

NAME : _____ () .

CLASS _____

METHODIST GIRLS' SCHOOL (PRIMARY)

END-OF-YEAR EXAMINATION 2008

PRIMARY THREE

SCIENCE

BOOKLET A

Booklet A : 25 questions (50 marks)

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

Section A : (25 x 2 marks)

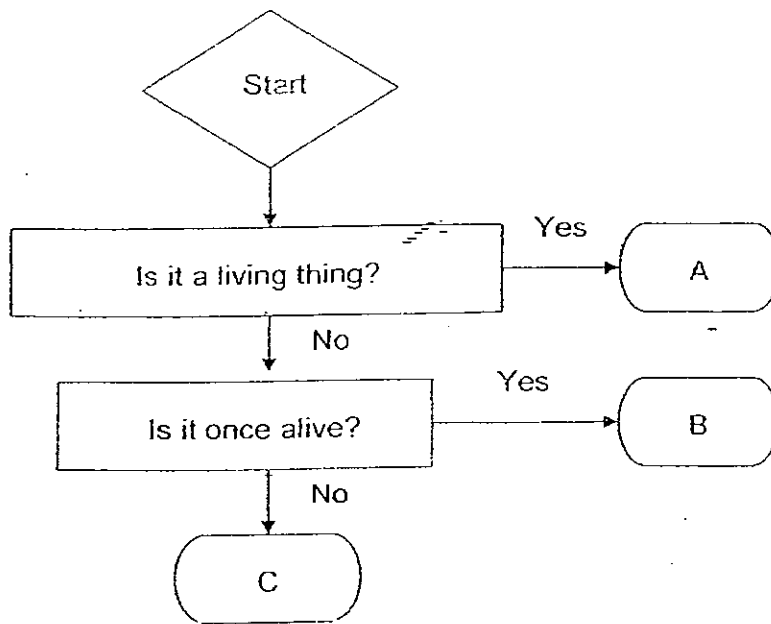
For each question, four options are given. Choose the most suitable option and shade your answer in the Optical Answer Sheet (OAS) provided.

1. Which are the two main groups of living things?
 - (1) Animals and materials
 - (2) Human and plants
 - (3) Plants and animals
 - (4) Living and non-living things

2. Living things need certain conditions to live.
A mimosa plant requires _____ but an earthworm does not.
 - (1) air
 - (2) food
 - (3) water
 - (4) sunlight

3. Which of the following is true about living things?
 - (1) The adult and the young do not always look alike
 - (2) The adult and the young always eat the same type of food
 - (3) The adult and the young always live in the same type of place
 - (4) The adult and the young always reproduce to ensure the survival of their own kind

4. Study the flow chart below carefully.



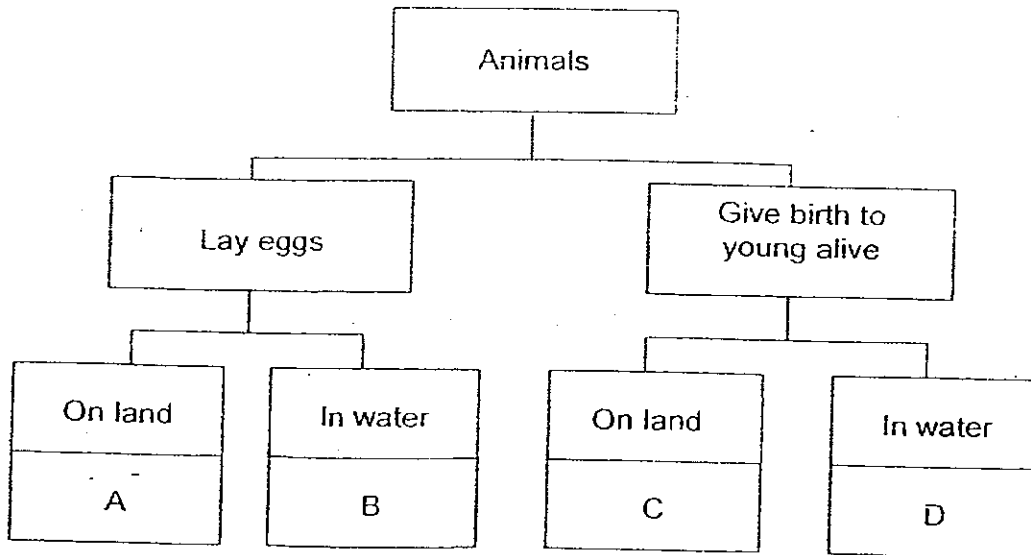
Which of the following correctly represents A, B and C?

	A	B	C
(1)	Cactus	Mink coat	Magnet
(2)	Roast duck	Aeroplane	Mould
(3)	Apple	Paper doll	Bacteria
(4)	Cocoon	Water bottle	Sun

5. Which one of the following animals is classified correctly?

	Animals	Classifications of Animals
(1)	Silverfish	Fish
(2)	Bat	Bird
(3)	Spider	Insect
(4)	Whale	Mammal

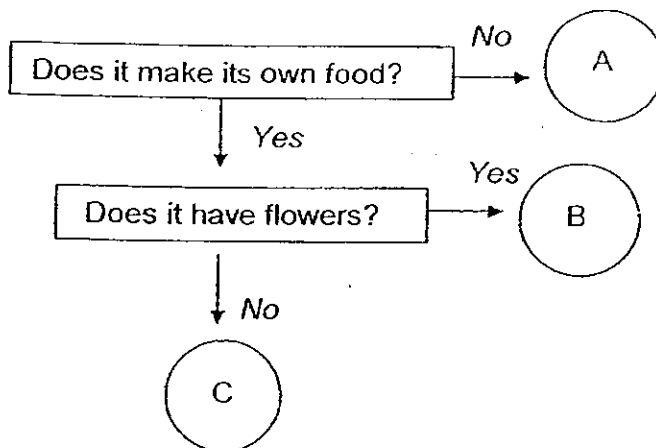
6. Study the classification chart below carefully.



Which one of the following has been classified correctly?

	A	B	C	D
(1)	Monkey	Dragonfly	Cockroach	Guppy
(2)	Hen	Mosquito	Polar bears	Molly
(3)	Beetle	Housefly	Rabbit	Toad
(4)	Dolphin	Frog	Camel	Sea turtle

7. Study the flow chart below.



Which of the following living things should A, B and C be?

	A	B	C
(1)	Water spangle	Ixora	Fern
(2)	Bracket fungus	Rice	Moss
(3)	Mould	Pine	Mimosa
(4)	Mushroom	Orchid	Coconut palm

8. Four green plants are treated differently as shown in the table below.

Plants	Conditions			
	Fertiliser	Air	Sunlight	Water
A	√	x	x	√
B	√	x	√	√
C	x	√	√	√
D	√	√	√	x

Which one of the above plants will survive for the longest time?

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

9. Which of the following is true about micro-organisms?

- (1) They are all harmful
- (2) They feed on dead organisms
- (3) They can help in breaking down our food
- (4) They can only reproduce in the dark

10. Which of the following can represent a cycle?



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

11. Which of the following life cycles best describes that of a grasshopper?

- (1) Egg → Larva → Adult
- (2) Nymph → Adult → Egg
- (3) Adult → Egg → Pupa → Larva
- (4) Pupa → Adult → Egg → Nymph

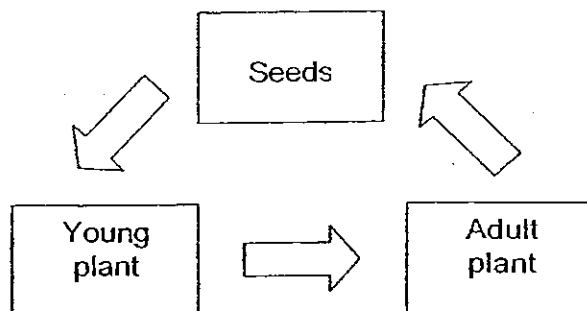
12. Study the table below carefully.

X	Y
Dog	Toad
Lizard	Beetle
Cockroach	Butterfly

What do 'X' and 'Y' represent?

	X	Y
(1)	Mammals	Amphibian
(2)	3-stage life cycle	4-stage life cycle
(3)	Lay eggs on land	Lay eggs in water
(4)	Young that resemble adult	Young that do not resemble adult

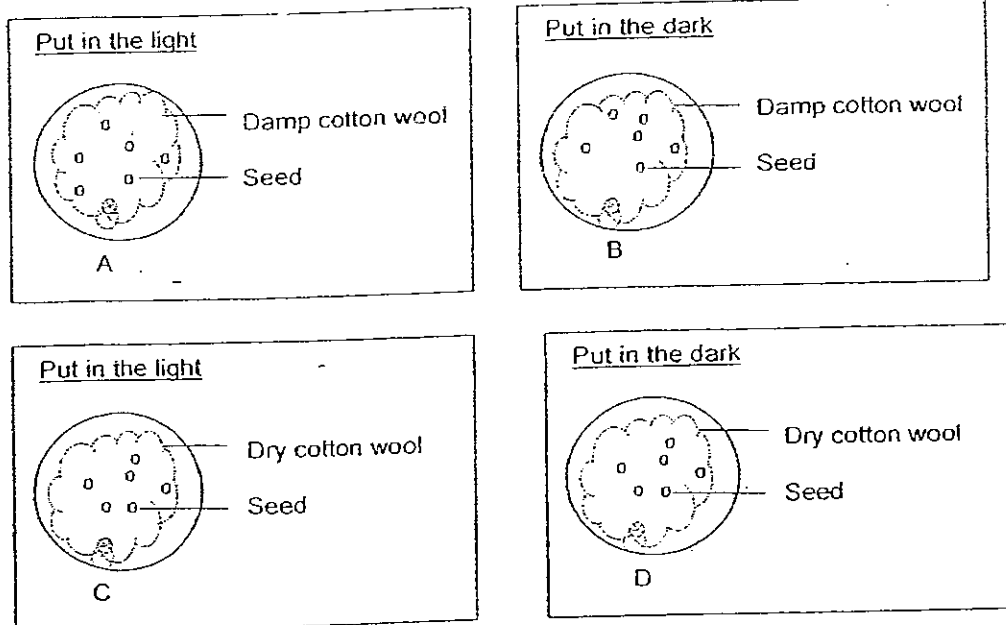
13. Study the life cycle below.



Which of the following plants **do not** follow the same life cycle as that shown in the diagram?

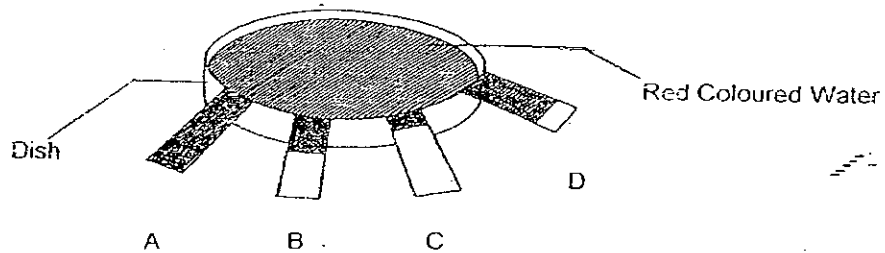
- (1) Morning glory and bird's nest fern
- (2) Palm and pine
- (3) Hibiscus and rain tree
- (4) Moss and water spangle

14. Ali set up an experiment as shown in the diagram. At the end of the experiment, it was observed that the seeds grew into seedlings in some containers and not in others. In which containers would the seeds grow well?



- (1) A and B
 (2) A and C
 (3) B and D
 (4) C and D
15. Plants start to make their own food _____.
- A: during germination
 B: at their seedling stage
 C: when the seeds are planted
- (1) A only
 (2) B only
 (3) A and C
 (4) B and C
16. Which of the following materials can be obtained from plants?
- (1) Wood and rubber only
 (2) Rubber and plastic only
 (3) Wood, rubber and fabric and cotton
 (4) Rubber, metal and fabric and cotton

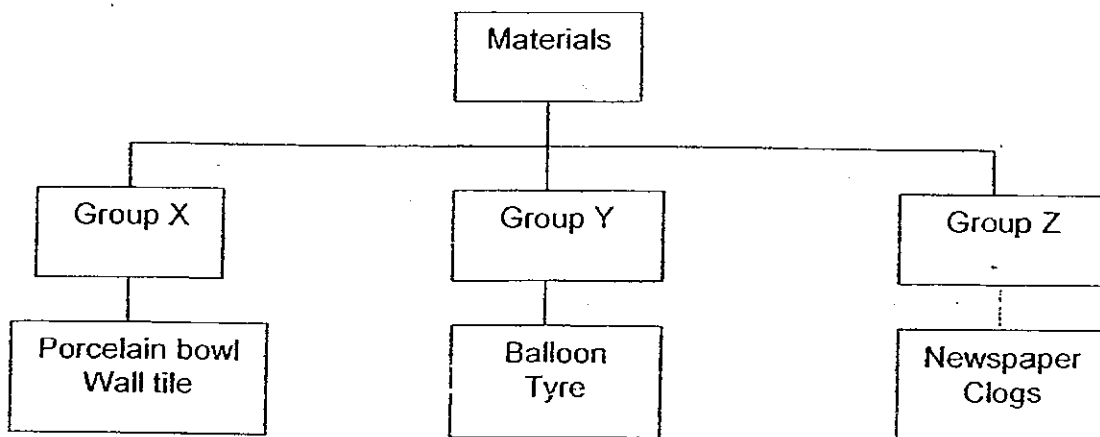
17. Fiona wanted to find out which type of paper is most absorbent (takes in the most water). She placed equal length of four different types of paper, A, B, C and D into a dish containing red coloured water.



The shaded portion shows the amount of coloured water absorbed by the different types of paper. Which of the following give the correct conclusions about the types of paper?

	Least absorbent	Most absorbent
(1)	A	C
(2)	A	B
(3)	B	D
(4)	C	A

18. Study the classification chart below.



What are the possible headings for the different groups of materials?

	Group X	Group Y	Group Z
(1)	Glass	Rubber	Plastic
(2)	Plastic	Metal	Fabric
(3)	Ceramics	Rubber	Wood
(4)	Metal	Plastic	Wood

19. Four objects that are made of wood, iron, chalk and glass are used to scratch one another. The observations are as follow :

Observations:

- ✓ The chalk cannot scratch any of the other three objects.
- ✓ The iron object scratches all the other three objects.
- ✓ The wooden object cannot scratch the glass object.

Which of the following shows the correct order of materials from the hardest to the softest?

- (1) Chalk, wood, glass, iron
- (2) Glass, wood, iron, chalk
- (3) Wood, glass, chalk, iron
- (4) Iron, glass, wood, chalk

20. Which of the following make use of magnets?

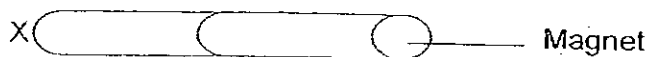
- A: credit card -
- B: refrigerator
- C: door bell
- D: scissors

- (1) A and B
- (2) B and C
- (3) A, B and C
- (4) All of the above

21. Ling tried unsuccessfully to make an iron nail into a magnet by stroking it forward and backward several times with one pole of a bar magnet. What could be the reason?

- (1) An iron nail cannot be made into a magnet.
- (2) Ling used the wrong pole of the magnet.
- (3) The iron nail must be stroked in the same direction.
- (4) The only way to make a magnet is by using electricity.

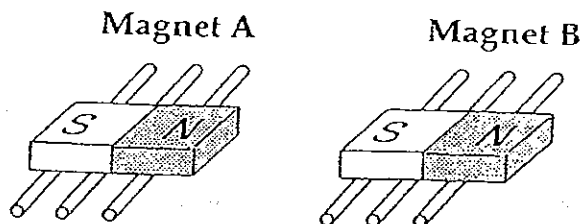
22. Raj placed objects A, B, C and D near the pole X of a magnet and recorded the following observation in the table below.



Objects	Observation
A	Repelled X
B	Attracted to X
C	No reaction
D	Attracted to X

Based on her observation, which of the following is the **best** conclusion?

- (1) B, C and D are magnets and C is a metal.
 - (2) A, B and D are metals while C is a non-metal.
 - (3) A, B and D are magnets while C is non-magnetic.
 - (4) A is a magnet, B and D are magnetic and C is non-magnetic.
23. The diagram below shows two magnets, A and B, supported by cylindrical bars that can roll. They are placed near each other.



Which one of the following statements is **true** about the two magnets?

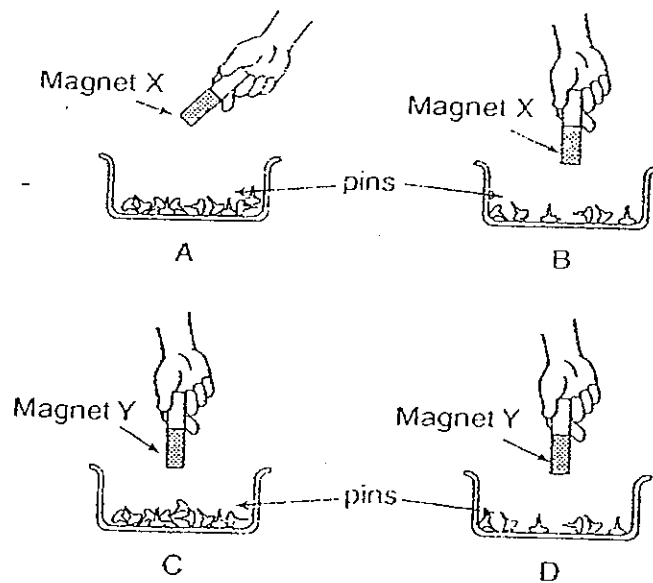
- (1) The two magnets will move towards each other.
- (2) The magnetic forces will push each other away.
- (3) Both magnets will change direction and then attract each other.
- (4) Magnet A will move towards Magnet B while Magnet B will move away from Magnet A.

24. Which of the following statements are true about magnetic force?

- A: Magnetic force is caused by pushing and pulling actions of objects.
- B: A magnet can attract objects made of steel or iron.
- C: A magnet can attract objects made of all kinds of metals.
- D: The force of a magnet is the strongest at its two poles.

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

25. Jane wanted to carry out an experiment to find out if magnet, X or Y, is stronger. Which two setups must she use to ensure a fair test?



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

NAME : _____ ()

CLASS : _____

METHODIST GIRLS' SCHOOL (PRIMARY)

END-OF-YEAR EXAMINATION 2008

PRIMARY THREE

SCIENCE

BOOKLET B

BOOKLET	MARKS
A	/ 50
B	/ 40
Practical	/ 10
TOTAL	

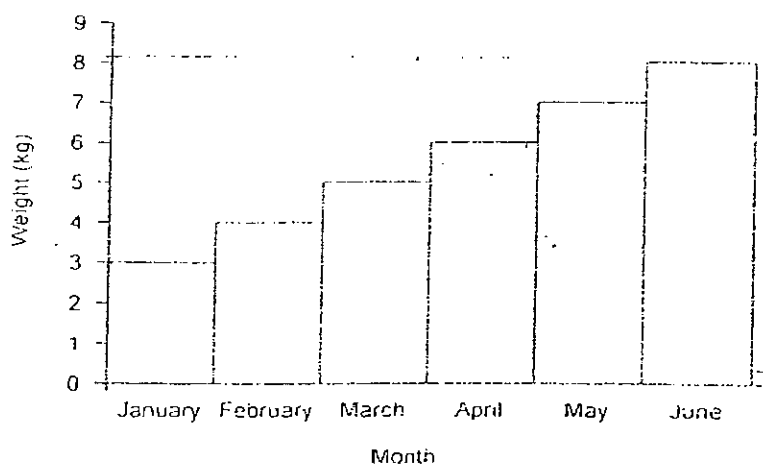
Total time for Booklets A and B : 1 hr 30 min.
Booklet B : 13 Questions (40 marks)

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Section B : (40 marks)

Write the answers in the blanks provided.

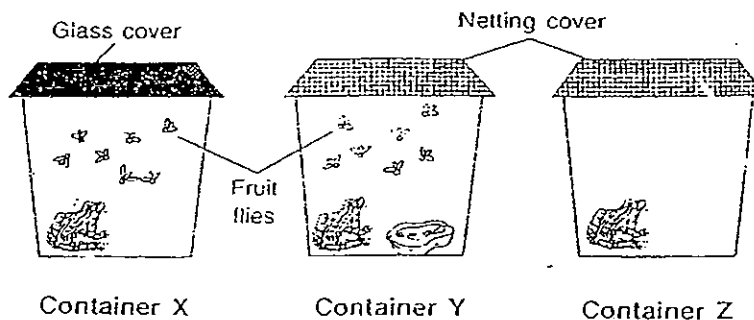
26. The chart below shows how Meena's weight has changed since her birth in January 2008.



- (a) What was Meena's weight at birth? (1 mark)
-

- (b) How much weight did Meena gain from March to June 2008? (1 mark)
-

27. Kelly carried out an experiment as shown in the diagrams below. She kept 3 frogs separately in a small container.



- (a) The frog in which container will be the first to die? (1 mark)
-

(b) Explain your answer for part (a).

(1 mark)

(c) Why is the papaya placed in Container Y?

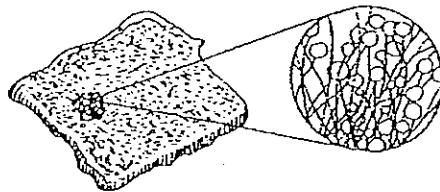
(d) What characteristics of living things can Kelly learn from this experiment?

(1 mark)

28. Two organisms, a pot of fern and some bread mould, are shown below.



Fern



Bread mould

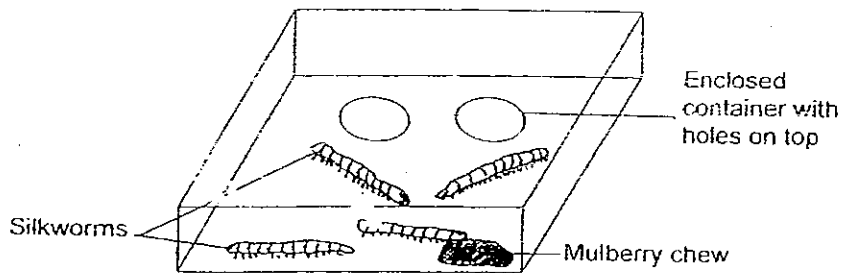
(a) Name one way in which the fern and bread mould are similar.

(1 mark)

(b) Name one way in which the fern and bread mould are different.

(1 mark)

29. Yacob sets up an experiment as shown below.



He keeps the container away from sunlight and replenishes the mulberry chew whenever necessary. He also keeps the container clean and observes the silkworms regularly.

After a few days, Yacob finds pieces of worm cast in the container. This happens a few more times throughout the next few weeks until the silkworms start to spin their own cocoons. Since there was no more movement, Yacob left the silkworms alone for a couple of weeks.

Finally, Yacob sees a few moths breaking out of their cocoons.

(a) Why do you think Yacob put the mulberry chew in the container? (1 mark)

(b) Where do the pieces of worm cast come from? (1 mark)

(c) From Yacob's observation, infer the number or stages the silkworm has in its life cycle. (1 mark)

(d) Is the silkworm an insect? Why? (1 mark)

(e) Name 2 other groups of animals that generally lay eggs. (2 marks)

(i) _____

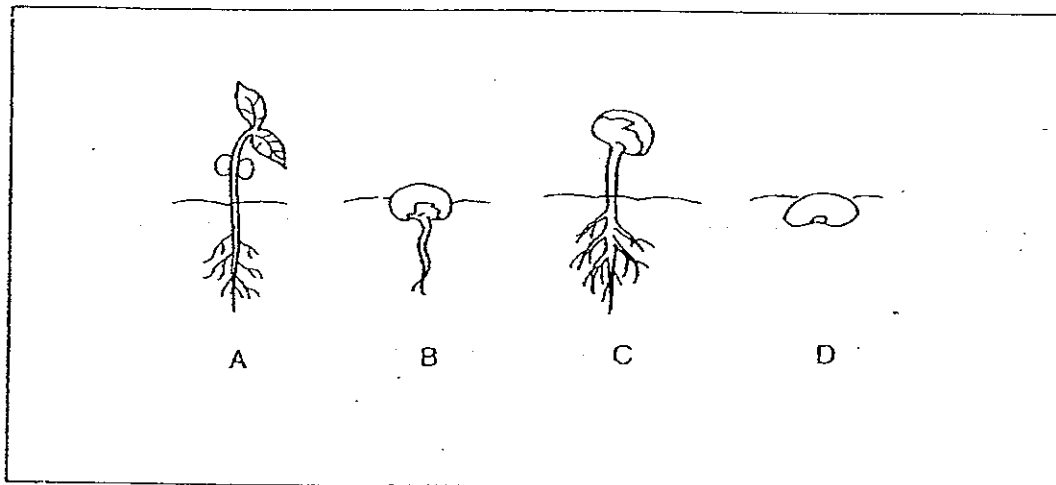
(ii) _____

30. Mosquitoes can spread diseases like Dengue Fever and Yellow Fever. In order to prevent these diseases, it is necessary to understand their life cycle in order to stop them from breeding. It was suggested that we should get rid of them when the mosquitoes are either in their larval or pupal stage.

(a) Why do you think it is easier to get rid of them at the stages mentioned above? (1 mark)

(b) State a way to kill the mosquitoes when they are at the stages mentioned above. (1 mark)

31. The diagram below shows the stages of the development of a green bean seed to a seedling but they are not arranged in the correct order.



(a) Arrange the stages in the correct order in the boxes below. (1 mark)

D
→

→

→

(b) At which stage must the seedling be placed in a sunny place? (1 mark)

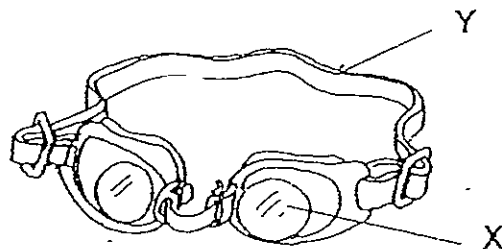
(c) Explain your answer in (b). (1 mark)

32. Classify the following objects into two groups in the table below. (3 marks)

Stainless steel fork	Copper coin
Silver cup	Aluminium foil
Ceramic bowl	Iron rod

Magnetic	Non-magnetic

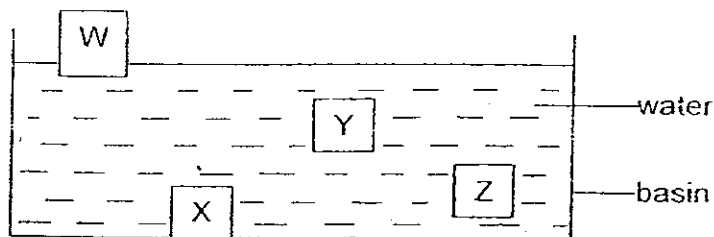
33. The picture below shows a pair of swimming goggles.



What are 'X' and 'Y' likely to be made of? (2 marks)

X: _____ Y: _____

34. Billy conducted the following experiment to test the suitability of four different materials in constructing an anchor for the ship to dock.



The table below shows the distance of each object made from materials W, X, Y and Z respectively, from the bottom of the basin.

Material of object	W	X	Y	Z
Distance from bottom of basin (cm)	14	0	?	2

- (a) The reading for Material Y is missing. How far do you think the object, made of Material Y, is from the bottom of the basin? (1 mark)
-
- (b) What property of material is being tested in this experiment? (1 mark)
-
- (c) Which material would be most suitable in constructing the anchor? (1 mark)
-
- (d) Give an example of **an object** made of Material W. (1 mark)
-

35. Tom had 3 magnets, A, B and C. He placed the magnets at different distances from a pile of pins. The table below shows the number of pins attracted by the magnets from various distances.

Magnet	Distance between magnet and pins (cm)	Number of pins attracted
A	4	8
B	6	10
C	1	7

- (a) How should Tom rank the strength of the magnets, from the strongest to the weakest? (1 mark)

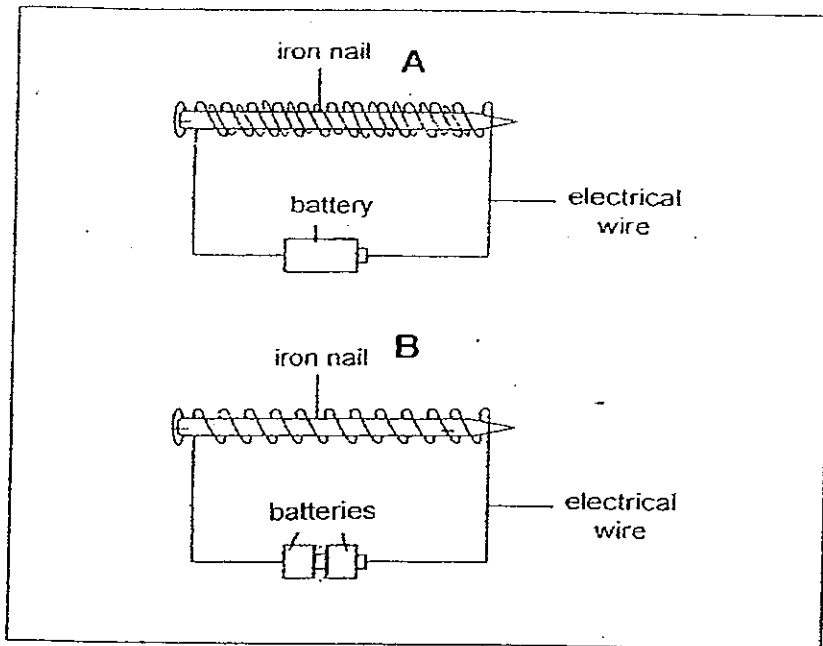
Strongest	Weakest

- (b) List 2 ways that magnets can lose their magnetism. (2 marks)

(i) _____

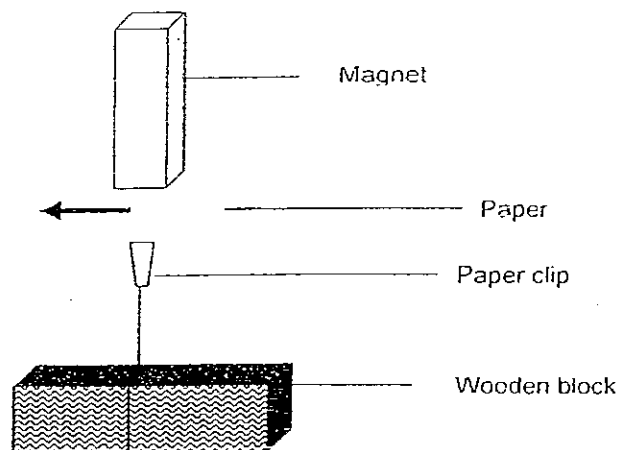
(ii) _____

36. Yi Ling wants to find out whether the number of turns of coils affects the strength of a magnet. She sets up two arrangements as shown below. For each arrangement, she tests the strength of the magnet by counting the number of steel pins it can pick up.



- (a) Is her test a fair one? (1 mark)
-
- (b) Explain your answer in (a) (1 mark)
-

37. In the set-up below, the paper clip was at first observed to be hanging in mid-air.

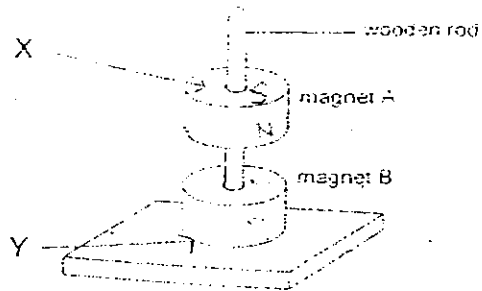


- (a) What will happen when a piece of paper is inserted as shown in the diagram? (1 mark)

- (b) What will happen when a piece of metal sheet is inserted instead? (1 mark)

- (c) Explain your answer in (b) (1 mark)

38. Magnet A appears to be 'floating' above Magnet B.



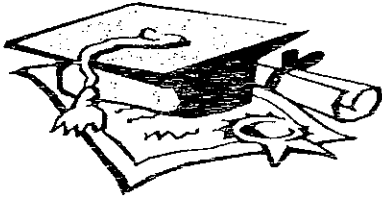
(a) What causes Magnet A to 'float'? (1 mark)

(b) If the arrow X is pointing to the South-seeking pole of Magnet A, which pole would arrow Y be pointing to? (1 mark)

(c) What will happen when Magnet A is turned upside down? (1 mark)

(d) Explain your answer in (b) (1 mark)

End of paper
Have you checked your work?



ANSWER SHEET

EXAM PAPER 2008

SCHOOL : MGS PRIMARY SCHOOL
SUBJECT : PRIMARY 3 SCIENCE

TERM : SA 2

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

Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25
3	4	3	3	4	1	4	4

26)a)3kg b)3kg

27)a)Container X.

b)The frog in container X has not enough air, if the frog has no air it will die easily.

c)The papaya is the food for the fruit flies, without food the flies cannot live, and if they die the frog will not have enough food.

d)Frog and fruit flies need air and food and water.

28)a)They reproduce by spores.

b)The bread mould cannot make its own food while the fern can.

29)a)It is the food for the silkworm.

b)It comes from the process from moulting.

c)Four.

d)Yes, the adult has six legs, two feelers and three body parts.

e)i)Bird ii)Fish

- 30)a)It is because once they are adult they can fly.
b)Pour oil over the larva and pupa.
- 31)a)D→B→C→A
b)A
c)The seed coat will drop off very soon and the plant will need sunlight to make food.
- 32)Magnetic--- Iron rod, Stainless steel fork
Non-magnetic--- Silver cup, copper coin, ceramic bowl,
Aluminium foil.
- 33)X: Plastic Y: Rubber
- 34)a)1cm. b)The ability to sink. c)Material X. d)Ping-pong ball
- 35)a)B,A,C
b)i)Drop the magnet a few times.
ii)Heat the magnet at a high temperature.
- 36)a)No.
b)Set up A has one battery but Set up B has 2.
- 37)a)Nothing will change.
b)The paper clip will drop.
c)Magnetism cannot pass through magnetic object.
- 38)a)The like poles of magnet A and magnet B are facing each other so they repel.
b)South-seeking pole.
c)Both magnets will attract.
d)If they are like-poles, they repel, if they are not like-poles, they attract.