



Maha Bodhi School
2008 Continual Assessment 2
Science

Name : _____ ()

Date : 21 August 2008

Class : Pr 4 ()

Duration : 1 h 15min (Parts I & II)

Part I: (50 marks)

For each question from 1 to 25, 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 Mark Sheet (OMS).

1. We can see the moon because it _____.

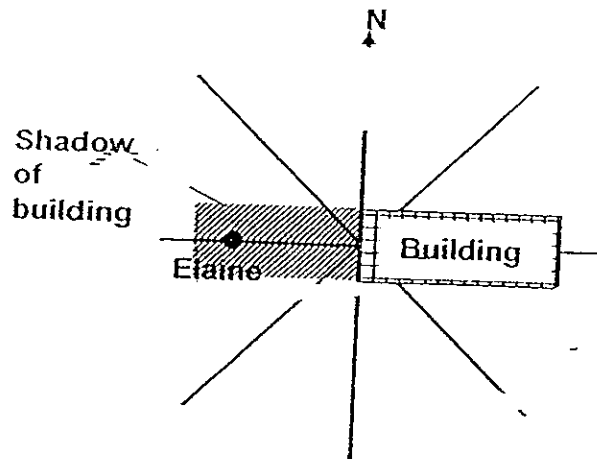
- (1) is a star
- (2) gives off light
- (3) absorbs the sun's light
- (4) reflects light from the sun

2. Which of the following are the disadvantages of using a sundial?

- A: It is difficult to carry around.
- B: It cannot be used on a cloudy day.
- C: It is unable to tell the time in minutes and seconds.
- D: The same sundial cannot be used in two different countries.

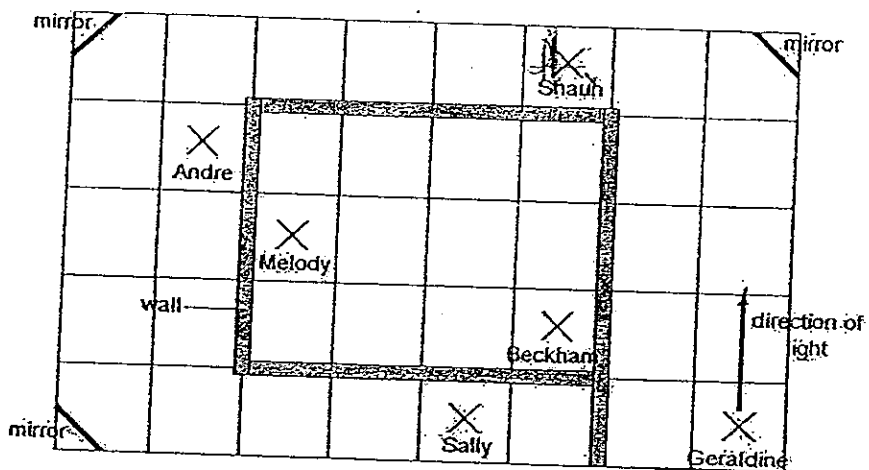
- (1) A and B only
- (2) A, B and C only
- (3) A, C and D only
- (4) A, B, C and D

3. Elaine noticed that she was completely in the shade of a building while queuing for the bus one sunny day, as shown in the diagram below.



What time of the day was it likely to be?

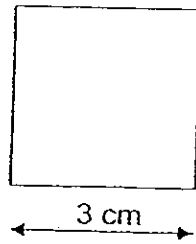
- (1) 10 a.m.
 - (2) 12 noon
 - (3) 3 p.m.
 - (4) 6 p.m.
4. The diagram below shows the position of six children. Geraldine shone a torchlight in the direction shown.



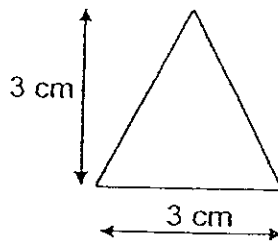
Who can see the beam of light from the torch?

- (1) Geraldine and Shaun only
- (2) Beckham and Melody only
- (3) Andre, Sally and Shaun only
- (4) Andre, Geraldine, Sally and Shaun only.

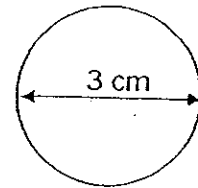
5. The diagrams below show three pieces of wood A, B and C.



A

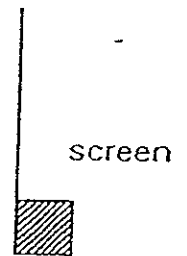
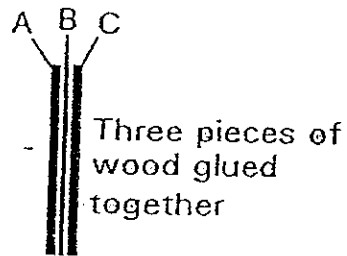
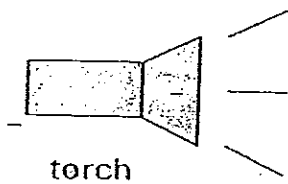


B



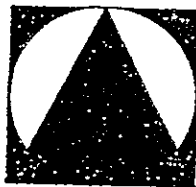
C

The three pieces of wood are glued against one another. They are then placed between a torch and a screen as shown below.



Which one of the following shadows is formed on the screen?

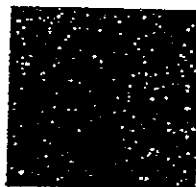
(1)



(2)



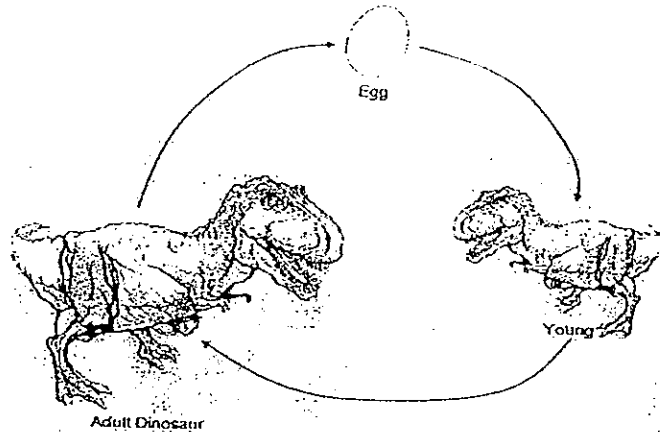
(3)



(4)



6. Four children came across the life cycle of a Tyrannosaurus Rex dinosaur in the library and they each made a statement about it.

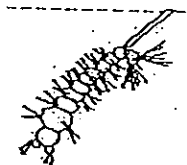


The Life Cycle of a Tyrannosaurus Rex Dinosaur

- Emil: The life cycle of the Tyrannosaurus Rex has the same number of stages as the life cycle of a butterfly.
- Jordon: The life cycle of the Tyrannosaurus Rex has the same number of stages as the life cycle of a chicken.
- William: Both the young of the Tyrannosaurus Rex and the young of the frog have a tail.
- Jarold: Both the young of the Tyrannosaurus Rex and the young of the butterfly resemble their parents.

Which of the following children are correct?

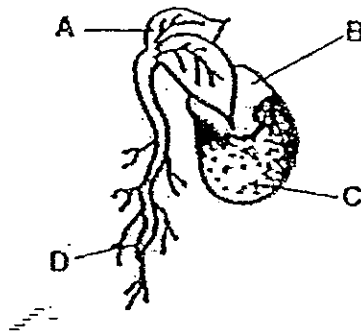
- (1) Emil and Jordon only
- (2) Emil and Jarold only
- (3) Jordon and William only
- (4) William and Jarold only
7. The diagram below shows the larva stage of Animal X's life cycle.



What is Animal X most likely to be?

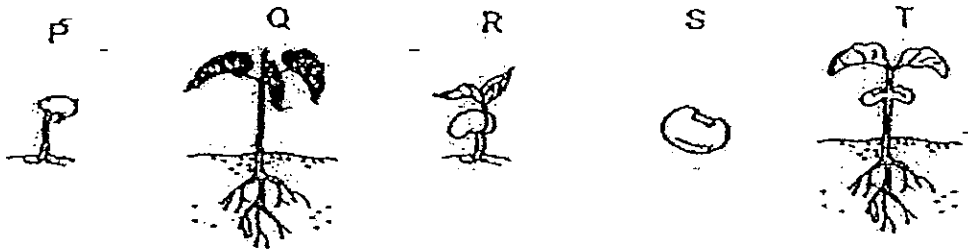
- (1) Cockroach
- (2) Butterfly
- (3) Lizard
- (4) Mosquito

8. The diagram below shows a seedling.



Which one of the following plant parts does the seedling obtain its food from before its leaves develop?

- (1) A
 (2) B
 (3) C
 (4) D
9. Study the life-cycle of a bean plant shown below.



Which of the following can make their own food?

- (1) P and S only
 (2) Q, R and T only
 (3) P, Q and R only
 (4) P, Q, R, S and T only
10. Which of the following has a life cycle similar to that of the life cycle of a tomato plant?

- A: Chilli plant
 B: Button mushroom
 C: Bird nest's fern
 D: Balsam plant

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

11. Jay weighed an inflated basketball. He let out some air in it and weighed it again. Then, he let out all the air from the ball and weighed it a third time.

Which one of the following is most likely to be the set of results he recorded?

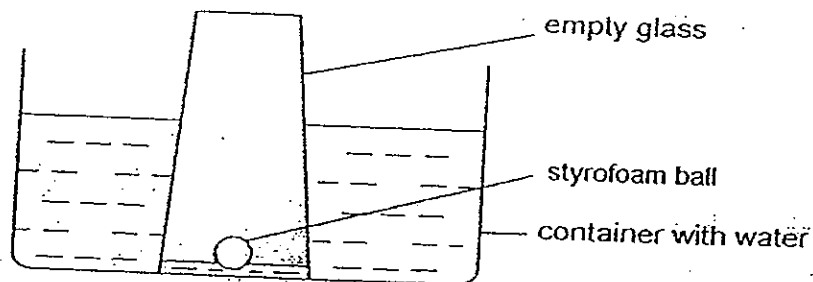
	Mass of ball		
	First time	Second time	Third time
(1)	600 g	700 g	400 g
(2)	500 g	380 g	0 g
(3)	600 g	450 g	300 g
(4)	300 g	500 g	600 g

12. Which of the following is / are not matter?

- A: Fire
- B: Light
- C: Shadow
- D: Mercury

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

13. Kathryn lowered an empty glass with a small, styrofoam ball into a container of water until it touched the bottom of the container. She observed that the water level inside the glass was not the same as the water level outside. The ball floated on the water as shown below.

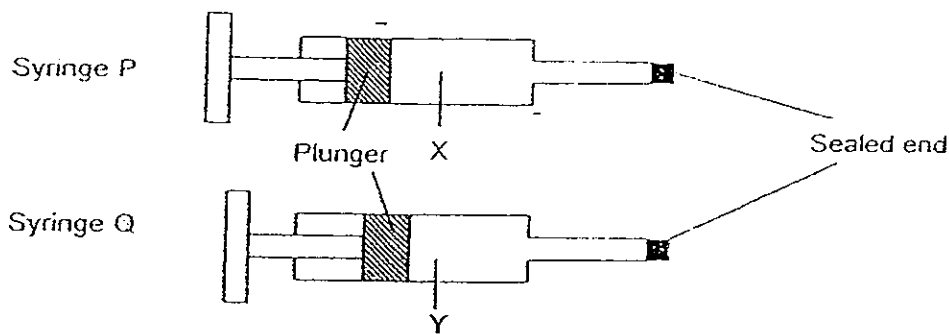


What could be the main reason for the difference in the water level inside and outside the glass?

- (1) The air trapped in the glass occupied space.
- (2) The air trapped in the glass dissolved in the water.
- (3) The styrofoam ball absorbed the water in the glass.
- (4) The weight of the ball forced the water out from the glass.

14. Which one of the following statements is true about matter?
- (1) Light and air are both matter because we cannot see them.
 - (2) Water is matter but air is not because we can touch water but not air.
 - (3) Light and water are both matter because they have no definite shape.
 - (4) Ice is matter but light is not because ice occupies space but light does not.
15. Two syringes, P and Q, contain a mixture of two substances X and Y respectively. One end of each syringe is sealed as shown in the diagram below.

Plunger in syringe Q could be pushed in slightly while plunger in syringe P could **not** be pushed in at all.



Which of the following substances are most likely to be found in syringe P and Q?

	X	Y
(1)	Air and water	Air and rice grains
(2)	Milk and oil	Sand and water
(3)	Water and oil	Oxygen and sand
(4)	Sand and oxygen	Milk and rice grains

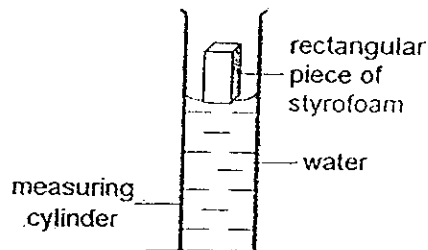
16. Four girls were discussing about matter and they made the following statements.

Sarah: Sponge is a gas because it can be compressed.
 Tinny: Sponge is a liquid because it takes the shape of its container.
 Ulanda: Sponge is a solid because it has a definite shape.
 Vivian: Sponge is not a matter because it is too light to have any mass.

Which one of the following girls made a correct statement?

- (1) Sarah
- (2) Tinny
- (3) Ulanda
- (4) Vivian

17. Mr Foo set up the following apparatus to find the volume of a piece of rectangular Styrofoam as shown in the diagram below.



Three

Four pupils each made a statement about the set-up above.

- Alan: It is not possible to measure the volume of the piece of styrofoam using the set-up because it floats.
- Benedict: It is possible to measure the volume of the piece of styrofoam by pushing it entirely underwater with a needle.
- Carmen: It is possible to calculate the volume of the piece of styrofoam by measuring its length, breadth and height using a ruler.

Which of the above pupil(s) is/are right?

- (1) Alan only
- (2) Benedict only
- (3) Benedict and Carmen only
- (4) Alan, Benedict and Carmen.
18. Michael classified some objects into the table as shown below.

Group A	Group B	Group C
A pair of jeans	Oxygen	Water
Plastic bottle	Water vapour	Oil
Watch	?	Lime juice

Which one of the following objects should he place in Group B?

- (1) Ice
- (2) Pebble
- (3) Carbon dioxide
- (4) Watermelon juice

19. Sandra's grandmother dropped a steel needle onto the floor. However, she has very poor eyesight and was unable to locate the needle. Sandra used an object to locate the needle quickly.

Which one of the following is most likely the object that she had used?

- (1) Paper
- (2) Magnet
- (3) Sponge
- (4) Thread

20. Grace classified different materials in the classification table shown below.

Group X	Group Y
Aluminium	Steel
Copper	Nickel

Which one of the following can be placed in Group Y?

- (1) Iron
 - (2) Gold
 - (3) Silver
 - (4) Plastic
21. Aslinda dropped a copper ruler into a fish tank. She wanted to take it out without getting her hands wet. Her brother told her to use a magnet to get it out.

Which one of the following statements is correct?

- (1) He is right because water is a magnetic material.
- (2) He is right because a magnet will attract the ruler.
- (3) He is wrong because a magnet will not work in water.
- (4) He is wrong because copper is a non-magnetic material.

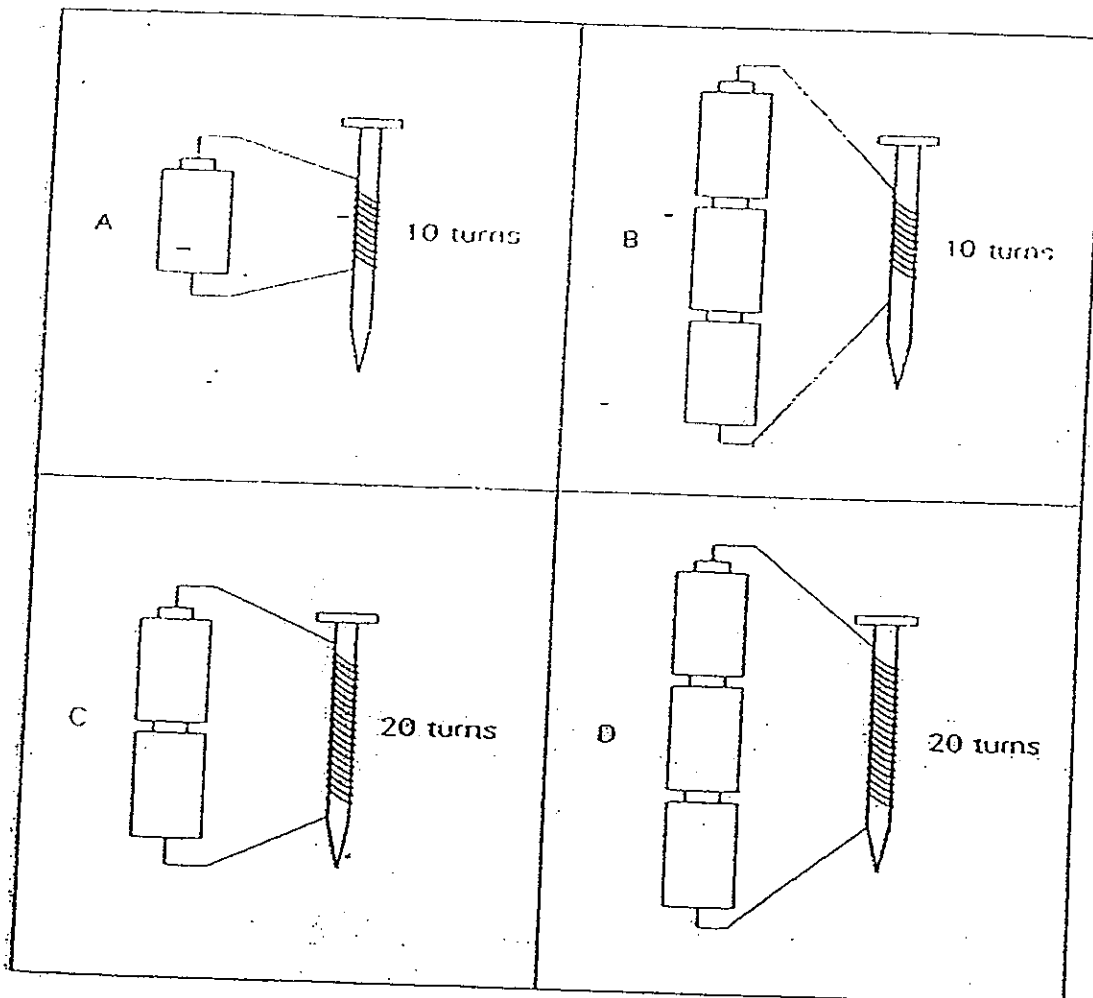
22. In which of the following object(s) is / are magnets found?

- A: Television
- B: Computer
- C: Refrigerator
- D: Speakers

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

23. An iron nail becomes a magnet when it is placed in a coil of wire joined to batteries.

Caroline wants to find out whether the number of turns of the coil affects the strength of the magnet. She sets up two arrangements. For each arrangement, she tests the strength of the magnet by counting the number of steel paper clips it can pick up.

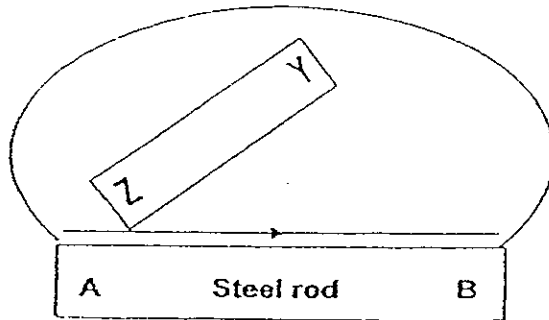


Which two arrangements should she use to conduct a fair test?

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

24. Thomas stroked Steel Rod AB 20 times with bar magnet YZ in the same direction as shown in the diagram below.

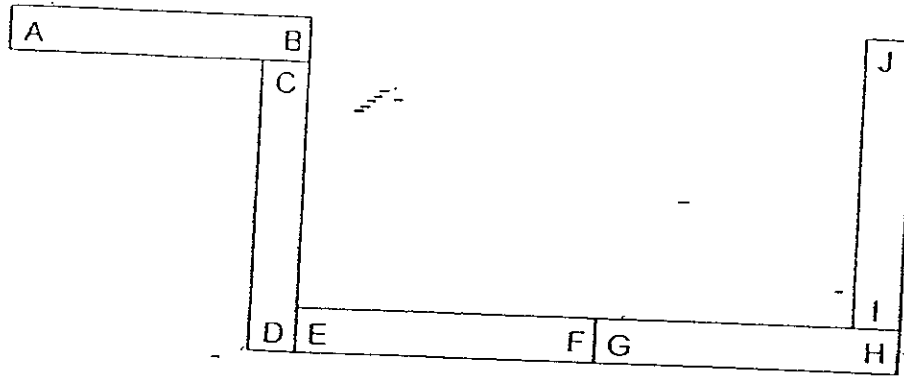
He then placed the steel rod near a pile of paper clips and recorded the number of paper clips it attracted. Next, he stroked Steel Rod AB again for another 20 times in the same direction and placed it near the pile of paper clips again.



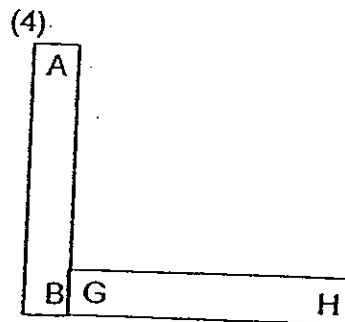
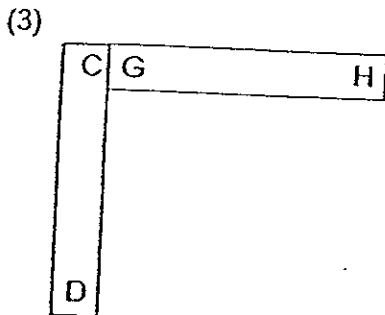
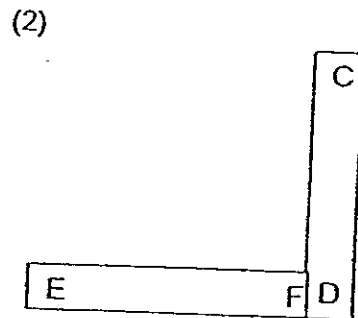
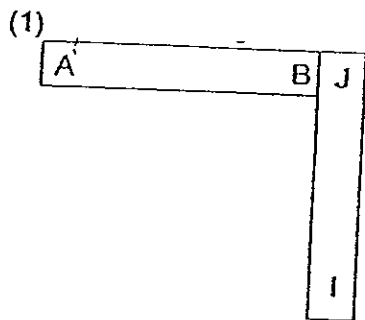
Which one of the following is most likely the set of results he recorded?

Number of paper clips attracted	
1 st time	2 nd time
(1) 0	6
(2) 16	3
(3) 3	7
(4) 6	0

25. Five bar magnets with their ends marked A to J can be arranged as shown below.



Which one of the following diagrams shows a possible arrangement of two of the magnets?





Maha Bodhi School
2008 Continual Assessment 2
Science

Name : _____ ()

Class : Pr 4 ()

Duration : 1 h 15 min (Parts I & II)

Date : 21 August 2008

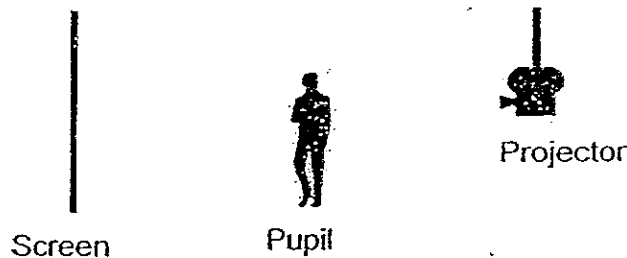
Parent's signature : _____

Part I (50 marks)	
Part II (30 marks)	
Practical Test (10 marks)	
Senior Scientist Card (10 marks)	
CA2 (100 marks)	

Part II: (30 marks)

Write your answers to questions 26 to 35 in this script.

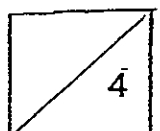
26. Derrick was watching a movie in the school hall as shown in the diagram below. He noticed that each time a pupil walks in front of the projector the movie was blocked out for a second.



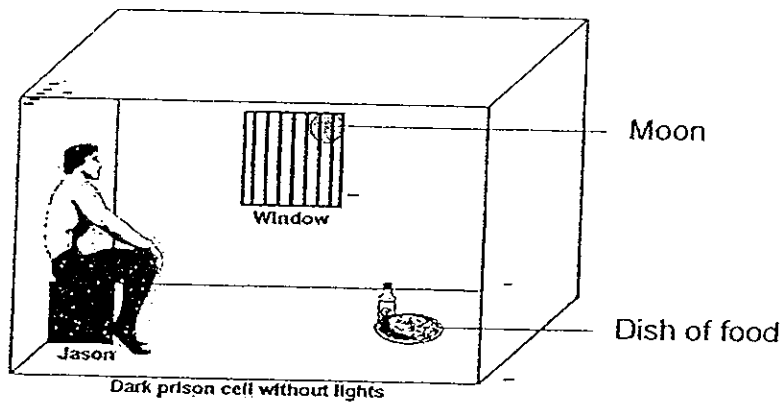
- (a) What does this tell you about light? [1]

- (b) What do you think Derrick will see on the screen if a piece of A4-sized frosted glass was placed 5 cm in front of the projector? [1]

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



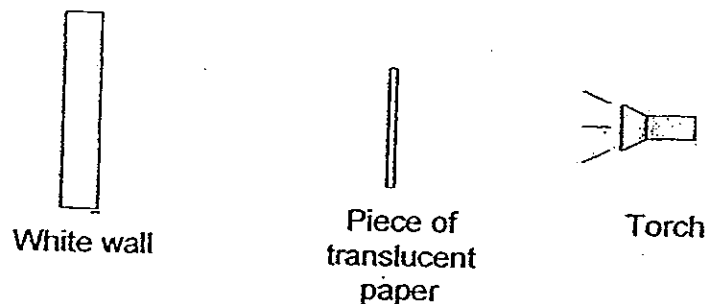
27. Jason was locked in a dark prison cell with only one window as shown in the diagram below. There were no lights in the cell.



- (a) Explain why Jason was able to see the dish of food on the floor. [2]

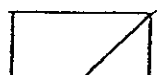
- (b) Would he be able to see things around him if the window was completely covered by a piece of wood? Explain your answer. [2]

28. Carrie was given a torch and a piece of translucent paper. She was told to cast a shadow on the clean, white wall. She set up the experiment as shown in the diagram below.

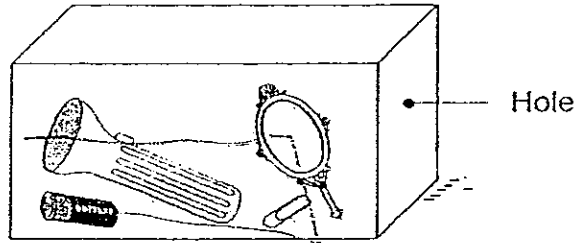


She noticed that the shadow cast by the piece of translucent paper was very light. Suggest one way that she can make the shadow darker without using any other objects.

[1]

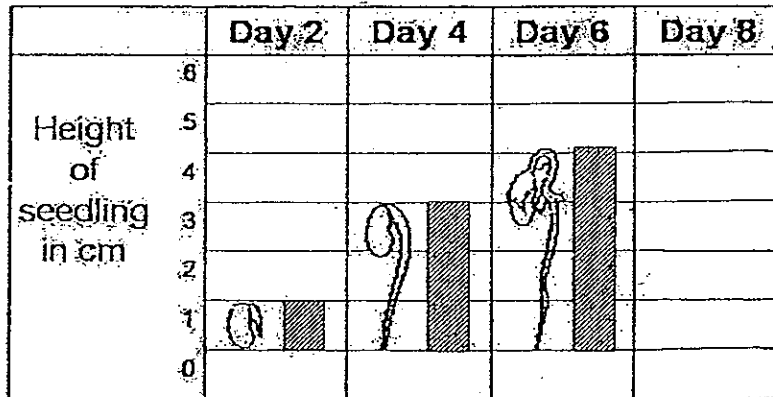


29. Four objects (battery, lighted torch, paper clip, mirror) are placed in a shoe box as shown in the diagram below. Timothy peeped through the hole at the side of the shoebox.

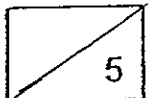


Which object(s) can he see? Explain your answer. [2]

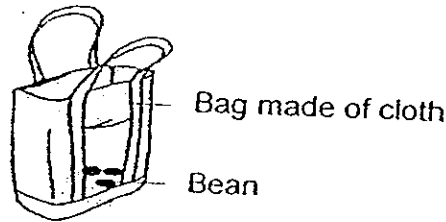
30. Candy planted a green bean seed in a pot. She placed the seed in an airy place near a window. She watered it daily and measured its height every two days. She recorded her results in the chart below.



- (a) In the chart diagram above, draw a bar representing the height of the seedling on the 8th day. [1]
- (b) Is the plant able to make its own food on Day 6? [1]
-
- (c) Explain your answer in (b). [1]
-



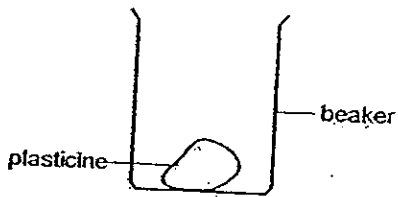
31. Mr Wong went shopping with his "Green Bag" which is made of cloth. He bought some green beans and placed them in his bag as shown in the diagram below. On his way home, he was wet because of the heavy rain. All his belongings were wet. When he got home, he placed the bag in a cool corner of his house and forgot all about it.



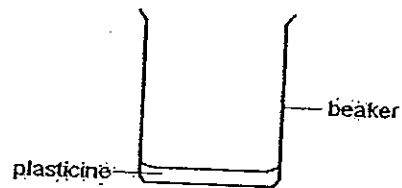
- (a) What do you think will happen to the seeds after 5 days? [1]

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

32. Ginny was given some plasticine in a beaker as shown in Set-up A. She then pressed the plasticine with her hands until it the plasticine took the shape of the base of the beaker as shown in Set-up B in the diagram below.



Set-up A



Set-up B

She then concluded that plasticine is a liquid because it can take the shape of its container.

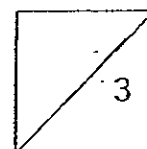
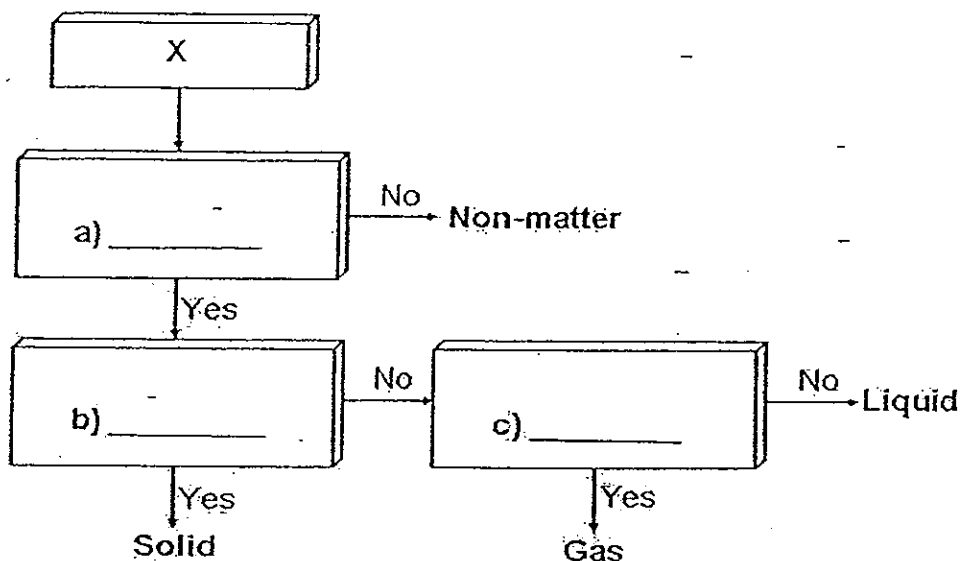
- Do you think she is correct? Explain your answer. [2]



33. Study the table below.

P	Q	R
Can it be compressed?	Does it have a definite shape?	Does it have mass and occupies space?

Using the letters P, Q or R in the table given above, complete the following flowchart. [3]



34. Jeremy conducted an experiment to find out if he can fill a beaker to the brim with different objects. First, he filled the beaker with pebbles. Then, he poured some sand into the beaker as shown in the diagram below.



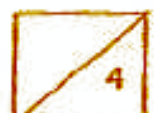
He then poured some water into the beaker and noticed that water did not flow out of the beaker.

- (a) Suggest one reason why the water did not overflow. [1]

- (b) Which property of water made the above experiment possible? [1]

- (c) Complete the table below by giving the correct state of matter for the objects. [2]

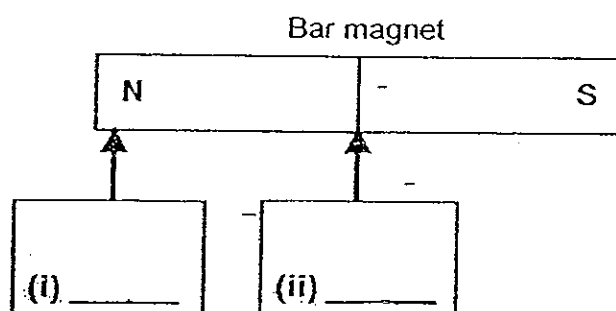
	Object	State of matter
(i)	Sand	
(ii)	Water	



35. Ryan conducted an experiment using magnets. First, he brought a bar magnet near some paper clips and found that it had attracted 12 paper clips. He recorded his results in the table below.

Position on bar magnet	Number of paper clips attracted
A	3
B	9

- (a) Based on his results, fill in the boxes below with the letters A and B to show where the positions of the paperclips are likely to be. [1]



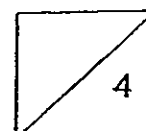
- (b) Give a reason for your answer in (a) [2]

Next, he **did something** to the bar magnet and brought it near the paper clips again and found that it had attracted only 4 paper clips. He recorded his results in the table below.

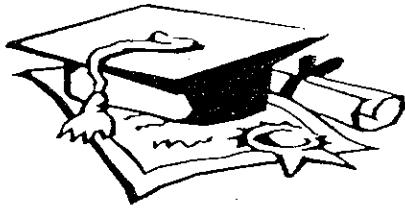
Position on bar magnet	Number of paper clips attracted
A	1
B	3

- (c) What do you think Ryan had done to the magnet? [1]

END OF PAPER







ANSWER SHEET

EXAM PAPER 2008

SCHOOL : MAHA BODHI PRIMARY SCHOOL
 SUBJECT : PRIMARY 4 SCIENCE

TERM : CA 2

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17
4	2	1	4	3	3	4	2	2	2	3	3	1	4	3	3	4

Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25
3	2	1	4	4	3	3	4

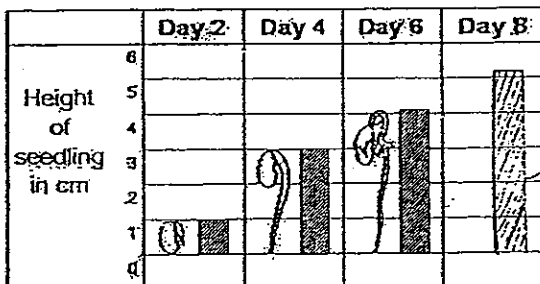
- 26) a) Light can be blocked by an opaque object.
 b) Derrick will not see a very clear image.
 c) A frosted glass is translucent and not as clear as transparent, so Derrick will not see a very clear image.

- 27) a) The reflected light from the moon falls on the dish of food. Then the light is reflected to Jason's eyes.
 b) No, because wood is opaque and it does not allow any light to pass through.

28) She can fold the translucent paper into half.

29) The light from the torch is reflected by all the objects to Timothy's eye.

30) a)



30)b)No, it cannot make food on Day 6.
c)There are no leaves growing yet.

31)a)The green beans will germinate.
b)It has air, water and warmth.

32)No, She is not correct. Plasticine is a solid that will not change its shape if no force is applied to it.

33)a)R b)Q c)P

34)a)There is gap in between the sand so the water can occupy the space.

b)Water does not have a definite shape.

c)i)Solid.

ii)Liquid.

35)a)i)B ii)A

b)Magnets are strongest at its poles.

c)It think burn the magnet over a fire.