Primary Four
Science
Continual Assessment Two

Section A: Each question carries 2 marks and is followed by four possible answers. Mark your choice [1, 2, 3, 4] in the given box.

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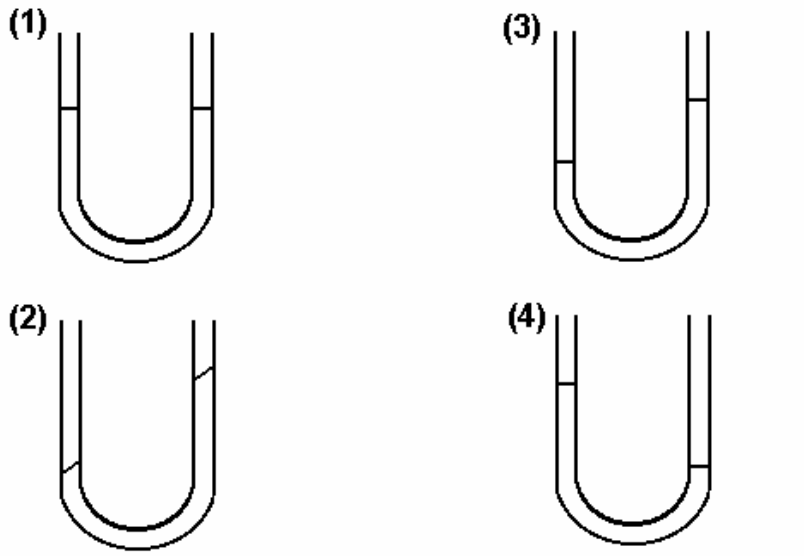
1. Which of the following does not have a definite shape and has an definite volume?

   (1) Sugar
   (2) Toothpaste
   (3) Sea water
   (4) Cream

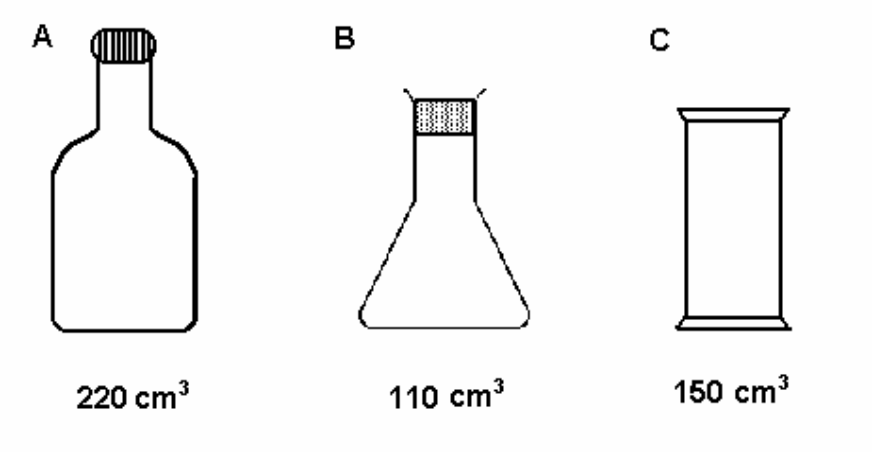
2. If water is poured out of the U-shaped tube, the new later level is shown in diagram_____.



3. A plastic chair is a matter because

   (1) it has a definite shape and volume
   (2) it is a bad insulator of heat
   (3) it is light and hard
   (4) it has mass and volume

4. Which of the following containers can be totally filled with 150 cm³ of air?



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

5. The table below shows some examples of water in its three states. Which one of them is incorrect?

	Solid	**Liquid**	**Gas**
(1)	Snow	Tap water	Steam
(2)	Ice cubes	Dew	Water vapour
(3)	Cloud	Water droplets	Bubbles
(4)	Snow	Cloud	Steam

6. In countries with cold climate, the people wear clothes made of wool to keep themselves warm. These woolen materials can trap air in them. Both wool and air are good _____.

(1) sources of heat
(2) insulators of heat
(3) conductors of heat
(4) radiators of heat

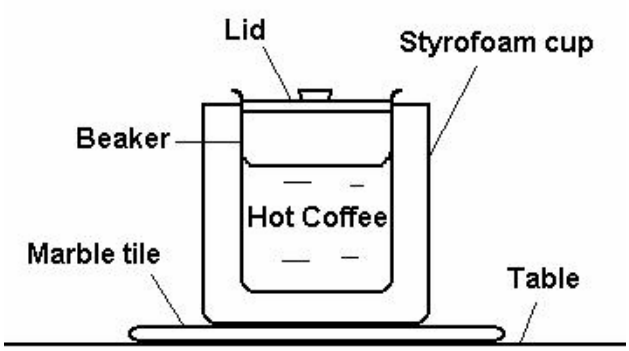
7. Which of the following is not a source of energy?

(1) Thunder
(2) Sun
(3) Waves
(4) Food

8. Green plants trap energy from the Sun to make food. The energy, in turn is _____.

(1) given out
(2) stored as food in the plant
(3) changed to carbon dioxide and water
(4) used up

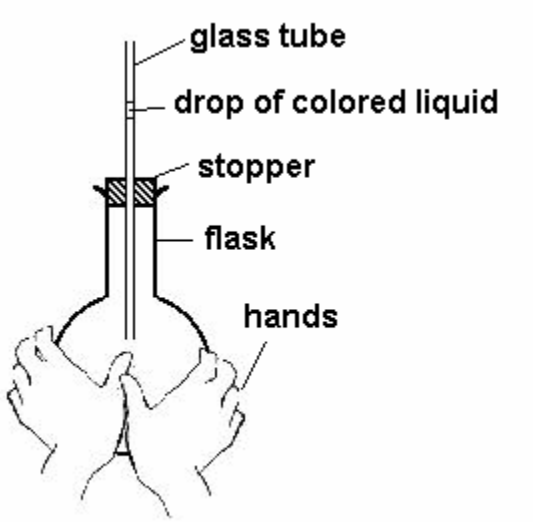
9. Study the diagram below.



The coffee is still hot after 5 minutes because _____ is an insulator of heat.

(1) beaker
(2) table
(3) marble tile
(4) styrofoam cup

10. Study the diagram below. Jessica help the flask lightly for a minute and the drop of colored liquid rose slightly. When her hands were removed, the drop of colored liquid dropped. Her experiment shows that _____.



(A) heat was transferred from Jessica's hands to the drop of colored liquid
(B) heat was transferred from Jessica's hands to the air in the flask
(C) the drop of liquid expanded when it was heated and contracted when cooled
(D) the air in the flask expanded when heated and contracted when cooled

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

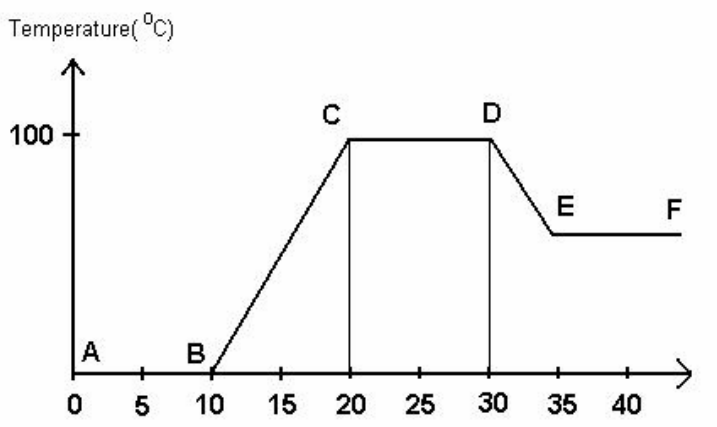
11. Which statement about solids is incorrect?

(1) Solids are fairly rigid and tend to keep their shape.
(2) Solids cannot be compressed.
(3) Solids have mass and occupy space
(4) Solids have no definite shape and volume.

12. Pure water changes from solid to liquid because _____.

(1) air bubbles are produced
(2) heat is gained by the pure water
(3) evaporation took place
(4) water vapour condenses to form water

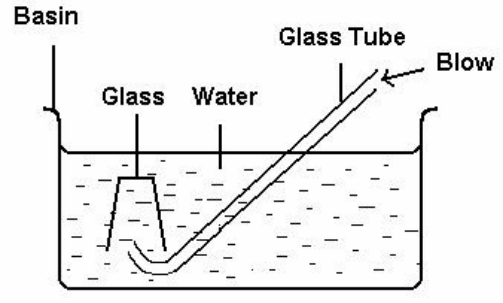
13. Pamela heated some ice cubes in a pan, and recorded her observation of the temperature in the form of a graph as shown below.



Study the diagram above and deduce what action took place at the section marked DEF.

(1) the ice was melting
(2) the water was boiling
(3) tap water was poured into the pan
(4) boiling water was poured into the pan

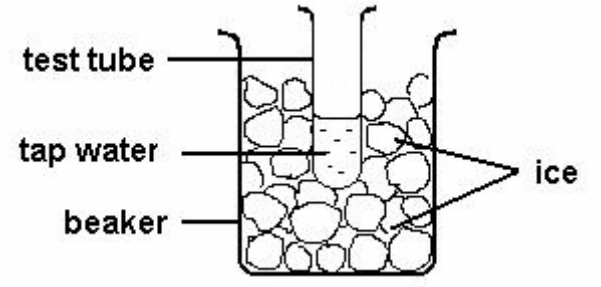
14. Study the diagram below. When air is blown into the glass tube, what reactions take place?



(A) Water will rush up the glass tube
(B) The water level in the glass will decrease
(C) Air bubbles can be seen in the glass
(D) The water level in the basin will decrease

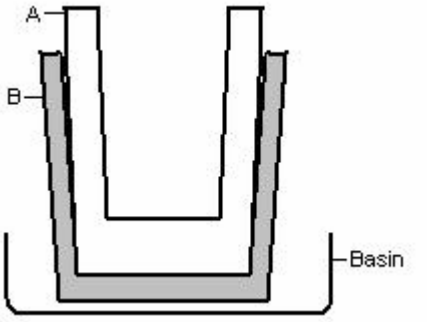
(1) A and B only
(2) B and C only
(3) C and D only
(4) A and D only

15. Study the diagram below.



(1) The tap water and ice gain heat
(2) The tap water and ice lose heat
(3) The tap water gains heat and ice loses heat
(4) The tap water loses heat and the ice gains heat

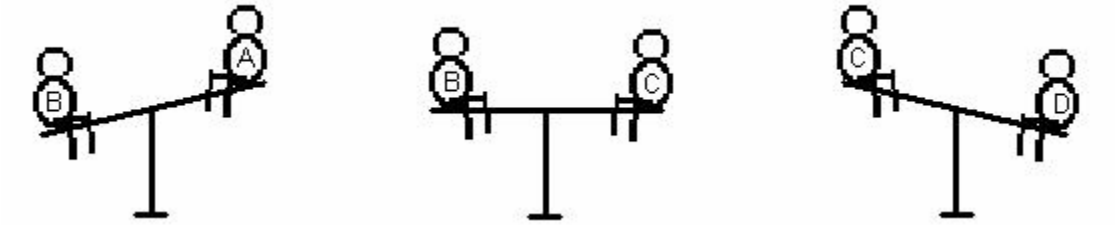
16. Study the diagram below.



Glass A and Glass B are stuck firmly together. Which of the following is the best way to separate the two glasses?

(1) Put both glasses into a basin of hot water
(2) Put both glasses into a basin of ice
(3) Put ice into glass A and hot water into the basin
(4) Put hot water into A and ice into the basin

17. Study the following picture carefully.



The same see-saw has been used to balance four children A, B, C and D. Who is the lightest child?

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

18. Study the table below. Which of the following shows the wrong source of energy needed for the object to work?

	Object	Source of energy
(1)	Windmills	Strong wind
(2)	Fire	Bright light
(3)	Hot air balloon	Steam
(4)	Dam power stations	Waterfall

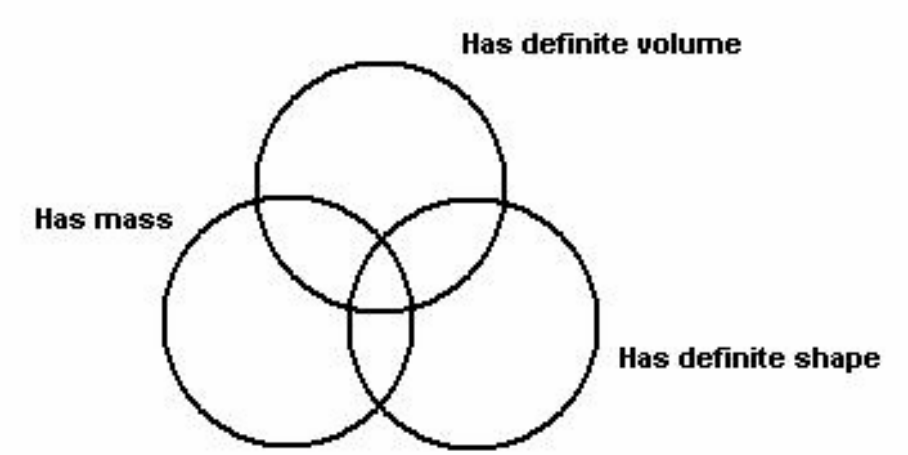
Section B: The marks allocated to each question is written in the bracket behind each question or its sub-question. [Total 14 marks]

19.
(a) Name the gas used in fire extinguishers. (1 mark)

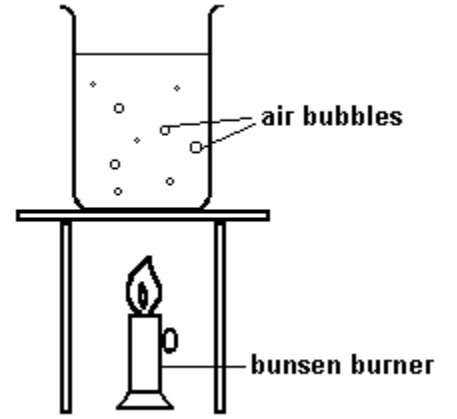
_____

_____

(b) Mark with a cross (X) in the Venn Diagram below to show where you would place the gas mentioned above. (1 mark)



20. Study the diagram below.

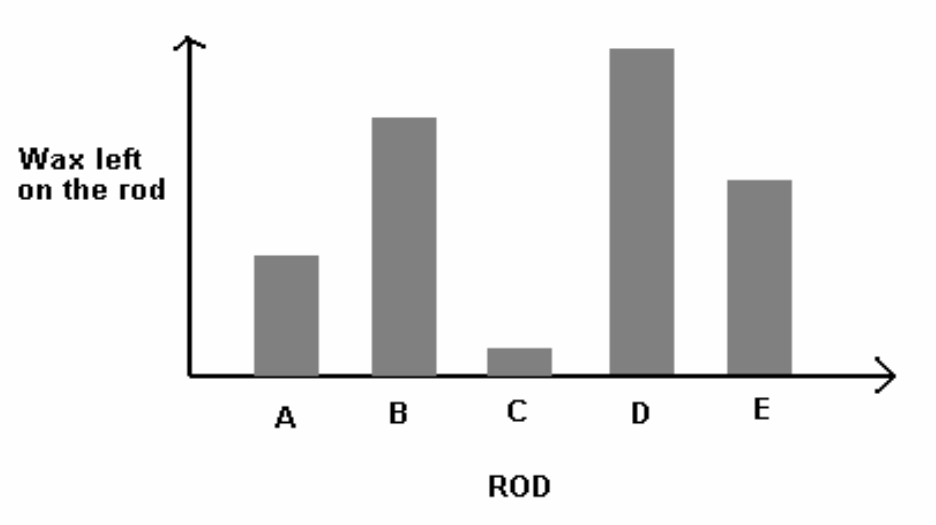


Describe and explain the movement of the air bubbles from the time the water is heated till it boils. (2 marks)

_____

_____

21. Jenny coated 5 similar rods that are made of different materials with the same amount of wax. She then held the ends of each rod over the Bunsen burner for 10 minutes. After 10 minutes, she measured the amount of wax left on each rod and recorded the results of her findings in the bar chart below.

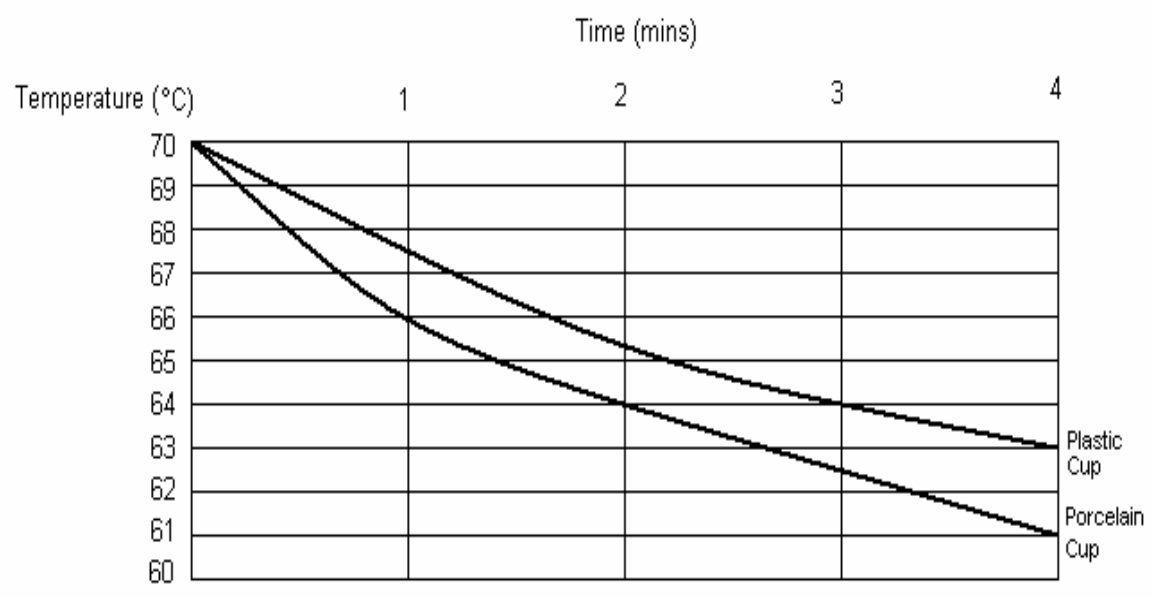


Arrange the rods according to how well they conduct heat. Start with the best conductor of heat. (2 marks)

_____

_____

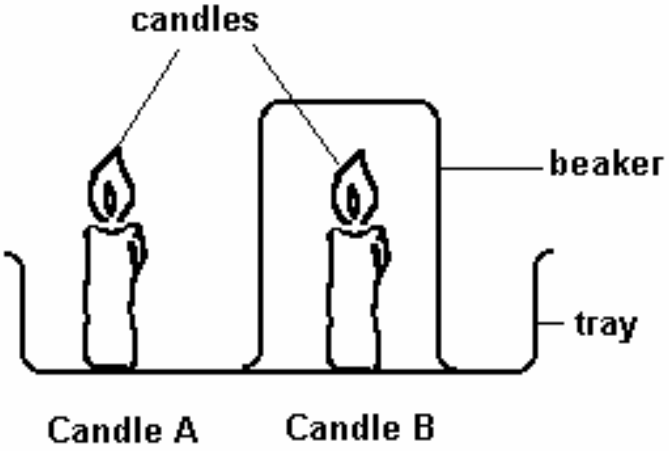
22. During lessons, a group of students carried out the following experiment. In order to find out which kind of cup was best for keeping coffee hot, they poured an equal amount of hot coffee into a plastic cup and a porcelain cup of the same size. They recorded the results of the experiment in the graph below.



Study the graph and fill in the blanks in the chart below. (1 mark)

Time (min)	Temp. of Plastic Cup (°C)	Temp. of Porcelain Cup(°C)
1	67.5	66
2	65.5	
3		62.5
4	63	61.5

23. Study the experiment below.



(a) Explain where the two candles takes different lengths of time to burn? (1 mark)

_____

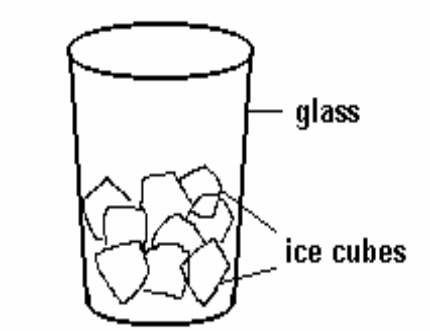
_____

(b) Which of the two candles acts as the control in the experiment? (1 mark)

_____

_____

24. The picture bellows shows a glass with some ice cubes



(a) After a while, what will you see on the outside of the glass? (1mark)

_____

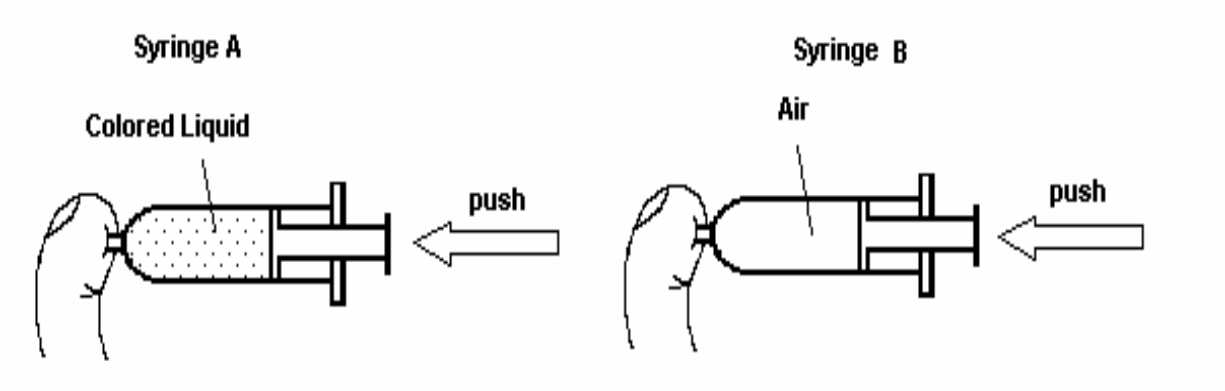
_____

(b) Explain your answer in (a) (1 mark)

_____

_____

25. The experiment below shows two syringes, A and B. They are filled with the same volume of colored liquid and air. Each nozzle is den covered with a finger so as not to let the liquid and the air escape.



(a) What will happen to Syringe A and Syringe B when they are pushed? (1 mark)

(b) What property of liquid and air does the above experiment prove? (1 mark)