

SA1



RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT (1)
2004

Name: _____ Class:P4 _____ IndexNo: _____

13th May 2004

SCIENCE

Att: 1 h 15 min

Your score out of 100 marks	Class	Level
Highest score		
Average score		
Parent's Signature		

Section A (25 x 2 marks)

There are 25 questions in this section. Answer all of them. For each question, 4 suggested answers numbered 1, 2, 3 and 4 are given. Choose the most suitable answer and shade its number, 1, 2, 3 or 4, in the OAS provided.

1. The amount of space taken up by matter is called its _____.

- | | |
|------------|------------|
| (1) mass | (2) shape |
| (3) volume | (4) height |

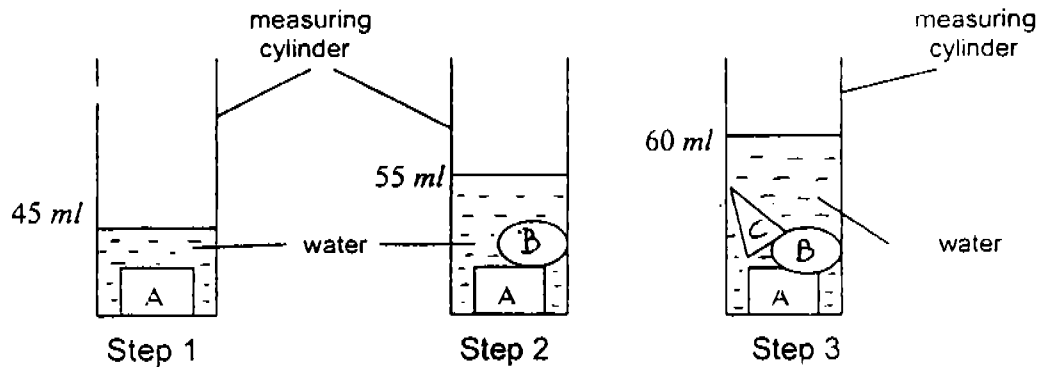
2. The table below describes three different types of matter.

Matter	has fixed shape	occupies space	has definite volume
A	no	yes	Yes
B	yes	yes	Yes
C	no	yes	No

Based on the above table, which of the following is correct?

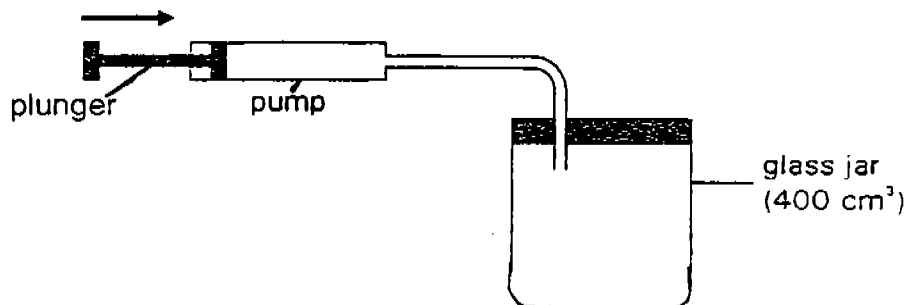
	A	B	C
(1)	solid	liquid	gas
(2)	liquid	solid	gas
(3)	gas	solid	liquid
(4)	solid	gas	liquid

3. Jane put objects A, B and C into a measuring cylinder containing 20 ml of water. She recorded the rise in the water level as shown in the pictures below.



Which object, A, B or C has the largest volume?

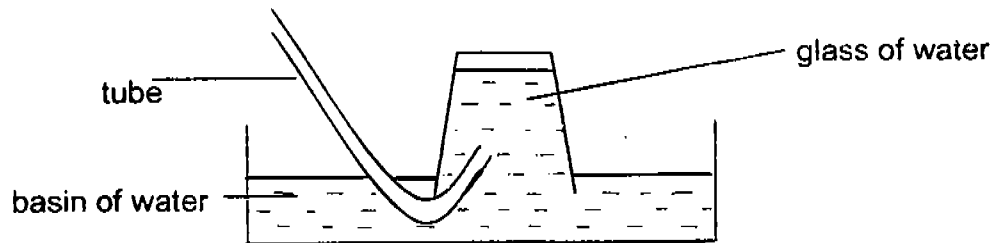
- (1) A
(2) B
(3) C
(4) cannot be found
4. John connected a pump to a glass jar as shown in the diagram below. The volume of the glass jar is 400 cm³.



When the plunger is pushed completely in, 50 cm³ of air is forced into the glass jar. What is the volume of air in the jar after the plunger is pushed completely in?

- (1) 350 cm³
(2) 400 cm³
(3) 450 cm³
(4) 500 cm³

5. John placed a glass of water upside down in a basin of water as shown in the diagram below.

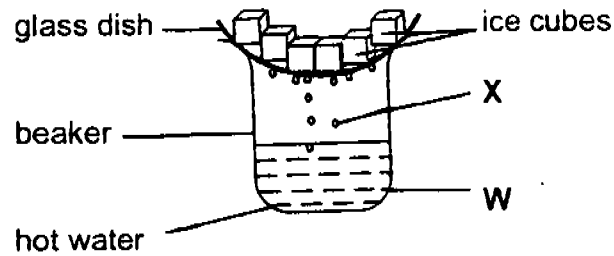


He blew air into the glass using a tube. What did he observe as air was blown into the glass?

- A. Bubbles appeared in the glass.
- B. The water level in the glass went up.
- C. The water level in the basin went up.
- D. The water level in the basin went down.

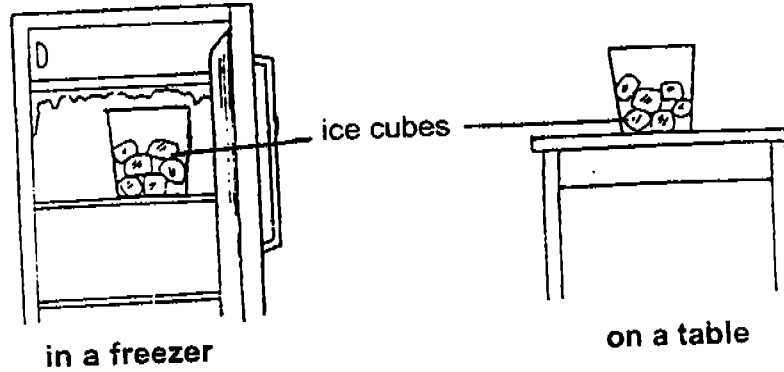
- (1) A only
- (2) A and C only
- (3) B and D only
- (4) A, B and D only

Study the diagram below and answer questions 6 and 7.



6. Which one of the following describes the changes of states from W to X?
- (1) solid \longrightarrow liquid \longrightarrow gas
 - (2) liquid \longrightarrow gas \longrightarrow liquid
 - (3) gas \longrightarrow liquid \longrightarrow solid
 - (4) liquid \longrightarrow solid \longrightarrow liquid
7. Which one of the following processes takes place on the underside of the glass dish?
- (1) melting
 - (2) freezing
 - (3) evaporation
 - (4) condensation

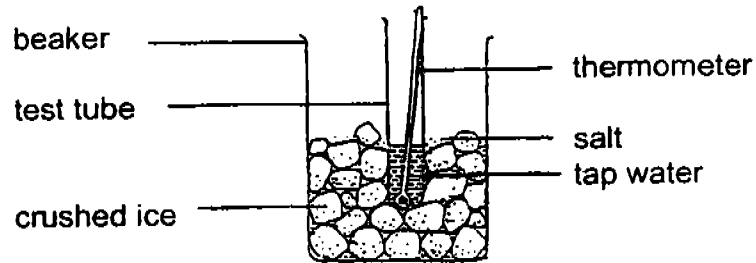
8. Two cups of similar size, shape and material are filled with some ice cubes and placed in two different places as shown in the pictures below.



Which one of the following describes what happens to the ice cubes after half an hour?

	in a freezer	on a table
(1)	The ice cubes melt and become water.	The ice cubes melt and become water.
(2)	The ice cubes do not melt.	The ice cubes melt and become water.
(3)	The ice cubes do not melt.	The ice cubes do not melt.
(4)	The ice cubes melt and become water.	The ice cubes do not melt.

9. Linda added 3 teaspoonf ' of salt to a beaker half-filled with ice as shown in the diagram below.

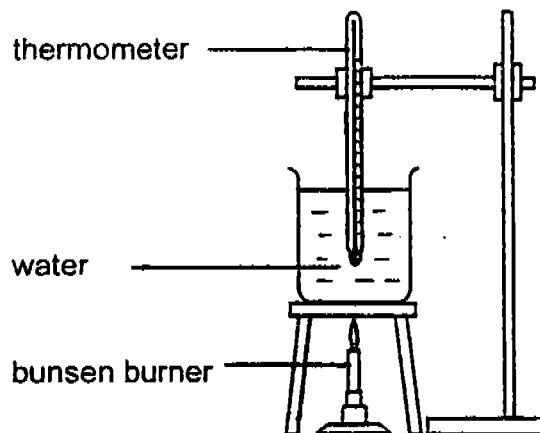


Which of the following result(s) is/ are true?

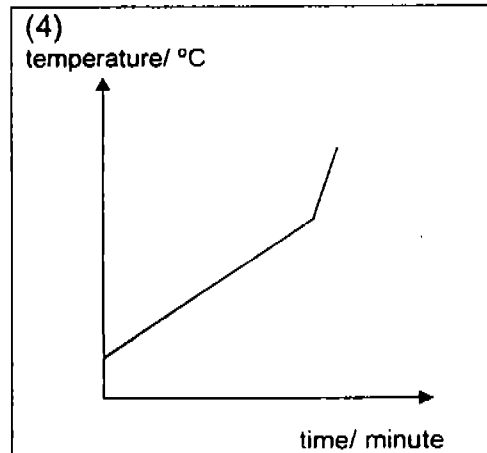
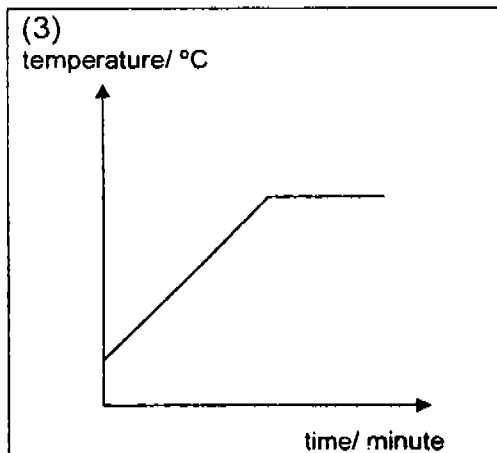
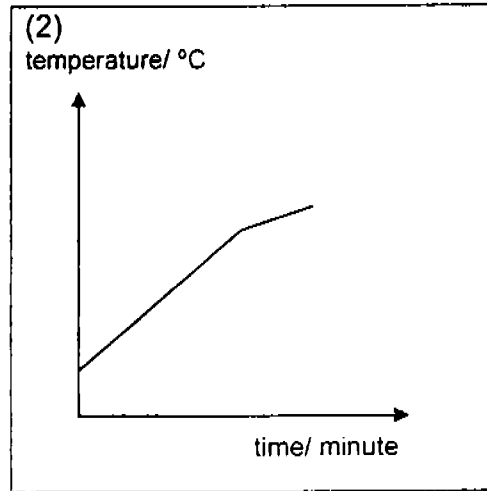
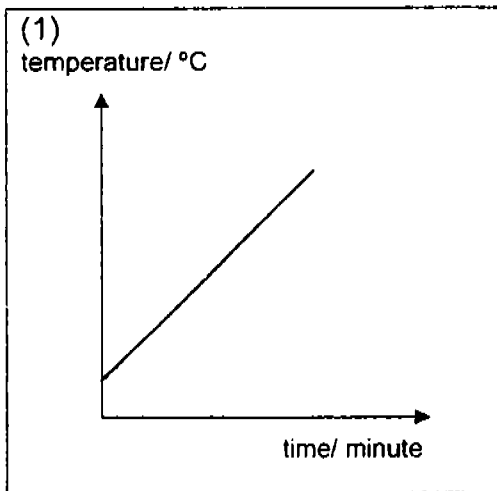
- A. Water in the test tube loses heat and freezes.
- B. Water in the test tube gains heat and evaporates.
- C. The melting point of ice increases when salt is added to ice.
- D. The melting point of ice decreases when salt is added to ice.

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

10. A beaker of water is heated as shown in the diagram below.

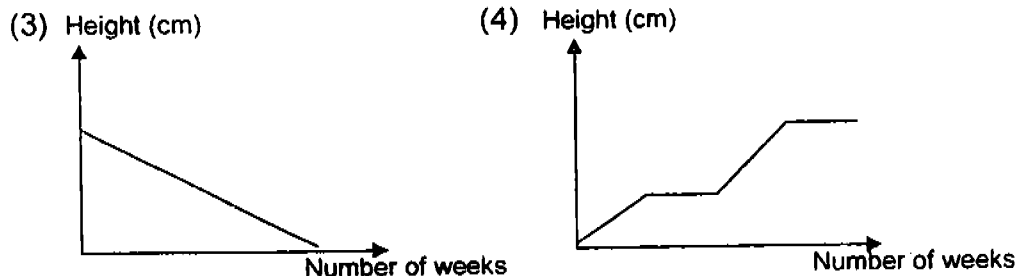
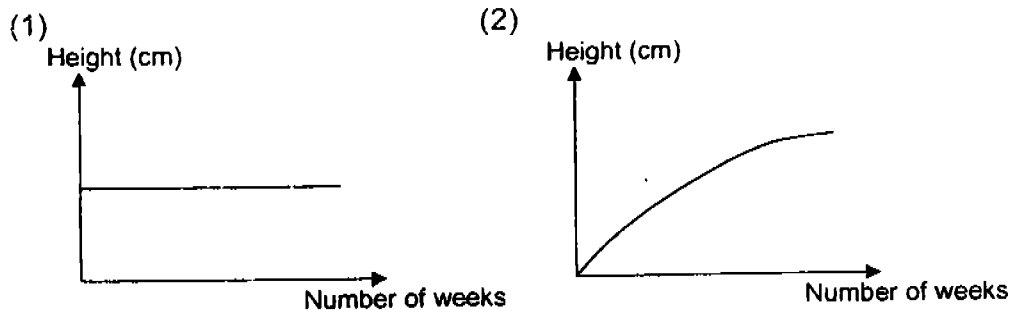


The temperature of water in the beaker is recorded every 2 minutes until bubbles and white 'clouds' are formed. Which one of the following graph shows the correct results?



11. The water cycle happens _____.
- (1) all the time (2) only at night
(3) only when there is sun (4) only when there is light
12. Clouds are masses of _____ that float in the sky.
- (1) oxygen (2) water vapour
(3) water droplets (4) smoke
13. Two-thirds of the Earth's surface is covered with water. Yet we consider water as a precious resource because _____.
- A. the water cycle is a very long process
B. most of the water on the Earth's surface is salty
C. water is important for the survival of all living things
- (1) A and B only
(2) A and C only
(3) B and C only
(4) A, B and C
14. The public can be educated on water conservation through _____.
- A. "Save Water" campaigns
B. water rationing exercises
C. educational advertisements
D. documentaries showing sufferings of the people in places with water scarcity
- (1) A only
(2) B only
(3) C and D only
(4) A, B, C and D

15. Which one of the following graphs shows the change in height as a seedling grows into an adult plant?



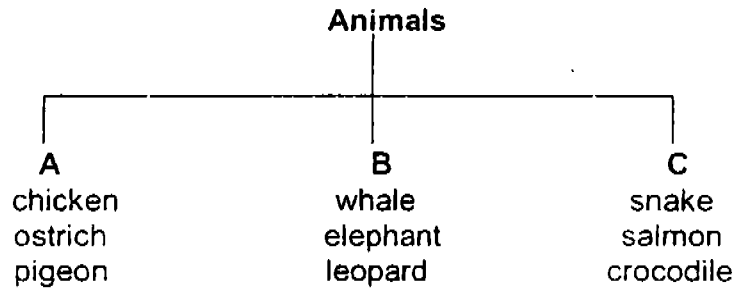
16. Susan grouped the following objects into two different groups as shown in the table below.

Group 1	Group 2
Cork	Stone
Paper	Iron rod
Feather	Glass cup

How did Susan classify the two groups of objects?

	Group 1	Group 2
(1)	Objects that are transparent	Objects that can float
(2)	Objects that are light	Objects that are heavy
(3)	Objects that can float	Objects that are transparent
(4)	Objects that are heavy	Objects that are light

17. How are the following animals grouped?



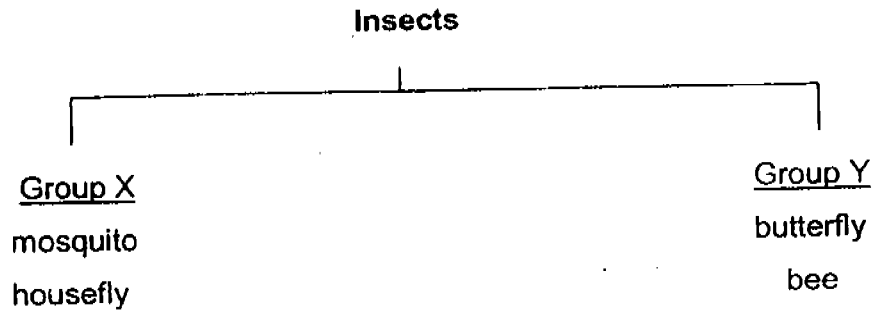
They are grouped according to _____.

- (1) the food they eat
- (2) the way they move
- (3) their body coverings
- (4) the place where they live

18. Which one of the following statements is true about fishes?

- (1) All fishes lay eggs.
- (2) All fishes eat plants.
- (3) All fishes use gills to breathe.
- (4) All fish swim in a horizontal position.

19. Study the classification table below. The insects are classified according to the number of wings they have.



Insects placed in Group X have _____.

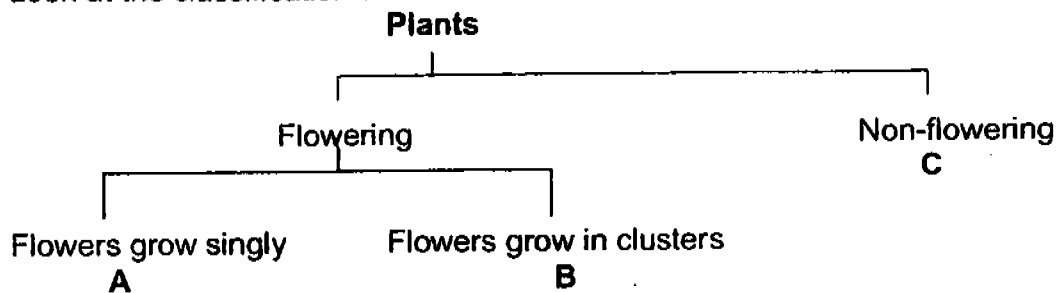
- (1) 1 pair of wings (2) 2 pairs of wings
 (3) 3 pairs of wings (4) 4 pairs of wings

20. Which of the following describe both animals and plants best?

	Animals	Plants
A.	They cannot make their own food.	They can make their own food.
B.	They can make their own food.	They cannot make their own food.
C.	They need air, water and food to grow.	They need air, water and food to grow.
D.	They need air, water and food to grow.	They do not need air, water and food to grow.

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

21. Look at the classification table below.



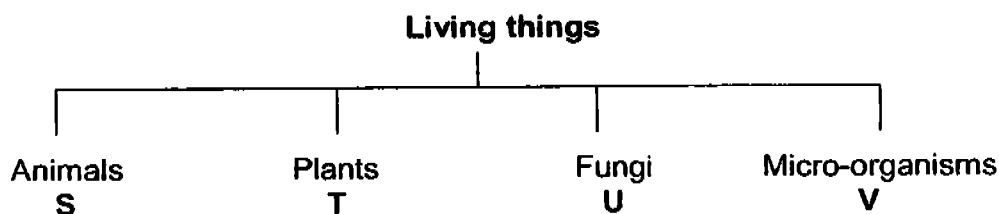
Which one of the following represents correctly what A, B and C are?

	A	B	C
(1)	The Rafflesia	Frangipani	moss
(2)	Frangipani	The Rafflesia	Hibiscus
(3)	ixora	Frangipani	maidenhair fern
(4)	ixora	The Rafflesia	jasmine

22. In which part of the mushroom do you find the spores?

- (1) between the gills
- (2) at the end of its stalk
- (3) at the bottom of the stem
- (4) on the upper surface of the cap

23. Look at the classification table below.

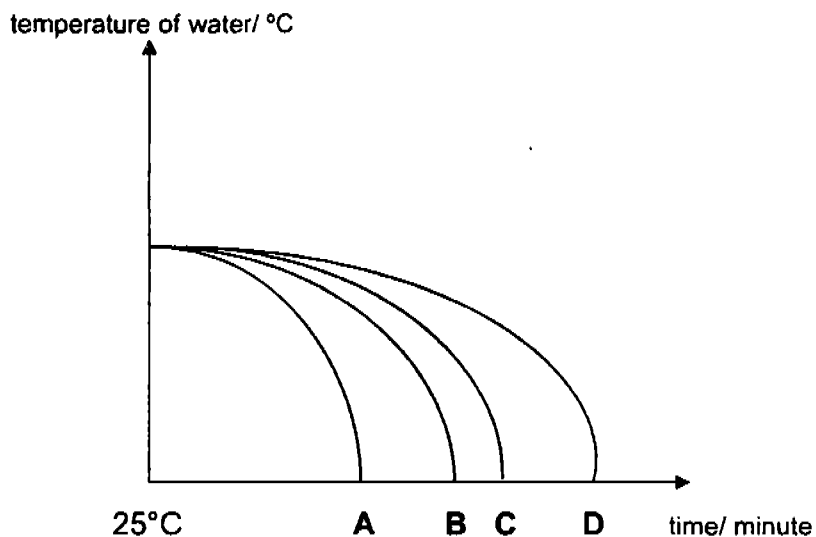


Which of the following represent(s) correctly what U and V are?

	U	V
A.	mushroom	bacteria
B.	yeast	mushroom
C.	toadstool	bacteria
D.	yeast	toadstool

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

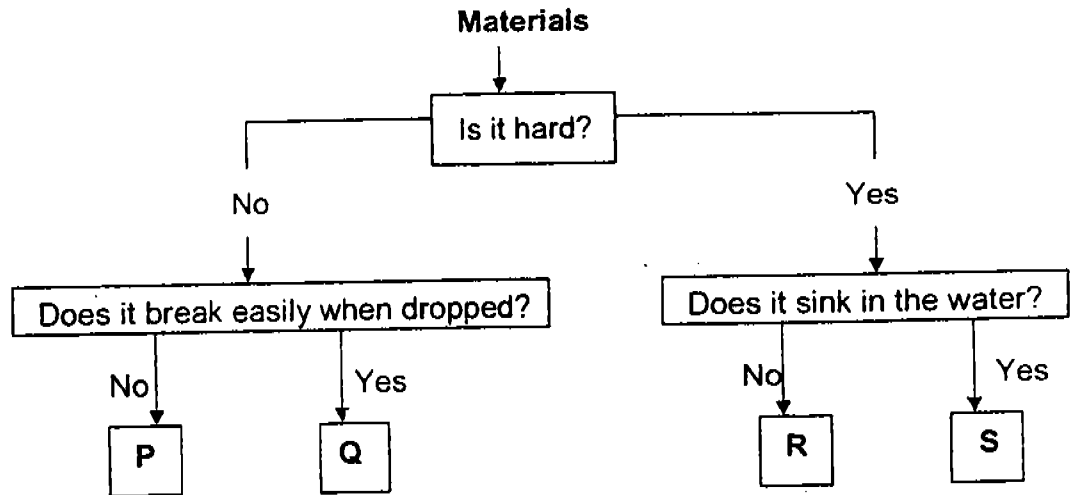
24. Annette poured some hot coffee into 4 identical coffee jars of similar shape and size, but all were made of different materials. The temperature of the hot coffee in each jar was recorded over a period of time as shown in the graph below.



Which one of the coffee jars, A, B, C or D, is best for Annette to keep the coffee hot for as long as she can?

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

25. Look at the flow chart below.



What objects could P and S be?

	P	S
A.	sponge	20-cent coin
B.	wooden peg	cork
C.	glass	handkerchief
D.	handkerchief	brick

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

NAME : _____

DATE : _____

CLASS : _____

SUBJECT :

Blank box for subject name.

EXAMPLE: IF YOU THINK THE 2ND OPTION IS THE CORRECT ANSWER SHADE THE OVAL 2 LIKE THIS :

1 ● 3 4

WRITE		SHADE OVALS										
I N D E X		0	1	2	3	4	5	6	7	8	9	
		0	1	2	3	4	5	6	7	8	9	
		0	1	2	3	4	5	6	7	8	9	
	N U M B E R		0	1	2	3	4	5	6	7	8	9
			0	1	2	3	4	5	6	7	8	9
		A	B	C	D	E	F	G	H	I	J	Z

1 1 2 ● 4

21 ● 2 3 4

41 1 2 3 4

2 1 ● 3 4

22 ● 2 3 4

42 1 2 3 4

3 ● 2 3 4

23 1 2 ● 4

43 1 2 3 4

4 1 ● 3 4

24 1 2 3 ●

44 1 2 3 4

5 1 ● 3 4

25 1 ● 3 4

45 1 2 3 4

6 1 ● 3 4

26 1 2 3 4

46 1 2 3 4

7 1 2 3 ●

27 1 2 3 4

47 1 2 3 4

8 1 ● 3 4

28 1 2 3 4

48 1 2 3 4

9 1 2 ● 4

29 1 2 3 4

49 1 2 3 4

10 1 2 ● 4

30 1 2 3 4

50 1 2 3 4

11 ● 2 3 4

31 1 2 3 4

51 1 2 3 4

12 1 2 ● 4

32 1 2 3 4

52 1 2 3 4

13 1 2 ● 4

33 1 2 3 4

53 1 2 3 4

14 1 2 3 ●

34 1 2 3 4

54 1 2 3 4

15 1 ● 3 4

35 1 2 3 4

55 1 2 3 4

16 1 ● 3 4

36 1 2 3 4

56 1 2 3 4

17 1 2 ● 4

37 1 2 3 4

57 1 2 3 4

18 1 2 ● 4

38 1 2 3 4

58 1 2 3 4

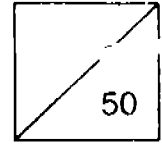
19 ● 2 3 4

39 1 2 3 4

59 1 2 3 4

60 1 2 3 4

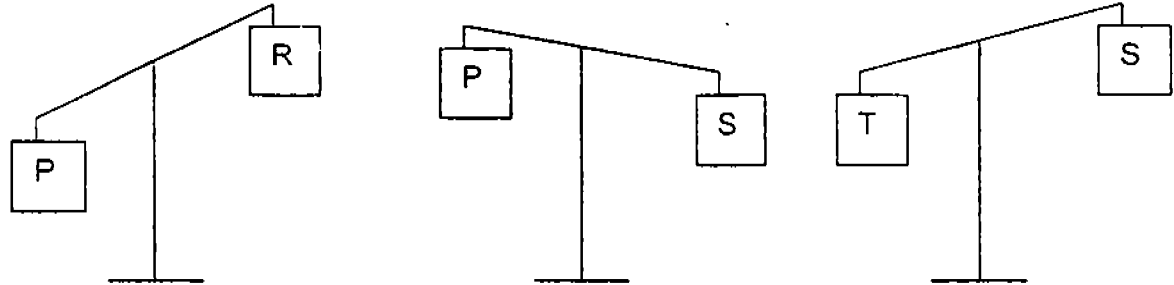
Name: _____ () Class: P4 _____



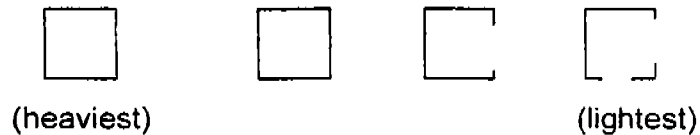
Section B (50 marks)

There are **19** questions in this section. Answer all of them. Write your answers in the spaces provided.

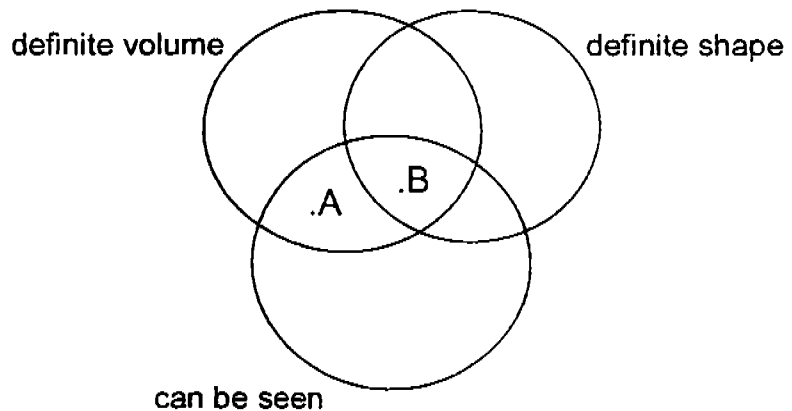
26. In the diagrams below, 4 objects are paired up and placed on a balance lever.



Study the diagrams carefully and arrange the objects, P, R, S and T, according to their mass, from the heaviest to the lightest. (2 m)



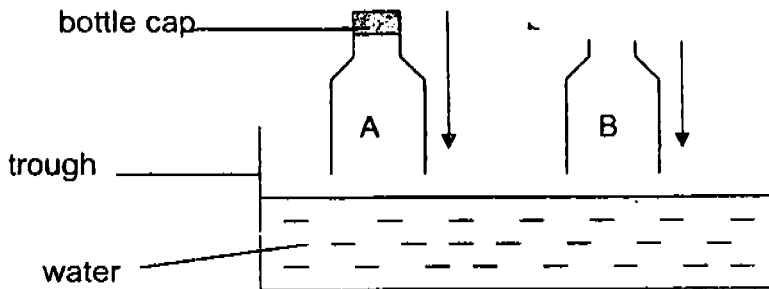
27. Study the Venn diagram below carefully.



(a) State a difference between the properties of objects A and B. (1 m)

(b) Give an example of object A. Do not mention the state of matter. (1m)

28. Look at the picture below carefully.



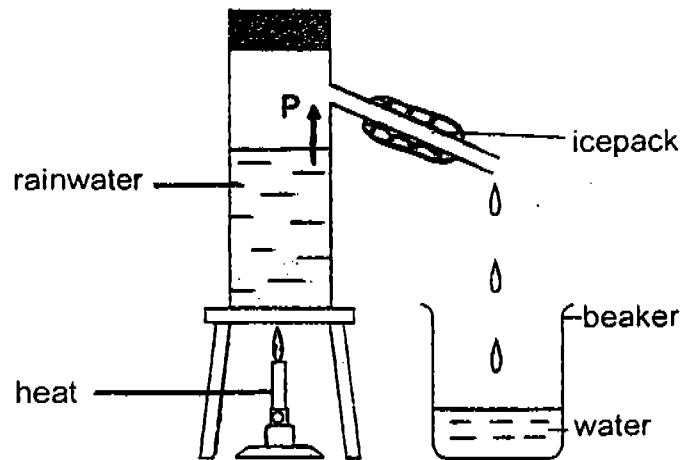
Two identical plastic bottles with their bottoms cut off are pushed into a trough of water. Bottle A is covered with a bottle cap while bottle B does not have a cap.

(a) What will happen to the water level in the trough when both bottles are pushed in? (1 m)

(b) Give a reason for your answer in (a) above. (1 m)

(c) Explain why there is only a little water in Bottle A while Bottle B is filled with water when both bottles are pushed into the water trough. (2 m)

29. Some rainwater is heated as shown in the diagram below.

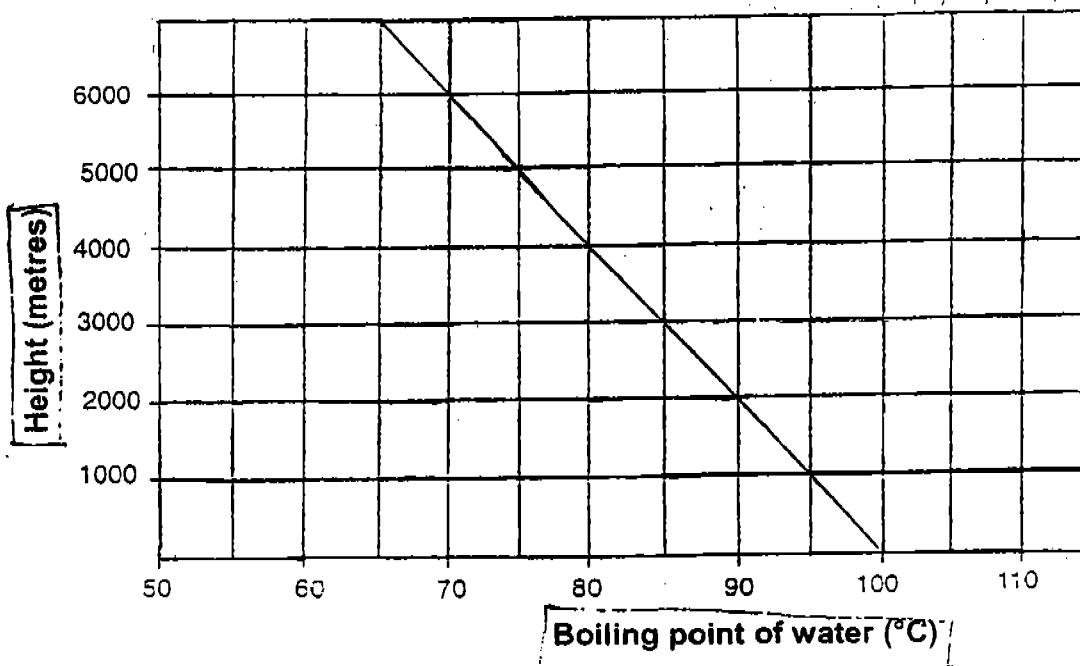


(a) Tick (✓) in the box(es) to show what process(es) is/ are represented by the arrow P. (1 m)

<input type="checkbox"/>	Freezing
<input type="checkbox"/>	Evaporation
<input type="checkbox"/>	Condensation

(b) As the steam passes through the icepack, it changes from _____ state to _____ state.
(2 m)

30. Study the graph below.



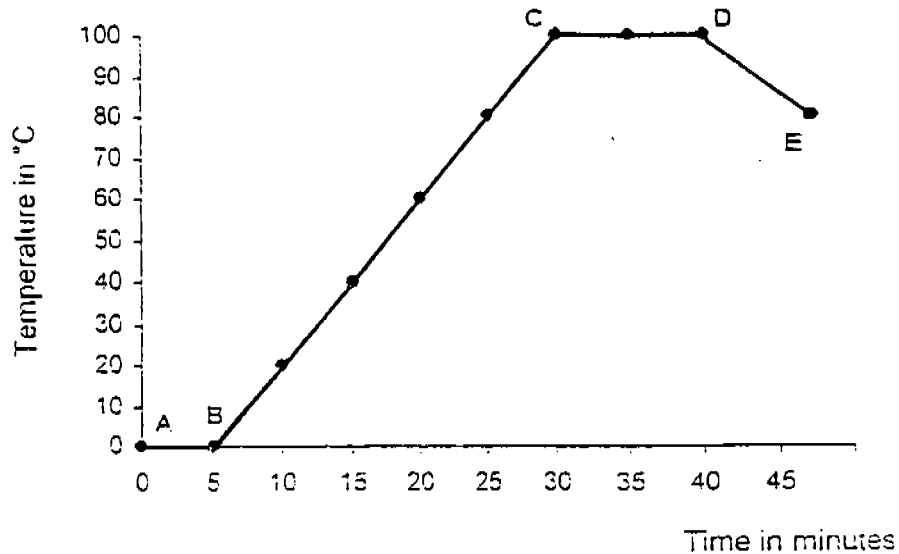
The graph shows that the boiling point of water depends on the height at which water is boiled on a mountain.

- (a) What does the graph tell us about the relationship between the boiling point of water and the height at which water is boiled? (1 m)

- (b) What will the boiling point of water be if a man boils a kettle of water at a height of 2000 m above the sea level? (1 m)

- (c) If the kettle of water boils at 70°C, where do you think the man is? (1 m)

31. Jim put a laboratory thermometer into a beaker of ice cubes and heated it continuously until bubbles were seen in the beaker. After a while, a white 'cloud' was seen at the mouth of the beaker. Jim recorded the temperature of the water and plotted a graph as shown below.



- (a) Which part of the graph shows a gain in heat?

Tick (✓) the correct box(es). (1 m)

<input type="checkbox"/>	AB
<input type="checkbox"/>	BC
<input type="checkbox"/>	CD
<input type="checkbox"/>	DE

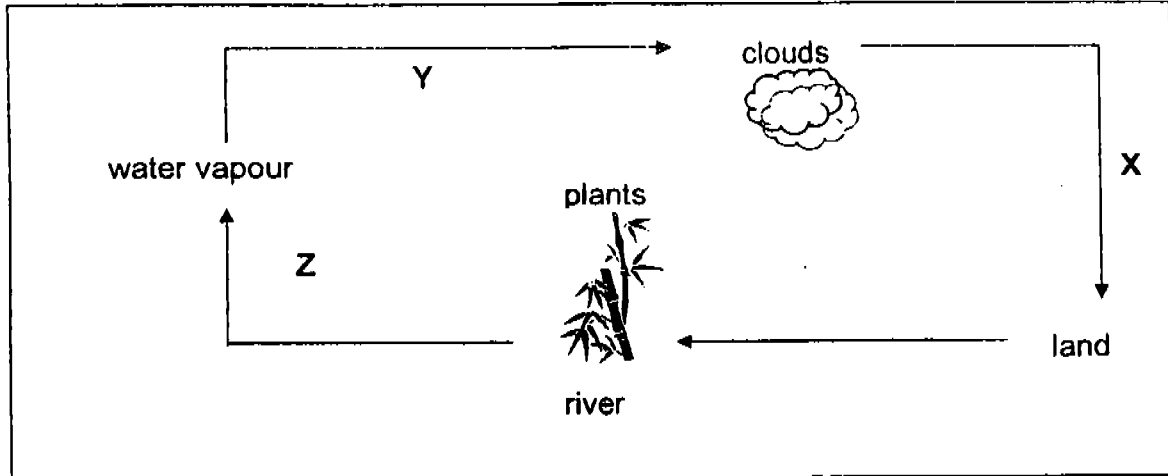
- (b) Jim allowed the beaker of water to cool down.

Which part of the graph showed that Jim switched off the flame?

Tick (✓) in the correct box. (1 m)

<input type="checkbox"/>	A
<input type="checkbox"/>	B
<input type="checkbox"/>	C
<input type="checkbox"/>	D
<input type="checkbox"/>	E

32. The diagram below shows the water cycle.

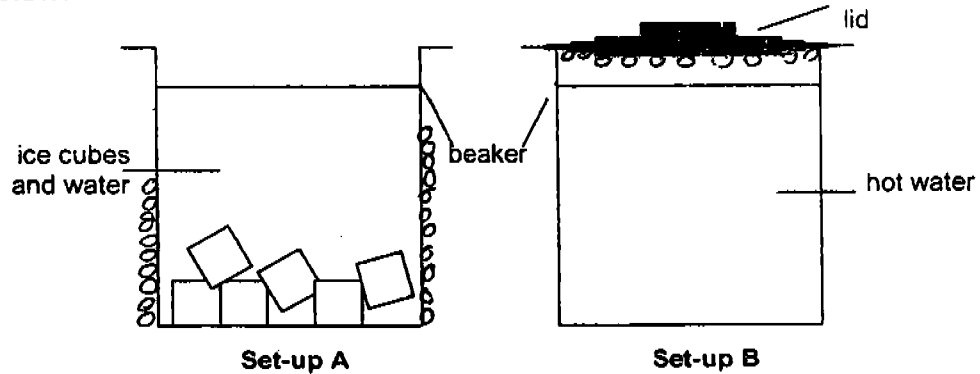


(a) Name the processes Y and Z. (1 m)

Y: _____ Z: _____

(b) In which processes, X, Y, Z, are there changes of state? (1 m)

33. Alice set up 2 experiments to demonstrate 2 different processes as shown below.



Alice noticed that water droplets were formed in both set ups.

(a) Draw in the 2 set-ups where water droplets can be seen. (2 m)

(b) Name a process that took place in each set-up. (2 m)

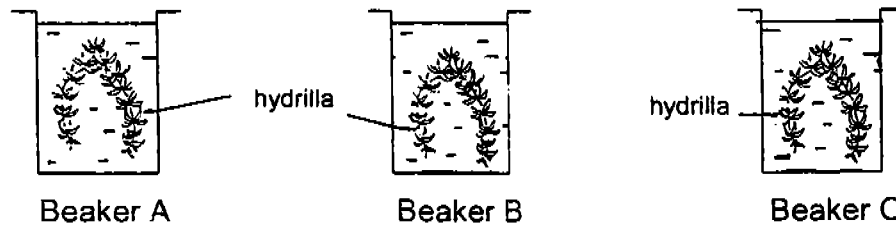
Set-up A: _____

Set-up B: _____

34. (a) Why is the water cycle important to Man? (1m)

man
(b) The sun plays a very important role in the water cycle.
Explain what this role is. (1m)

35. Lisa placed hydrilla of the same size and the same amount of water in 3 beakers as shown below.



She added the following to each beaker.

Beaker A	10 spoonfuls of oil
Beaker B	10 spoonfuls of pond water
Beaker C	10 spoonfuls of tap water

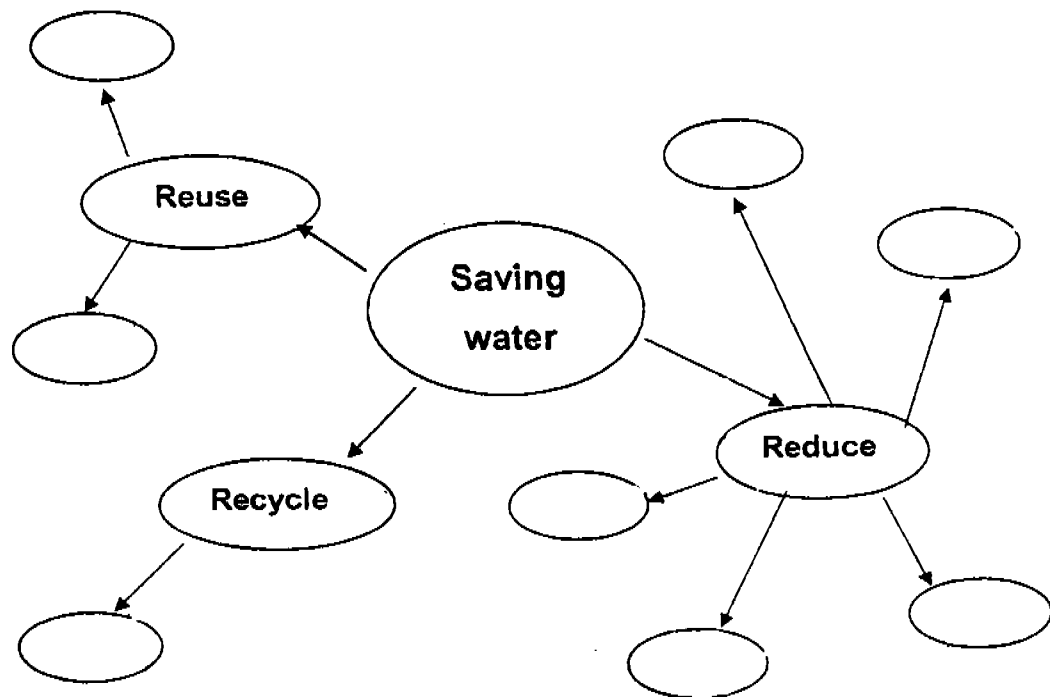
(a) In which beaker would the plants die after some time? (1 m)

(b) Explain your answer in (a). (1 m)

36. The diagram below is a graphic organiser showing different ways of saving water. Complete the graphic organiser with the following examples.

A	May uses a basin to wash the vegetables.
B	A worker in a hotel collects laundry water to clean toilets.
C	Henry does not use running water to wash his car.
D	Singapore sets up plants to produce <i>Newater</i> .
E	Mother does not use the water hose to water her plants.
F	Sam does not leave the tap running all the time while bathing.
G	Grandmother collects water from the laundry to wash the toilets.
H	Lynn uses a tumbler instead of running water when brushing her teeth.

Write down the **letters** (A, B, C, D, E, F, G, or H) representing the examples in the appropriate oval. (4 m)



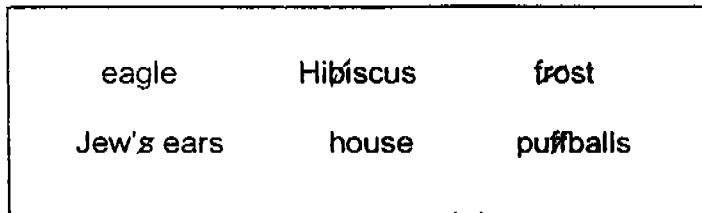
37. Fill in each blank with a suitable word. (2 m)

Water pollution takes place when _____ substances get into _____ and it is no longer fit for _____ and for most of our daily _____.

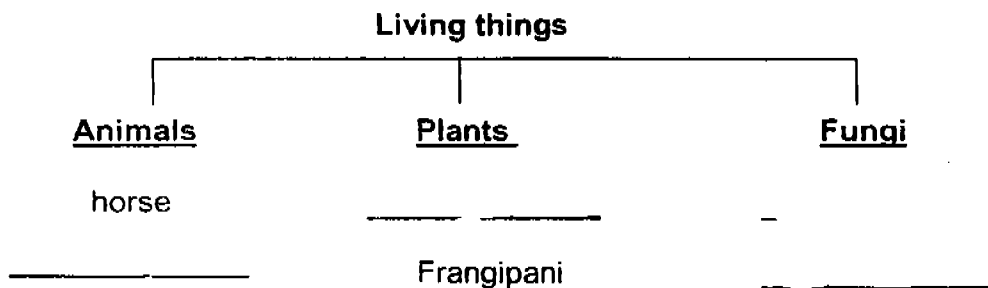
38. Write 'T' for true statements or 'F' for false statements in the brackets provided below. (2 m)

- (a) All new plants grow from seeds. ()
- (b) Mushrooms are non-living things. ()
- (c) Plants take in water through the roots. ()
- (d) Plants and animals are alike because they can grow and die. ()

39.



Place 4 items from the above box into correct groups shown below. (2 m)



40. Jane placed some leaves and some dead insects in a box. She then added Animal Y into the box. Jane recorded the number of leaves and dead insects in the table as shown below.

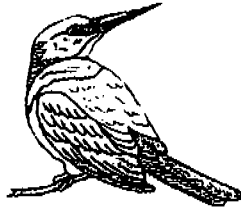
	Leaves	Dead Insects
Start of experiment	20	20
After 1 day	17	20
After 2 days	15	20
After 3 days	13	20

- (a) What do you notice about the number of leaves and insects after 3 days? (1 m)

- (b) What can you say about animal Y based on the information given in the table? (1 m)

- (c) Based on your answer in (b) above, name an animal that can be animal Y. (1 m)

41. Study the two animals below.



Animal X



Animal Y

Based only on what you can see from the pictures above,

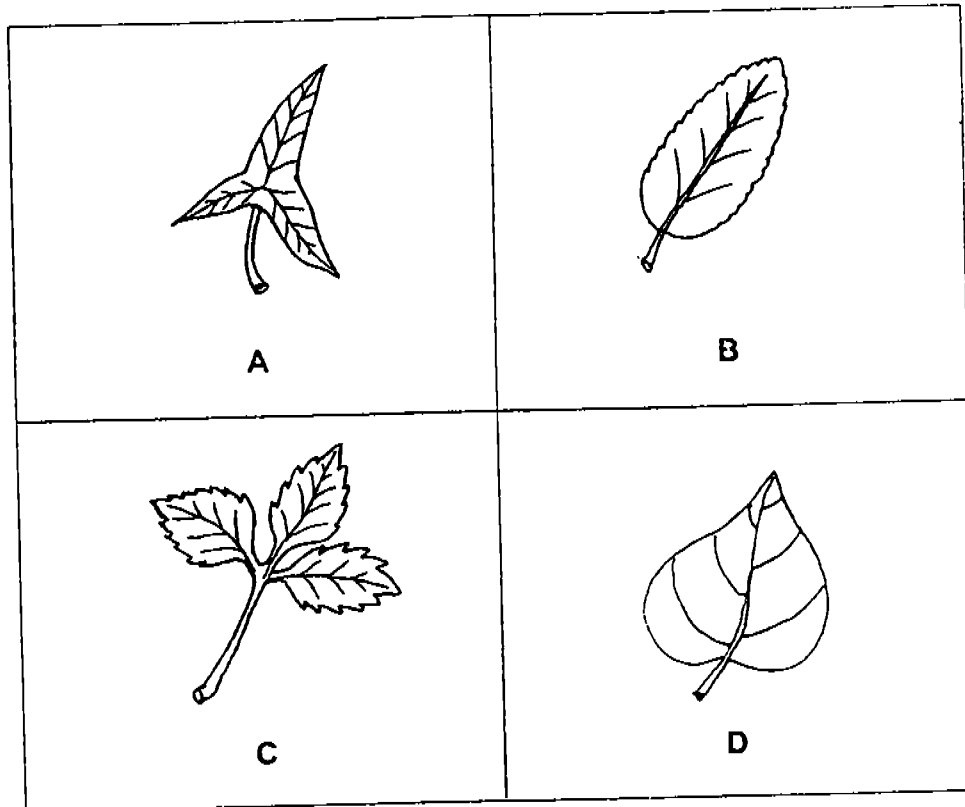
(a) state one similarity between Animal X and Animal Y. (1 m)

(b) describe how each animal would respond to a hunter firing a shot in terms of its movement. (2 m)

Animal X _____

Animal Y _____

42. Look at the leaves, A, B, C and D, as shown below.

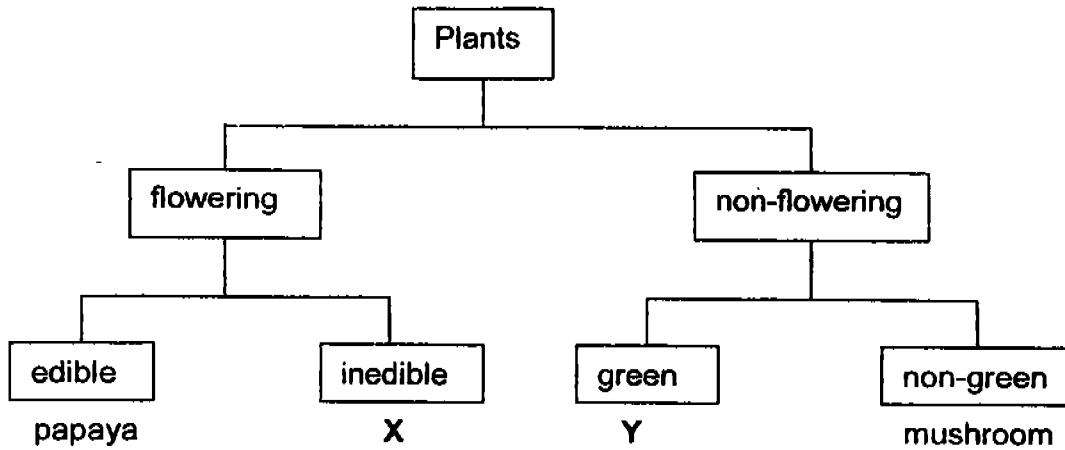


(a) Classify the leaves into 2 main groups, the first one, A, is done for you. (1 m)

Group 1	Group 2
A	

(b) State one difference between the leaves in Group 1 and Group 2. (1 m)

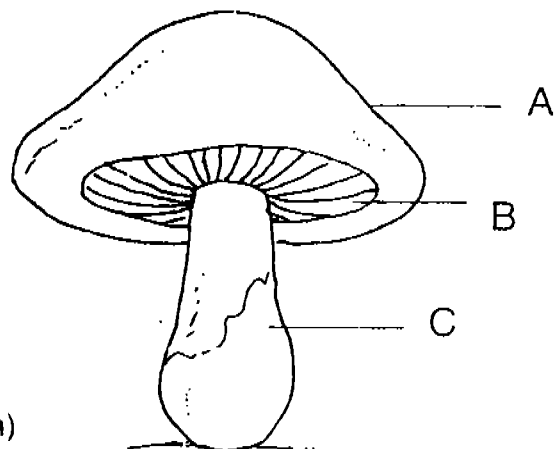
43. Look at the classification table below.



(a) Based on the classification table above, what are the two characteristics of plant X? (1 m)

(b) Give an example of plant Y. (1 m)

44. Look at the picture below.



(a) Name the following parts. (1½ m)

A	
B	
C	

(b) How does it reproduce? (½ m)

45. Look at the classification table below.

Group X	Group Y	Group Z
wood	clay	silk
cotton	iron	wool
natural rubber	glass	

(a) Complete the table by writing a material that can be put in Group Z. (1 m)

(b) What is the main difference between materials in Groups X and Y? (1 m)

- END OF PAPER -

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RAFFLES GIRLS PRIMARY SCHOOL

SEMESTRAL ASSESSMENT (1)

Date

No

SCIENCE 2004

26. T S P R

27. (a) B has a definite shape while A do not have a definite shape.

(b) The example is Apple juice.

28

29. (a) Evaporation

(b) gaseous state to liquid

30. (a)

(b) The boiling point will be 90°C

(c) The man is at 6000m.

(a)

(b)

31.

<input checked="" type="checkbox"/>	AB	<input type="checkbox"/>	A
<input checked="" type="checkbox"/>	BC	<input type="checkbox"/>	B
<input checked="" type="checkbox"/>	CD	<input type="checkbox"/>	C
<input type="checkbox"/>	DE	<input checked="" type="checkbox"/>	D
		<input type="checkbox"/>	E

(a)

32. Y Condensation z: evaporation

(b)

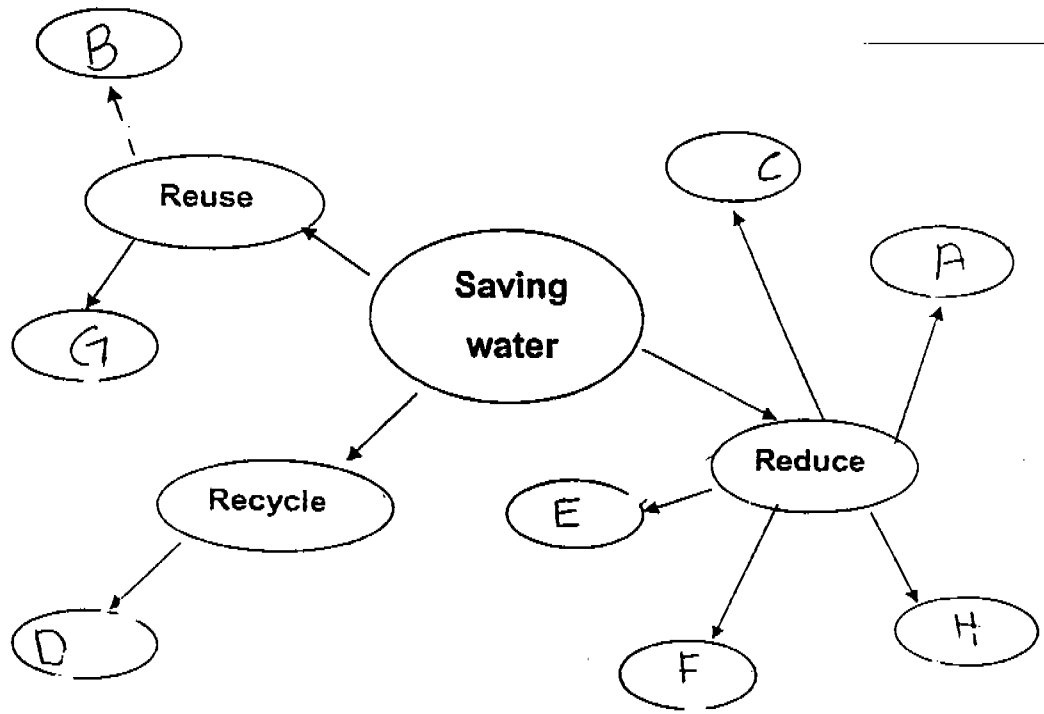
In Process z and y

33. (a) melting
(b) evaporation

34. (a) The water cycle enables us to get a continuous supply of water for the survival of man.
(b)

35. (a) Beaker A
(b) oil is put into A and oil can stop oxygen from reaching the plant

36.



37. dirty - water - drinking - uses

38. F
F
T

39. horse Hibiscas jews ears
eagle Frangipani puffballs

40. (a) The leaves decrease each day while the dead insects is still the same every day.
(b) Animal Y only eat leaves
(c) I think it is a caterpillar.

(a)

41. Both of them have feathers as their outer covering.

(b)

Animal X It will fly away.
Animal Y It will run away.

(a) Group 1 Group 2

42. A B
D C

(b) The leaves in group 1 has entire edges while the leaves in group 2 has jagged edges.

(a) It is flowering and inedible.

43.

(b) The example is moss

(a)

44. A cap (b) It reproduce by spores.

B gills

C stalk

45. (a) cloth

(b) The main difference is the things in group X is once alive while the thing in group Y was never alive.