



## AI TONG SCHOOL

### 2008 SEMESTRAL ASSESSMENT (1) PRIMARY FOUR SCIENCE

**DURATION** : 1hr 45 min

**DATE**: 9<sup>th</sup> May 2008

### INSTRUCTIONS

**Do not open the booklet until you are told to do so.**

**Follow all instructions.**

**Answer all questions.**

**Name** : \_\_\_\_\_ ( )

**Class** : Primary 4 \_\_\_\_\_

**Parent's Signature** : \_\_\_\_\_

**Date** : \_\_\_\_\_

Practical Assessment	15
Written Assessment	85
<b>Total</b>	<b>100</b>

Section A (30 x 2 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.

1. Which one of the following **cannot** be classified as matter?

- (1) Germs
- (2) Oxygen
- (3) Sunlight
- (4) Raindrops

2. The table below shows the properties of three types of matter: W, R and X.

Matter	Has definite shape	Has definite volume
W	x	✓
R	✓	✓
X	x	x

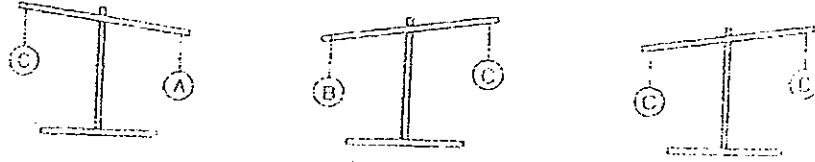
Which one of the following shows the correct states of W, R and X?

	W	R	X
(1)	Gas	Solid	Liquid
(2)	Liquid	Gas	Solid
(3)	Gas	Liquid	Solid
(4)	Liquid	Solid	Gas

3. Which one of the following is true?

- (1) Matter with a definite shape must be a solid.
- (2) Matter with a definite shape can be compressed.
- (3) Matter of the same mass must have the same volume.
- (4) Matter of the same shape must have the same volume.

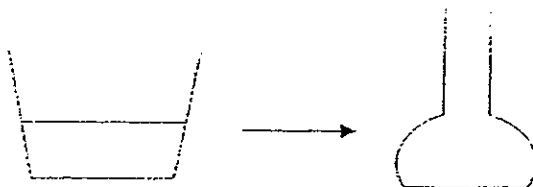
4. The diagrams below shows what happens to a lever balance each time two objects are placed on it.



Which one of the following correctly identifies the masses of the objects A, B, C and D?

	A	B	C	D
(1)	20g	25g	30g	35g
(2)	35g	30g	25g	20g
(3)	30g	25g	20g	25g
(4)	35g	30g	30g	25g

5. Simon filled Container A with 100ml of water. Then he poured all the water from Container A to Container B.



Container A

Container B

Which one of the following changes would he observe in Flask B?

- A Change in shape of water.
- B Increase in mass of water.
- C Change in height of water.
- D Increase in volume of water.

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

6. 4 similar marbles were placed into a cylinder of water as shown in Diagram 1. When 2 marbles were taken out, the volume of water decreased as shown in Diagram 2.

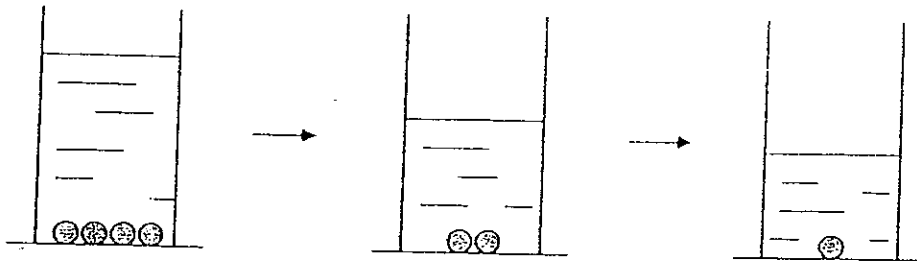


Diagram 1  
Volume of water  
and 4 marbles  
 $70 \text{ cm}^3$

Diagram 2  
Volume of water  
and 2 marbles  
 $60 \text{ cm}^3$

Diagram 3  
?

The volume of the water and 1 marble would be \_\_\_\_\_.

- (1)  $5 \text{ cm}^3$
- (2)  $10 \text{ cm}^3$
- (3)  $50 \text{ cm}^3$
- (4)  $55 \text{ cm}^3$

7. Annie used a piece of plasticine to make a model of a rabbit. Then she used the same piece of plasticine and moulded it into a fish. The two models she made have the same \_\_\_\_\_.

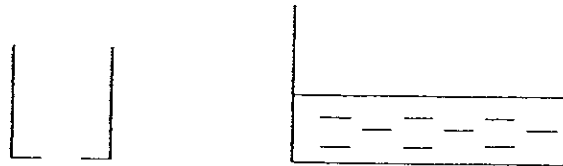
- A mass
- B shape
- C volume

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

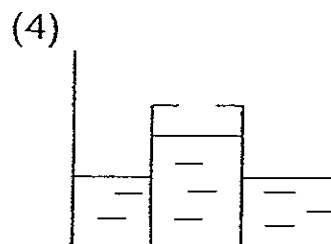
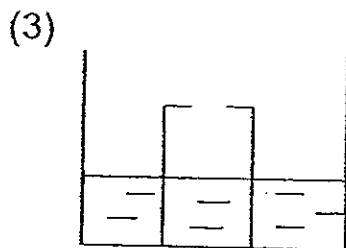
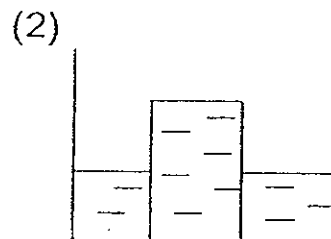
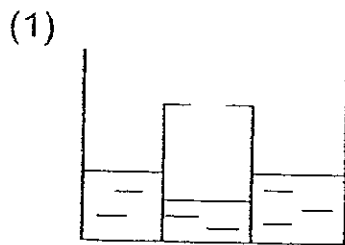
8. A football can hold  $350 \text{ cm}^3$  of air. Esther used a syringe and drew out  $20 \text{ cm}^3$  of air from the football. The volume of air in the football would be \_\_\_\_\_.

- (1)  $320 \text{ cm}^3$
- (2)  $330 \text{ cm}^3$
- (3)  $350 \text{ cm}^3$
- (4)  $370 \text{ cm}^3$

9. A pupil was given a plastic cup and a basin of water. He made a hole at the bottom of the plastic cup.

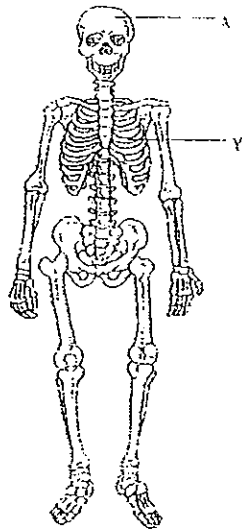


Then he inverted the plastic cup into the basin of water. Which one of the following diagrams shows the water level in the plastic cup?



10. Two objects A and B of the same size are placed on a balance. The balance tilts to one side as shown in the diagram.
- Which one of the following statements is correct?
- (1) The objects have different mass.
  - (2) The objects have different volumes.
  - (3) The objects are made of the same materials.
  - (4) The objects occupy different amounts of space.
11. Sandy was blindfolded and asked to identify an object. Which one of the following is a possible statement made by her?
- (1) It is yellow, thin and crispy.
  - (2) It has no smell, is round and smooth.
  - (3) It is fragrant, green and has sharp thorns.
  - (4) It is shiny and makes a ringing sound when shaken.
12. Both our sense of smell and sense of hearing can \_\_\_\_\_.
- (1) warn us of danger
  - (2) estimate distances
  - (3) tell us the shape of an object
  - (4) tell us the temperature of an object
13. Jasmine touched a cactus and cried out in pain. Which is the correct sequence to show how the message is relayed in her body so that she can feel pain?
- (1) Skin → Brain → Nerves
  - (2) Brain → Nerves → Skin
  - (3) Nerves → Skin → Brain
  - (4) Skin → Nerves → Brain

14. The diagram shows a human skeleton.



The bones labeled X and Y \_\_\_\_\_

- (1) support our body
- (2) enable us to move
- (3) protect the soft organs
- (4) store food not used by the body

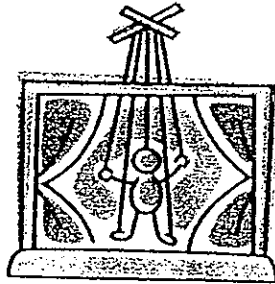
15. Study the classification table below. Group A and Group B are part of the skeletal system.

Group A	Group B
Knee	Shoulder
Elbow	Hip

Which one of the following sets correctly classifies Group A and Group B?

	Group A	Group B
(1)	Ball joints	Hinge and socket joints
(2)	Hinge joints	Ball and socket joints
(3)	Socket joints	Ball and hinge joints
(4)	Hinge and socket joints	Ball joints

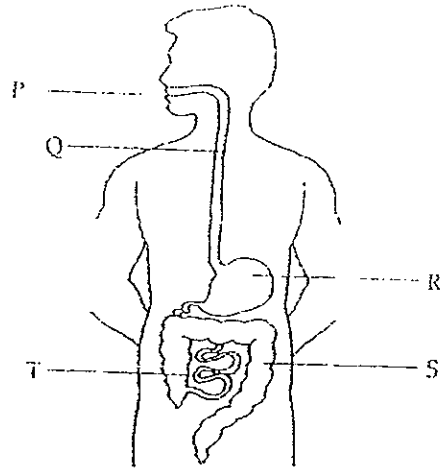
16. Joe went to watch a puppet show. He observed how the puppeteer pulled the strings attached to the puppet to enable it to move. He deduced that the strings of the puppet work the same way as \_\_\_\_\_ in our body.



- (1) joints
  - (2) bones
  - (3) muscles
  - (4) intestines
17. Which of the following body systems work together for the digestion of food?
- (1) Sense organs and digestive system
  - (2) Skeletal system and digestive system
  - (3) Skeletal system and muscular system
  - (4) Muscular system and digestive system
18. When food is being chewed in the mouth, the tongue is used to \_\_\_\_\_
- (1) cut and grind the food into tiny pieces
  - (2) shape the food into suitable sizes for swallowing
  - (3) moisten the food to make it easier for swallowing
  - (4) make sure that the food will not enter the windpipe



19. The diagram below shows the human digestive system.



At which parts are digestive juices produced?

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

20. The undigested food is temporarily stored in the \_\_\_\_\_.

- (1) anus
- (2) gullet
- (3) rectum
- (4) stomach

21. Which one of the following is classified correctly?

	Come from animals	Come from plants
(1)	Paper	Leather
(2)	Wool	Cotton
(3)	Fur	Silk
(4)	Linen	Plastic

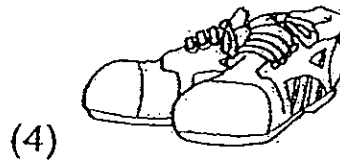
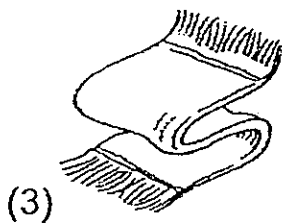
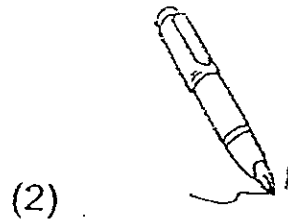
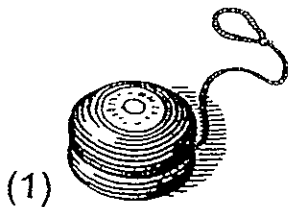
22. Study the table below.

	A	B	C
Waterproof	✓	✓	✓
Flexible	x	✓	x
Transparent	✓	✓	x

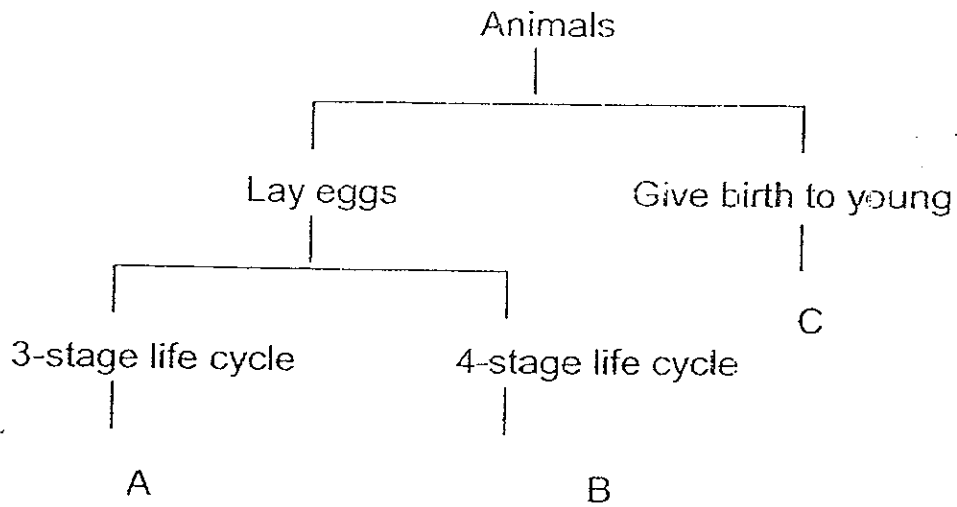
Which one of the following sets of objects best fits the description in the table above?

	A	B	C
(1)	window pane	plastic bag	metal fork
(2)	vase	cloth	coin
(3)	pencil	rain coat	rubber ball
(4)	marble	goggles	paper

23. Which of the following is made of one material only?



24. Study the classification table below.



What could A, B and C represent?

	A	B	C
(1)	Frog	Beetle	Rabbit
(2)	Moth	Cockroach	Platypus
(3)	Grasshopper	Butterfly	Guppy
(4)	Dragonfly	Mosquito	Spiny anteater

25. Which one of the following statements is true about this stage of the life cycle of the butterfly?



- (1) It does not need air.
- (2) It does not need food.
- (3) It moves about all the time.
- (4) It is at its second stage of its life cycle.

26. Which one of the following statements about plants is false?

- (1) Ferns do not bear flowers.
- (2) Not all mushrooms are poisonous.
- (3) Plants need fertilizers to make food.
- (4) Balsam plants do not bear flowers.

27. The outer covering of a tree trunk is the \_\_\_\_\_.

- (1) skin
- (2) bark
- (3) stalk
- (4) blade

28. Plants make food in the presence of sunlight.  
Where is the food transported to?

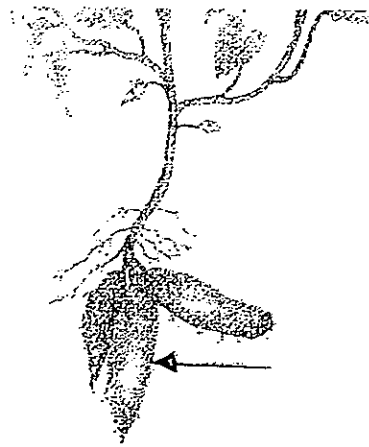
- A roots
- B stems
- C leaves
- D fruits

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

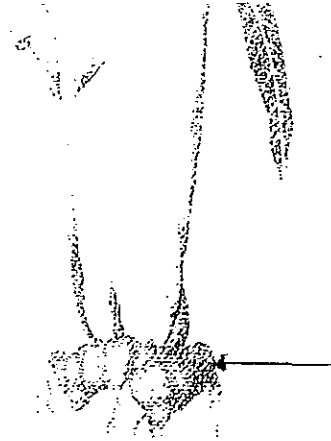
29. Which one of the following is **not** a function of the stem of a plant? It \_\_\_\_\_.

- (1) supports the leaves
- (2) transports mineral salts
- (3) transports food made by the leaves
- (4) hold the plants firmly in the ground

30. The pictures show different parts of a plant.



Sweet potato



Ginger



Cabbage



Orchid

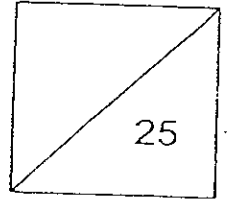
Which one is a stem?

- (1) Ginger
- (2) Orchid
- (3) Cabbage
- (4) Sweet Potato

Primary 4 Science SA1 (2008)

Name : \_\_\_\_\_ (

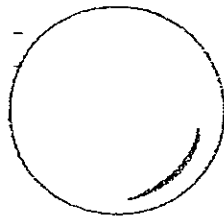
Class : P4 ( )



Section B: 25 marks

Answer all the questions in the spaces provided.

31. John had 2 balls of the same size. Ball A was made of polystyrene and Ball B is made of iron.



A



B

- (a) Compare the mass of Ball A and Ball B. [1/2]

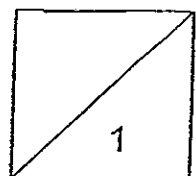
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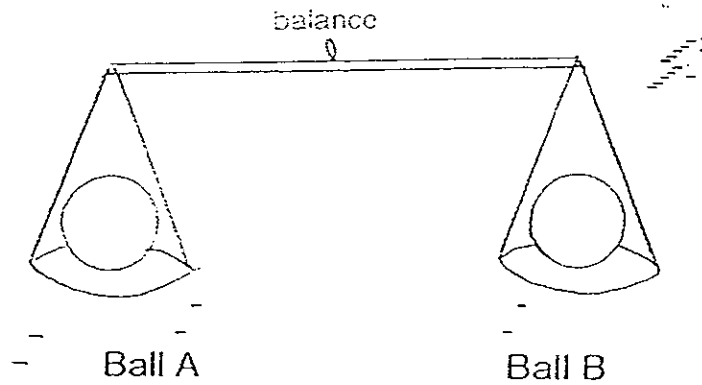
- (b) Besides the size, list one other similarity between the two balls. [1/2]

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32. David has 2 balls, A and B. They are both of the same size and have the same mass. He places them on either side of a balance as shown below. He then pumps some more air into Ball A.



- (a) What will he observe? [1]

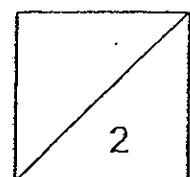
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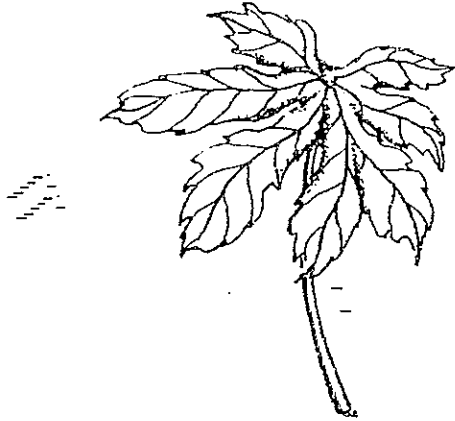
- (b) Explain the reason for his observation. [1]

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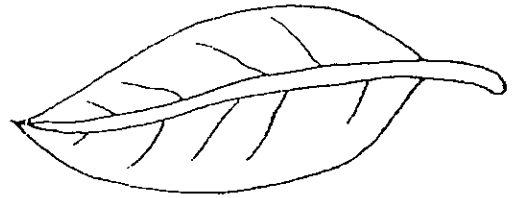
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33. The picture shows the leaves from 2 trees.



papaya leaf



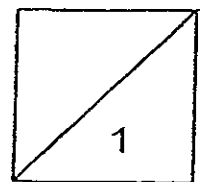
rambutan leaf

Two differences that can be observed from the pictures are:

(a) \_\_\_\_\_ [1/2]

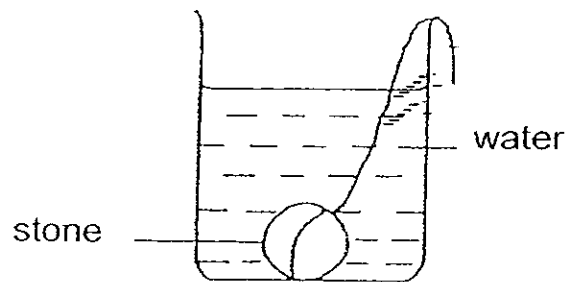
(b) \_\_\_\_\_ [1/2]

( Do not compare the size)





34. Kenny found a container of water with a stone in it as shown in the diagram below.



- (a) What would happen to the water level if he took out the stone? [1]

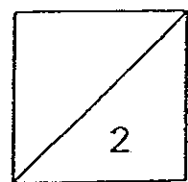
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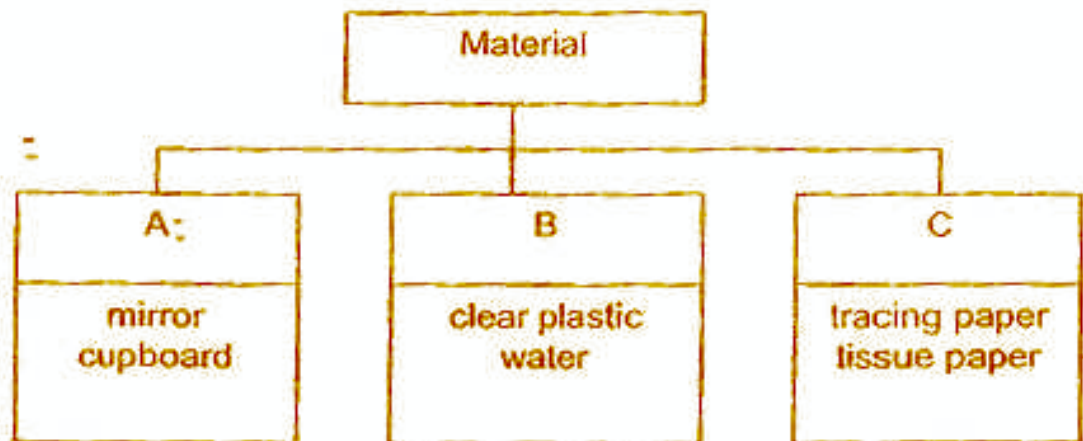
- (b) Explain the reason for your answer in (a). [1]

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35. Study the classification table on how materials can be classified.



- (a) Give suitable headings for Groups A and B.

Group A \_\_\_\_\_ [1/2]

Group B \_\_\_\_\_ [1/2]

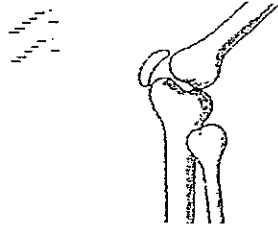
- (b) In which groups would you place the following materials?

Aluminium foil \_\_\_\_\_ [1/2]

Frosted glass \_\_\_\_\_ [1/2]



36. Look at the diagram below.



(a) In which part of our body can this type of joint be found? [1/2]

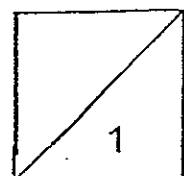
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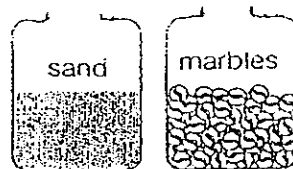
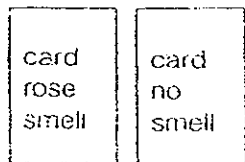
(b) What does the above joint allow the body to do? [1/2]

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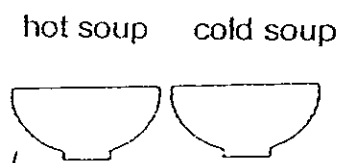
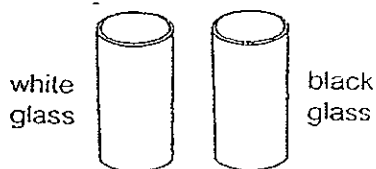


37. A blind person was given 4 sets of objects to differentiate.



Set A

Set B



Set C

Set D

(a) He was not able to tell the difference between the things in one set.

Name the set.

[1]

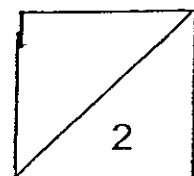
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(b) State one reason for the answer in (a).

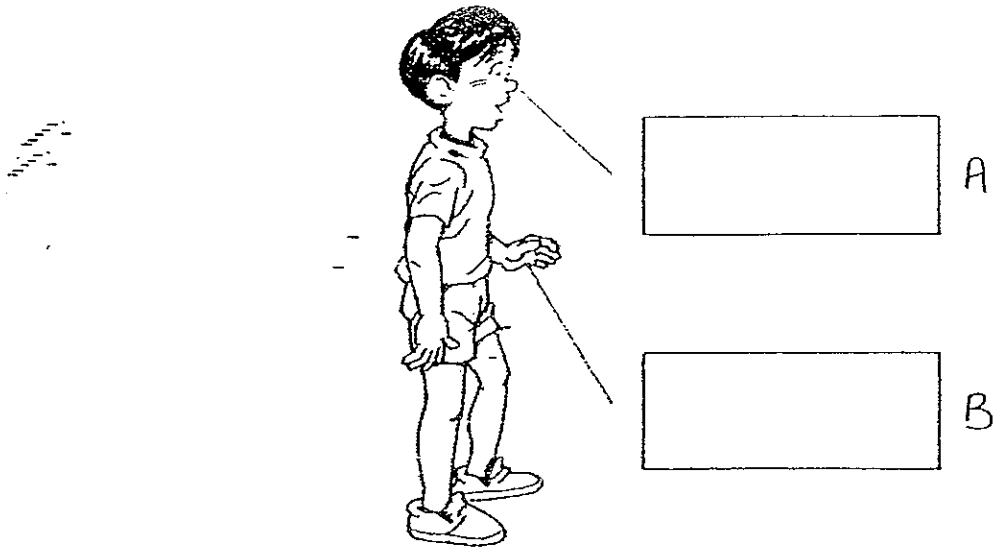
[1]

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38. Our sense organs enable us to respond to changes around us.

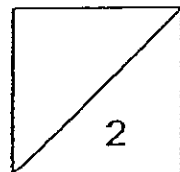


- (a) Write the sense organs in the boxes shown above. [1]

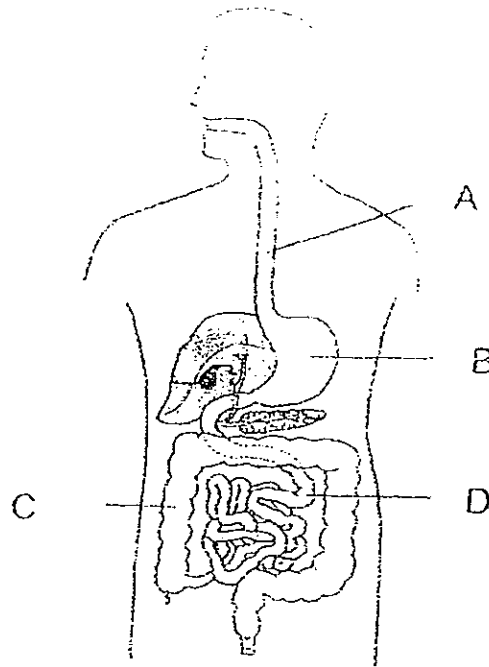
- (b) Which sense organs do you use to find out that a flower is yellow in colour and is sweet-smelling? [1]

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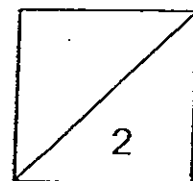
39. The diagram below shows the digestive system of a man.



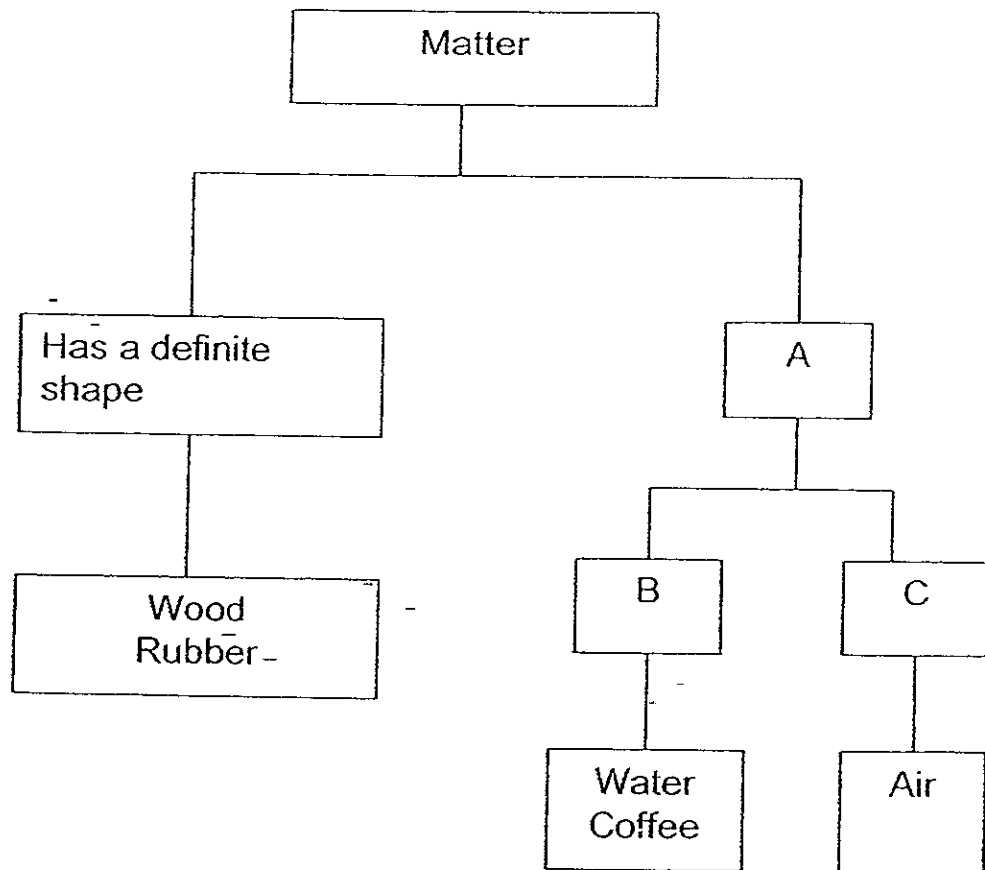
Name the parts labeled A to D:

[2]

- A \_\_\_\_\_
- B \_\_\_\_\_
- C \_\_\_\_\_
- D \_\_\_\_\_



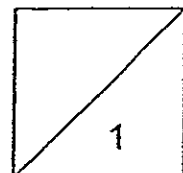
40. The classification table shows how different kinds of matter can be grouped according to their characteristics.



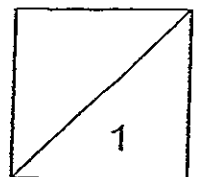
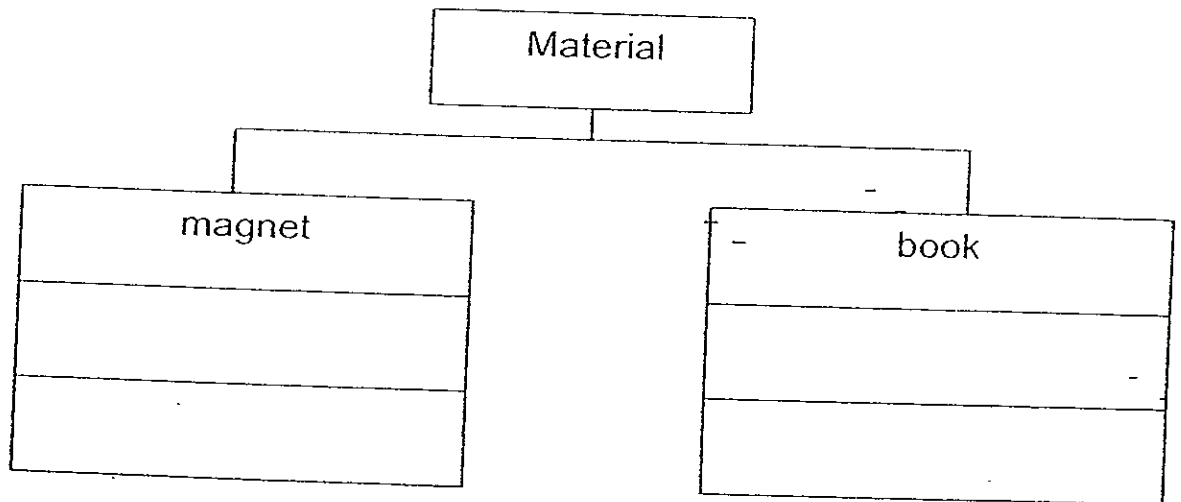
Write down 1 property of the objects in Groups B and C.

Group B \_\_\_\_\_ [1/2]

Group C \_\_\_\_\_ [1/2]

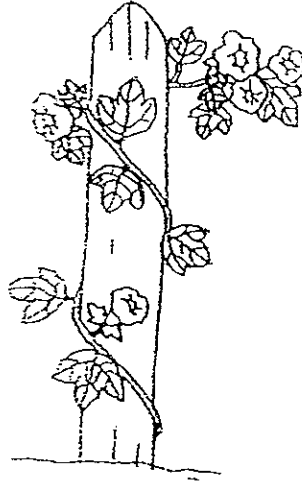


41. Classify the following objects under the correct groups. [1]





42. A morning glory plant has a slender and weak stem.



- (a) How do plants such as the morning glory stay upright? [1]

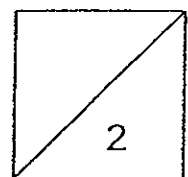
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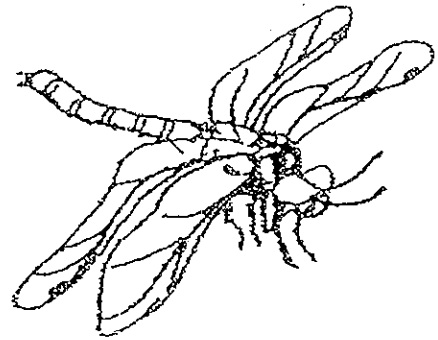
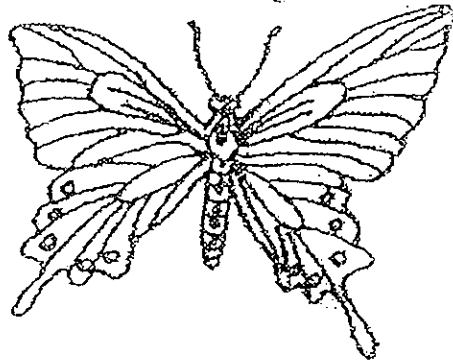
- (b) Explain why plants need to stay upright. [1]

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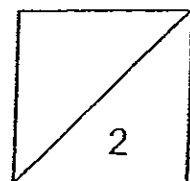
43. The pictures show a butterfly and a dragonfly.



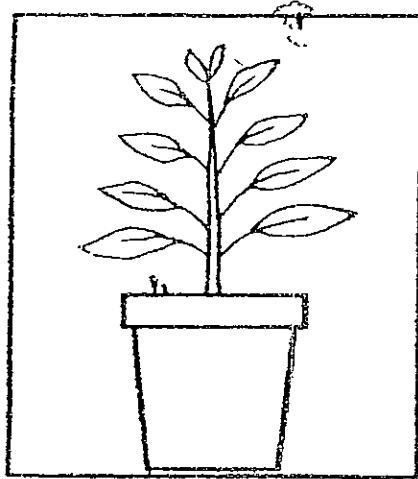
By studying the pictures, write down two similarities that can be seen only. (Do not make any inference)

(a) \_\_\_\_\_  
\_\_\_\_\_ [1]

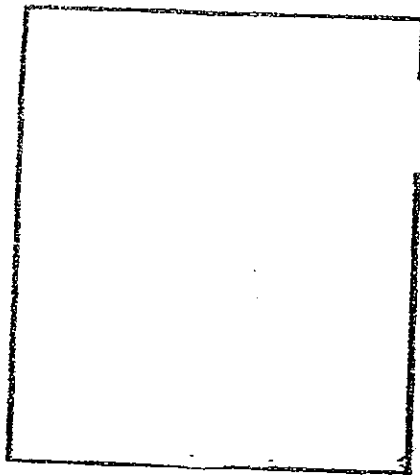
(b) \_\_\_\_\_  
\_\_\_\_\_ [1]



44. Ahmad set up the experiment as shown below. He put a potted plant in a box with an opening on one side. He then put the box near an open window and watered the plant daily.



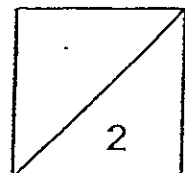
- (a) Draw in the diagram below how the plant would look like a few days later. [1]



- (b) What does this experiment tell you about plants? [1]

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45. Benedict placed three sheets made of different materials over the mouth of three containers. He then poured a spoonful of water onto each material. This was what he observed.



- (a) From the result of the experiment, which of the three Materials A, B or C can be used for making a raincoat? [1]

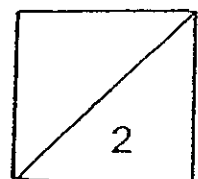
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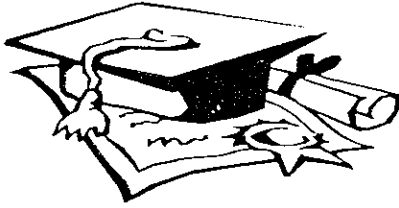
- (b) Why do you say so? [1]

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End of Paper  
Check your work carefully!



# ANSWER SHEET

EXAM PAPER 2008

SCHOOL : AITONG 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	4	1	2	3	4	3	3	3	1	-2	1	4	3	2	3	4

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

31)a) Ball A is light, but Ball B is heavy.

b) They are both round.

32)a) Ball A will tilt.

b) Air has mass, so when Ball A pumped more air than Ball B, it tilts.

33)a) The papaya leaf has a jagged edge, but the rambutan leaf has a entire edge.

b) The papaya leaf has a longer leaf stalk than the rambutan leaf.

34)a) The water level will go down.

b) The stone occupies space in the water.

35)a) A: Opaque      B: Transparent

b) A, B

36)a)It is our knee.

b)It helps the movements of our leg.

37)a)It is set C.

b)He was blind and could not see the colours of the glasses.

38)a)A: nose      B: skin

b)The sense organs are the eyes and the nose.

39)A: gullet

B: stomach

C: large intestine

D: small intestine

40)Group B: has definite volume.

Group C: does not have definite volume.

41)Magnet

book

Needle

stamp

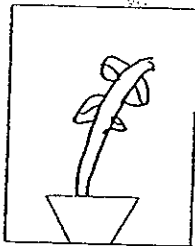
42)a)To climb up a pole for support.

b)Plants need to stay upright in order to retrieve more sunlight.

43)a)They both have feelers.

b)The both have two pairs of wings.

44)a)



b)Plants respond to changes.

45)a)It is Material A.

b)It does not allow the water to enter the raincoat.