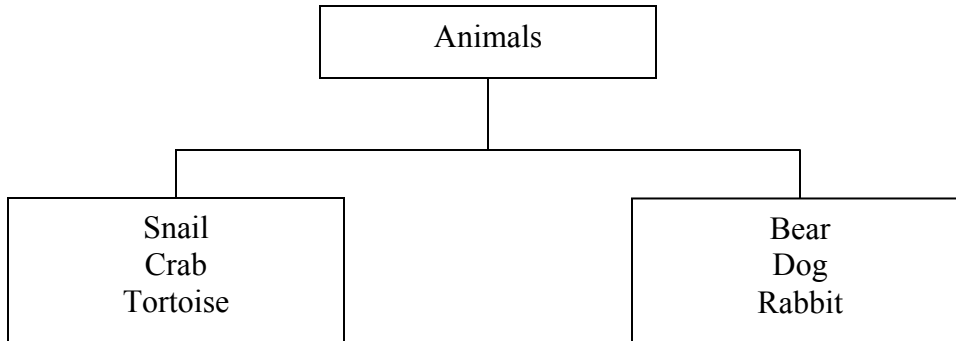


**Primary Five  
Science  
Semestral Assessment One**

**Section A (30 x 2 marks)**

**For each question 1 to 30, four options are given. One of them is the correct answer. Make your choice (1,2,3 or 4). Write the correct answer in the box provided.**

1. Study the classification below



These animals are grouped according to \_\_\_\_\_.

- (1) their habitats
- (2) their body coverings
- (3) the food they feed on
- (4) the way that they move

2. Liming tried to classify a few animals. If he tries to classify them according to the type of food that they eat, which one of the animals below does not belong to the same category as the other three?

(1)



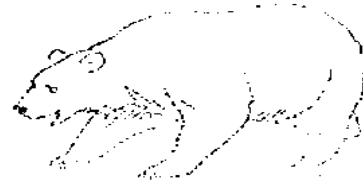
(2)



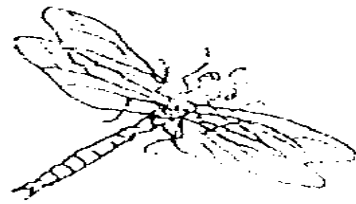
(3)



(4)



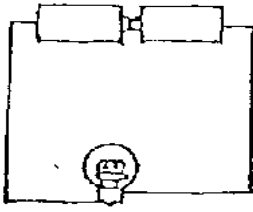
3. Look at the two animals below.



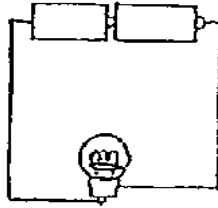
The two animals are similar in that they both \_\_\_\_\_.

- (1) live around the pond
- (2) give birth to their young
- (3) eat the same type of food
- (4) move in the same manner

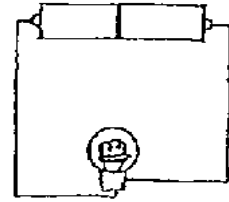
4. David set up three experiments as shown below.



A



B

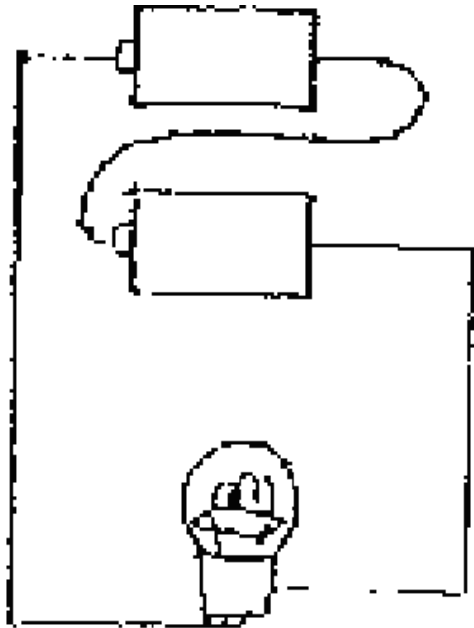


C

He found that the bulbs in circuit A and C did not light up. From this experiment, he could conclude that \_\_\_\_\_.

- (1) types of wires used will determine if the bulb lights up.
- (2) arrangement of the batteries will determine if the bulb lights up.
- (3) size of the bulbs used will determine the brightness of the bulb.
- (4) size of the batteries used will determine the brightness of the bulb.

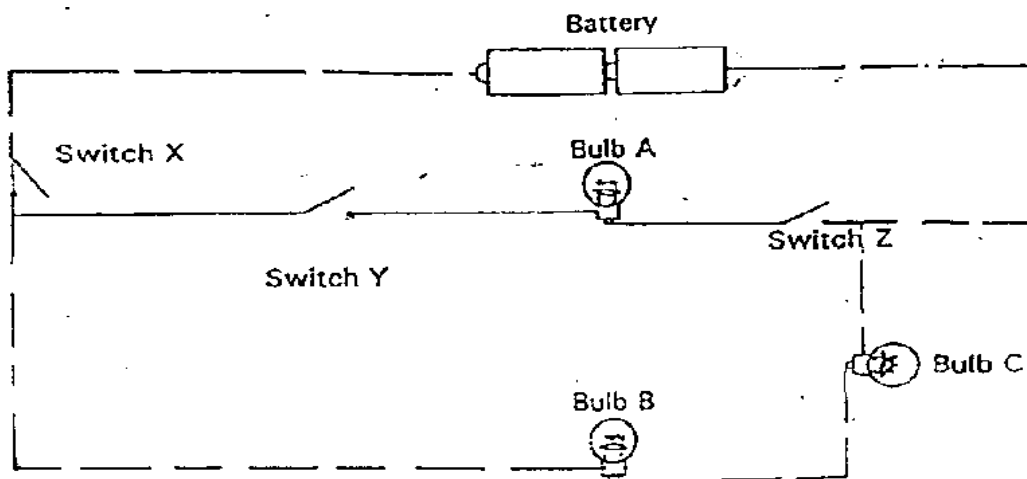
5. Kim Seng used some wire to connect two batteries and a bulb together in the way shown in the diagram below.



The bulb did not light up. Kim Seng thought of four reasons why the bulb did not light up. Which one of the following reasons is most likely to be correct?

- (1) The batteries are drained.
- (2) There was a gap in the circuit.
- (3) The circuit was an open circuit.
- (4) The wire was not connected correctly to the bulb.

6. Study the circuit as shown below.



Which of the bulb(s) will light up when only switch X is closed?

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

7. A group of primary 4 students carried out an experiment to find out if seeds need soil to grow. Which of the variables should they keep the same?

- (A) The amount of soil
- (B) The amount of water
- (C) The number of seeds
- (D) The place where the experiment was carried out

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

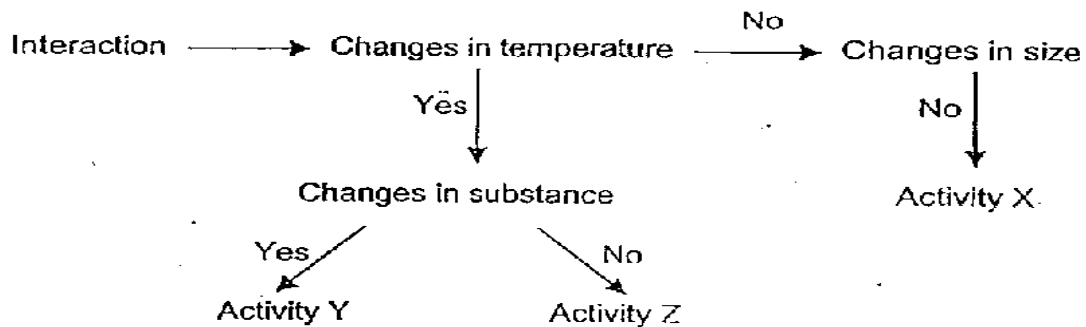
8. The organisms below have been grouped into 2 groups.

Group X	Group Y
Frangipani	Moss
Fern	Mushroom
Hibiscus	Mould
Orchid	Bracket Fungus

Which one of the above organisms has been wrongly classified?

- (1) Moss
- (2) Ferns
- (3) Orchid
- (4) Bracket Fungus

9. Bridget carried out several activities and drew up a flow chart based on her results.



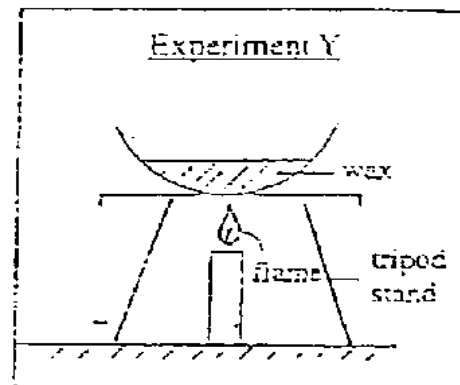
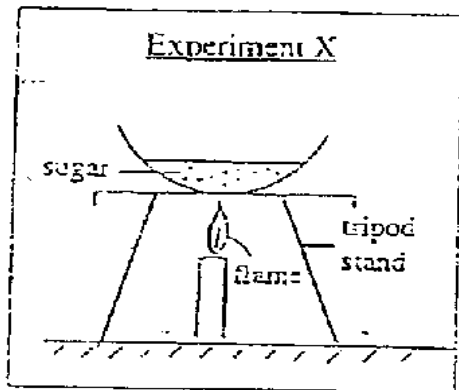
Which one of the following matches the activity correctly?

(1)	Activity X	Tearing up a piece of paper into half
(2)	Activity Y	Putting ice cubes in the sun
(3)	Activity Z	Putting some wax in the oven
(4)	Activity Z	Frying a fish until it turns brown

10. Raju placed a healthy growing plant and a dish of limewater in an airtight cardboard box. He had watered the plant before the set up. Ten hours later, he noticed that there was a change to one of the items. What could this change most likely be?

- (1) The plant had grown taller by 10cm.
- (2) The limewater had turned cloudy.
- (3) There was more limewater in the dish.
- (4) The leaves of the plants had dropped off.

11. Four primary 5 students carried out the experiments as shown below.



Both substances in the experiments were heated for 10 minutes. At the end of the experiments, each of these students gave their results. Which one of these students gave the correct results?

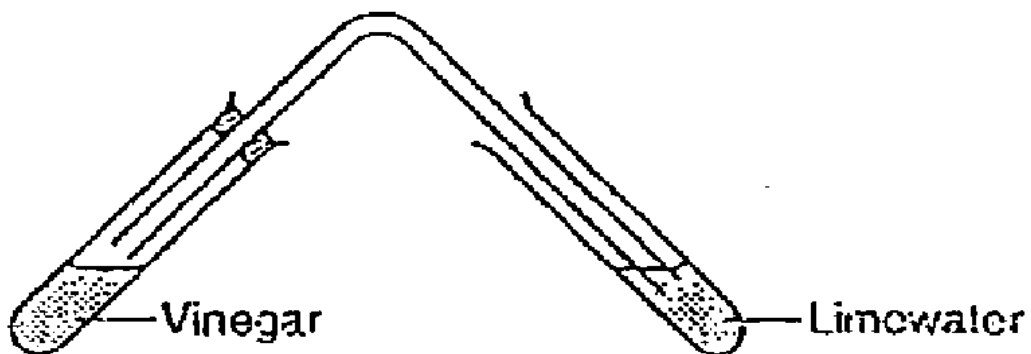
- (1) There were no new substances formed in both X and Y.
- (2) A new substance was formed in X but not in Y.
- (3) A new substance was formed in Y but not in X.
- (4) There were new substances formed in both X and Y.

12. When a piece of paper is burnt, which of the following interact to cause the change?

- (A) Heat
- (B) Paper
- (C) Oxygen
- (D) Moisture

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

13. Karen set up an experiment as shown below.



Which one of the following observations will she be able to see after a few minutes?

- (1) Bubbles will be seen in the vinegar.
- (2) The limewater will turn chalky.
- (3) The vinegar will turn chalky.
- (4) There will not be any change.

14. Jon accidentally burst an inflated balloon with his pencil. He made some conclusions based on this. Which of the following conclusions made by Jon were correct?

- (A) There was a change in the shape of the balloon.
- (B) There was a change in the size of the balloon.
- (C) The weight of the balloon has been changed.
- (D) The state of the balloon has been changed.

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

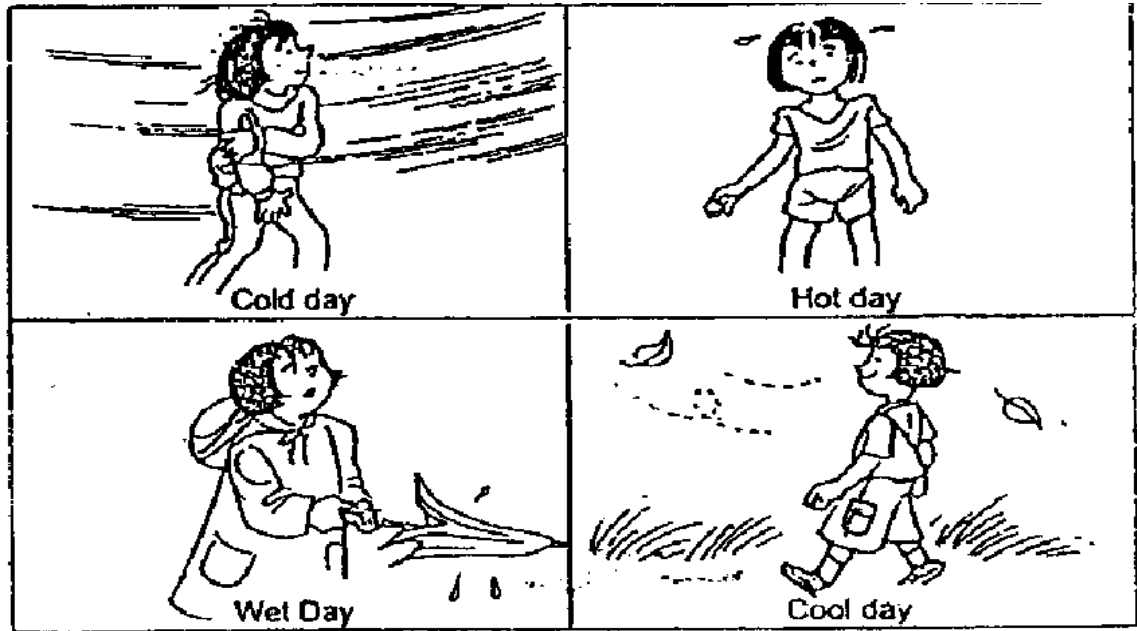
15. Felin prepared some clean salt to carry out an experiment. Her brother had accidentally poured some sand into the salt. She remembered that her teacher taught her the method to get back the salt. However, she had forgotten the steps. Arrange the steps according to what Felin should do to help her get back the salt.

- (A) Stir the mixture.
- (B) Pour in some water.
- (C) Heat the solution to dryness.
- (D) Filter the mixture to get back the sand.

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



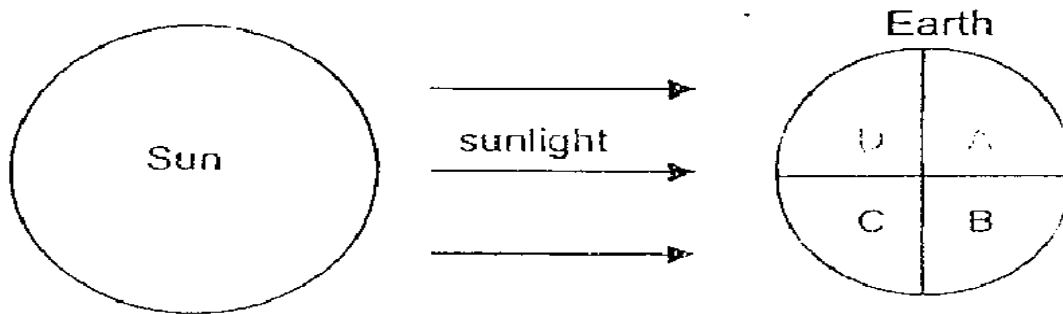
16. The following pictures show Chun Hui putting on different kinds of clothing on different days.



From the above pictures, what conclusion can you make?

- (1) Cloths keep us warm.
- (2) The natural environment keeps on changing.
- (3) Man's natural environment cannot be predicted.
- (4) We put on different clothes to suit our natural environment.

17. The following diagram shows sunlight shining on Earth. Which parts of the Earth is experiencing day?



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

18. The Earth's rotation on its own axis causes \_\_\_\_\_.

- (A) our weather to change.
- (B) the regular change from day to night.
- (C) the daily rising and falling of tides.

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

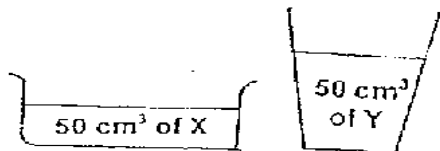
19. Which one of the following is not a result of condensation?

- (A) Dew
- (B) Rain
- (C) Snow
- (D) Wind

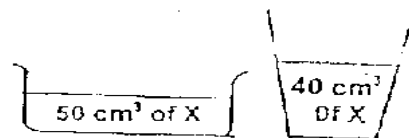
- (1) A only
- (2) B only
- (3) C only
- (4) D only

20. Kate wants to find out if the type of liquid affects the rate of evaporation. She carried out an experiment with two liquids, X and Y, where X is water and Y is salt solution. Which one of the following experimental set ups should she use?

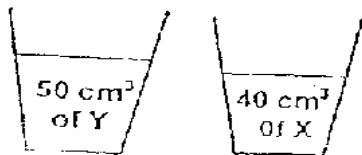
(1)



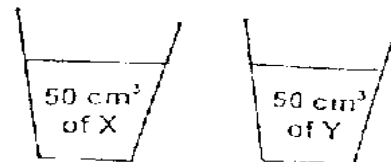
(2)



(3)



(4)



21 When water is heated,

- (A) it evaporates and changes into water vapour.
- (B) it condenses and changes into water droplets.
- (C) steam is produced.
- (D) it will boil at 100°C.

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

22. Which one of the following can exist in both solid and liquid states?

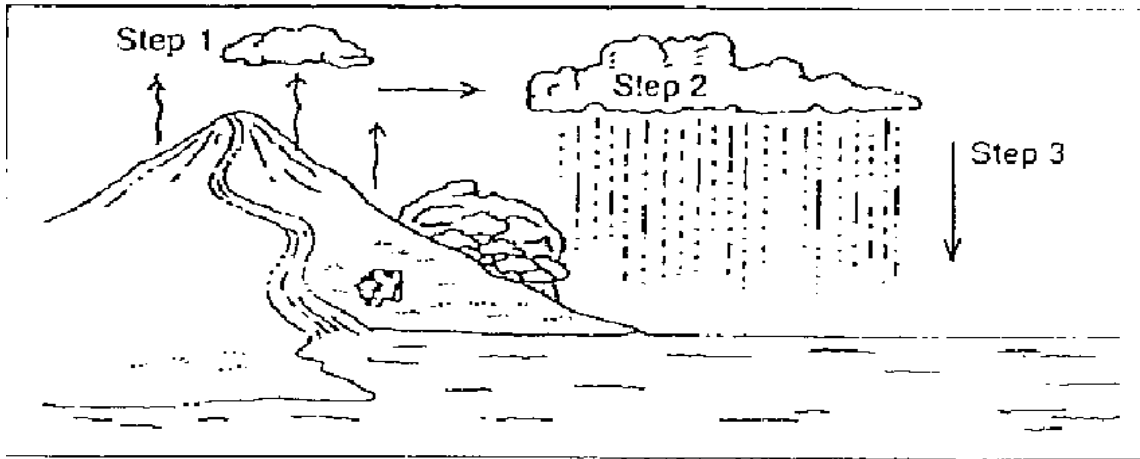
- (A) Butter
- (B) Water
- (C) Perfumes

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

23. Which one of the following does not play a part in the water cycle?

- (1) Sun
- (2) Moon
- (3) Clouds
- (4) Plants and animals

24. The diagram below shows a water cycle.

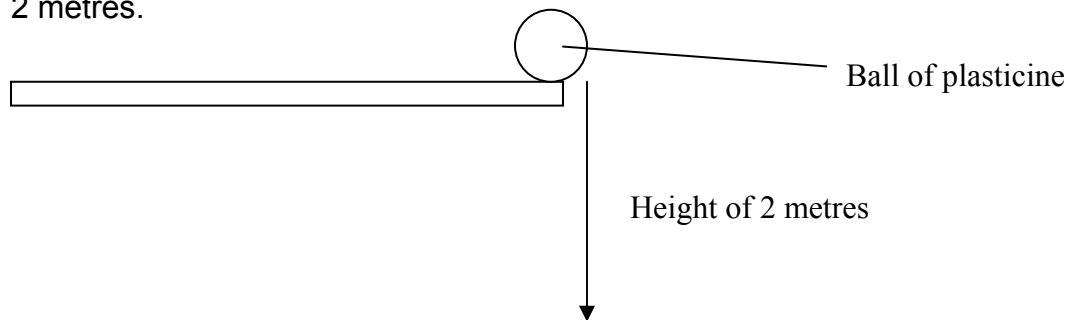


In which step(s) is/are there heat gain from the surrounding?

- (A) Step 1
- (B) From Step 2 to Step 3
- (C) Step 3

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

25. The following drawing shows a ball of plasticine dropped from a height of 2 metres.

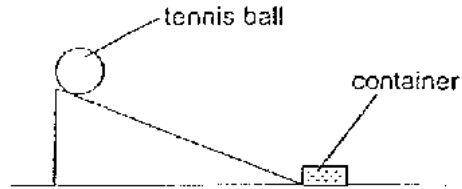


Which one of the following changes is most likely to occur?

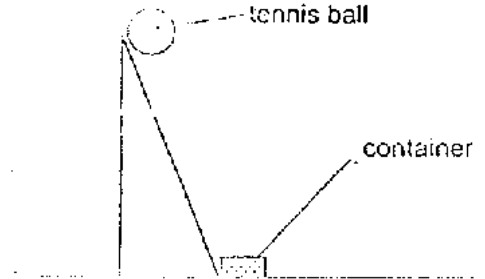
- (1) The plasticine changed its volume and position.
- (2) The plasticine changed its shape and position.
- (3) The plasticine changed its volume and weight.
- (4) The plasticine changed its shape and size.

26. The diagram below shows 4 similar tennis balls about to be released from different height. In which one of the set ups will the container move the furthest distance?

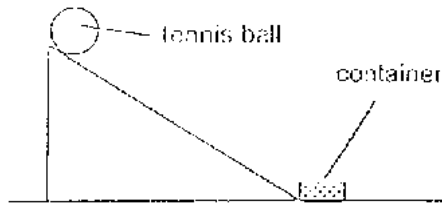
(1)



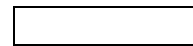
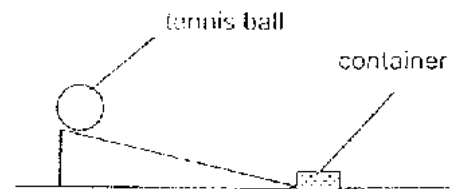
(2)



(3)

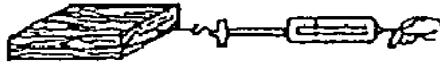


(4)

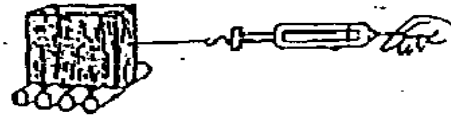


27. Sammy used 4 different methods to pull a block of wood across a table. The methods used are shown below. In which instance did she use the greatest force?

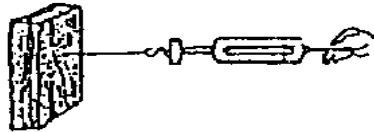
(1)



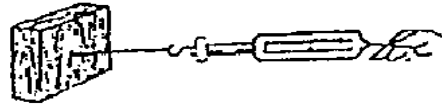
(2)



(3)



(4)

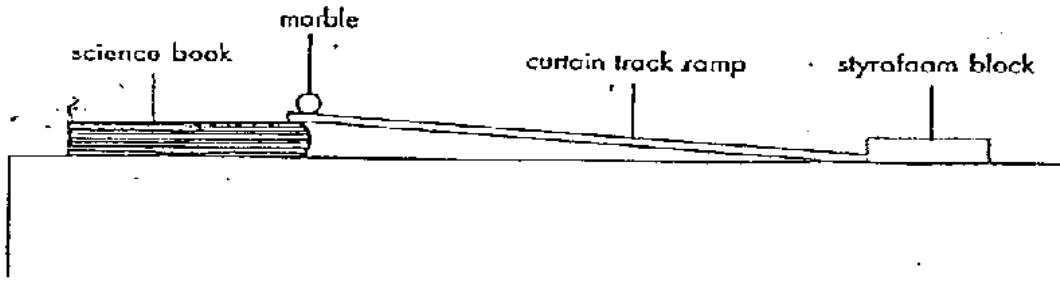


28. What forces are present when a man pushes his trolley up a slope?

- (A) Frictional force
- (B) Muscular force
- (C) Gravitational force

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

29. Judy set up the experiment as shown below.

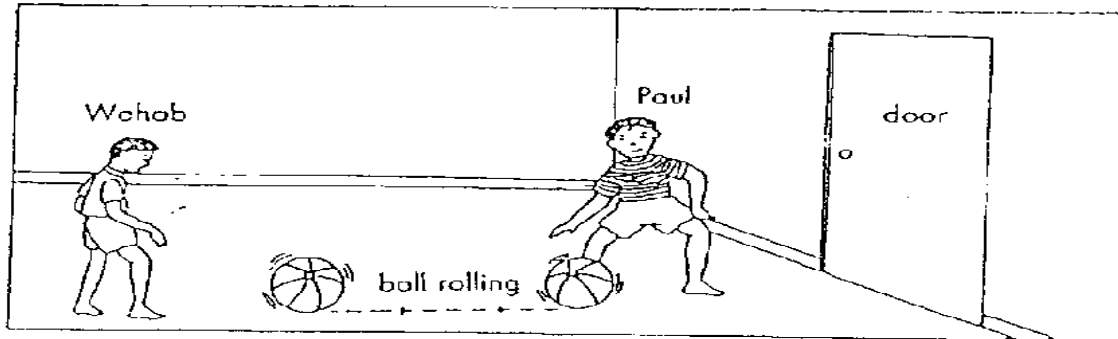


She wants to find out how the distance moved by the styrofoam block is affected by the number of Science books that she uses.  
Which one of the following statements do you agree with?

- (1) She should use marbles of different sizes.
- (2) She should not use more than 1 Science books for her experiment.
- (3) She should use different lengths of curtain track so that the styrofoam block can travel a further distance.
- (4) She should place the marble at the same starting position on the curtain track each time she repeats the procedure.



30. In the diagram below, Wahab kicks the ball and it rolls along the floor towards the door. As it rolls past Paul, he gives it a hard kick towards the door.



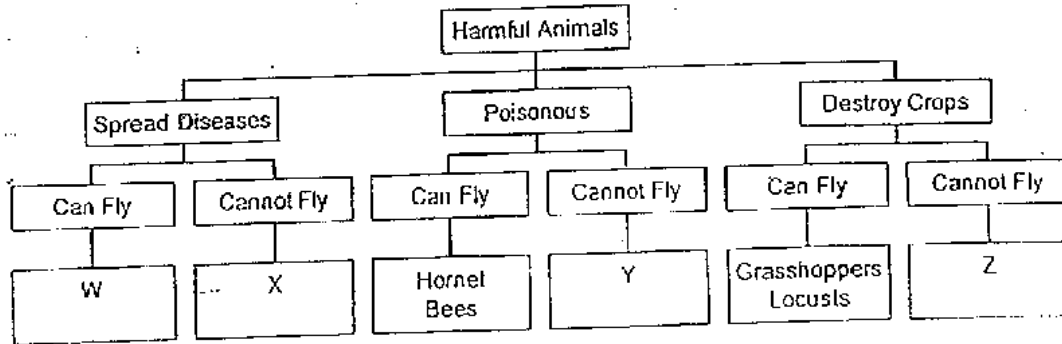
Which one of the following statements is true?

- (1) The ball will now roll back towards Wahab.
- (2) The ball will now come to a complete stop.
- (3) The ball will now stop before it reaches the door.
- (4) The ball will now roll more quickly towards the door.

**Section B (40 marks)**

**Write your answers for each question 31 to 46 in the blank spaces provided.**

31. Look at the classification table below.



Write down an example of an animal that fits the description for each of the categories W, X, Y and Z. (2m)

(i) Animal W:

(ii) Animal X:

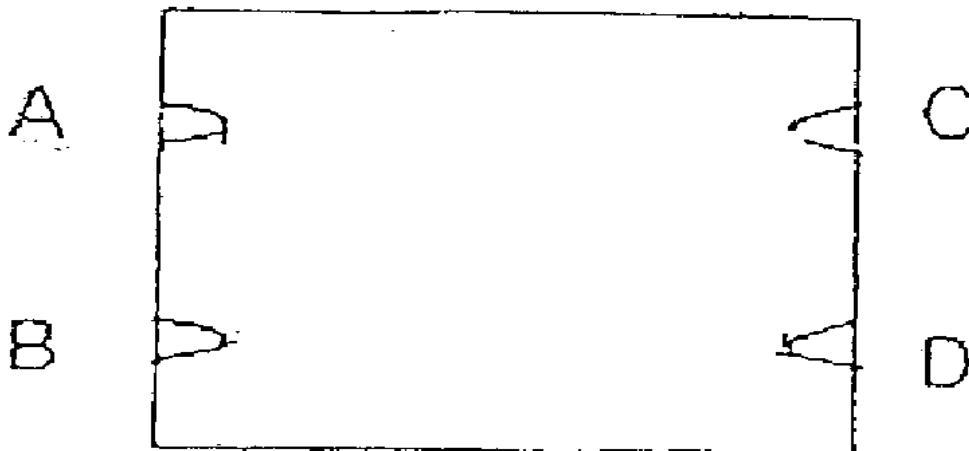
(iii) Animal Y:

(iv) Animal Z:

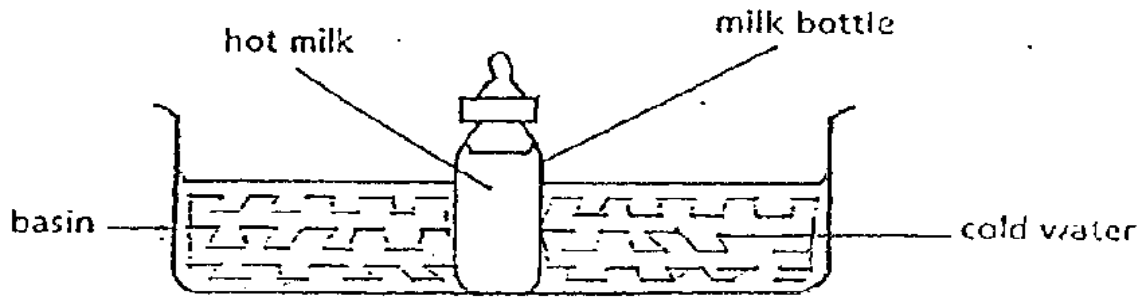
32. Jason was given a circuit card. He tests it and drew up a table to show when the bulb lit up as the pairs of clips were connected. The table below shows the results.

Clips tested	Did the bulb light up?
A and B	Yes
A and C	Yes
A and D	No
B and C	
B and D	
C and D	

In the circuit card below, draw in two wires only so that it will show the above results. (2m)



33. Halim placed a bottle of hot milk into a basin of cold water as shown in the diagram below.



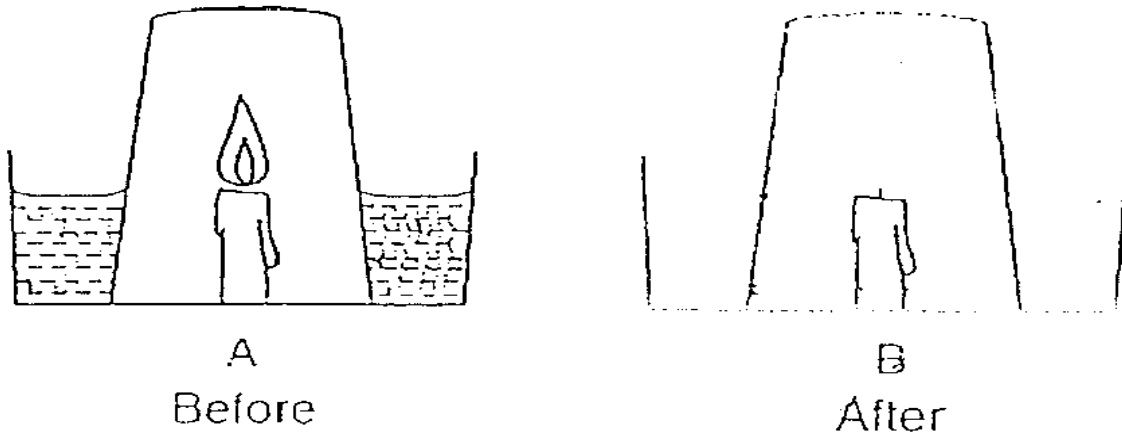
- a. What will happen to the hot milk after 10 minutes? (1m)

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- b. Explain for your answer in part (a). (1m)

---

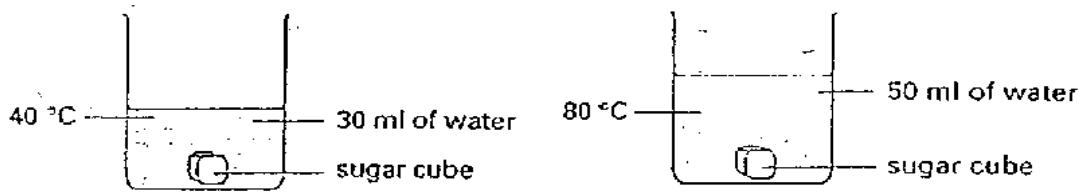
34. Look at the experiment below.



- a. Draw in the water level in B after the flame has gone out. (1m)
- b. Why was there a change in the water level after the flame has gone out? (2m)

---

35. Matthew carried out the experiment below to test the factors that will affect the rate of dissolving sugar cubes.



- a. Was his experiment a fair test? What change(s) to the experiment would you recommend to him so that he can carry out a fair test? (2m)

- b. If his experiment was to test the effect of temperature of water on the rate of dissolving sugar cubes, give one variables that he would have to keep constant to make it a fair test. (1m)

- 36a. Arrange the following changes in the correct order from the fastest to the slowest. Number their sequence in the boxes provided. (1m)

Rusting of a nail.	
Life cycle of a frog.	
Baking a chocolate sponge cake.	
Dissolving a small sugar cube in a cup of hot coffee.	

- b. Name one method to prevent iron nails from rusting. (1m)

37. Man constantly makes changes to his physical environment to improve his living conditions. Give 2 examples of such a change. (2m)

(i)

(ii)

38.

The Earth rotates continuously on its own \_\_\_\_\_ and completes one

every 24 hours. Within 24 hours, both halves of the Earth would have experience

both \_\_\_\_\_ and \_\_\_\_\_ .(2m)

39. Rain is important to man. However, too much can bring destruction to man. Give 2 such examples. (2m)

(i)

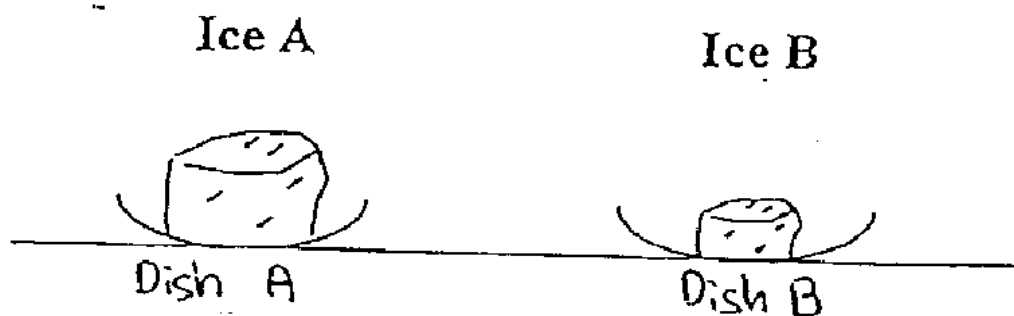
(ii)

40. Give two reasons why weather forecasts are important to man. (2m)

(i).

(ii)

41. Mary took 2 identical ice cubes from the freezer and placed them each in an evaporating dish. She then added a small teaspoon of salt into Dish B. After a few minutes, she observed the following:



a. What do you think the temperature of Ice B is? (1m)

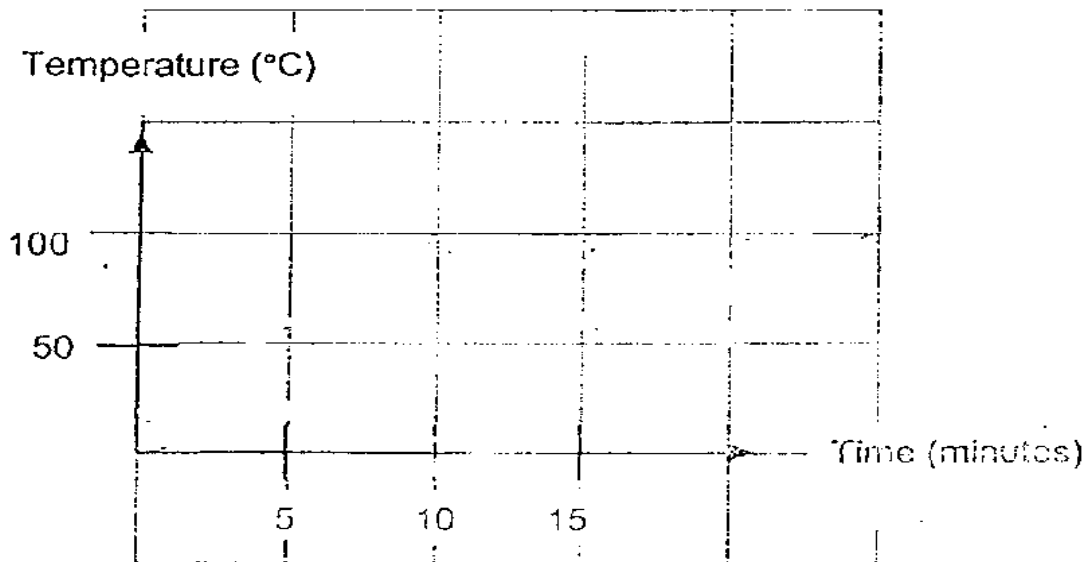
b. **Using your answer in (a)**, explain why Ice B melted faster than Ice A. (2m)

42. John boiled some water to boil in an electric kettle. After 10 minutes, he observed some white “clouds” coming out of the spout of the kettle. He switched off the kettle after another 5 minutes.

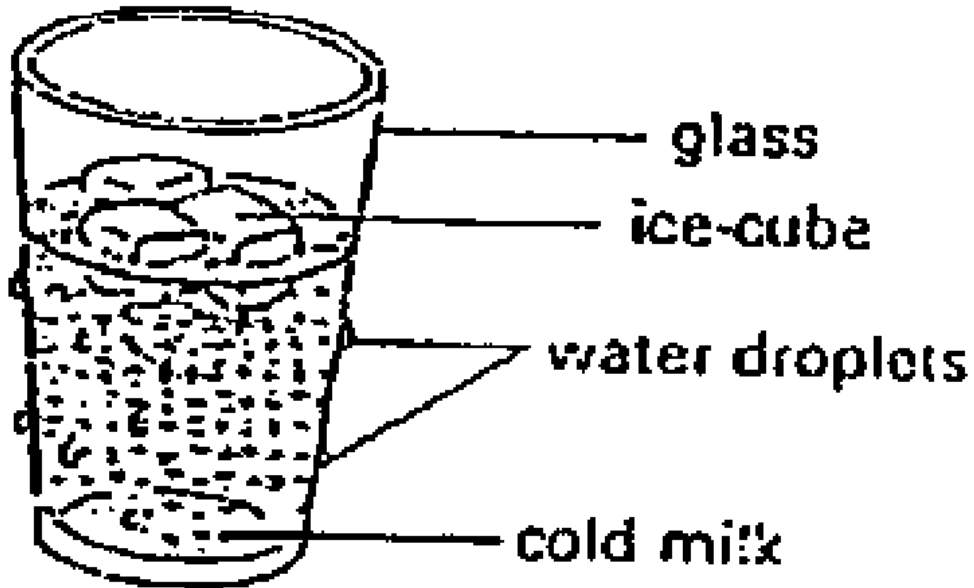
a. What are the white “clouds”? (1m)

---

b. Draw in the space below a line graph that shows the temperature changes of water for the 15-minutes period. (2m)



43. Xiao Wei took a glass of milk out from the refrigerator and left it on the table. After a minute, she found some water droplets on the outside of the glass.

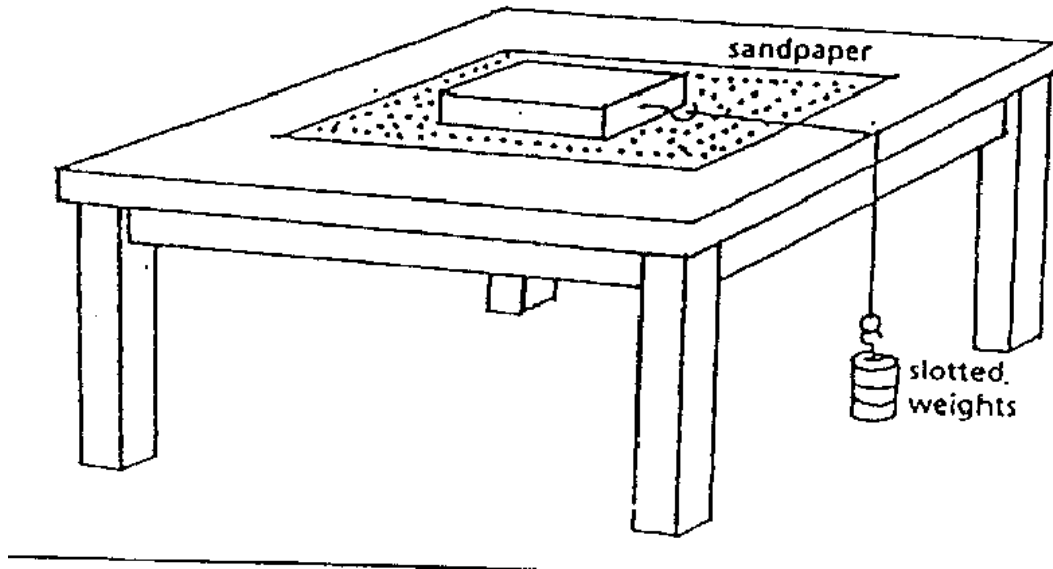


- a. What caused those water droplets to form on the outside of the glass? (1m)
- 

- b. What would you see if the milk was replaced with boiling water instead? Explain your answer. (2m)
-



44. In the experiment below, a block of wood was placed on 4 different surfaces, and the amount of force needed to start it moving across the surface was recorded.



Type of surface	Force needed
Sandpaper	50g
Unpolished Wood	35g
Carpet	80g
Glass	? g

- a. Predict the amount of force (in g) needed to move the same block across glass. (1m)
- 

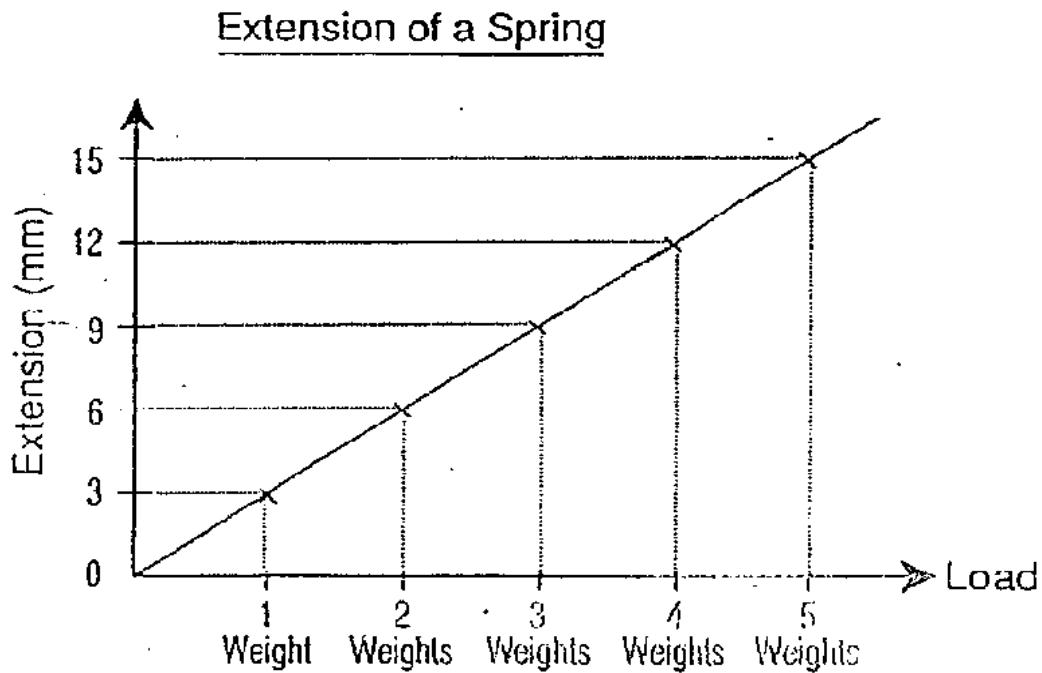
- b. Would the amount of force needed increase or decrease if a layer of oil is applied on the glass? Explain your answer. (2m)
-

45. Mary accidentally added some iron filings into a glass of salt water. Sam suggests that she could use a magnet to retrieve those iron filings. Can Sam's method work? Give a reason for your answer. (2m)

---

---

46. Look at the graph below.



a. What happens to the extension of the spring when the load is doubled? (1m)

---

b. If the weight of a single weight is 20g, what is the weight of the load if the extension of the spring is 6 mm? (1m)

---

- c. Jian Hui carried out the same experiment, but he recorded the length of the spring instead of the extension of the spring. How will his graph look like? Draw in the space below. (You do not have to mark the readings on the x-axis and y-axis respectively.) (2m)

