



AI TONG SCHOOL

2007 CONTINUAL ASSESSMENT (1)

PRIMARY FOUR SCIENCE

DURATION : 1hr 45 min

DATE: 8th March 2007

INSTRUCTIONS

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

Follow all instructions.

Answer all questions.

Name : _____ ()

Class : Primary _____

Parent's Signature : _____

Date : _____

MARKS	100
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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.

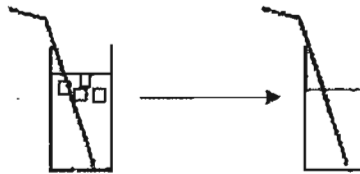
1. Which one of the following items is matter?

- (1) Ink
- (2) Time
- (3) Music
- (4) Lightning

2. Which one of the following statements is **NOT** true?

- (1) Matter has mass.
- (2) Matter occupies space.
- (3) Non-living things are not matter.
- (4) All living things are examples of matter.

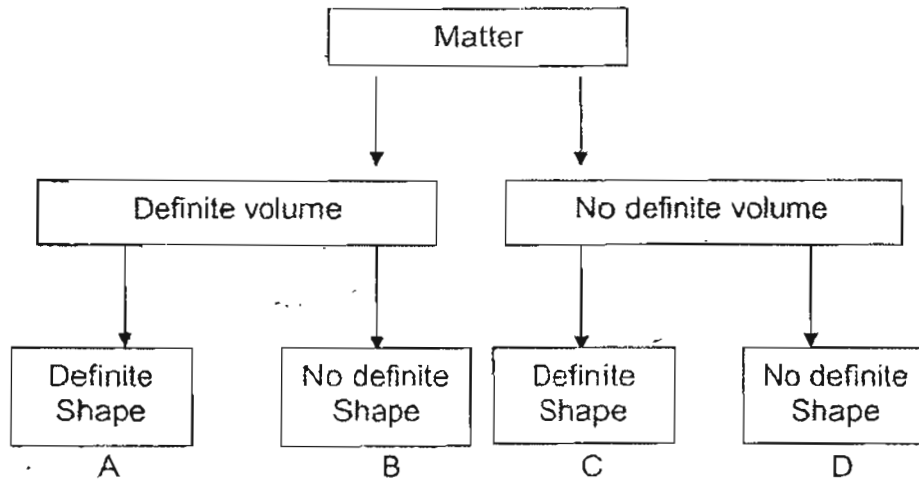
3. Jerry had a glass of iced lemon tea. He removed the ice cubes and found that the level of liquid in the glass fell.



This shows that the ice cubes _____.

- (1) float in water
- (2) take up space
- (3) cannot be compressed
- (4) have no definite shape

4. Look at the concept map below and then answer the questions.



Which group can a teddy bear be placed?

- (1) A
 - (2) B
 - (3) C
 - (4) D
5. Identify the states of matter that can be found in the contents in the glass.



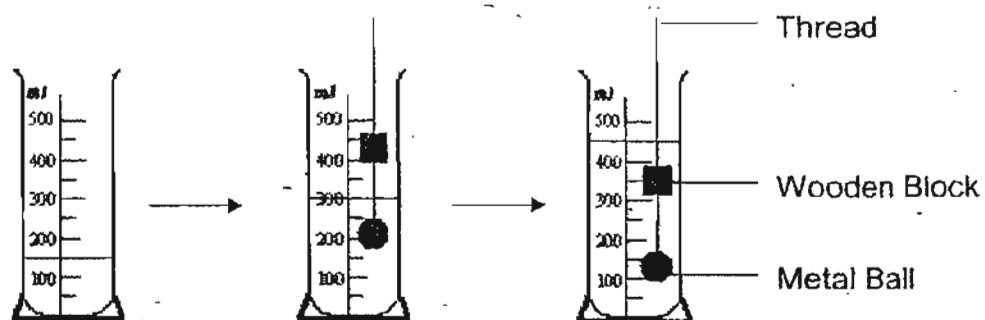
- (1) Liquid only
- (2) Gas and liquid only
- (3) Liquid and solid only
- (4) Gas, liquid and solid

6. Jasmine observed the properties of three objects – E, F and G and recorded her observations in a table below.

Properties	E	F	G
Occupies space	Yes	Yes	Yes
Has definite shape	No	No	Yes
Has definite volume	No	Yes	Yes
Can be seen	No	Yes	Yes

What can E be?

- (1) Book
 - (2) Water
 - (3) Oxygen
 - (4) Electricity
7. The diagram below shows a measuring cylinder indicating different water level readings when different items are lowered into the cylinder.



Which one of the following sets of reading is correct?

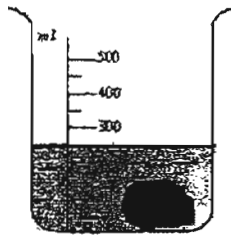
	Vol of metal ball (cm ³)	Vol of wooden block (cm ³)
(1)	300	450
(2)	300	150
(3)	150	300
(4)	150	150

20

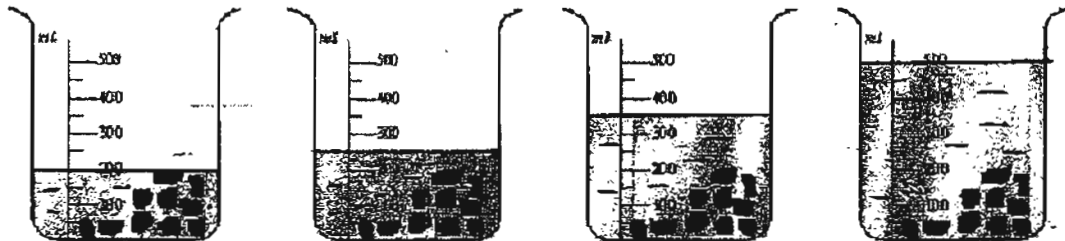
8. Which group includes all the three states of matter?

- (1) Cloud, snow, ice
- (2) Sea water, pebbles, grass
- (3) Wind, rain, cup
- (4) Sand, rain, dew

9: Julian has poured 100ml of water in a beaker. He put a potato into the beaker and measured the total volume.



Then he took out the potato, cut it into ten pieces and put them into the water again.



A

B

C

D

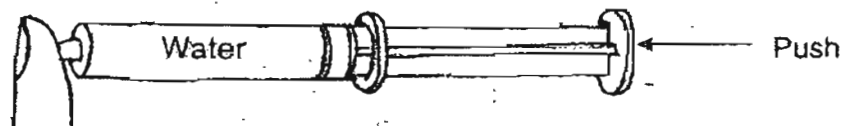
Which one of the beakers above shows the correct water level?

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

10. A ball can hold 500 cm^3 of air but Wei Ming is able to pump in 650 cm^3 of air. This is because air _____.

- (1) has mass
- (2) has volume
- (3) occupies space
- (4) can be compressed

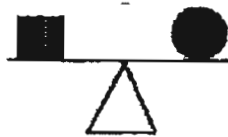
11. A syringe was filled with water and the nozzle was covered. Penny tried to push the plunger but she was not able to push it in.



This experiment was conducted to show that water _____.

- (1) can be compressed
- (2) has a definite shape
- (3) has no definite mass
- (4) has a definite volume

12. A level balance stayed level when two objects were placed on each side.



This shows that the two objects _____.

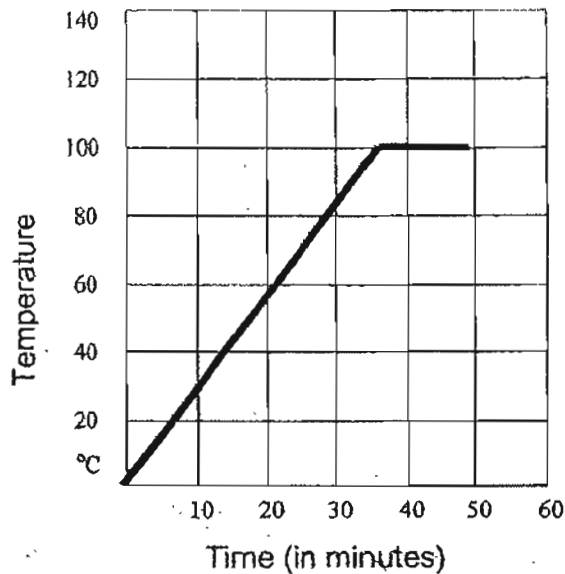
- (1) are of the same size
- (2) have the same mass
- (3) have the same volume
- (4) are made of the same material

13. When matter can be compressed, it means that it has the ability to _____.
- (1) Increase its mass
 - (2) reduce its mass
 - (3) occupy a smaller space
 - (4) change to a different state
14. If an ice cube takes 15 minutes to melt completely and becomes water, what is the temperature of the melting ice cube at 10 minutes?
- (1) 0°C
 - (2) 2°C
 - (3) 5°C
 - (4) 10°C
15. Josh took out some ice cubes and put them into a beaker. Then, he took a thermometer from a container of boiling water and placed it in the beaker of ice cubes. Which of the following took place during the experiment?
- (1) The thermometer gained heat.
 - (2) The thermometer eventually showed 0°C .
 - (3) The liquid in the thermometer rose.
 - (4) The ice cubes lost heat.
16. A cup of hot coffee was left in the dining room. Its temperature was measured at 80°C . 20 minutes later, the temperature was read again. The new temperature of the cup of coffee would most likely be about _____.
- (1) 5°C
 - (2) 15°C
 - (3) 40°C
 - (4) 85°C

17. Which one of the statements below is **false**?

- (1) Water freezes into ice at 0°C .
- (2) Water boils at 100°C .
- (3) The temperature of ice is 10°C .
- (4) Ice melts at 0°C .

18. Peter started to boil a beaker of water and recorded the temperature as shown below.



What is the temperature of the water at 30 minutes?

- (1) 30°C
- (2) 55°C
- (3) 82°C
- (4) 100°C

19. What happens when the temperature of water changes from 30°C to 90°C ?

- (1) The water gains heat.
- (2) The water loses heat.
- (3) The water becomes a gas.
- (4) The water produces steam.

20. Cedric measured the temperature of an ice cube on the kitchen table. Then he put some salt on it. He measured the temperature again. What change would he observe?

- (1) The temperature would fall.
- (2) The temperature would rise.
- (3) The ice cube would become bigger.
- (4) The temperature would remain unchanged.

21. Mike placed a beaker of boiling water into a container of cold water and recorded his observation after a few minutes.

Which one of the following observations recorded is correct?

	Boiling Water	Cold Water
(1)	Gained Heat	Lost Heat
(2)	Gained Heat	Gained Heat
(3)	Lost Heat	Lost Heat
(4)	Lost Heat	Gained Heat

22. What would happen when a watermelon is placed in the freezer?

- A The watermelon becomes bigger.
- B The watermelon gained heat.
- C The juice in the fruit changed from liquid to solid.

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

23. Living things can be classified into four groups. They are _____.

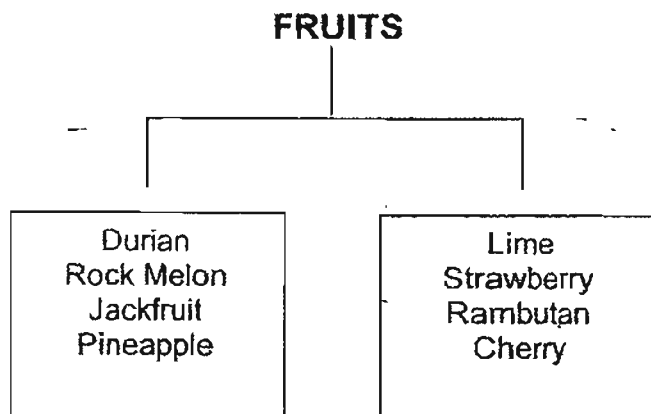
- (1) mammals, birds, fish and plants
- (2) mammals, plants, fungi and bacteria
- (3) animals, plants, fungi and micro-organisms
- (4) animals, flowers, mushroom and micro-organisms

24. The outer covering of a zebra helps _____.

- A it to run faster
- B to keep it warm
- C to protect it from injury
- D to protect it from its enemies

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

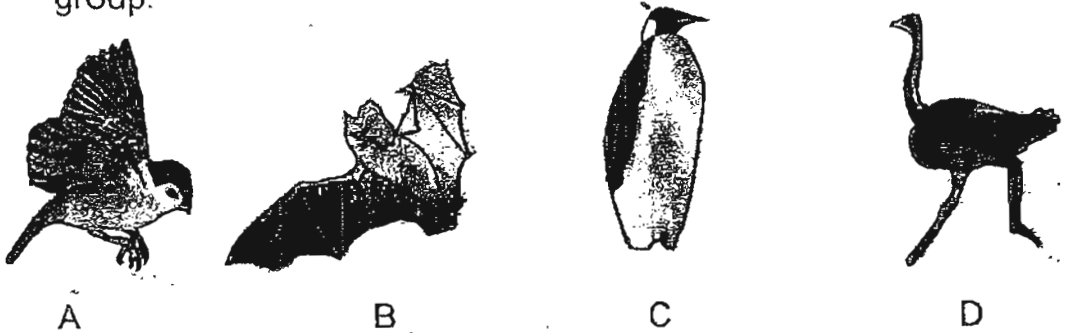
25. Jane placed some fruits into two groups.



How are the fruits above classified?

- (1) By the shape
- (2) By the size
- (3) By the taste
- (4) By the texture

26. Tom saw these four animals and made an observation. He decided that one of the animals does not belong in the group.



Which does **NOT** belong to the group?

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

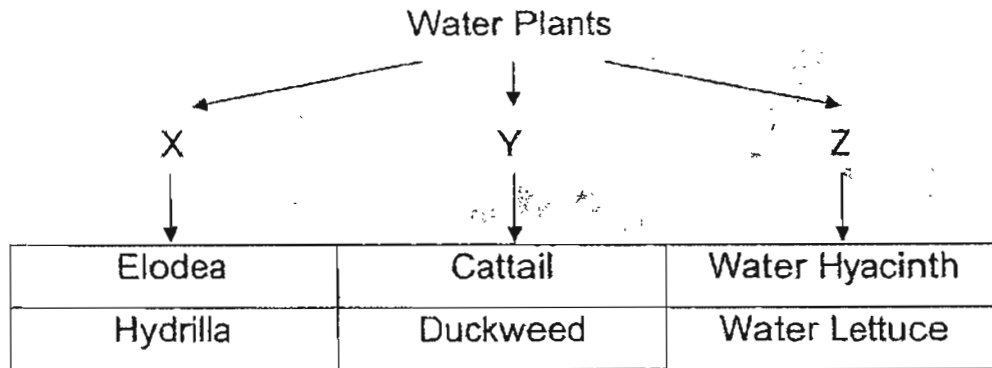
27. The table above showed the number of butterflies visiting the 4 types of flowers in a day.

Colour of Flowers	BRIGHT RED	WHITE	SUNNY ORANGE	DULL YELLOW
Number of butterflies visited the flowers in 1 day.	31	2	54	3

The results tell us that the _____.

- (1) butterflies like visiting flowers
- (2) butterflies prefer red flowers to the others
- (3) butterflies are attracted to brightly coloured flowers
- (4) red flowers contain more pollen than yellow flowers

28. Janet found some water plants and decided to draw a classification chart.



Which plant has been classified wrongly?

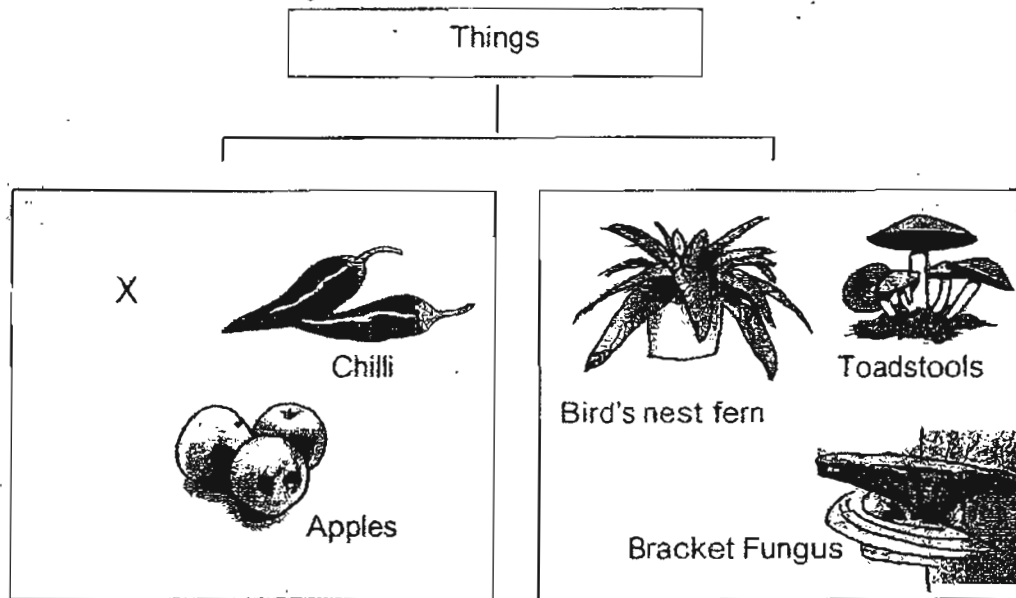
- (1) Cattail
 - (2) Elodea
 - (3) Duckweed
 - (4) Water Lettuce
29. Henry is learning about fungi and micro-organisms. He needs to identify living things that belong to that group.

Group A	Group B	Group C
Toadstool	Bacteria	Mould
Algae	Spores	Puffball
Grass	Yeast	White Fungus

Which group or groups have the correct living things listed?

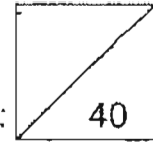
- (1) A only
- (2) B only
- (3) C only
- (4) B and C only

30. Jenny studied the characteristics of six items and placed them into two groups as shown below.



What can X be?

- (1) Corn
- (2) Yeast
- (3) Puffball
- (4) Ladder Fern



Name: _____ ()

Marks:

40

Class: _____

Date: _____

Section B (40 marks)

Answer all the questions in the spaces provided.

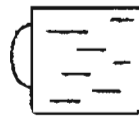
31. (a) Is thunder a matter? [1]

(b) Give two reasons for your answer in (a). [1]

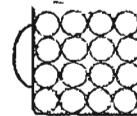
(i) _____

(ii) _____

32. The diagram below shows two identical cups. Cup A is filled with water and Cup B is filled with marbles.



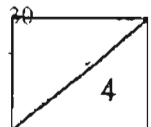
Cup A



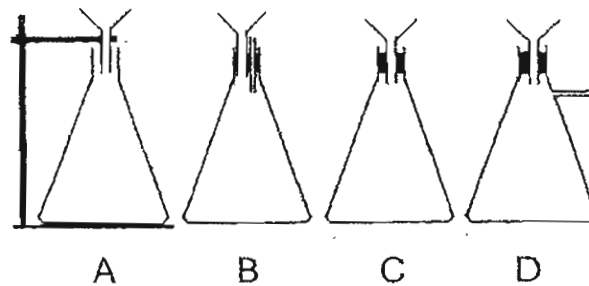
Cup B

(a) Is the volume of the contents in both cups the same? [1]

(b) Explain your answer in (a). [1]



33. The diagram below shows four experimental set-ups.



The same amount of water is poured into the funnel of each set-up.

(a) Which flask will have the least water?

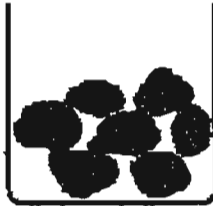
Flask _____ [1]

(b) Explain your answer in (a) [2]

34. Write 'True' or 'False' against each statement in the table. [2]

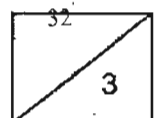
	Statement	True / False
i)	Oil has no definite shape but has a definite volume.	
ii)	Plasticine is not a solid because the shape can change.	
iii)	Tap water has no definite shape and no definite volume.	
iv)	Air has no mass and volume.	

35. Linda filled a 1-litre container with 550cm^3 of stones as shown below.

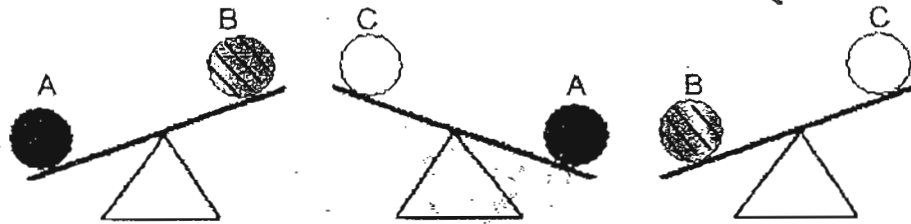


- (a) How much water must she pour into the container to fill it to the brim? _____ cm^3 [1]
- (b) If she had filled the container to the brim with water at first, what would happen to the water if she put in the stones next? [1]

- (c) Why? [1]



36. June weighed three types of ball on a balance scale.



- (a) Arrange the balls in order from the lightest to the heaviest. [1]

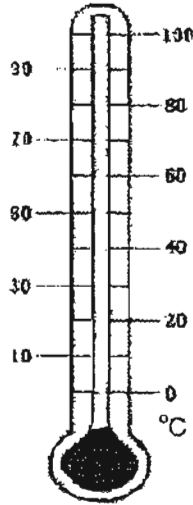
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- (b) The balls are made of different materials: wood, rubber and wool. Which ball A, B or C is made of wool? [1]

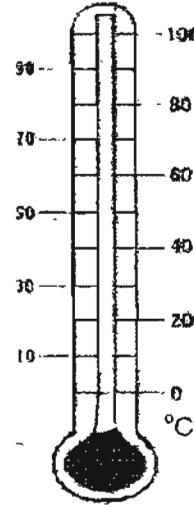
Ball _____

- (c) If the 3 balls shown in the diagram are made of the same material, then the _____ would be the same. [1]

37. Shade the thermometers to show the following temperatures. [2]



Melting point of ice



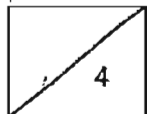
Freezing point of water

38. George bought a bowl of ice-kachang and left it on the table.



- (a) What would happen to the ice-kachang in the bowl after 5 minutes? [1]

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



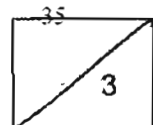
39. Mother took out a frozen fish from the freezer and placed it on a plate at room temperature.

(a) What would happen to the above two underlined items?

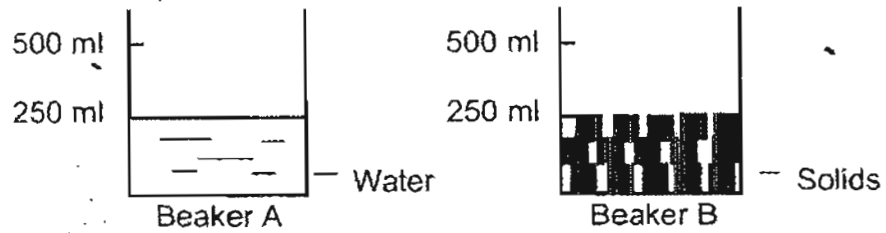
Write **Lose Heat** or **Gain Heat** in the correct boxes below. [2]

Item	Lose Heat / Gain Heat
Frozen Fish	
Plate	

(b) Name the process that took place when the frozen fish was left on the table at room temperature. [1]



40. Ernie set up two beakers as shown below.



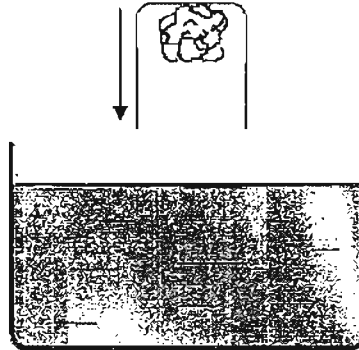
- (a) If the water in Beaker A was poured into Beaker B, what was the likely water level in Beaker B? [1]

Water Level	Tick (✓) the correct box
500 ml	<input type="checkbox"/>
Less than 500 ml	<input type="checkbox"/>
250 ml	<input type="checkbox"/>
Less than 250 ml	<input type="checkbox"/>

- (b) Ernie boiled the contents in Beaker B next. After ten minutes, he noticed that there was only liquid in the beaker. What had happened to the solids? [1]
-

- (c) Had the solids gained heat or lost heat? [1]
-

41. James conducted an experiment. He glued a piece of cotton wool in a glass. Then, he inverted the glass into a basin of water.



- (a) Would the wool be wet when James pushes the glass into the bowl of water? [1]

- (b) Explain your answer in (a). [2]

42. Kenny took a photograph of the mimosa plant as shown below.

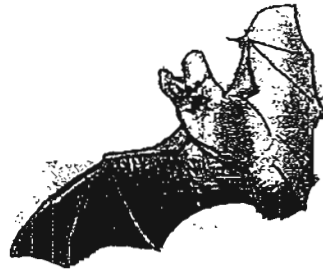


The mimosa plant closed its leaves when he touched it.

- (a) Which characteristic of living things was the mimosa plant showing? [1]

- (b) Name one other characteristic of this plant. [1]

43. Study the two animals shown below carefully. Then answer the questions that follow.

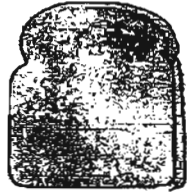


(a) Name the body covering that these two animals have. [1]

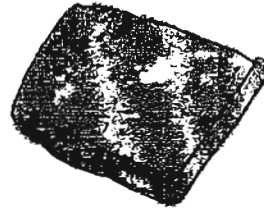
(b) Name another similarity that can be found in these two animals. [1]

(c) Name one difference between these two animals. [1]

44. Benny placed 2 slices of bread in the kitchen and observed them for 4 days. He noticed that Bread A has no mould but Bread B has turned mouldy.



Bread A



Bread B

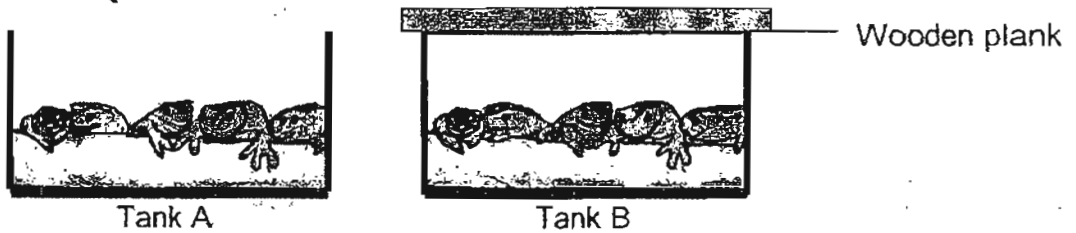
- (a) Besides air, what 2 other conditions are needed for mould to grow? [2]

i) _____

ii) _____

- (b) What do you think has Benny done to Bread A? [1]

45. Ron caught some frogs and put them into two tanks.



He found that the all frogs in Tank A jumped out and made his sister scream, so he covered Tank B with a wooden plank.

(a) What would happen to the frogs in Tank B? [1]

(b) Explain your answer in (a). [1]

(c) What can Ron do instead of covering the tank with the wooden plank? [1]

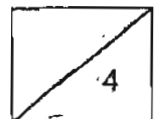
(d) Name two other things that Ron should put into the tank for the frogs to enable them to live? [1]

i) _____

ii) _____

End of Paper

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ANSWER SHEET

AI TONG PRIMARY SCHOOL - PRIMARY 4 SCIENCE 2007
CONTINUAL ASSESSMENT (1)

- 1. 1
- 2. 3
- 3. 2
- 4. 1
- 5. 2
- 6. 3
- 7. 4
- 8. 3
- 9. 2
- 10. 1
- 11. 2
- 12. 2
- 13. 3
- 14. 1
- 15. 2
- 16. 3
- 17. 1
- 18. 3
- 19. 1
- 20. 1
- 21. 1
- 22. 1
- 23. 3
- 24. 3
- 25. 2
- 26. 2
- 27. 3
- 28. 3
- 29. 3
- 30. 1

31) a) No.

ii) This is because it does not have mass.

ii) This is because it does not occupy space.

32) a) No.

b) There is still space not occupied by the marble in cup B.

33) a) C.

b) This is because the air inside the flask is trapped as they place a stopper on the flask so the air cannot escape.

34) i) True ii) True iii) False iv) False

35) a) 450 cm³

b) The water will flow out of the container.

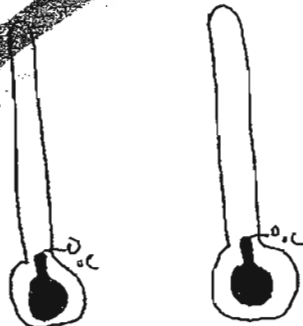
c) This is because the stones had filled the space inside the container.

36) a) C, B, A

b) e.

c) mass

37)



38) a) The ice-kachang will melt.
b) This is because the ice-kachang has gain heat.

39) a) Gain heat
Lose heat
b) The process is called melting.

40) a) Less than 500ml
b) The solids had melt into water.
c) The solids had gained heat.

41) a) No.
b) This because the air inside had occupied the water downwards.

42) a) The characteristic of the mimosa plant showing is respond to changes.
b) Another characteristic is they need air, food and water.

43) a) fly.
b) give birth to young.
c) The bat can fly but the deer cannot fly.

44) a) i) moisture ii) warmth
b) To a steady state.

45) a) The frogs in tank B will die.
b) There is not enough air.
c) Ron could put a net on top of the tank B.
d) i) food
ii) water