

NAME : _____ (.....)

CLASS : _____

METHODIST GIRLS' SCHOOL (PRIMARY)

CONTINUAL ASSESSMENT 1 (2004)

CAT

PRIMARY SIX

SCIENCE

SECTION	MARKS
A	/20
B	/30
TOTAL	

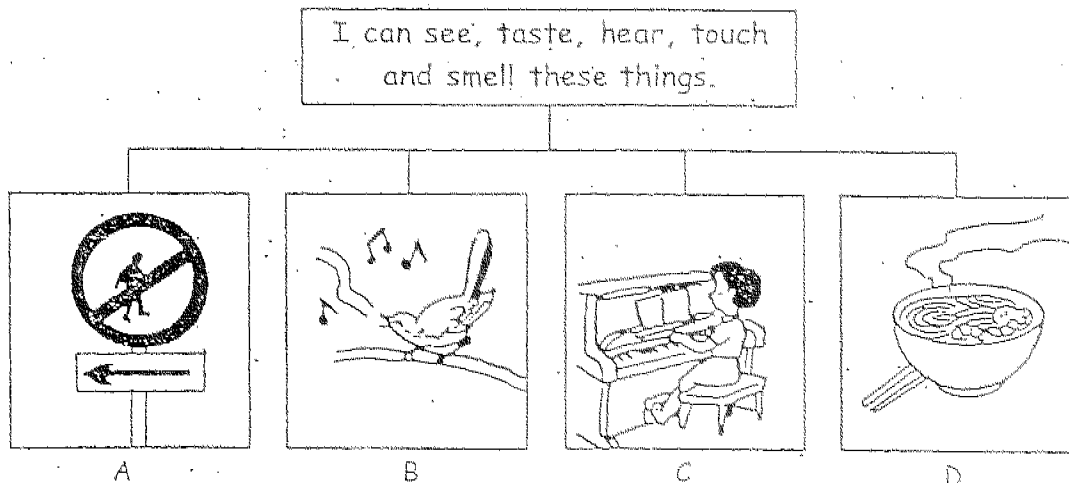
DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

SECTION A (20 marks)

For each question from 1 to 20, four options are given. One of them is the correct answer. Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

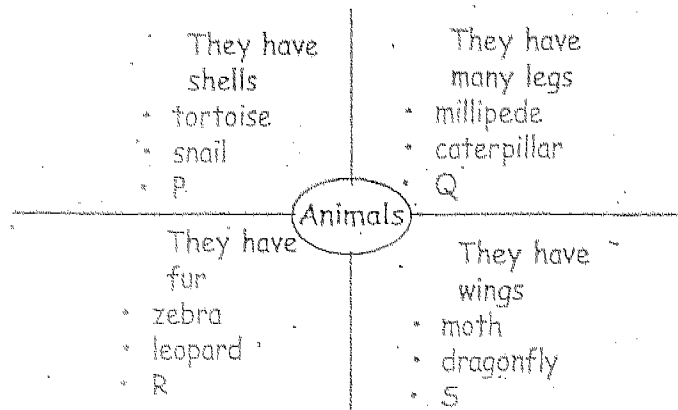
1. Below is a classification chart. Study it carefully.



Which one of the items, A, B, C or D requires the use of your sight, hearing and touch at the same time?

1. A
 2. B
 3. C
 4. D
2. Which of the following forces can act on any object at a distance?
1. Magnetic force
 2. Frictional force
 3. Elastic spring force
 4. Gravitational force
3. Which of the following statements about forces is true?
1. Magnetic force can be seen.
 2. A force can change the mass of an object.
 3. Friction exists when we hold a cup in our hand.
 4. Gravitational force increases with increasing distance from the centre of the earth.

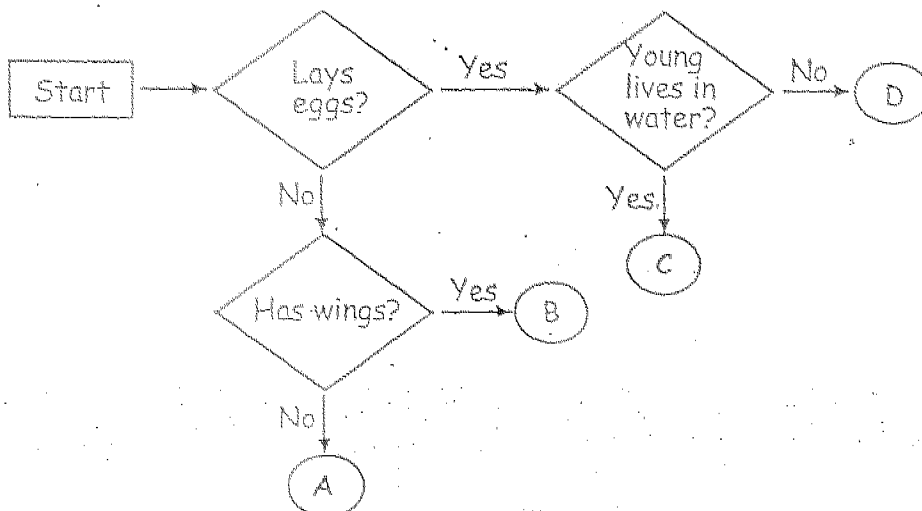
4. You are given a chart below. Study it carefully.



Which of the following represent the animals P, Q, R and S?

	P	Q	R	S
1.	shellfish	earthworm	lion	cockroach
2.	turtle	bee	snake	grasshopper
3.	crab	spider	deer	ant
4.	prawn	centipede	bear	butterfly

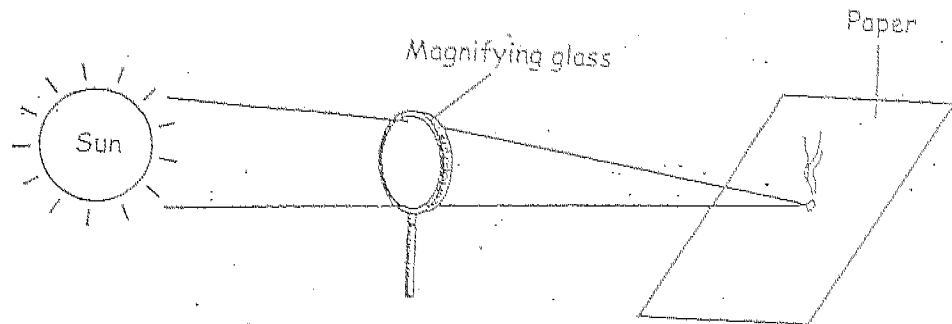
5. Below is a flow chart of the lives of some animals.



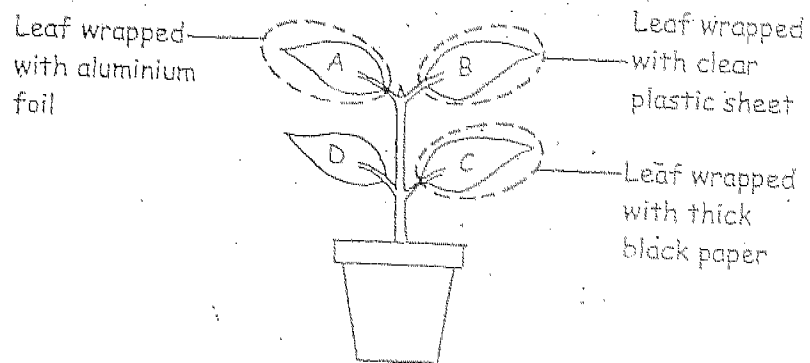
Which one of the following animals could be placed at C?

1. Moth
2. Toad
3. Chicken
4. Mealworm beetle

6. In the experiment shown below, the magnifying glass converts _____ energy to _____ energy.



1. heat, light
 2. light, heat
 3. solar, wind
 4. light, electrical
7. A potted plant is put under sunlight and watered every day. Three leaves are wrapped with different materials. Holes are pierced in all of them for air to enter.



Which of the leaf/leaves can make food?

1. D only
2. A and C only
3. B and D only
4. A and D only

8. Which objects in the following list can reflect light well?

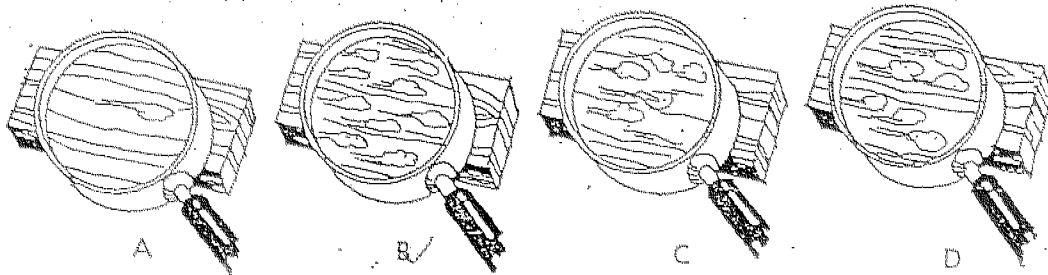
- A: Charcoal
- B: Steel spoons
- C: Dark shelves
- D: Aluminium foil

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

9. The campfire gets its energy from the firewood that burns. The energy found in the firewood can be traced back to the _____.

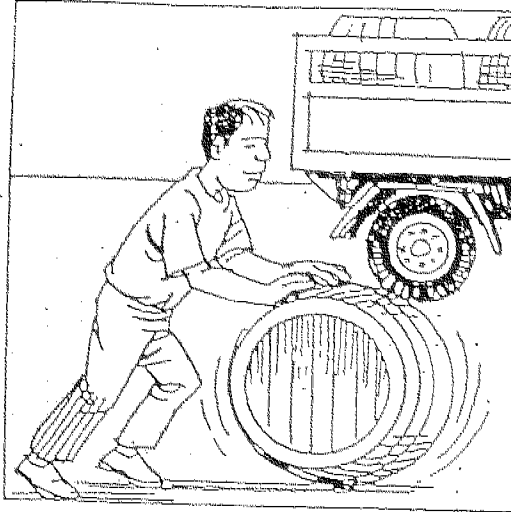
- 1. air
- 2. sun
- 3. earth
- 4. forest

10. Jane rubbed cotton wool over four pieces of wood with different types of surfaces. By looking at the pictures below, what is the arrangement of the pieces of wood from the roughest to the smoothest?



- 1. A, C, D, B
- 2. B, C, D, A
- 3. C, A, D, B
- 4. B, D, C, A

11. You are shown the picture below. Why are many substances such as beer and oil packed in barrels?



1. Barrels can hold a lot of substances.
 2. Barrels are made from cheap materials which are easily available.
 3. Barrels are bad conductors of heat which keep the substances inside cool.
 4. Barrels are easy to transport as they can be rolled along the ground with minimum contact.
12. In the table below, which of the characteristics are true of insects?

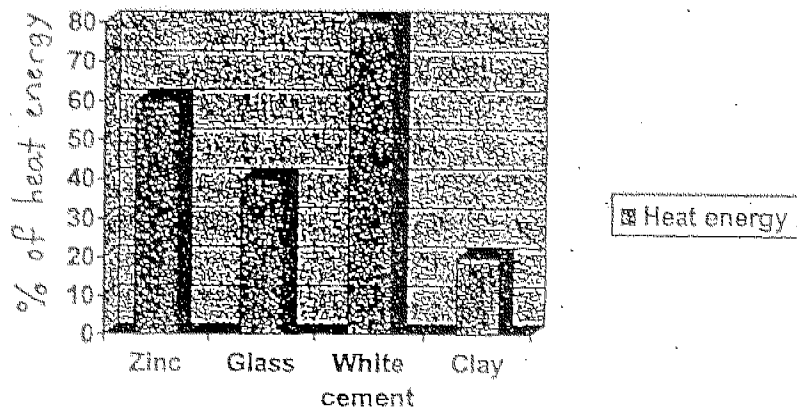
	May or may not have wings	Lay eggs	Have 6 legs	Have 3 body parts	3 or 4 stages in their life cycles
1.	√	√	√	X	√
2.	√	√	√	√	√
3.	X	√	√	√	√
4.	√	√	√	√	X

13. A fruit is dispersed by water. Which of the following statements about it is definitely true?

- A: It is small.
 B: It is edible
 C: It has a fibrous husk
 D: It is produced by the parent plant

1. A and B
2. A and C
3. B and D
4. C and D

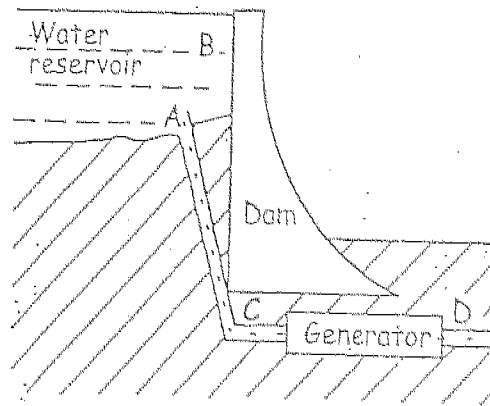
14. The chart below shows the percentage of heat energy reflected by different materials.



What should a house owner choose as a roof covering in order to keep his house cool in the tropics?

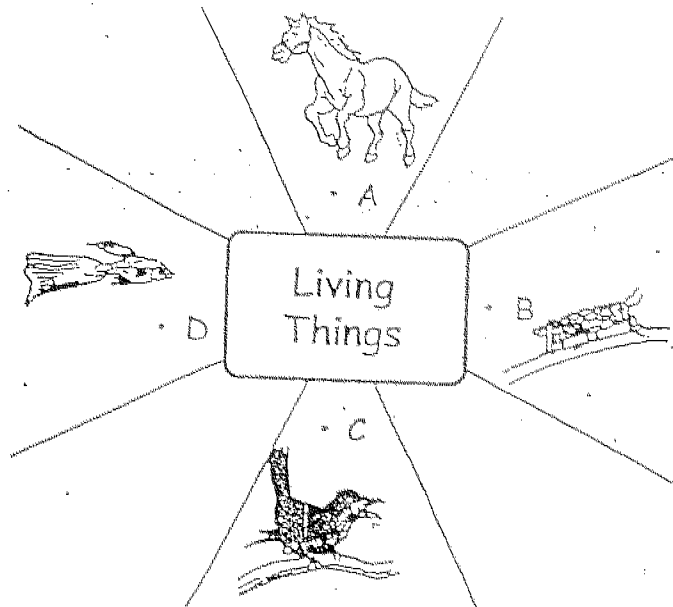
- Zinc
 - Clay
 - Glass
 - White cement
15. The life cycle of a cockroach is different from that of a butterfly. Which of the following statements are correct?
- A: The young cockroach resembles the parent but not the young of the butterfly.
B: The young cockroach has wings but not the young of the butterfly.
C: The life cycle of a cockroach has three stages but the life cycle of a butterfly has four stages.
- A and B only
 - A and C only
 - B and C only
 - A, B and C
16. Which of the following action/s produce/s heat?
- A: Burning a piece of cardboard
B: Rubbing an ice cube against the table
C: Connecting a copper wire to the ends of a battery
- B only
 - A and C only
 - B and C only
 - A, B and C

17. The diagram shows part of a hydroelectric power station. At which point does water have most potential energy?



1. A
2. B
3. C
4. D

18. You are given a classification chart below.



Which one of the following could A, B, C and D be?

	A	B	C	D
1.	Lion	Toad	Kiwi	Goldfish
2.	Bear	Cockroach	Mynah	Swordtail
3.	Tiger	Dragonfly	Turkey	Platypus
4.	Elephant	Spider	Bee	Tadpole

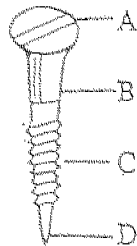
19. Sally planted 4 green bean seeds under the conditions described below.

<p>Seed A</p> <ul style="list-style-type: none"> placed in a very dark room watered every day there is warmth there is air 	<p>Seed B</p> <ul style="list-style-type: none"> placed near the window watered every day there is warmth there is air
<p>Seed C</p> <ul style="list-style-type: none"> placed in a pot fully wrapped in a black plastic bag watered every day there is warmth there is air because the plastic bag is pierced with holes. 	<p>Seed D</p> <ul style="list-style-type: none"> placed near the window not watered every day there is warmth there is air

Which of the seeds will not grow into a plant?

- A, B and C only
- B, C and D only
- A, C and D only
- A, B, C and D

20. At which of the points, A, B, C or D, of the screw is the force greatest when it is being driven into a piece of wood?

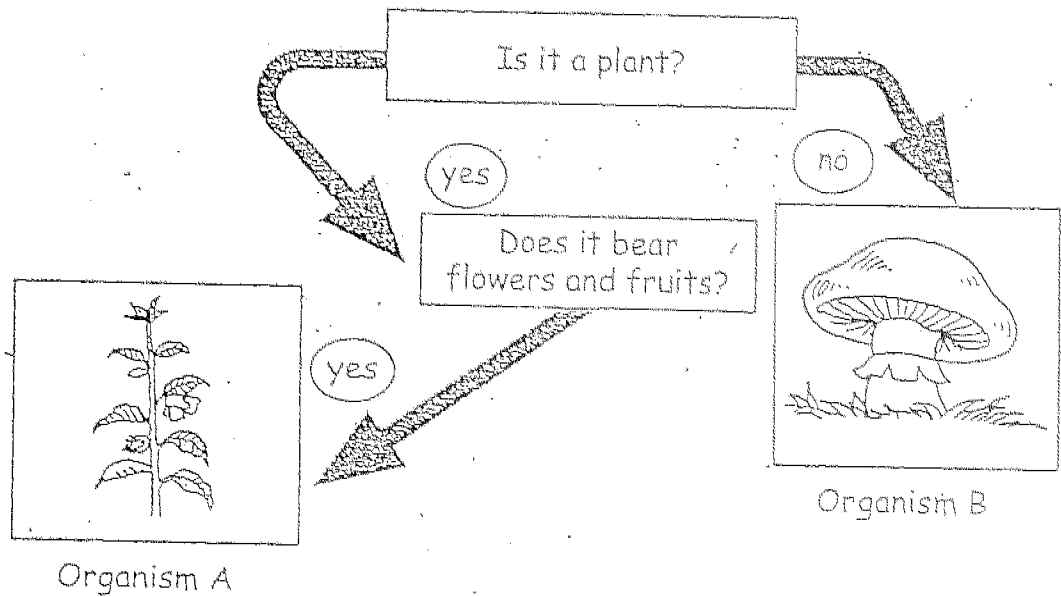


- A
- B
- C
- D

SECTION B (30 marks)

Write your answers to questions 21 to 30.

21. You are given a flow-chart as shown below.



- a. In what way is Organism A different from Organism B? (1 m)

- b. How does Organism A reproduce? (1 m)

- c. Name another organism which belongs to the same group as Organism B. (1m)

22. The table below shows how some fruits are grouped.

Plants	
Group A	Group B
Water melon	Mango
Papaya	Rambutan

- a. Write 'peach' and 'guava' in the table above according to the correct classification. (1 m)
- b. How are the fruits classified in part (a)? (1 m)

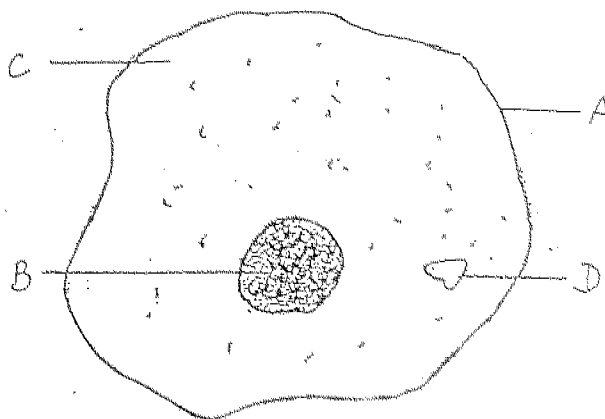
- c. What gas is required by the plant in photosynthesis? (1 m)

- d. Name two things that are part of the leaves of a plant that help it to make food. (1 m)

(i) _____

(ii) _____

23. Below is a diagram of the animal cell.



a. Label the parts A, B, C and D of the cell in the blanks below. (2 m)

A: _____

B: _____

C: _____

D: _____

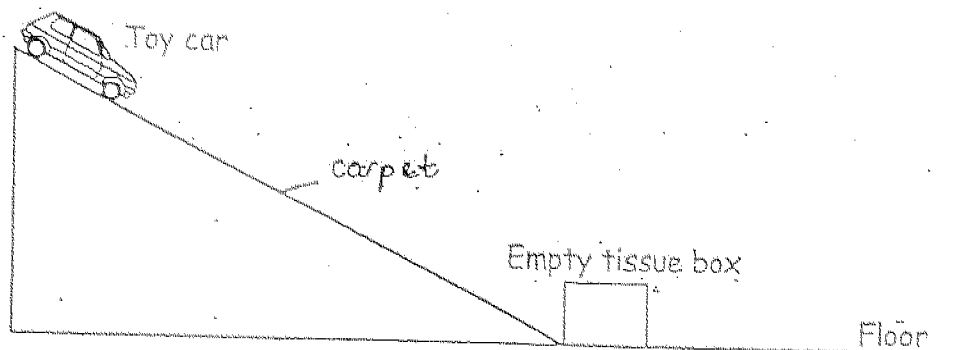
b. What are the main functions of the parts A and B mentioned in (a)? (2 m)

Function of the parts:

A: _____

B: _____

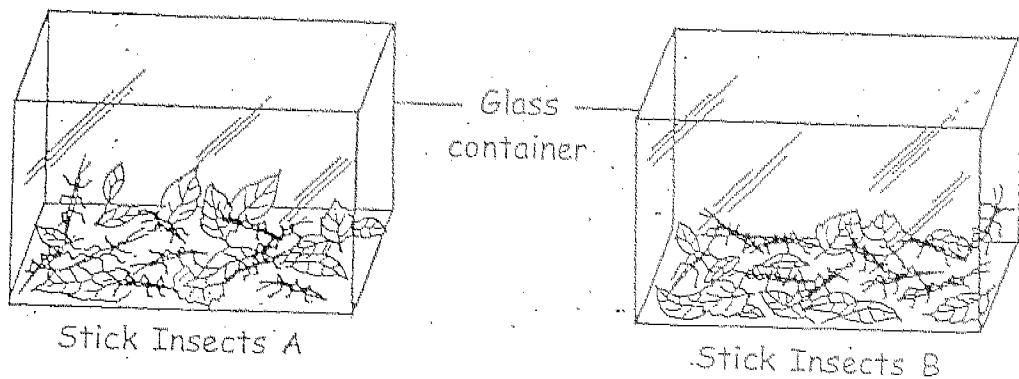
24. Ali sets up an experiment as shown below.



a. What force/s is/are acting on the toy car as it comes down the slope? (2 m)

b. As the toy car moved downwards, it pushed the empty tissue box a few centimetres away. Explain why the tissue box stops moving. (1 m)

25. An experiment was carried out by a botanist to understand the type of leaves that stick insects eat. He used 2 types of stick insects and 3 types of leaves. He named them Stick Insects A and Stick Insects B. He counted 10 stick insects for each type and placed them in 2 glass containers as shown below.



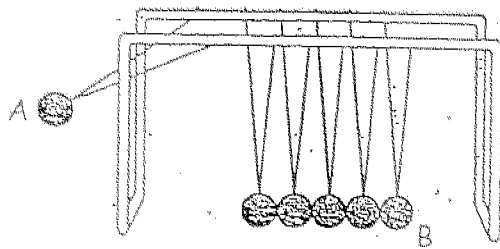
The number of the 3 types of leaves eaten by Stick Insects A and B are counted and recorded in the table below.

Glass container with	Number of leaves eaten		
	Leaf P	Leaf Q	Leaf R
10 Stick Insects A	130	5	43
10 Stick Insects B	16	0	28

- a. Name one condition that the botanist must observe in order to make it a fair test. (1 m)
- _____
- _____
- b. Two Stick Insects A died after eating a few leaves. Which type of leaves are these? (1 m)
- _____
- _____
- c. Give a reason for your answer in (b). (1 m)
- _____
- _____

26. In cold countries, we wear woollen clothings to keep us _____. The woollen material traps a layer of _____ in it. Both woollen materials and air are _____ conductors of heat. They help to _____ down heat loss from our bodies to the cold surroundings, thus keeping us warm. (2 m)

27. The object below is called Newton's cradle. Ball A is raised and then released.

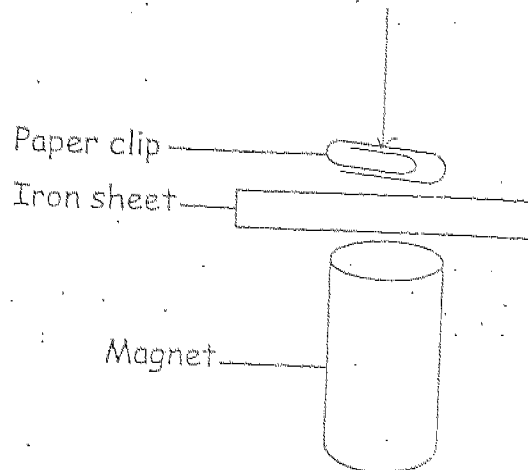


a. Name the energy possessed by Ball A as shown in the illustration above. (1 m)

b. What are the energy conversions that take place when Ball A strikes the next ball? (2 m)

c. Newton's cradle illustrated a simple truth about energy. What is it? (1 m)

28. In the experiment below, an iron sheet is placed between a magnet and a suspended paper clip.



- a. What will happen to the paper clip when the magnet is dragged along the iron sheet? (1 m)

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

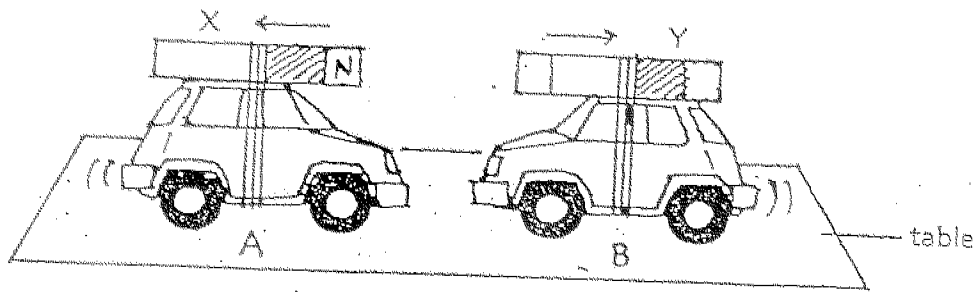
- c. If the iron sheet is now replaced by a plastic sheet, what would you observe when the magnet is dragged along the plastic sheet? (1 m)

29. Henry plucks all the leaves on the balsam plant in his garden.

a. What will most likely happen to the balsam plant? Why? (1 m)

b. Name one function of the stem. (1 m)

30. John sets up an experiment with 2 toy cars as shown below.



a. The two toy cars are seen to move away from each other. What kind of force do they possess? (1 m)

b. Label the two poles of Magnet Y. (1 m)



