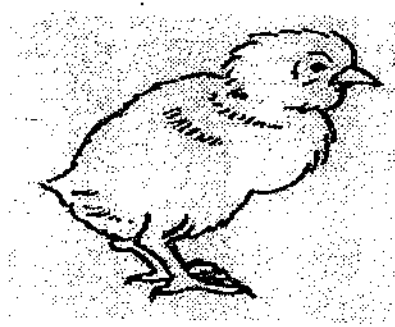
At stage 1, the _____ grows downwards, followed by the _____ that grows upwards at stage 2. Then new _____ will develop at stage 3 and the _____ will be able to make its own food at stage 4.



36. Study the figures below and fill in the column on the right with a 'True' for a correct statement and a 'False' for a wrong statement. [2]

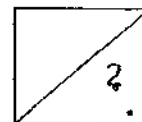


X



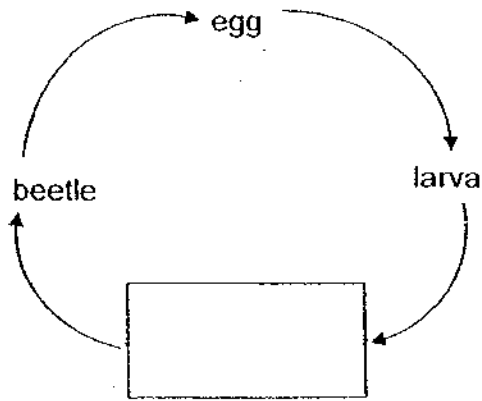
Y

| Statements | True / False |
|----------------------------------------------------------------------------|--------------|
| X and Y are living things. | |
| X and Y are growing now. | |
| X can make food but Y takes in food. | |
| X needs to germinate and grow into a plant but Y will grow into a chicken. | |

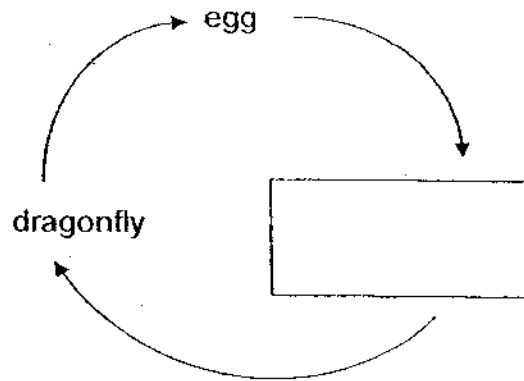


37. The life cycles of 2 different animals, A and B, are shown below.

(a) Complete the life cycles by filling in the boxes below. [1]



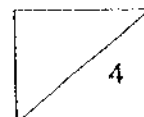
Life cycle A



Life cycle B

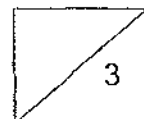
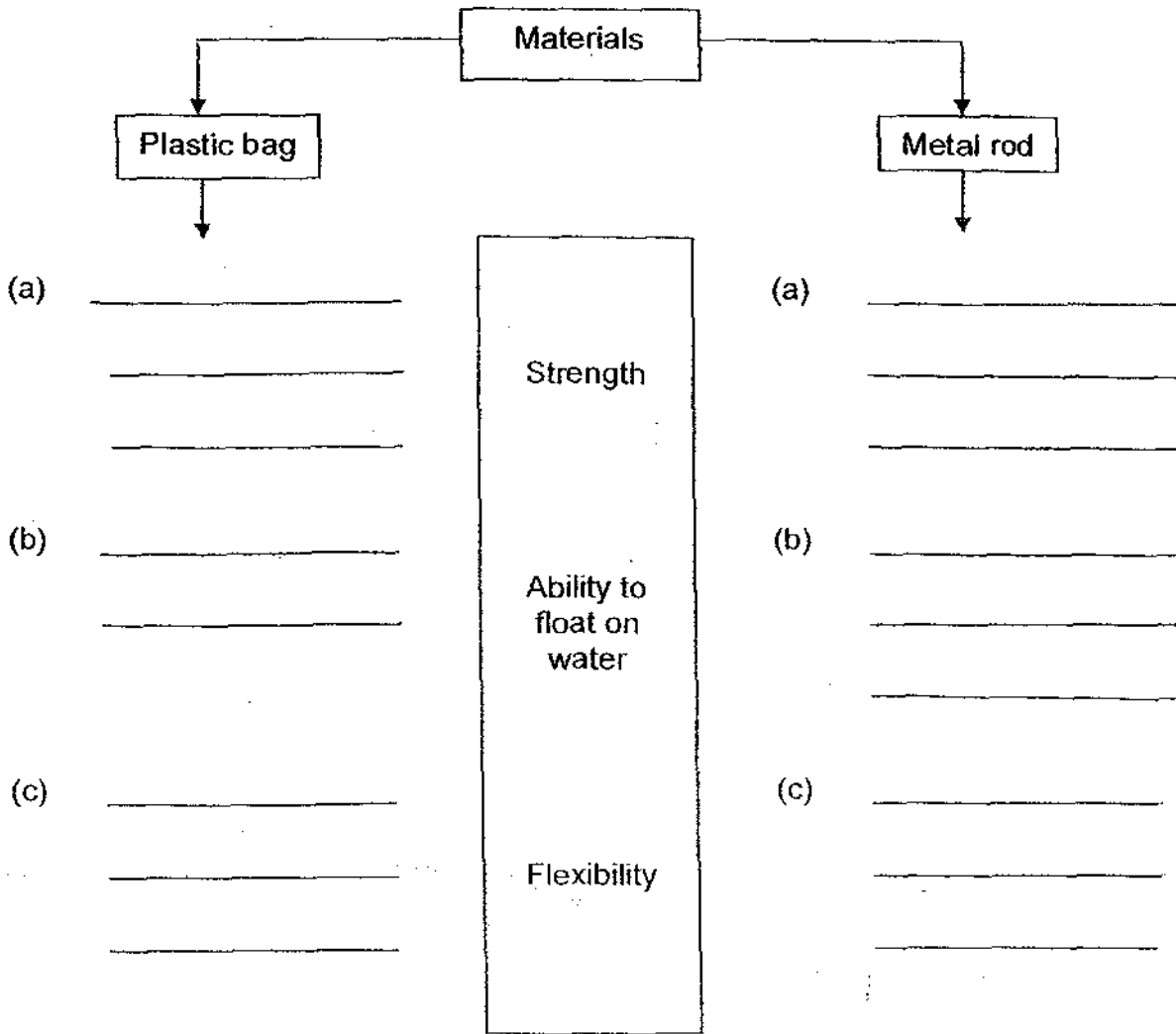
(b) Based on the information given above, name one difference between life cycles A and B. [2]

(c) Why are life cycles important? [1]

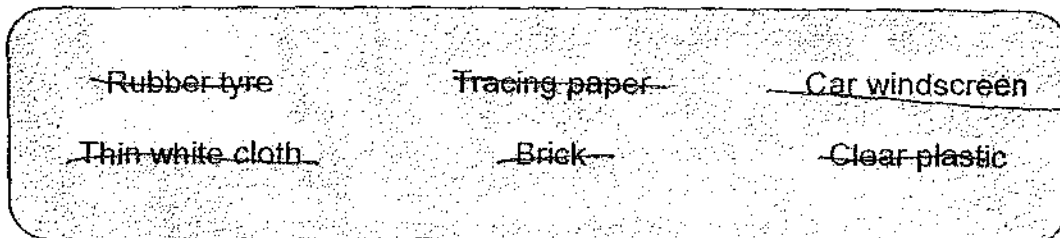


38. Use the graphic organizer below to compare the properties of a plastic bag and a metal rod based on their strength, ability to float and flexibility.

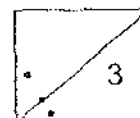
[3]



39. Use the table provided to classify the objects listed below according to their headings. [3]



| Allows all light to pass through | Allows some light to pass through | Does not allow any light to pass through |
|----------------------------------|-----------------------------------|------------------------------------------|
| | | |
| | | |

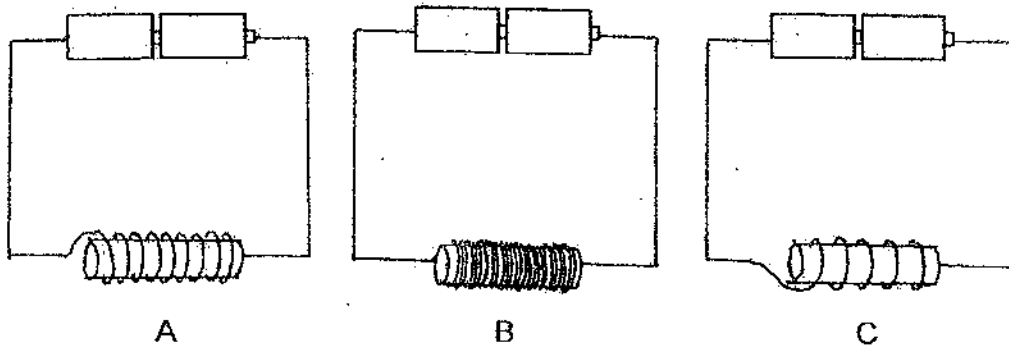


40. State two ways in which a magnet may lose its magnetism. [2]

(i) _____

(ii) _____

41. Three electromagnets, A, B and C, are made from identical iron rods.



(a) Arrange these electromagnets in ascending order of their magnetic strengths, starting from the weakest to the strongest. [1]

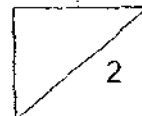
(b) Give a reason for their difference in magnetic strength. [2]

42. Sally wanted to play basketball. The basketball she had did not bounce well. She pumped the basketball with air until it was very hard. She measured the volume of the basketball and it was the same.



- (a) Why did the volume of the basketball remain the same? [1]

- (b) Did the mass of the air in the basketball change? Why? [1]



43. A beaker contains 2 litres of cooking oil. The mass of the cooking oil is 700 grams.

(a) What can be used to measure the mass and the volume of the cooking oil? [1]

(i) mass _____

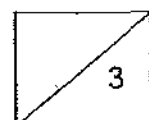
(ii) volume _____

(b) All the cooking oil is poured from the beaker into a large container which has a volume of 4 litres and a mass of 1 kilogram. What is the mass and volume of the cooking oil in the large container? [1]

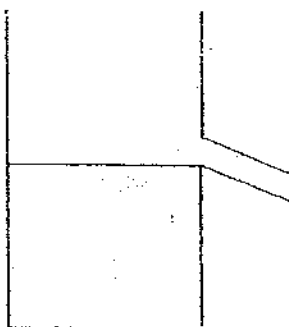
(i) mass _____

(ii) volume _____

(c) What changed when the cooking oil is poured into the large container? [1]



44. Ahmad was carrying out an experiment. He filled a can with water up to its spout as shown below.



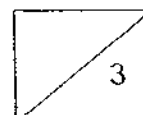
When he placed a small stone gently inside the can so that it is completely covered by the water, water flows out from the spout.

- (a) Why does the water flow out of the spout? [1]

- (b) How can Ahmad find the volume of the stone? [2]

END OF PAPER

HAVE YOU CHECKED YOUR ANSWERS?



ANSWER SHEET

EXAM PAPER 2009

SCHOOL : CATHOLIC HIGH PRIMARY SCHOOL
SUBJECT : PRIMARY 4 SCIENCE

TERM : SA 1

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

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

31) The animal belongs to the mammal group. 1) The poster said that it had fur. 2) The poster also said that it must be fed with milk.

32) a) i) skull ii) Ribcage

b) The two parts of the skeleton both protect an important organ.

c) It works with the muscular system to help us to move.

33) a) A: Stomach B: Large intestine

b) Water is removed from undigested food.

c) All the waste material would all be soft and watery.

34) a) Part B is the part which transports food and water to all the parts of the plant so when it is removed, the plant would not get any food and water and eventually die.

b) Part A will die because it will not be able to trap sunlight to make food for the plant.

35) a) The process it is going through is germination.

b) root, shoot, leaves, seedling

36)T, T, T, F

37)a)Pupa nymph

b)Life cycle A has four stages but life cycle B only has three stages.

c)It is important as it is to ensure that the same type of animal does not become extinct.

38)a)breaks easily

Does not breaks easily

b)Have ability to float on water

Do not have ability to float on water

c)Flexible

Not flexible

39)Clear plastic

Tracing paper

Rubber tyre

Car windscreen

Thin white cloth

Brick

40)i)By hitting it several times with a hammer.

ii)By heating it over a fire.

41)a)Magnet C, Magnet A, Magnet B.

b)B has the most number of turns wire coded around it while C has the least so the magnetic strength is lowest.

42)a)The basketball was at its full size but there was not much air so when she pumped in more air, the air compressed in side the ball.

b)Yes, the mass of the air in the basketball changed. The air has mass so when she pumped the air in the mass changed.

43)a)i)electric balance ii)measuring cylinder

b)i)700 grams ii)2 liters

c)The shape of the oil.

44)a)The water and stone have volume so when the stone is put in the volume of the water rises as the stone have volume too.

b)He can pour the water into a beaker and then put in the stone. Write down the volume of the water before putting in the stone then later write down the volume of the stone and water together and minus it.