RED SWASTIKA SCHOOL

RED SWASTIKA SCHOOL

2009 CONTINUAL ASSESSMENT 2

SCIENCE

Name : _____ ( )

Class : Primary 4/ ___

Date : 27 August 2009

BOOKLET A

30 Questions
60 Marks
Duration of Paper : 1 hour 30 minutes

Note:

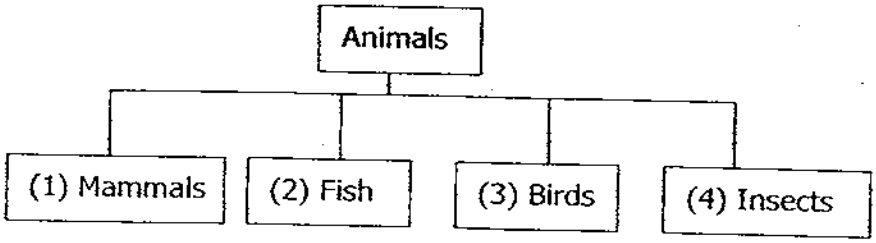
1. Do not open this Booklet until you are told to do so.
2. Questions 1 - 30 are to be done on the OAS provided.
3. Read carefully the instructions given at the beginning of each part of the Booklet.
4. Do not waste time. If a question is difficult for you, go on to the next one.
5. Check your answers thoroughly and make sure you attempt every question.

Section A : Multiple Choice Questions (30 X 2 marks each)
Choose the correct answer and shade the appropriate oval in the OAS provided.

1. The table below shows some information on Animal A. A tick (√) shows that the animal has the characteristics.

Characteristic	Animal A
Give birth to young alive	√
Has a hairy outer covering	√
Has feathers	X
Has six legs	X

Based on the information shown above, Animal A belongs to _____.

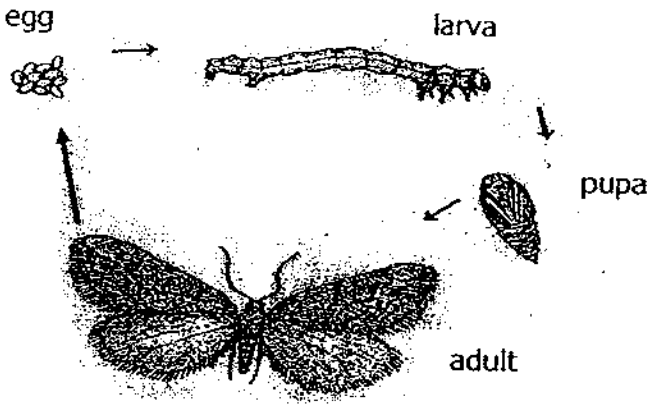


2. Rearrange the letters below to show the correct sequence of growth of a seed.

A: The plant starts to make its own food.
B: Flowers develop.
C: The root appears from the seed.
D: The fruits form from the flowers.
E: The shoot appears from the seed.

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

3. The picture below shows the life cycle of a moth.



In which stages of its life cycle does the moth get move from place to place?

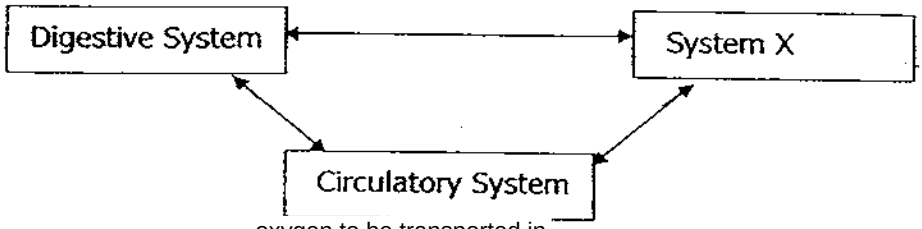
(1) egg and larva
(2) egg and pupa
(3) larva and pupa
(4) pupa and adult

4. Which of the following organs **do not** produce digestive juices?

A: mouth
B: gullet
C: stomach
D: small intestine
E: large intestine

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

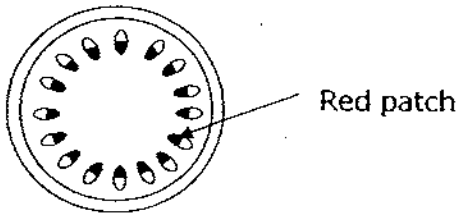
5. The following diagram shows the relationship among the three body systems.



System X provides oxygen to be transported in the blood stream around the body. What is System X?

(1) Skeletal System
(2) Muscular System
(3) Respiratory System
(4) Reproductive System

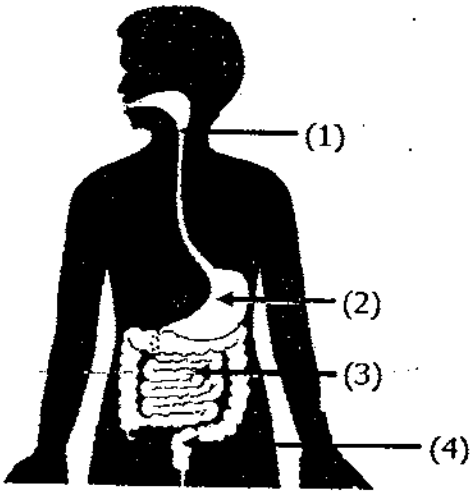
6. The picture below shows the cross-section of a stem of a plant.



The root of the plant was earlier put into a container of water with red ink. Why were there red patches seen in the cut stem?

(1) Water stained with the red ink is carried through the stem.
(2) Water is carried from the leaves to other parts of the plant.
(3) Water made in the stem is carried to other parts of the plant.
(4) Water stained with red ink from the leaves is carried to other parts of the plant.

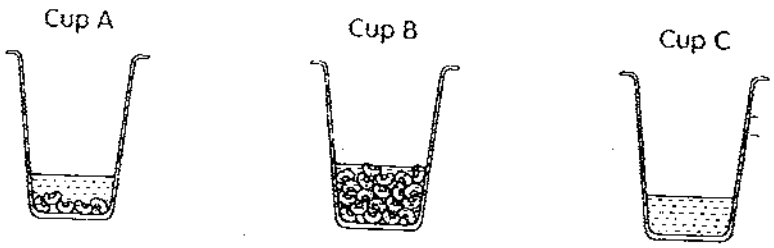
7. The picture shows the Digestive System of a human.



Which organ will perform all the following processes?

A: Mixing food with digestive juices
B: Breaking down food
C: Absorption of digested food

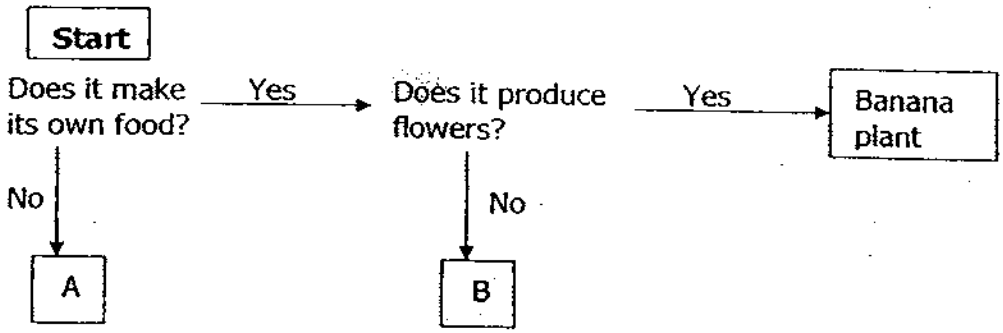
8. Dylan wants to study how soy beans compete for water as they grow. He pours 30ml of water into similar cups as shown below.



What is the variable that is changed in this experiment?

(1) type of water
(2) amount of water
(3) type of soy beans
(4) number of soy beans

9. The flow chart shows the characteristics of some living things.



Which living things shown in the table below represent organisms A and B correctly?

	Organism A	Organism B
(1)	Moss	Bird's nest fern
(2)	Moss	Bracket fungus
(3)	Bird's nest fern	Bracket fungus
(4)	Bracket fungus	Bird's nest fern

10. Which of the following ~~does not use~~ magnet to store information?

does not use

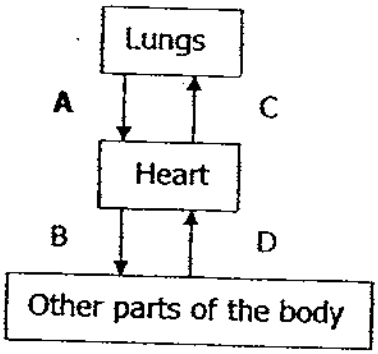
(1) Computer hard disk

(2) ATM Card

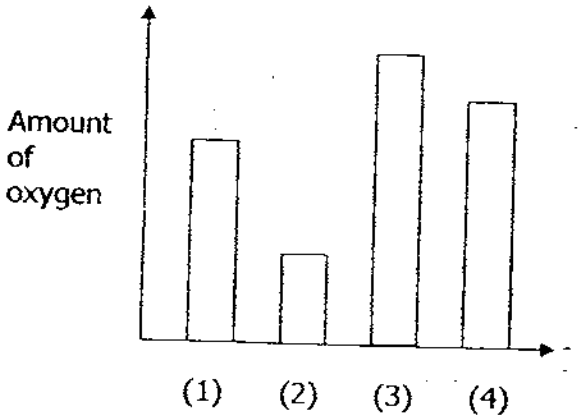
(3) Cash card

(4) Audio speaker

11. The arrows, A, B, C and D represent blood vessels carrying blood to and from the lungs, heart and other parts of our body.



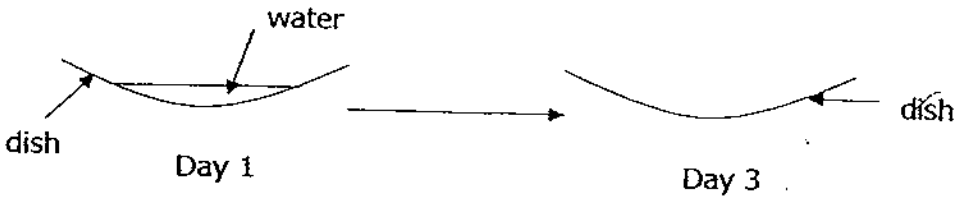
The graph below shows the amount of oxygen in four samples from 4 different blood vessels in the body. Which bar represents the blood sample from blood vessel **A** which leaves from the lungs to all parts of the body?



12. Animal X has part of its ~~life cycle in the water~~ life cycle in the water. What is animal X?

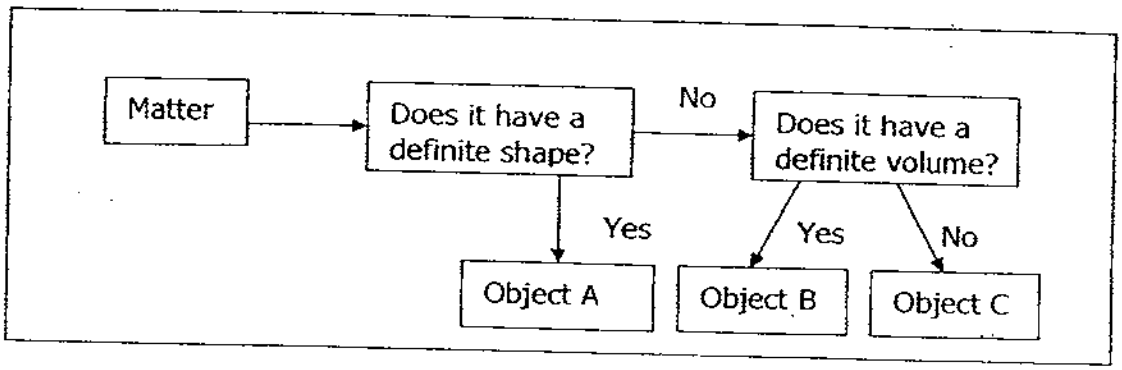
(1) A bird
(2) A duck
(3) A butterfly
(4) A mosquito

13. Shu Ling placed a dish of water on the table for 3 days. She noticed that there was no more water on the same dish on the 3rd day. Which of the following shows the change in the state of water in this set-up?



(1) From solid to liquid
(2) From liquid to solid
(3) From gas to liquid
(4) From liquid to gas

14. Study the flow chart shown below.



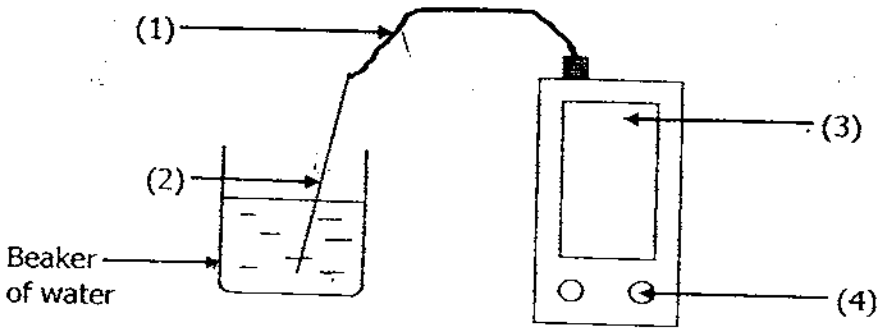
Which one of the following best represents Object A and Object C?

	Object A	Object C
(1)	Eraser	Oxygen
(2)	Eraser	Paint
(3)	Paint	Eraser
(4)	Paint	Oxygen

15. Shu Yin made the following sentences. Which of the sentences is **false**?

(1) Heat is a form of energy.
(2) Cloth is a poor conductor of heat.
(3) Heat loss (gain) causes matter to expand.
(4) Temperature is a measure of how hot or cold an object is.

16. The picture below shows a datalogger with temperature sensor. Which part of the datalogger is a good conductor of heat?

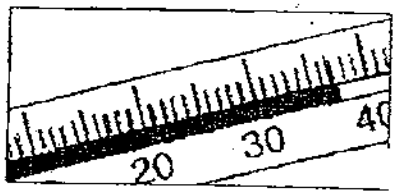


17. Which of the following activities will give off heat and light?

A : Ironing clothes
B : Lighting a lantern
C : Igniting a fire cracker
D : Switching on the computer monitor

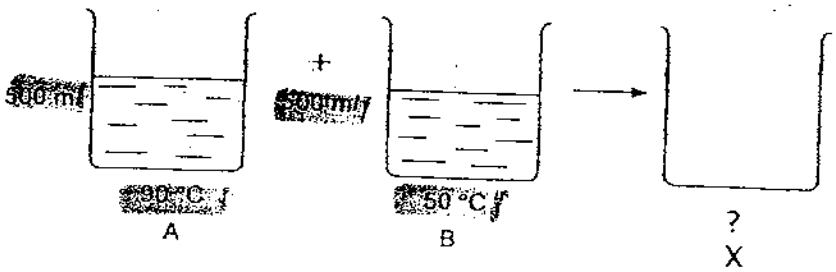
(1) A only
(2) B and C only
(3) A and B only
(4) B, C and D only

18. The clinical thermometer shown below shows a reading of _____.



(1) 35.5°C
(2) 37.0°C
(3) 39.5°C
(4) 42.0°C

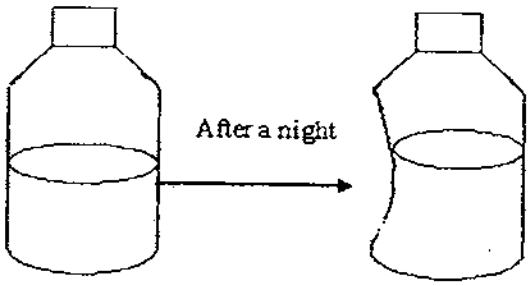
19. Richard has two containers of water, A and B, as shown below. He pours the water from both containers into an empty container X.



What will be the likely temperature of the water in container X?

(1) 50 °C
(2) 70 °C
(3) 90 °C
(4) 140 °C

20. A soft drink plastic bottle half-filled with water was put in a refrigerator for a night. The next morning, the shape of the bottle was changed as shown below. What could have possibly caused the change?



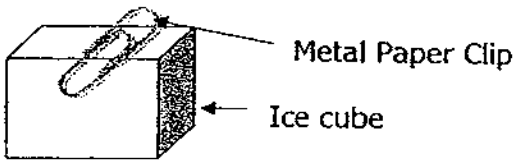
A: The bottle had gained its coldness so it changed its shape.
B: The water in the bottle had lost heat and there was an increase in the volume of water.
C: The air in the bottle had contracted and there was a decrease in the volume of air.

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

21. Yu Fang touched the metal window grilles and they feel cold as compared to the surrounding. Which sentence best explains the observation made by Yu Fang?

(1) The metal grilles conduct the coldness to her hand, resulting in a drop in the temperature of her hand.
(2) The metal grilles conduct the coldness away from her hand, resulting in a drop in the temperature of her hand.
(3) The metal grilles conduct the heat away from her hand, resulting in a drop in the temperature of her hand.
(4) The metal grilles conduct the heat away from the grilles, resulting in a drop in the temperature of her hand.

22. What happens when a metal paper clip is left on an ice cube as shown in the picture below?



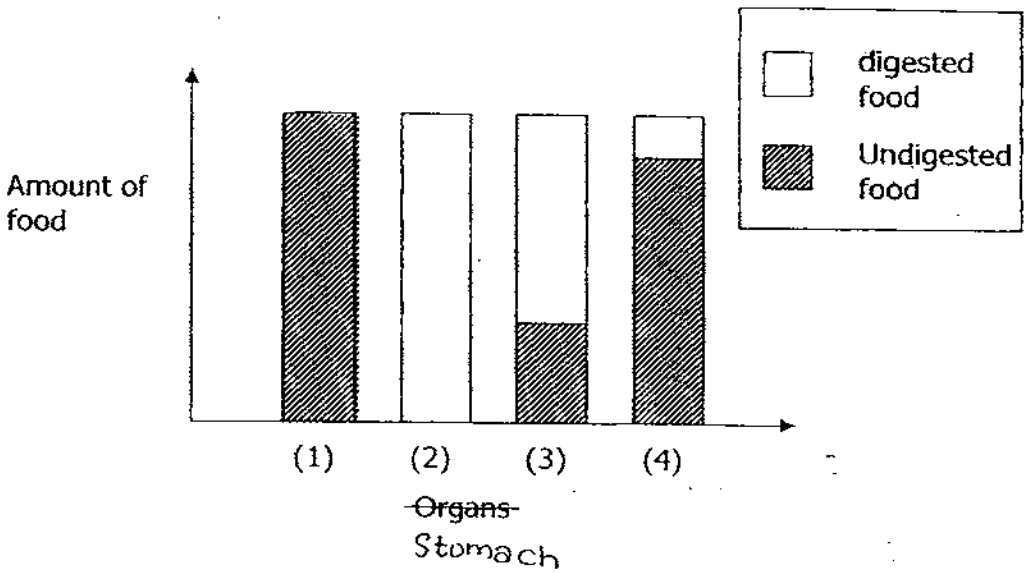
(1) Both the ice cube and the metal paper clip lose heat.

(2) Both the ice cube and the metal paper clip gain heat.

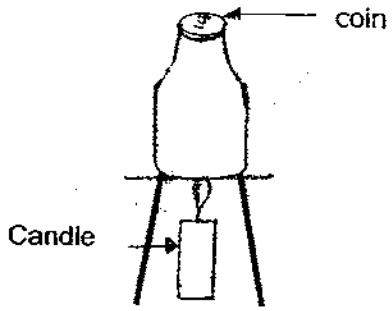
(3) The ice cube loses heat but the metal paper clip gains heat.

(4) The ice cube gains heat but the metal paper clip loses heat.

23. Pei Pei has just eaten a packet of noodles. Which one of the bars (1, 2, 3 or 4) below best represents the amount of digested and undigested food in her stomach about [redacted] later?



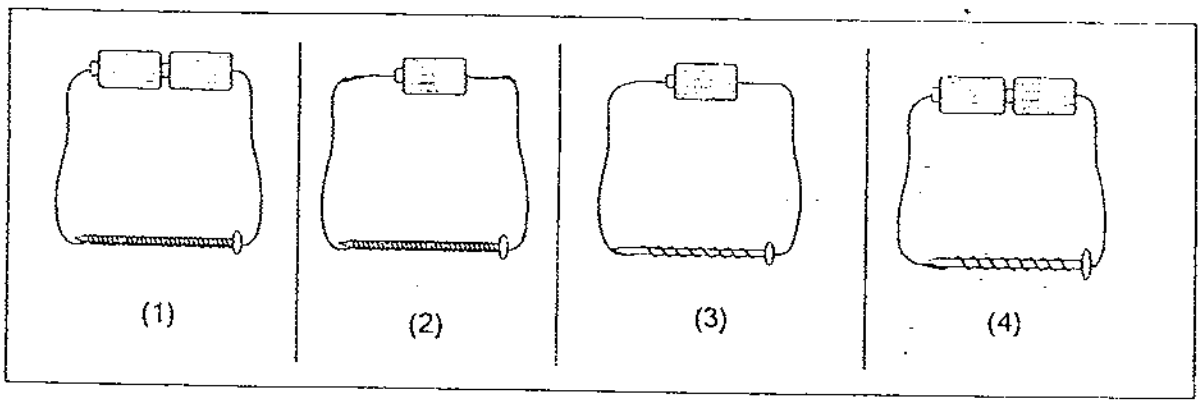
24. Aileen placed a coin over the opening of a glass bottle as shown in the picture below. The bottle was heated and after a while, the coin seemed to move.



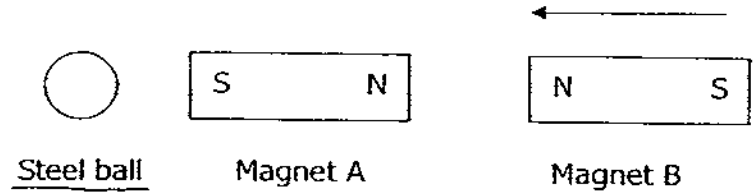
Why did the coin move?

(1) The coin expanded and moved.
(2) The bottle expanded and moved the coin.
(3) The air inside the bottle expanded and moved the coin.
(4) The air outside the bottle expanded and moved the coin.

25. The pictures below show 4 different set-ups used to magnetise 4 identical iron nails. Which of the nails will attract the most number of pins?



26. Magnet B is brought near Magnet A in the direction of the arrow as shown below. A steel ball is placed near Magnet A.



Which of the following will happen?

A: The ball moves towards Magnet A

B: The ball moves away from Magnet A

C: Magnet A moves towards Magnet B

D: Magnet A moves away from Magnet B

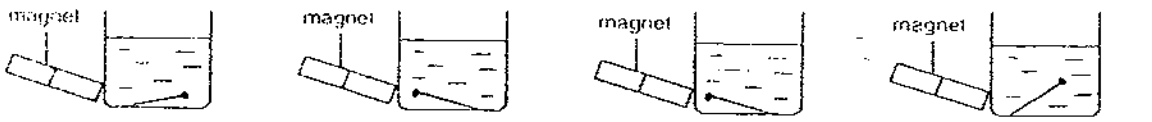
(1) A and C only

(2) A and D only

(3) B and C only

(4) B and D only

27. The diagram below shows four containers containing the same amount of water and an iron pin. Kansan tried to move the pin from the bottom to the top of each container by pulling a bar magnet along the side of the container. She found that she could not move the pin in one of the containers. Which container was it?



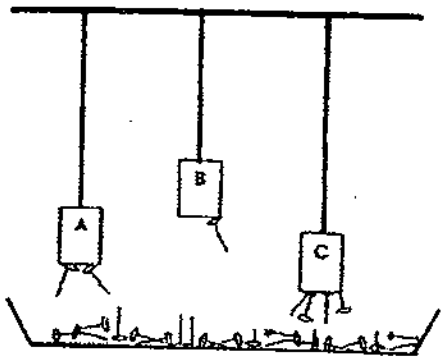
Nickel container (1)

Plastic container (2)

Glass container (3)

Copper container (4)

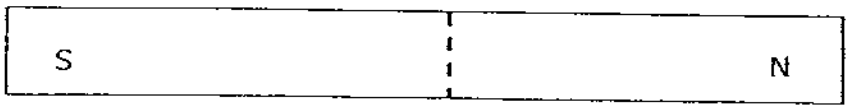
28. Gerald hung three magnets, A, B and C, from strings of different lengths as shown in the diagram below. Some iron pins were placed below the magnets and different numbers of pins were attracted to the magnets.



Based on your observation of the set-up above, could Gerald conclude that magnet C was the strongest magnet and why?

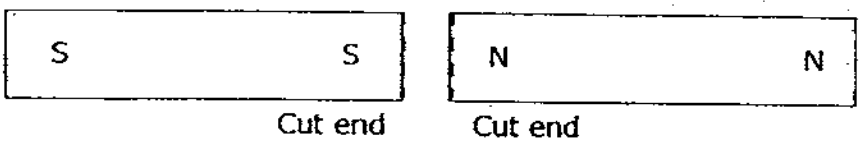
(1) Yes. Magnet C attracted the most number of pins so it was the strongest magnet.
(2) Yes. Magnet C was placed the nearest to the pins so it was the strongest magnet.
(3) No. All the three magnets attracted different number of pins so it was not a fair test.
(4) No. All the three magnets were placed at different distance from the pins so it was not a fair test.

29. Ahmad cut a bar magnet into half along the dotted line as shown below. Two new magnets were formed.

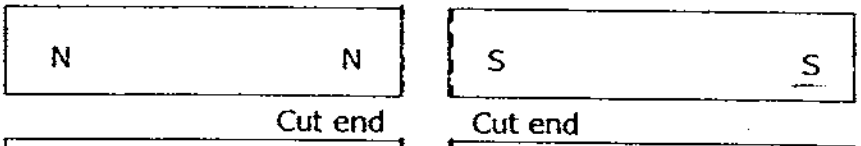


Which of the following shows the new magnets formed?

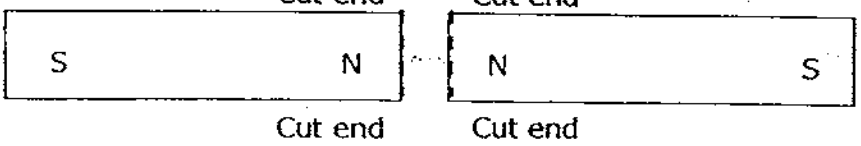
(1)



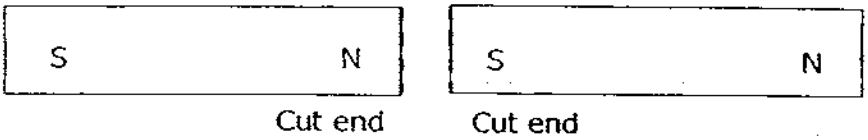
(2)



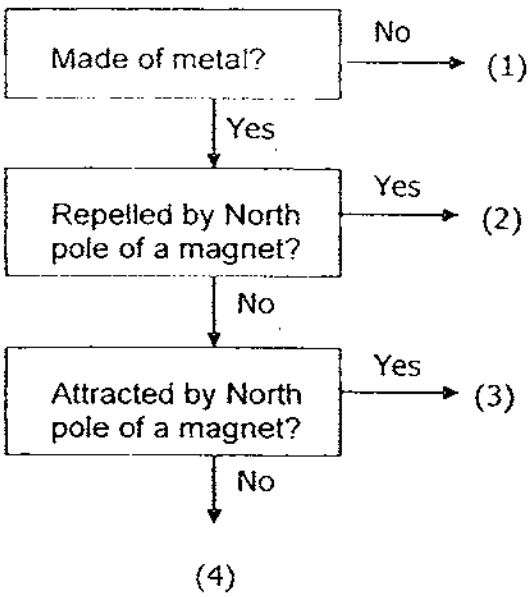
(3)



(4)



30. Kymberlie has four rods made of different materials. She uses the flow chart below to classify them. Which number (1, 2, 3 or 4) in the chart represents a silver rod?



END OF SECTION A
HAVE YOU CHECKED YOUR WORK CAREFULLY?

RED SWASTIKA SCHOOL

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2009 CONTINUAL ASSESSMENT 2

SCIENCE

Name : _____ ( )

Class : Primary 4/____

Date : 27 August 2009

BOOKLET B

14 Questions
40 marks

MARKS

	OBTAINED	POSSIBLE
BOOKLET A		60
BOOKLET B		40
TOTAL		100

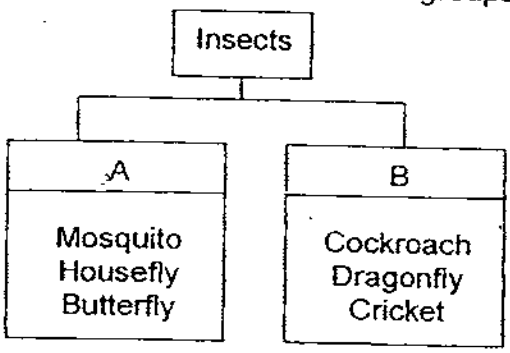
Parent's Signature : _____

SECTION B: Open-ended Questions (14 Questions 40 marks)
Answer the following questions in the space provided

31. State whether the following statements are true or false. Write 'T' for True and 'F' for False in the boxes provided. (4m)

i)	All living things complete one life cycle.	
ii)	A life cycle can only be made up of three stages.	
iii)	A moth and a grasshopper have the same number of stages in their life cycles.	
iv)	A cycle is a series of events which happens over and over again.	

32. Ming Fang classified some insects into two groups as shown below.



(a) Name a suitable set of headings for Group A and B. (1m)

Group A: _____

Group B: _____

(b) Name another insect in Group A. (1 m)

_____

(c) State one difference between an adult butterfly and its young in the larva stage. (Do not compare size, shape and colour) (1m)

_____

_____

5

33 (a) Name one function of roots other than taking in water. (1 m)

_____

(b) Study the pictures of two similar types of plants below.

Plant A

Plant B

Sally had removed some of the roots of Plant A as shown above. When she planted both plants in her garden, she expected Plant A to die after a few days but it did not die. Explain why Plant A did not die? (2 m)

_____

_____

34. Chandra wants to carry out a Science project. He wants to find out which cup can keep boiling water hot for the longest time.

	Cup A	Cup B	Cup C
Material	Aluminium	Styrofoam	Steel

(a) Name two variables that Chandra should keep the same in order to carry out a fair test. (2 m)

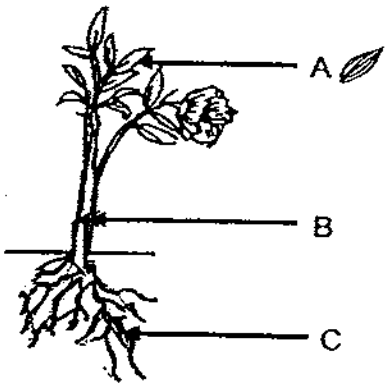
_____

(b) Chandra would like to drink a cup of hot milo. Which cup should he use so that his milo stays hot for the longest time? (1 mark)

_____

6

35. The picture below shows Plant Y.



Plant Y

(a) In which parts (A, B or C) of the plant can the roots and veins be found? Fill in each blank with the correct answer. (1 m)

i) Roots - _____

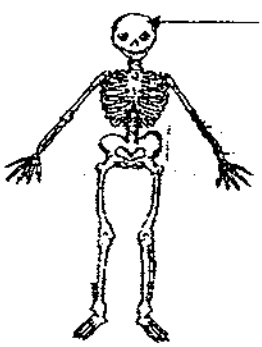
ii) Veins - _____

(b) Some insects have eaten up all the leaves of Plant Y.
Explain what will happen to Plant Y. (2 m)

_____

_____

36. The picture below shows a human skeleton.



Our skeleton has a protective role. Read the following descriptions of Part Y of our skeleton:

A: It is made of flat and curved bones.
B: It gives shape to the head.

(a) Name an organ which is protected by part Y of our skeleton. (1 m)

_____

(b) Name another system in our human body, other than the Skeletal System, which helps us move. (1 m)

_____

37. The following statements describe a type of **matter**.

A: It occupies space.
B: It has no definite shape.
C: It has a definite volume.

(a) Name one example of an object which fits the description of statements A, B and C. (1m)

_____

(b) Is heat a matter? Explain your answer. (2m)

_____

_____

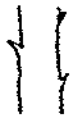
5

38. (a) The pictures below show the different parts of a plant.


A
Leaf


C
flower

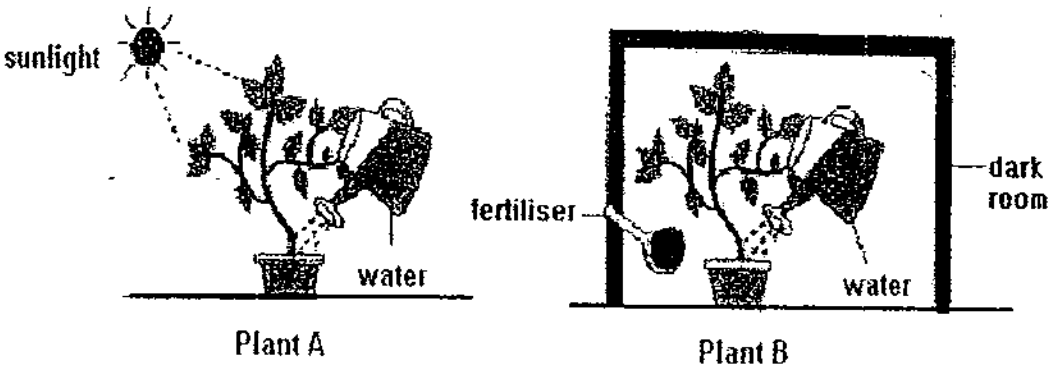

B


D

Name the part of a plant (A, B, C or D) which protects the seeds. (1m)

_____

(b) Jasveer sets up an experiment as shown below. Plant A and Plant B are similar type of plants. He wants to find out if the presence of fertiliser affects the growth of the plants.



Plant A Plant B

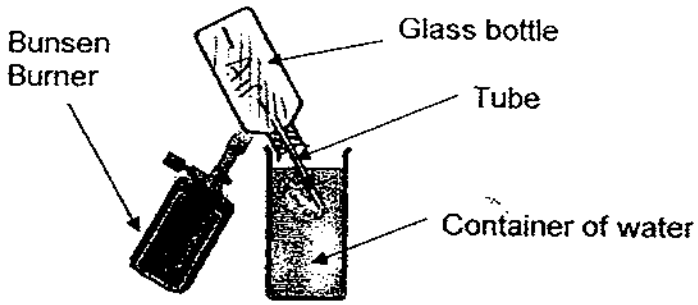
Is the experiment a fair test? Explain your answer. (1m)

_____

_____

2

39. Look at the figure below carefully.



(a) What would you observe in the container of water when a glass bottle is heated as shown above? (1 m)

_____

_____

(b) A few minutes later, the heating stops.

(i) What would you notice in the glass bottle? (1 m)

_____

_____

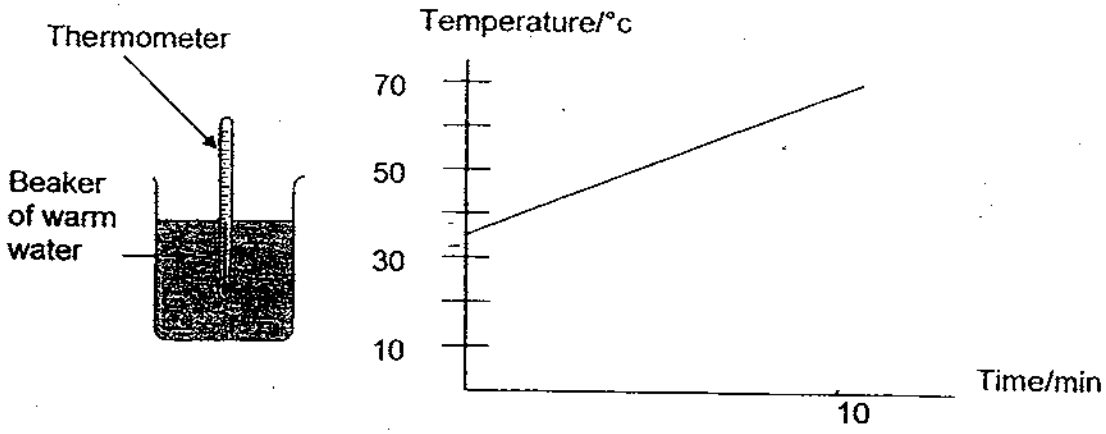
(ii) Explain your answer in part (i). (1 m)

_____

_____

3

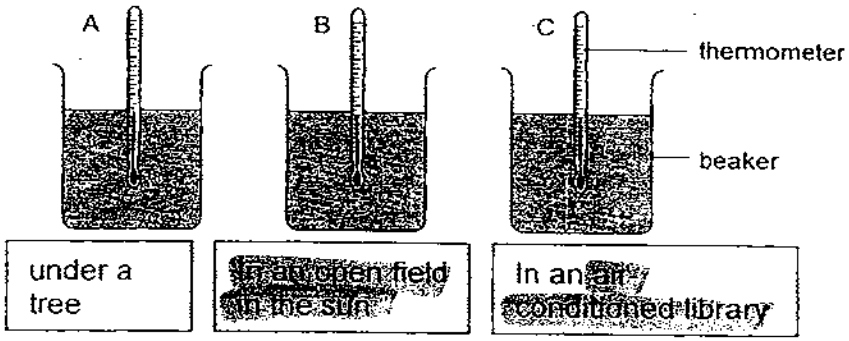
40. (a) Felicia placed a thermometer in a beaker of warm water and recorded the temperature of the water at the beginning of the experiment. She continued to record the temperature for 10 minutes at equal intervals.



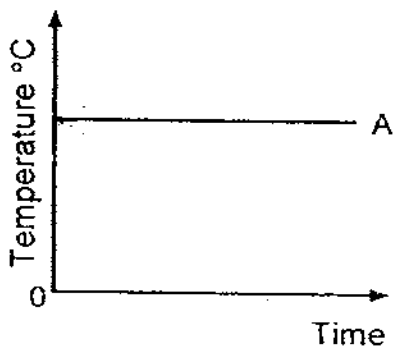
What was the temperature recorded at the beginning? (1 m)

_____

(b) Felicia then set up three identical set-ups using tap water of the same temperature at the beginning as shown below. She placed each set-up in a different place.



She recorded the readings on the thermometers every few minutes. Plot the line graphs for B and C below to indicate the change in temperature of the tap water in each beaker. (2 m)

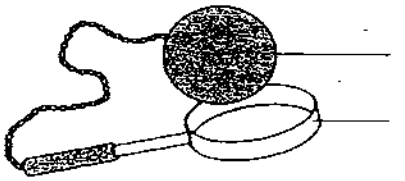


3

41. (a) Read the four different situations below. Write 'heat gain' or 'heat loss' for each matter underlined in bold. (2 m)

No.	Situation	'heat gain' or 'heat loss'
1.	The **ice-cream** Diana is eating melts.	
2.	The **water** in the bottle freezes to become ice.	
3.	The hot spoon in a cup of **cold water** .	
4.	The **thermometer** in a patient's mouth.	

(b) Fatimah wants to put a heated metal ball through a metal ring but she is not able to do so. The ball seems a little too big.



(i) What can she do to make the ball go through the ring? (1 m)

_____

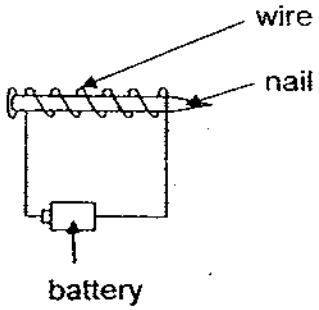
(ii) Explain your answer. (1 m)

_____

_____

4

42. Patricia made a magnet using the electrical method. The picture below shows how she set up the experiment.



She repeated her experiment a few times with a different number of turns of wire around the nail. The table below shows the results of her experiment:

Number of turns of wire around the nail	Number of pins picked up by the nail
8	3
16	7
24	12
32	15

(a) What is the relationship between the number of turns of wire and the number of pins picked up by the nail? (1 m)

_____

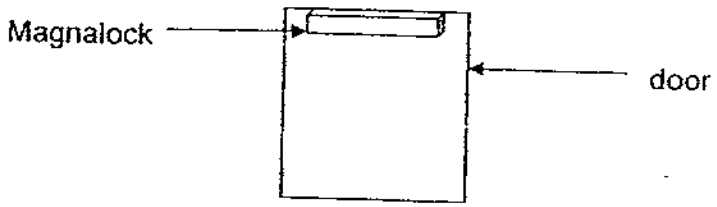
_____

(b) What can she conclude from the experiment? (2 m)

_____

3

43. Magnalock is a type of lock found in a door which makes use of an electromagnet. One example is the staff room door in Red Swastika School. When the door is closed, the electromagnet on the door frame holds the door firmly.



(a) What happens to the door when there is a power failure? (1 m)

_____

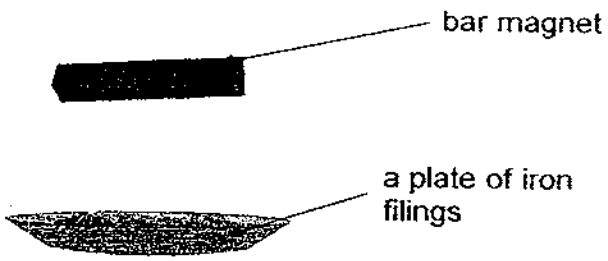
(b) Explain your answer in part (a). (2 m)

_____

_____

3

44. Study the picture below.



(a) What happens when the bar magnet is placed near the plate of iron filings? (1m)

_____

(b) Explain your observation in (a). (1 m)

_____

_____

(c) What happens if the bar magnet is dropped a few times and then brought near the plate of iron filings again? (1 m)

_____

_____

END OF PAPER
DID YOU CHECK YOUR WORK CAREFULLY?

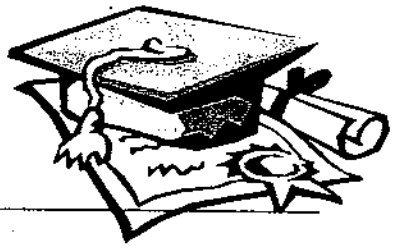
3

ANSWER SHEET

EXAM PAPER 2009

SCHOOL : RED SWASTIKA PRIMARY
SUBJECT : PRIMARY 4 SCIENCE

TERM : CA2



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

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

31)i)T ii)F iii)F iv)T

32)a)A: 4 stage life cycle. B: 3 stage life cycle.
b)Moth.
c)The young of a butterfly in the larva stage moults but the adult butterfly does not moult.

33)a)The roots hold the plant firmly to the ground.
b)There are still some roots left on Plant A and therefore Plant A can till absorb water to make food and live.

34)a)The volume of the boiling water and the size of each cup.
b)Cup B.

35)a)i)C ii)A
b)Pant Y will die as there are no leaves to make food for the plant.

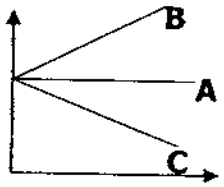
36)a)Brain.
b)Muscular System.

37)a)Water.
b)No. heat does not occupy space and has no mass thus, it is not a matter.

38)a)B.
b)No. Plant A is placed in the sun and Plant B is Placed in the dark room.

39)a)There will be air bubbles in the container of water.
b)i)Water enters the the glass bottle.
ii)The air in the glass bottle is heated and expanded. The expanded air escapes from the tube and the water rushed in to the space previously occupies by the air.

40)a)35℃ .
b)



41)a)1)heat gain 2)heat loss 3)heat gain 4)heat gain
b)i)Fatimah could cool down the metal ball so that it will become smaller.
ii)When the metal ball cools down, it contracts and becomes smaller and so it can go through the metal ring.

42)a)The more the number of turns of wire around the nail, the more number of pins the nail can pick up.
b)She can conclude that the electromagnet can be made stronger by turning the wire around the nail repeatedly.

43)a)The door will not lock.
b)When there is no electricity, there is no current flowing through the wire coil. The electromagnet will lose its magnetism, hence, the door cannot be locked.

44)a)The iron filings will be attracted to the bar magnet.
b)The iron filings are magnetic materials and can be attracted to the bar magnet.
c)The bar magnet will not be able to attract any iron filings as it has been demagnetised.