

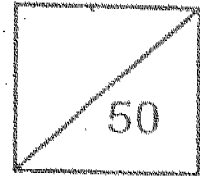


Rosyth School
First Continual Assessment for 2004
Science
Primary 4

CA

Name: _____

Total
Marks:



Class: Pr 4-_____ Register No. _____ Duration: 1 h

Date: 4.3.04

Parent's Signature: _____

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 parts, Sections A and B.
4. For questions 1 to 15 in Section A, shade the correct ovals on the Optical Answer Sheet (OAS).

	Maximum	Marks Obtained
Section A	30 marks	
Section B	20 marks	
Total	50 marks	

* This paper consists of 13 pages altogether.

PART I (30 MARKS)

Each question is followed by four possible answers. Choose the most suitable answer and shade the corresponding oval (1, 2, 3 or 4) in the Optical Answer Sheet.

1. The four items listed below were dropped into a container of water at the same time. Which one of them remained at the bottom of the jar?

- (1) A leaf
- (2) A cork
- (3) A ping-pong ball
- (4) A twenty-cent coin

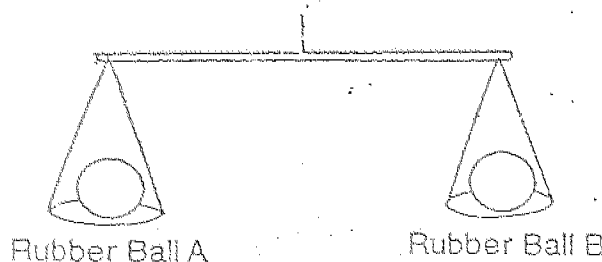
()

2. Window panes are made of glass. Which one of the following statements best describes the reason for this?

- (1) It is cheap.
- (2) It is breakable.
- (3) It is transparent.
- (4) It is easily available.

()

3. Phoebe takes two similar rubber balls, A and B, and places them on either side of a lever balance as shown below.



She then pumps some air into ball A. What will happen to the lever balance?

- (1) The side with ball A will tilt downwards.
- (2) The side with ball B will tilt downwards.
- (3) The lever will remain balanced.
- (4) The lever will move up and down continuously.

()

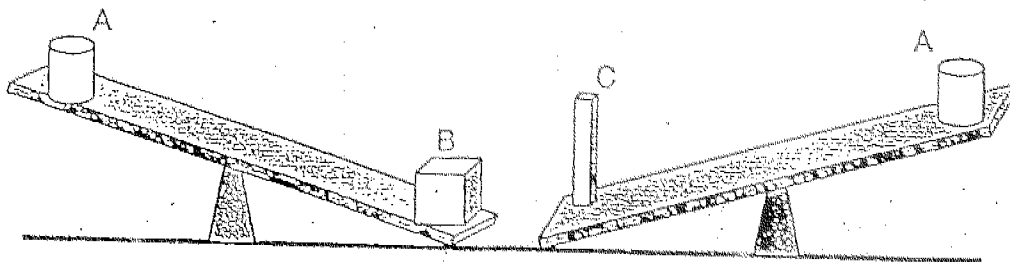
(Go on to the next page)

4. Miss Lee gave her pupils four solid cubes that were different in size. These cubes were made from different materials but they all had the same mass. These cubes did not have any air inside them. Which one of these cubes would have the biggest volume?

- (1) A 100g metal cube.
- (2) A 100g plastic cube
- (3) A 100g rubber cube
- (4) A 100g polystyrene cube

()

5. Study the diagrams below carefully.
Three objects were placed on a lever balance to compare their masses.



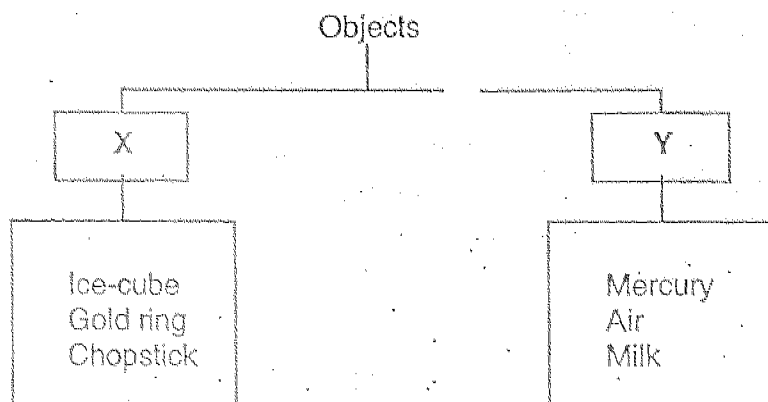
Based on the diagram above, which one of the following statements is TRUE?

- (1) Object A has the greatest mass.
- (2) Object C has the greatest mass.
- (3) Objects B and C have the same mass.
- (4) It is not possible to tell which object has the greatest mass.

()

(Go on to the next page)

6. Karen classified six objects into 2 groups.



However, she has forgotten to include the headings for X and Y in the chart. What should the headings for X and Y be?

	X	Y
(1)	Has definite volume	Has no definite volume
(2)	Has definite shape	Has no definite shape
(3)	Cannot be compressed	Can be compressed
(4)	Cannot dissolve in water	Can dissolve in water

()

7. David wanted to find the mass of 100ml of milk. Which of the following items should he use?

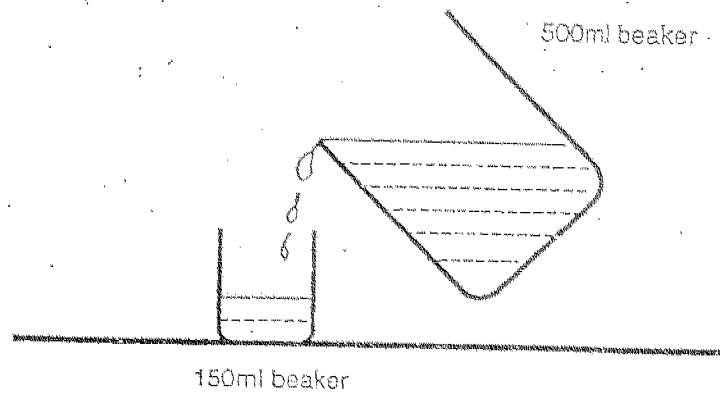
- A: Beaker
- B: String
- C: Metal weights
- D: Lever balance
- E: Measuring cylinder

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

()

(Go on to the next page)

8. Julie poured the water from a 500ml beaker into a 150ml beaker as shown in the diagram below.



However after sometime, the water started to overflow. Which of the following statement(s) about this experiment is/are TRUE?

- A: Water has a definite volume.
- B: The beakers have definite shapes.
- C: The 150ml beaker has a smaller volume than the 500ml beaker.

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

()

9. Which one of the following processes occurs as a result of heat loss?

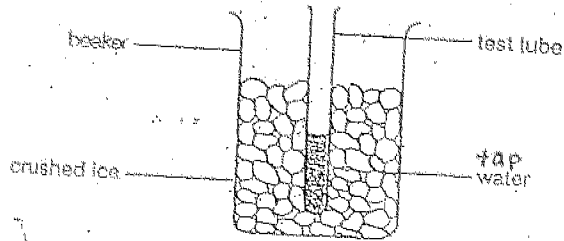
- (1) Boiling
- (2) Melting
- (3) Freezing
- (4) Evaporation

()

(Go on to the next page)

For Questions 10, 11 and 12, refer to the diagram below.

Susan conducted an experiment to find out what would happen to a test tube of tap water. She placed the test tube into a beaker of crushed ice.

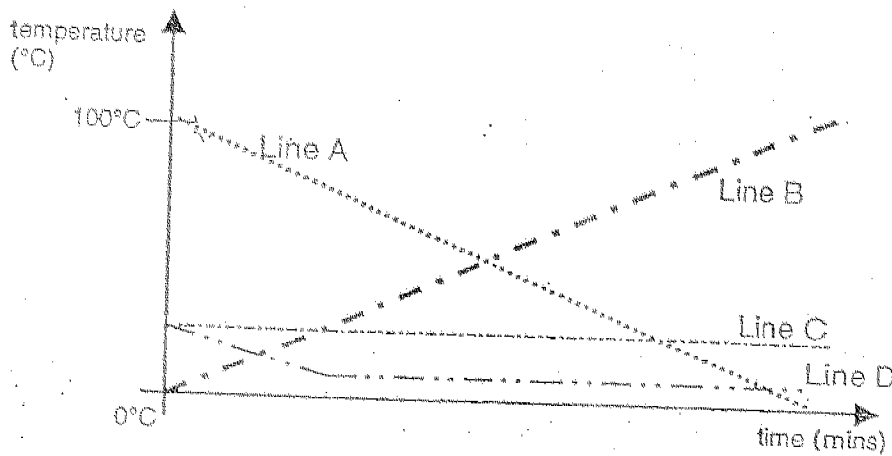


10. What happened to the water in the test tube after 10 minutes?

- (1) Its mass changed.
- (2) Its state changed.
- (3) Its volume increased.
- (4) Its temperature decreased.

()

Susan used a thermometer to measure the temperature of water over a period of time. She then drew a line graph to show the change in the temperature of the water.



11. Which one of the above line graphs shows the correct temperature change?

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

()

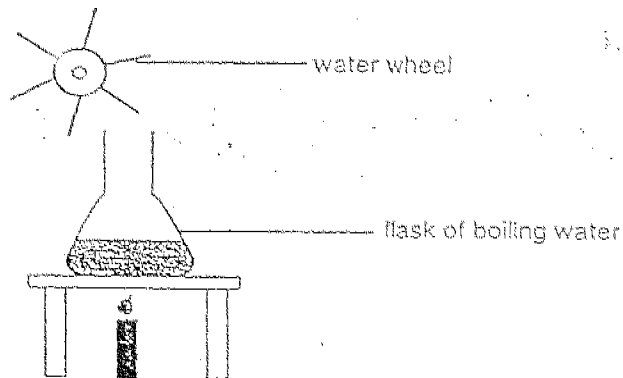
(Go on to the next page)

12. What can Susan do to change the state of the water in the test tube?

- (1) She can add salt to the water in the test tube to change it to a gas.
- (2) She can add salt to the ice in the beaker to change the water in the test tube to a solid.
- (3) She can add salt to the water in the test-tube to change the water in the test-tube into a solid.
- (4) She can leave the experiment aside for a longer period of time and the water in the test tube will change into a solid.

()

13. Johan placed a flask of water over a bunsen burner and waited for it to boil. He also placed a water wheel over the mouth of the flask. After sometime, he noticed that the water wheel started to turn.



What caused the water wheel to turn?

- (1) The flame from the bunsen burner.
- (2) The steam from the boiling water.
- (3) The hot water that was boiling.
- (4) The water vapour in the air surrounding the water wheel.

()

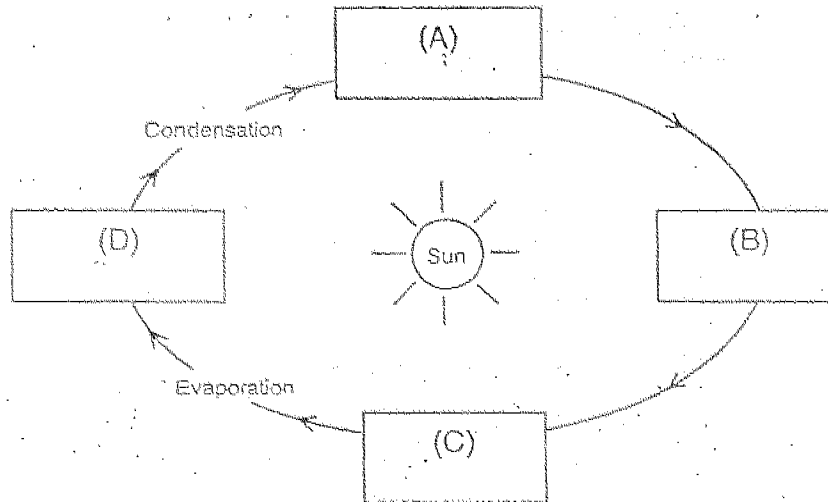
(Go on to the next page)

14. Which one of the following statements about rain and snow is false?

- (1) They are in different states.
- (2) They are part of the water cycle.
- (3) They have different freezing points.
- (4) They are present in the atmosphere at different temperatures.

()

15. The diagram below shows the water cycle.



Based on the diagram above, identify the correct substances to be put in boxes (A), (B), (C) and (D).

	(A)	(B)	(C)	(D)
(1)	water on Earth	rain	water vapour	clouds
(2)	rain	water vapour	clouds	water on Earth
(3)	clouds	rain	water on Earth	water vapour
(4)	water vapour	clouds	rain	water on Earth

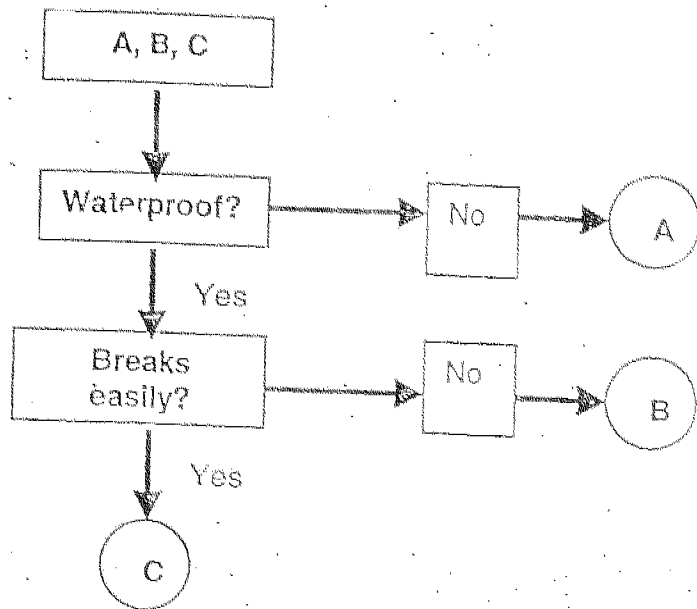
()

(Go on to the next page)

PART II (20 MARKS)

Study each question carefully and write its answers in the spaces provided.

16. Study the flow chart below carefully and identify the materials A, B and C.



(a) Based on the flow chart, draw lines to match the materials to the letters. (1 mark)

Materials

Iron ■

Glass ■

Paper ■

Letters

■ A

■ B

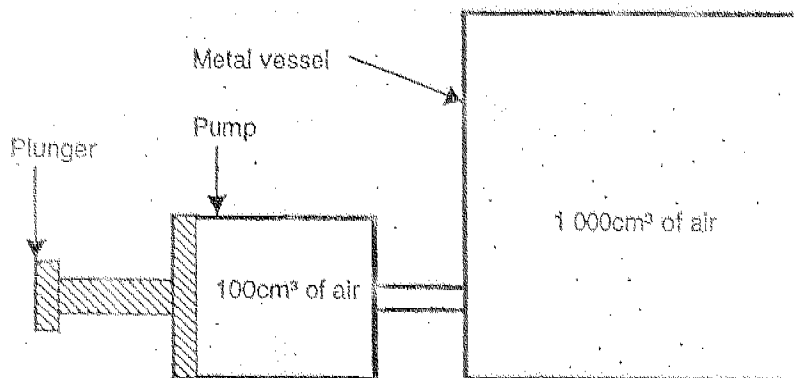
■ C

(b) Suggest another material that A could be.

(1 mark)

(Go on to the next page)

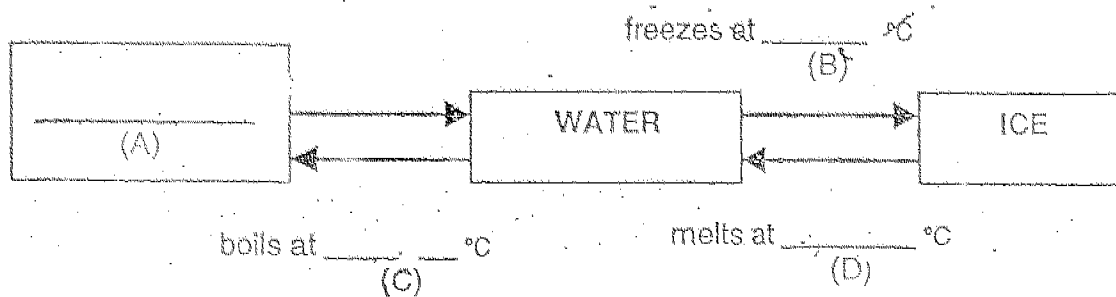
17. Study the diagram carefully and then answer the questions that follow.



(a) When the plunger was pushed into the pump, what would be the volume of air in the metal vessel? (1 mark)

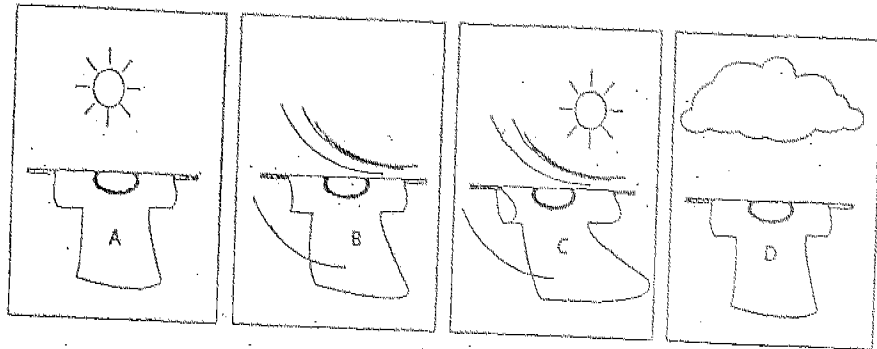
(b) What does this experiment tell us about air? (1 mark)

18. Complete the graphic organizer below by filling in the numbered blanks (A) to (D) (2 marks)

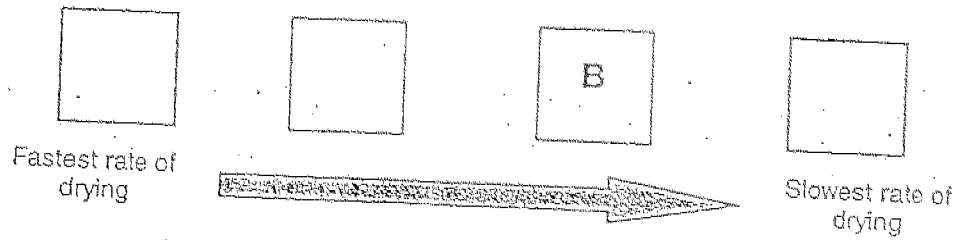


(Go on to the next page)

19. Four identical t-shirts were washed and hung to dry at different places that exposed them to different conditions.



(a) Based on the illustrations provided above, arrange the four t-shirts in the order of their rate of drying. Write the letters A, C and D in the boxes provided. (1 mark)

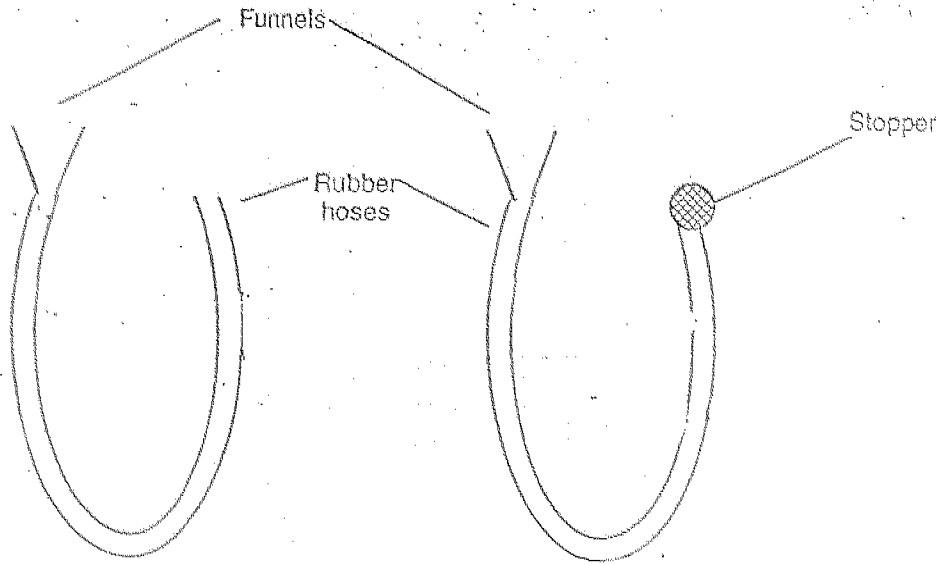


(b) State one of the factors that affected the rate of drying in this experiment. (1 mark)

(Go on to the next page)

20. Joanna poured equal amounts of water into the two rubber hoses ^{shown} ~~show~~ below.

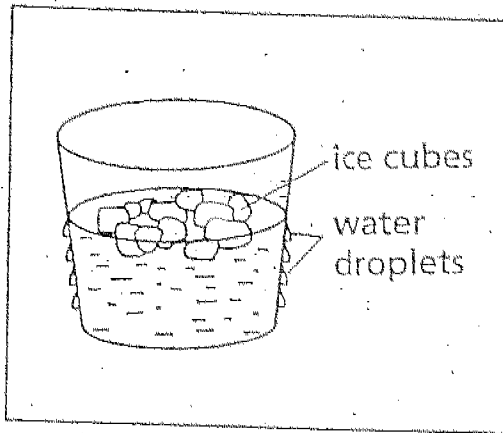
(a) Draw the water level in each rubber hose. (2 marks)



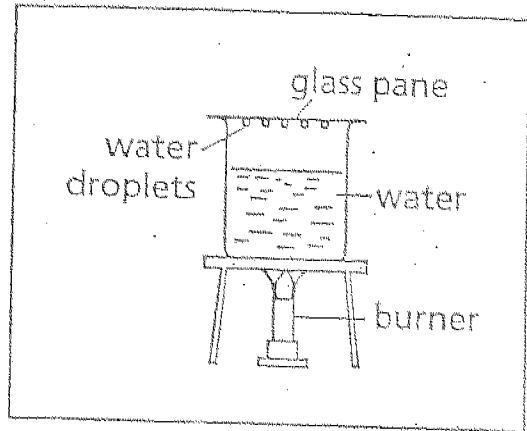
(b) What does this experiment show about air? (1 mark)

(Go on to the next page)

21. Study these two diagrams below carefully. Answer the questions that follow.



Picture A



Picture B

Name the sources of the water that formed the water droplets. (2 marks)

Picture A - _____

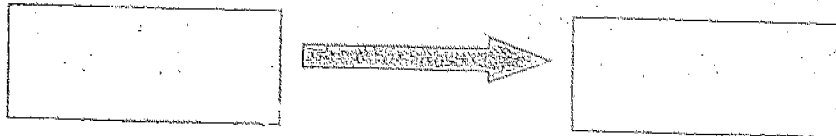
Picture B - _____

22. Read each of the statements below carefully.

(a) Does **condensation** take place in each of these situations? Circle **Yes** or **No**. (2 marks)

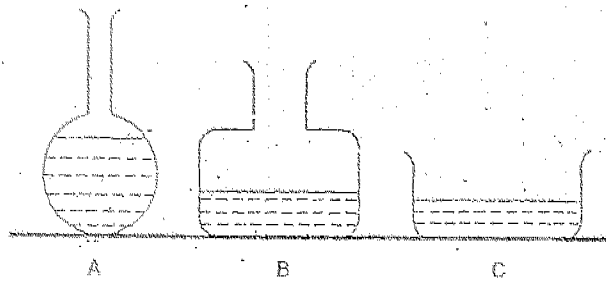
(i)	Breathing onto a mirror.	Yes	No
(ii)	Breathing onto a piece of paper.	Yes	No
(iii)	Breathing onto a glass with hot water in it.	Yes	No
(iv)	Breathing onto a glass with cold water in it.	Yes	No

(b) Fill in the two boxes below with suitable words to show the change in state in 22a(i). (1 mark)



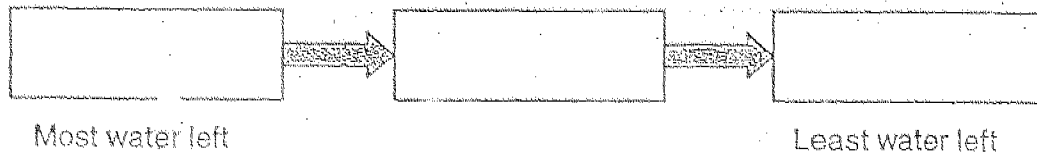
(Go on to the next page)

23. Joshua conducted an experiment as shown below.
 He poured equal amounts of water in three containers A, B and C. He placed these containers at the school basketball court.



- (a) After several hours, he noticed that there was lesser water in all the three containers compared to the start of the experiment.
 Name the process that resulted in this change. (1 mark)

- (b) Joshua measured the volume of water left in each container. He found that different containers held different volumes of water.
 Write the letters A, B and C in the boxes below to show the amounts of water left in the container. (1 mark)



- (c) Explain what had caused the difference in the amount of water left in the three containers. (2 marks)

End of Paper

Go on to the next page)

1) 4

2) 3

3) 1

4) 4

5) 2

6) 2

7) 4

8) 3

9) 3

10) 4

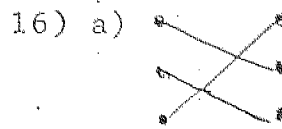
11) 4

12) 2

13) 2

14) 3

15) 3



b) A could be cotton.

17) a) The volume of air in the water vessel would be 1000 cm³.

b) This experiment tells us that air can be compressed.

18) A) Water vapour B) 0 °C

C) 100 °C D) 0 °C

19) a) C A B D

b) Wind



b) Air takes up space.

21) Picture A - Water vapour in the surrounding air.

Picture B - Water vapour in the beaker.

22) i) Yes ii) No iii) No iv) Yes

b) Gas Liquid

23) a) The process is called evaporation

b) A B C

c) The exposed surface affected the rate of evaporation.