



Maha Bodhi School
2008 Semestral Assessment 1
Science

Name : _____ ()

Date : 8 May 2008

Class : Pr 4 ()

Duration : 1 h 30 min (Parts I & II)

Part I: (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). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet (OAS).

1. Shannon described "X" as follows:
- It has mass.
 - It has a definite volume.
 - It does not have a definite shape.

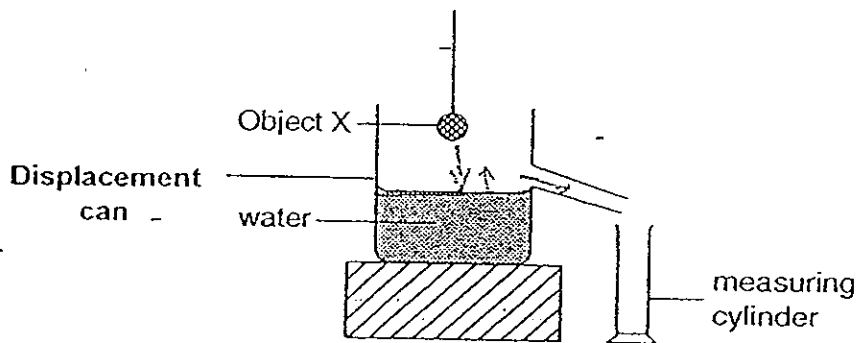
Which one of the following could "X" be?

- (1) Book
- (2) Rainbow
- (3) Apple juice
- (4) Carbon dioxide

2. Matter has mass and it occupies space.
Which one of the following is grouped wrongly?

	Matter	Non - matter
(1)	Water	Heat
(2)	Sound	Lightning
(3)	Chair	Shadow
(4)	Oxygen	Electricity

3. Annie wants to find out the volume of Object X. She makes use of a displacement can which can help to measure the volume of an irregular object. She sets up the apparatus as shown below. When she lowers Object X into the displacement can, some water flows into the measuring cylinder.

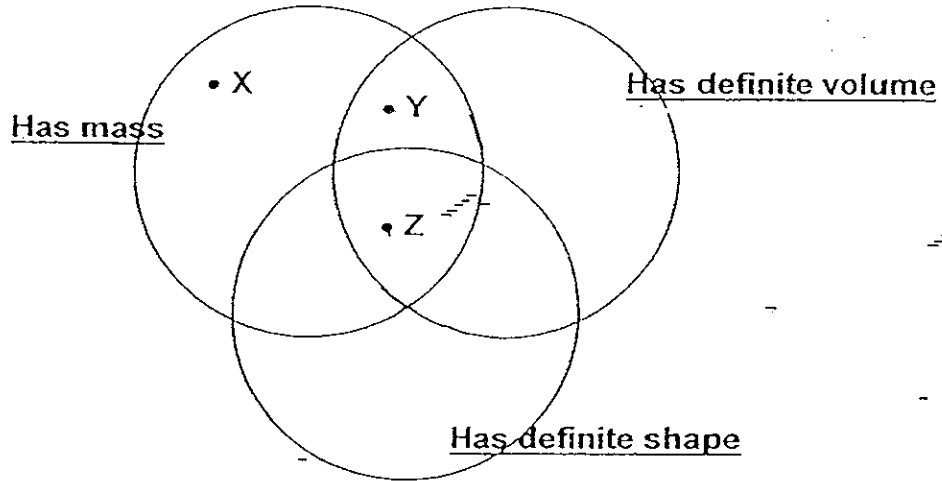


What can you conclude from the above experiment?

- (1) The water collected in the measuring cylinder is the same as the volume of water in the displacement can.
 - (2) The water collected in the measuring cylinder is more than the volume of water in the displacement can.
 - (3) The water collected in the measuring cylinder is the same as the volume of Object X.
 - (4) The water collected in the measuring cylinder is less than the volume of Object X.
4. The table below shows the characteristics of A, B, C and D. Which one is most likely to be a non-living thing?

		Needs water	Can move from one place to another	Can reproduce	Has legs
(1)	A	√		√	
(2)	B	√	√	√	
(3)	C	√	√	√	√
(4)	D		√		√

5. The venn diagram below shows some properties of matter.



Which state of matter does X, Y and Z represent?

	X	Y	Z
(1)	Gas	Liquid	Solid
(2)	Solid	Liquid	Gas
(3)	Liquid	Gas	Solid
(4)	Gas	Solid	Liquid

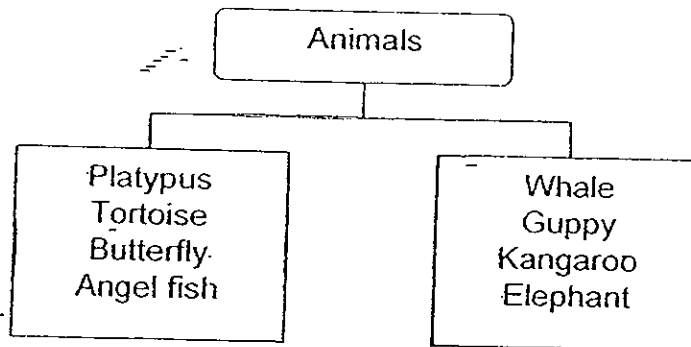
6. A water bottle is light and will not break easily. We can also see through it. Which one of the following materials is the water bottle made of?

- (1) Clay
- (2) Glass
- (3) Plastic
- (4) Rubber

7. Susan made the following observations about her pet dog. Which one of the following observations does not tell you that her pet dog is a living thing?

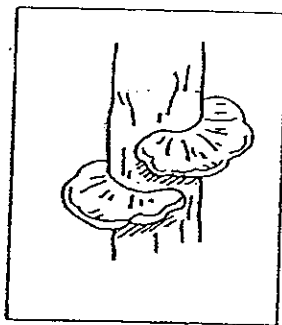
- (1) It has a tail.
- (2) It feeds on dog food.
- (3) It gives birth to its young alive.
- (4) It barks whenever Susan calls.

8. The diagram below classifies animals according to one of their common characteristics.

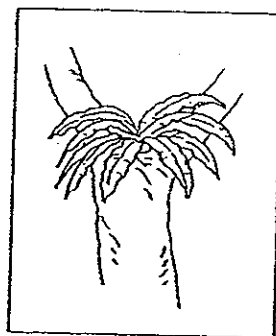


Which one of the following shows the characteristic that the above animals are grouped in?

- (1) By the way they move.
 - (2) By the place they live in.
 - (3) By the way they reproduce.
 - (4) By the outer covering they have.
9. Ken found two organisms in his garden as shown below.



Bracket Fungus



Bird's Nest Fern

Which of the following statement(s) is/are true?

- A: Both can make their own food.
 - B: Both reproduce from spores.
 - C: Both do not need water to survive.
- (1) A only
 - (2) B only
 - (3) B and C only
 - (4) A, B and C

10. May Ling was taking two of her piggy banks X and Y from the cupboard. She accidentally dropped both of them. Piggy bank X broke into pieces but piggy bank Y did not. Which one of the following shows the materials that piggy banks X and Y are made of?

	X	Y
(1)	Glass	Ceramic
(2)	Plastic	Glass
(3)	Metal	Ceramic
(4)	Ceramic	Plastic

11. Some fruits are classified according to the number of seeds they have in the table below.

One seed	A few seeds	Many seeds
Cherry Avocado P	Lime Orange Q	Chilli Papaya R

Which one of the following fruits correctly represents P, Q and R?

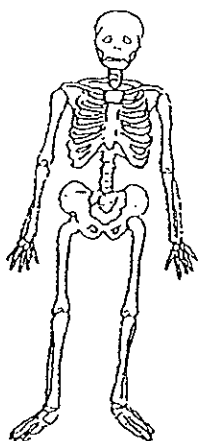
	P	Q	R
(1)	Mango	Tomato	Pear
(2)	Lemon	Apple	Longan
(3)	Cucumber	Lychee	Watermelon
(4)	Rambutan	Grape	Dragon Fruit

12. Muthu and Sally were chatting. Suddenly, Muthu burped. Sally said, "Yucks! You ate durians just now."

Which sense organ did Sally use when she made this observation?

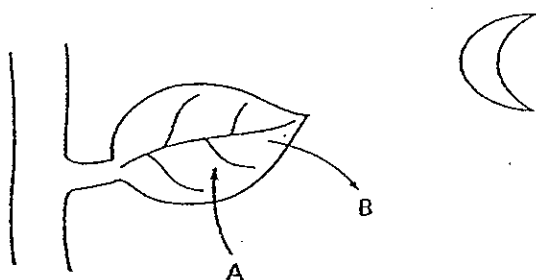
- (1) Ears
- (2) Nose
- (3) Eyes
- (4) Tongue

13. The human body system shown below allows movement, supports the body and protects some of the organs in the body.



Which one of the following systems is shown above?

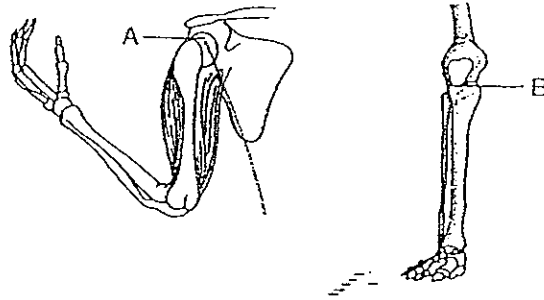
- (1) Skeletal
 - (2) Muscular
 - (3) Digestive
 - (4) Circulatory
14. Plants exchange gases with the surroundings during both day and night. Arrows A and B in the diagram below shows the exchange of gases at night.



Which one of the following shows the correct gases exchange at A and B?

	A	B
(1)	Carbon dioxide	Oxygen
(2)	Nitrogen	Carbon dioxide
(3)	Oxygen	Carbon dioxide
(4)	Oxygen	Nitrogen

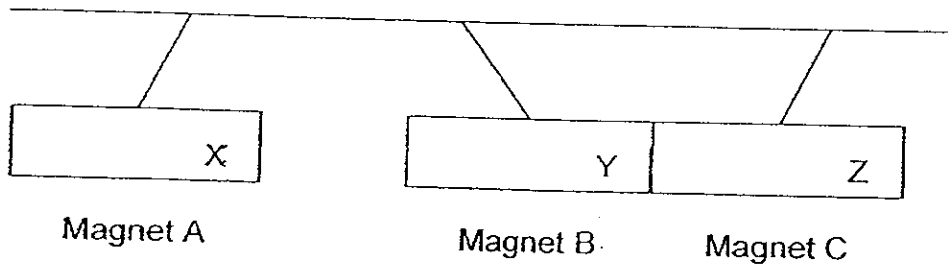
15. The two diagrams below show two different types of joints.



Which other parts of the body can Joint A and Joint B be found?

	Joint A	Joint B
(1)	Toe	Finger
(2)	Hip	Elbow
(3)	Finger	Hip
(4)	Elbow	Toe

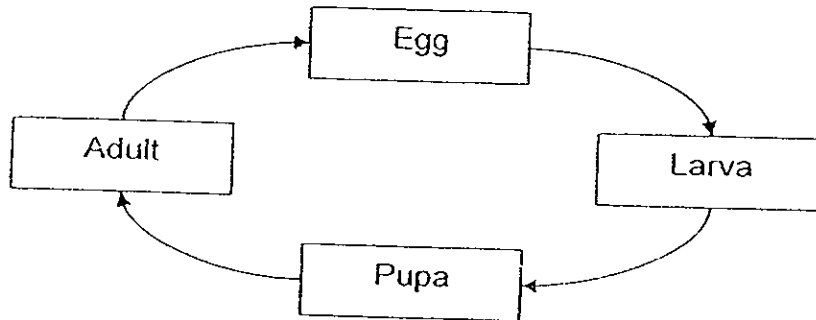
16. Three magnets A, B and C are suspended by 3 strings as shown below.



Which one of the following represents the poles X, Y and Z?

	X	Y	Z
(1)	North-seeking	South-seeking	North-seeking
(2)	North-seeking	North-seeking	North-seeking
(3)	South-seeking	South-seeking	North-seeking
(4)	South-seeking	North-seeking	North-seeking

17. Some animals go through the life cycle as shown below.



Which of the following animals go through the same life cycle?

- A: Frog
- B: Butterfly
- C: Housefly
- D: Grasshopper

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

18. The life cycles of some animals are similar while others are different. What is the similarity between the life cycle of a dog and a cockroach?

- (1) Both lay eggs.
- (2) Both give birth to their young alive.
- (3) Both go through three stages of life cycle.
- (4) Both have life cycles of the same duration.

19. A chick gets its nutrients from the egg before it hatches. Which part of the egg does the chick get its nutrients from?

- (1) Embryo
- (2) Egg yolk
- (3) Egg shell
- (4) Egg white

20. Aisha, Benny and Kathy made the following statements about an animal.

Aisha : It lays eggs in water.

Benny: It has four stages in its life cycle.

Kathy : It has six legs.

Which one of the following animals are they referring to?

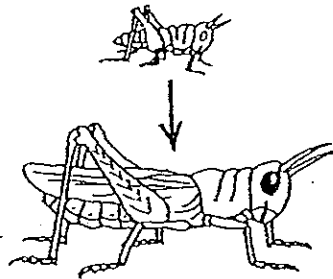
(1) Frog

(2) Parrot

(3) Housefly

(4) Mosquito

21. The diagram below shows the young of a grasshopper and an adult grasshopper.



Which one of the following statements is incorrect about these 2 organisms?

(1) Both have wings.

(2) Both have feelers.

(3) Both have three body parts.

(4) The young resembles the adult.

22. John left an open packet of green beans near a window.

Which one of the following is the reason that the green beans **do not** germinate?

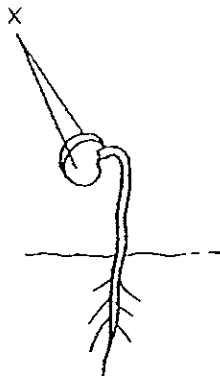
(1) They do not have air.

(2) They do not have water

(3) They do not have warmth.

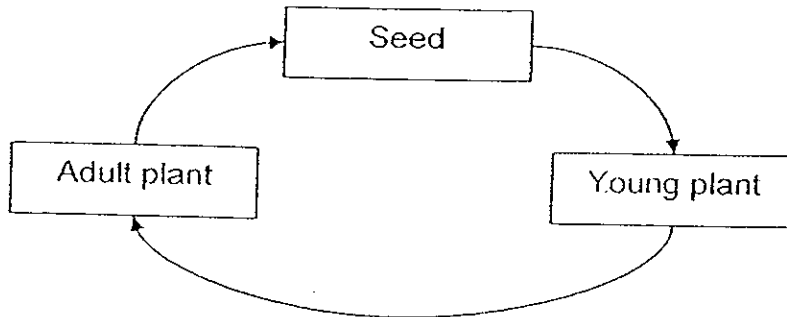
(4) They do not have sunlight.

23. The diagram below shows a seedling.
What is the function of the part marked X?



- (1) It protects the seedling.
(2) It provides food for the seedling.
(3) It helps the seedling to make food.
(4) It helps the seedling to absorb water.
24. There are different stages of growth in the life cycle of a plant.
Which one of the following shows the correct growth stages of a plant?
- (1) Seed → Shoot → Root → Leaves → Fruit → Flower
(2) Seed → Leaves → Root → Shoot → Flower → Fruit
(3) Seed → Flower → Fruit → Root → Shoot → Leaves
(4) Seed → Root → Shoot → Leaves → Flower → Fruit
25. Spoon, water and air are all matter.
Which of the following characteristics are correct about all these three matters?
- A: They have mass.
B: They take up space.
C: They have definite volume.
D: They do not have definite shape.
- (1) A and B only
(2) B and C only
(3) A, C and D only
(4) B, C and D only

26. The diagram below shows the life cycle of a tomato plant.



Which of the following will have the same life cycle as the tomato plant?

- A: Morning Glory
- B: Peanut
- C: Toadstool
- D: Staghorn Fern

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

27. Four similar seeds are grown under different conditions as shown below.

Seed	Conditions		
	Air	Water	Location
P	√	x	Near the window
Q	√	√	Inside the refrigerator
R	√	√	Under a study lamp
S	x	√	Inside the cupboard

Which seed will grow into a seedling?

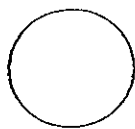
- (1) P
- (2) Q
- (3) R
- (4) S

28. Most pupils bring water bottles to school. They bring water bottles of all shapes and sizes.

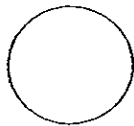
Which property of water allows so many varieties of water bottles?

- (1) It takes up space.
- (2) It can be compressed.
- (3) It does not have definite volume.
- (4) It takes the shape of the container.

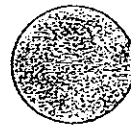
29. Grace classified the four balls made of different materials into two groups as shown below.



Cork



Styrofoam



Steel



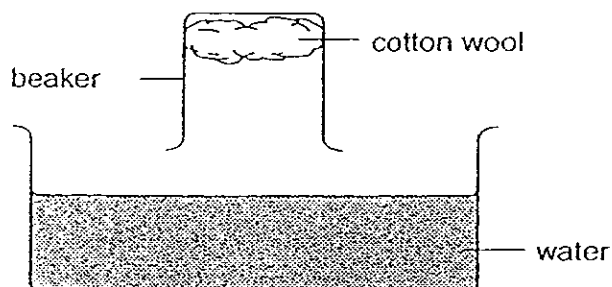
Glass

Group 1	Group 2
Cork	Steel
Styrofoam	Glass

What characteristics did she use to classify them?

	Group 1	Group 2
(1)	Soft	Hard
(2)	Heavy	Light
(3)	Not flexible	Flexible
(4)	Does not break easily	Breaks easily

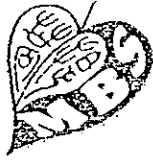
30. Henry totally immersed a beaker with some cotton wool into a basin of water as shown below. When he withdrew the beaker from the basin of water, he realised that the cotton wool did not get wet.



What is the likely reason for this?

- (1) Water can be compressed.
- (2) Air in the beaker takes up space.
- (3) Air does not have a definite shape.
- (4) The beaker cannot take in so much water.

END OF PART I



Maha Bodhi School
2008 Semestral Assessment 1
Science

Name : _____ ()

Class : Pr 4 ()

Duration : 1 h 30 min (Parts I & II)

Date : 8 May 2008

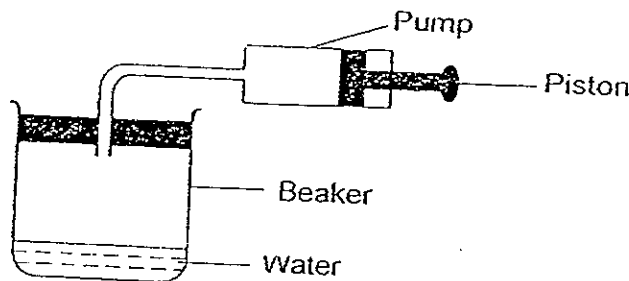
Parent's Signature : _____

Part I (60 marks)	
Part II (40 marks)	
SA 1 (100 marks)	

Part II: (40 marks)

Write your answers to questions 31 to 40 in this script.

31. Ben sets up an experiment as shown in the diagram below.
The capacity of the beaker is 600 cm^3 . The beaker contains 50 cm^3 of water and 550 cm^3 of air. When Ben pushes the piston in completely, 50 cm^3 of air is pumped into the beaker.



- (a) What is the volume of air and water in the beaker after he pumped in 50 cm^3 of air? [2]

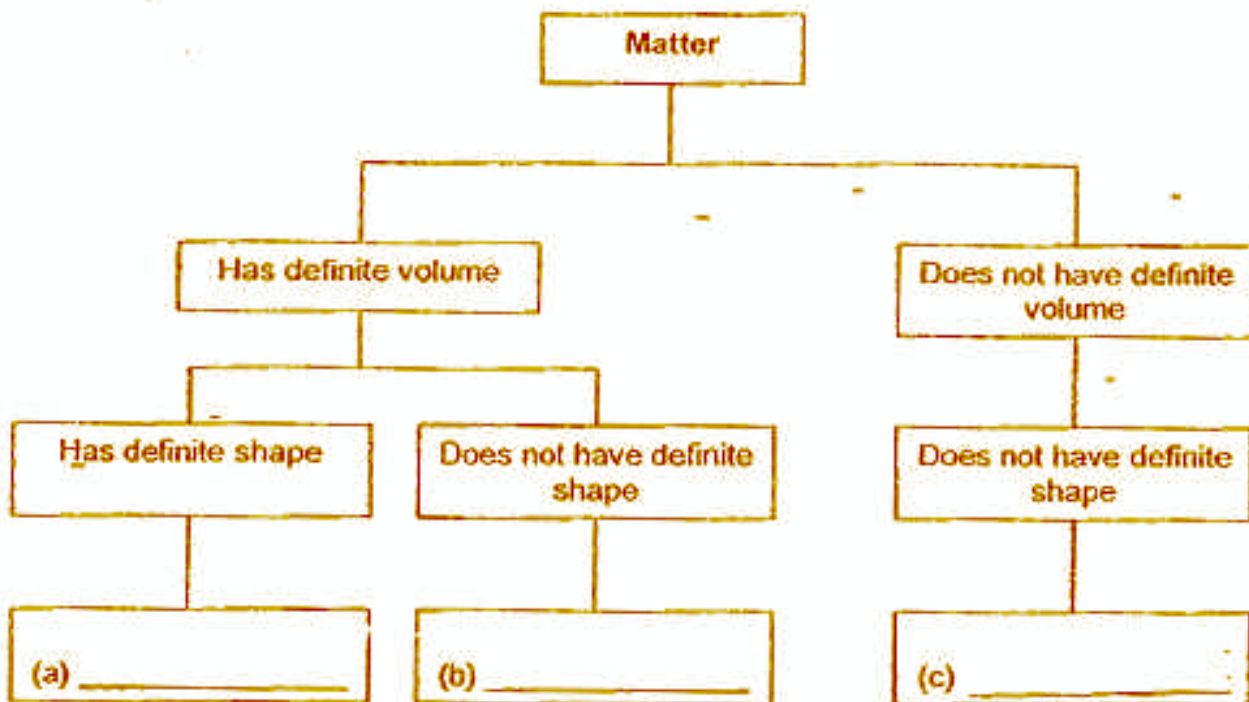
(i) Volume of air = _____

(ii) Volume of water = _____

- (b) What does the above experiment tells you about the property of air and water? [2]

32. Study the flowchart below. Fill in the blanks with the words given in the box. [3]

Honey Nitrogen Pebble



33. Match the following descriptions to the correct characteristics of living things. [4]

A man taking a stroll in the park. •

A frog laying eggs in the pond. •

A larva becomes a mosquito. •

A tortoise hiding in its shell when touched. •

• Living things can respond to their surroundings.

• Living things can grow.

• Living things can move by themselves.

• Living things can reproduce.

36. Ahmad went to the Botanical Gardens and found some water plants. He classified them as shown below.

Water Plants		
X	Y	Z
Elodea	Duckweed	Arrowhead
Hydrilla	Water Hyacinth	Water Lily

Give a suitable heading for X, Y and Z.

[3]

(a) X: _____

(b) Y: _____

(c) Z: _____

37. Xiaoming wants to find out the whether these 4 sheets of materials K, L, M and N are waterproof. These 4 sheets of materials are of similar sizes and their masses are taken before the experiment. Then, they are immersed into 4 beakers containing equal amount of water. After 15 minutes, each sheet is weighed again. Their masses are recorded in the table shown below.

Material	Mass at the beginning (g)	Mass after 15 minutes (g)
K	9	17
L	10	13
M	12	12
N	14	16

(a) Which material absorbs the most amount of water?

[1]

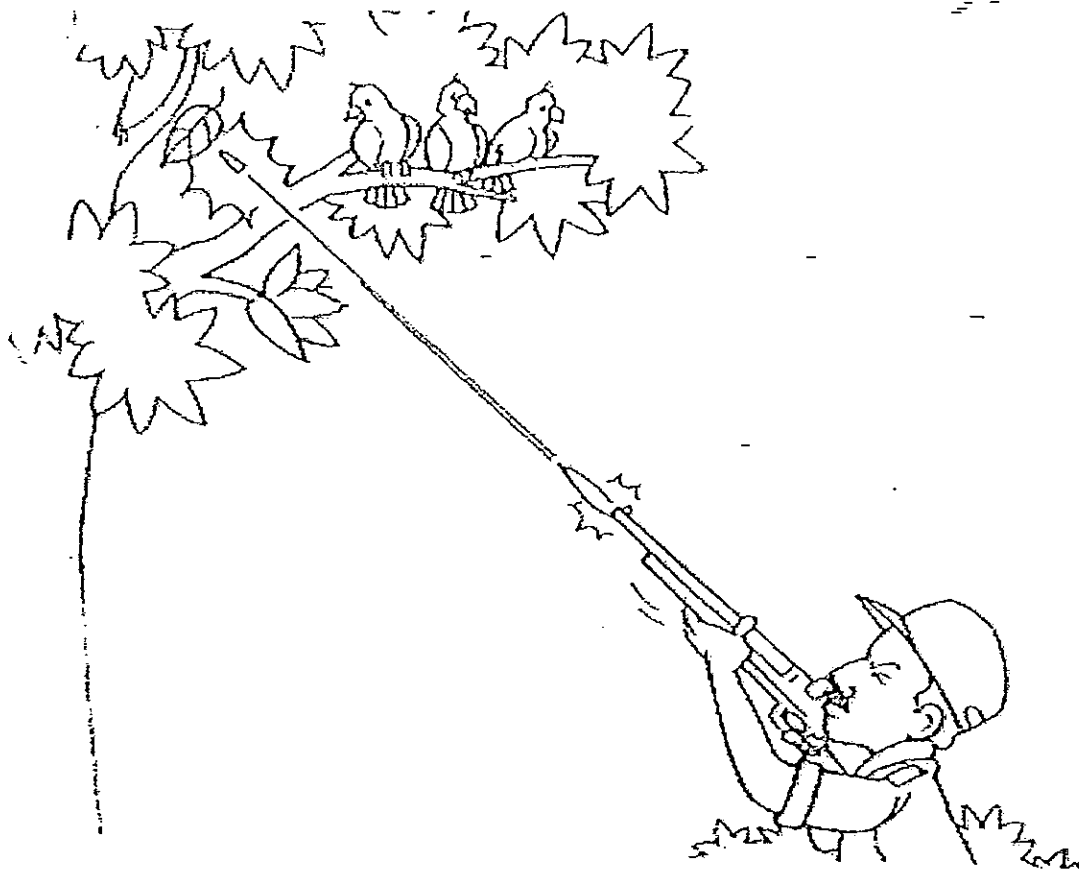
(b) From the table above, which material is most suitable for making a raincoat? [1]

(c) Explain your answer in (b).

[2]



35. The diagram below shows a hunter firing a shot at the birds. However, he misses the birds.



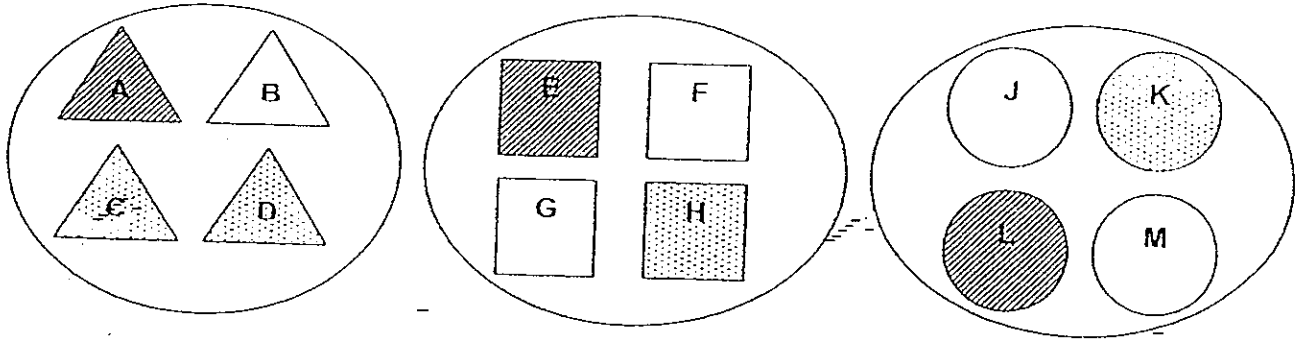
(a) What do you think the birds will do?

[1]

(b) State one characteristic of living things that explains your answer in (a)?

[1]

34. The diagram below shows 3 groups of objects.



(a) How are the objects in the pictures above grouped?

[1]

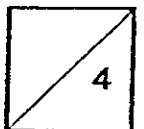
(b) Show one other way in which all the objects can be regrouped. Write the alphabets A, B, C, D, E, F, G, H, J, K, L and M into three groups X, Y and Z below.

[2]

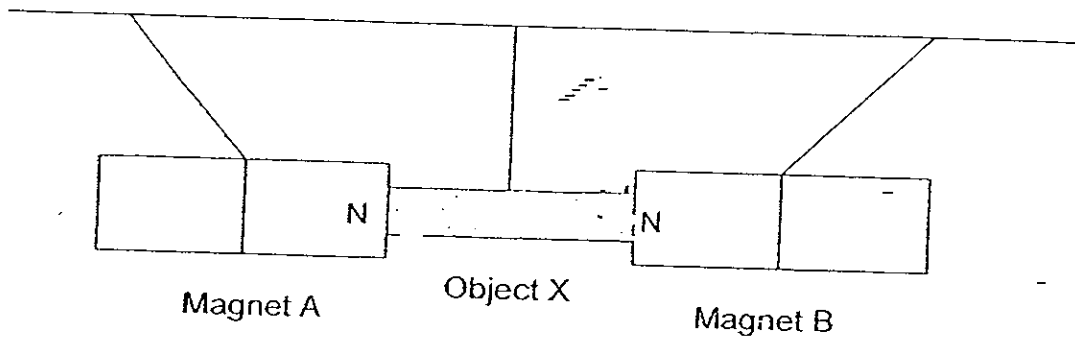
Group X	Group Y	Group Z

(c) What characteristics did you use to classify the objects in (b)?

[1]



38. An Object X is suspended in the middle of Magnet A and Magnet B. Both ends of Object X attract the magnets A and B as shown below.



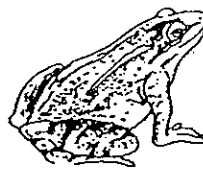
- (a) Give an example of a material that Object X can possibly be made of. [1]

- (b) What will happen if object X is a magnet? [2]

39. The diagram below shows a tadpole and a frog.



Tadpole



Frog

- (a) State two differences between the tadpole and the frog based on the diagram above. (Do not compare size and shape) [2]

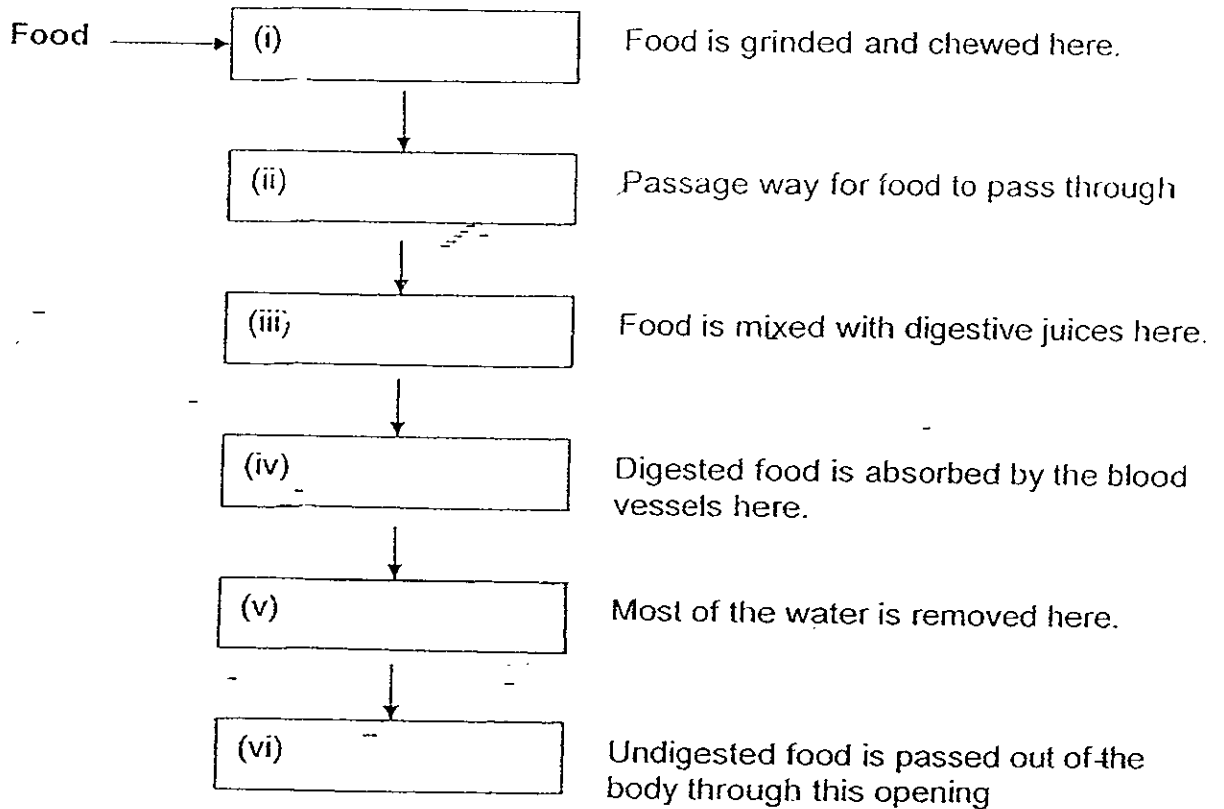
(i) _____

(ii) _____

- (b) Name two other animals with the same number of stages of life-cycle as the frog. [2]

40. The table below shows the journey of the food through the digestive system. Complete the flowchart below with suitable words.

[3]



41. Jane showed Tom a beaker of half-filled with sand and said, "Sand is a liquid because it takes the shape of its container." However, Tom disagreed, "No, that's not true. Sand is not a liquid."

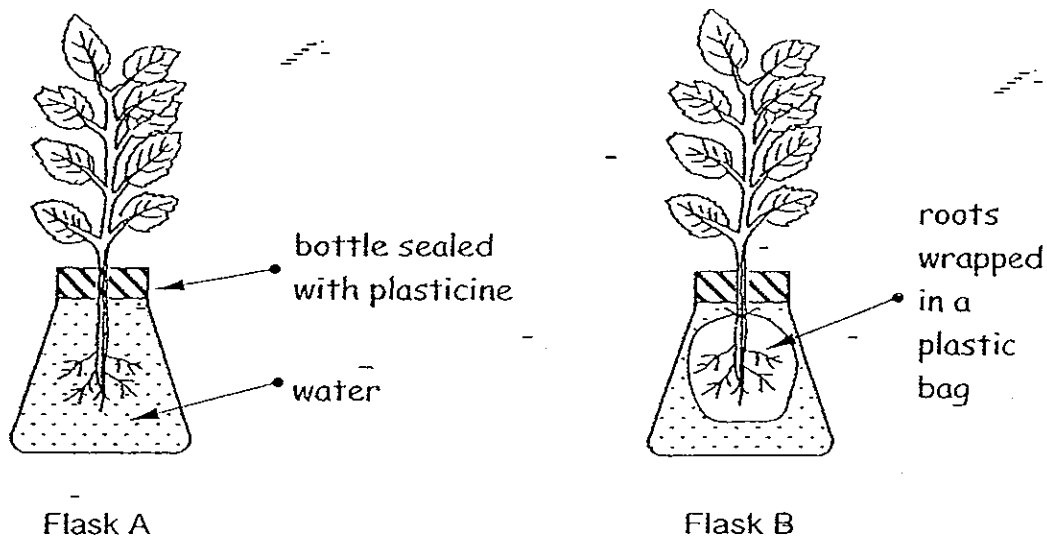
(a) Is Jane or Tom right?

[1]

(b) Explain your answer in (a).

[2]

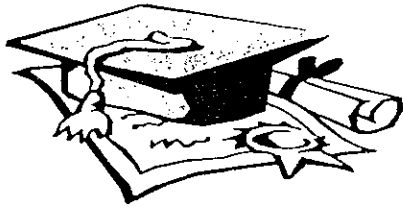
42. Tian Wei and Cindy set up an experiment as shown below. They observed the plants daily.



- (a) What will Tian Wei and Cindy observe about the water level in both flasks A and B after 1 week? [2]

- (b) What does the above experiment show? [1]





ANSWER SHEET

EXAM PAPER 2008

SCHOOL : MAHA BODHI PRIMARY SCHOOL
SUBJECT : PRIMARY 4 SCIENCE

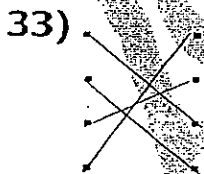
TERM : SA 1

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

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

- 31) a) i) 550cm^3 ii) 50cm^3
b) Air can be compressed while water cannot be compressed.

- 32) a) Pebble b) Honey c) nitrogen



- 34) a) The objects are grouped according to their shape.
b) AEL, CDHK, BFGJM.
c) By the patterns.

- 35) a) The birds will fly away.
b) Living things respond to changes.

- 36) a) X: Totally submerged.
b) Y: Floating.
c) Z: Partly submerged.

- 37) a) Material K.
b) Material M.
c) Material M because it is water proof.

- 38) a) Steel.
b) Either one of the magnet A or B will repel or Magnet A or B will attract.

- 39) a) i) A tadpole has tail while a frog does not have.
ii) A frog has four legs while a tadpole has not legs.
b) Cockroach and grasshopper.

- 40) i) Mouth ii) Gullet iii) Stomach
iv) Small intestine v) Large intestine vi) Anus

- 41) a) Tom.
b) Sand is a solid it has definite shape and definite volume.

- 42) a) Flask A water is less than while flask B water never change.
b) Plants absorb water through their roots.