Rosyth School
First Continual Assessment for 2008
SCIENCE
Primary 6

Total Marks: 50

Name: _____

Class: Pr 6 _____ Register No. _____ Duration: 1 h 15 min

Date: 21 February 2008 Parent's Signature: _____

Instructions to Pupils:

1. Do not open the booklet until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 parts, Part I and Part II.
4. For questions 1 to 15, shade the correct ovals on the Optical Answer Sheet (OAS) provided using a 2B pencil.
5. For questions 16 to 23, give your answers in the spaces provided in Part II.

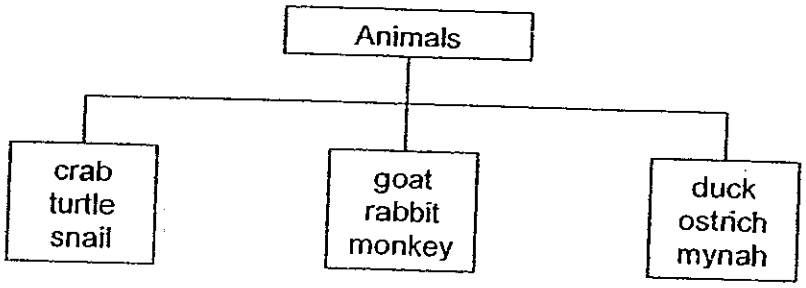
	Maximum	Marks Obtained
Part I	30 marks	
Part II	20 marks	
Total	50 marks	

* This booklet consists of 19 pages. (pg. 1 to 19)

Part I (30 marks)

For each question from 1 to 15, 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 and 4) on the Optical Answer Sheet.**

1. The classification below shows three groups of animals.



The animals are classified according to _____.

(1) their diet
(2) where they live.
(3) their body coverings
(4) their breathing methods

2. The box below shows a list of plants.

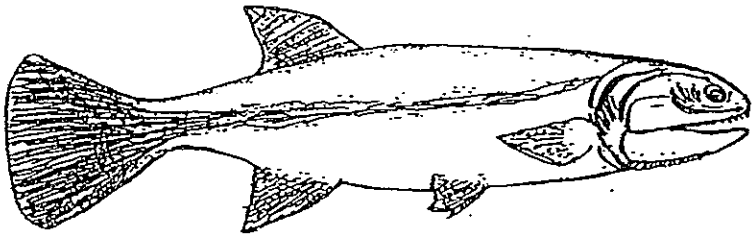
banana	coconut	elodea
grass	hibiscus	hydrilla

Which of the following characteristics **cannot** be used to organise all the plants above into 2 groups?

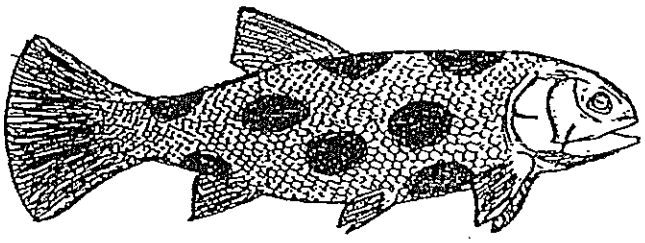
A Water plants and land plants
B Edible plants and inedible plants
C Flowering plants and non-flowering plants
D Dispersed by wind and dispersed by water

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

Study the following diagrams of fossil fish and the flow chart carefully to answer questions 3 and 4.



C

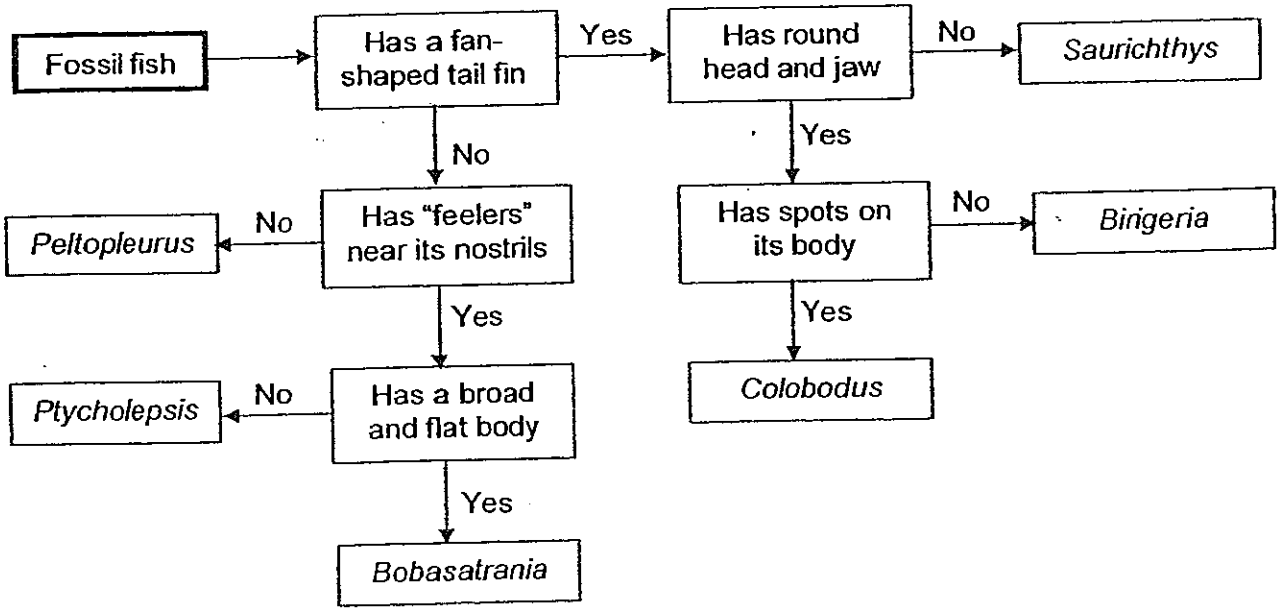


D

E

F

G



3. Based on the diagrams and chart, which of the following is *Birigeria?*

(1) Fish C
(2) Fish D
(3) Fish F
(4) Fish G

4. Which of the following is the best characteristics to differentiate *Peltopleurus* and *Ptycholepsis?*

(1) Shape of body
(2) Presence of spots
(3) Presence of "feelers"
(4) Shape of head and jaw

5. Which of the following are important properties of the material used to make knives for cutting meat?

A Is shiny
B Is not brittle
C Can be sharpened
D Able to conduct heat
E Does not corrode easily
F Able to conduct electricity

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

6. An experiment was carried out to study how different types of materials W, X, Y and Z used to build a roof can affect the temperature inside a house.

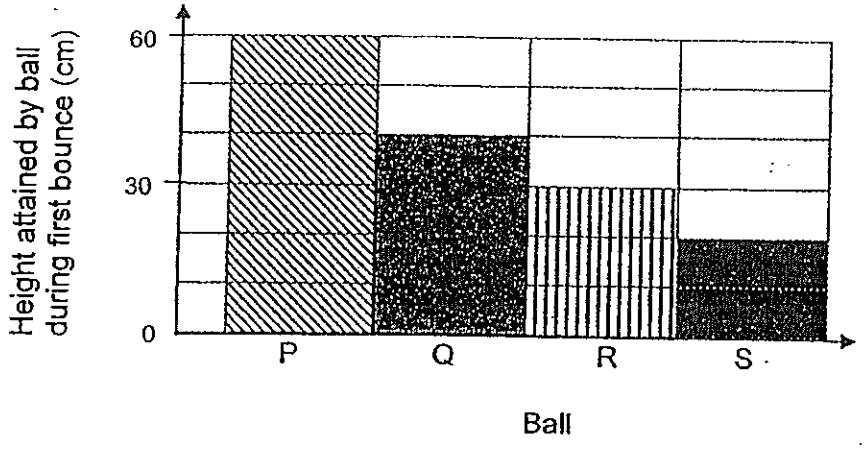
The temperature of the air inside the house was measured over a period of time in a day when each type of material was used for the roof. The results were tabulated as shown below.

Material used	Temperature of the air inside the house at the following time of the day (°C)		
	9.00am	12noon	3.00pm
W	25	32	28
X	24	30	27
Y	24	25	24
Z	25	30	25

Which one of the following materials would be most suitable to build the roof of the house during winter?

(1) W
(2) X
(3) Y
(4) Z

7. John conducted an experiment with 4 balls P, Q, R and S which are made from different materials. He released each of the balls from the same height and allowed it to bounce off the ground. He measured the heights attained by the balls during their first bounces and presented his results in the bar graph shown below.



Based on the bar graph, which of the following statements are true?

A Ball S would come to a complete stop first.
B Ball P bounced the least number of times.
C Ball R had more kinetic energy than Ball S after they hit the ground.
D The balls had different amount of potential energy at the point of release.

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

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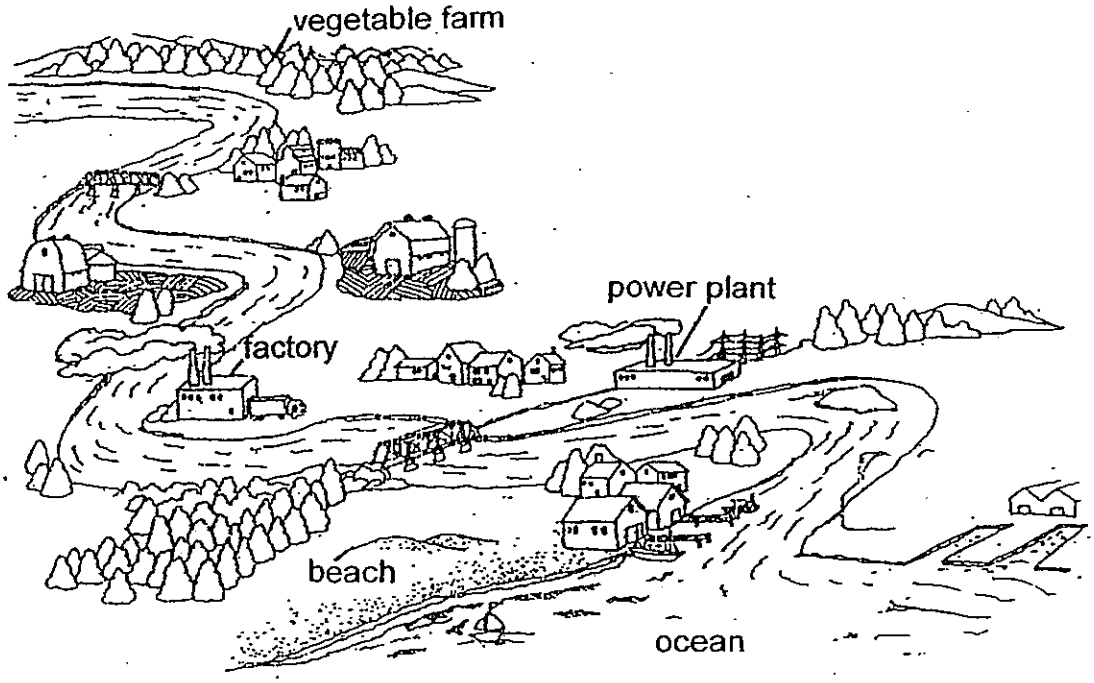
8. The picture below shows a village town.

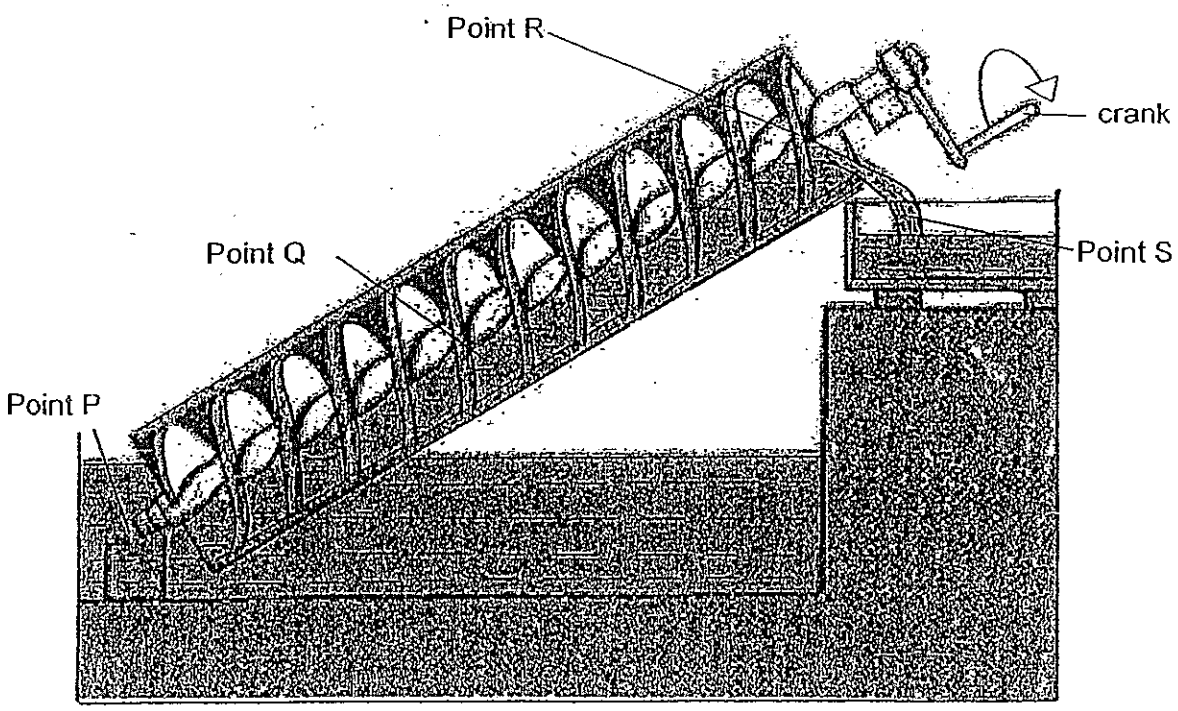


The magistrate of the village town wanted to set up a power station that used renewable energy to generate electricity for the town people. Which of the following would likely be the energy sources for the power station?

A Sun
B Coal
C Crops
D Water
E Crude oil

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

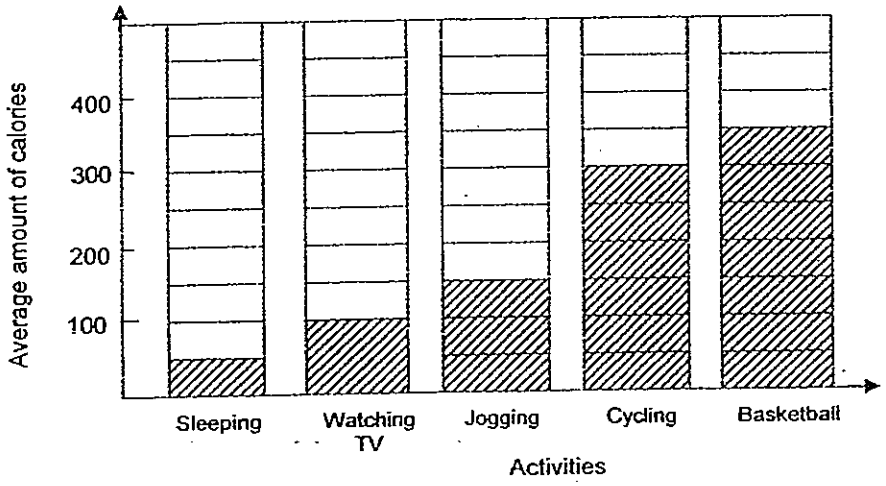
9. The diagram below shows the Archimedes' Screw. As the crank is turned continuously, the water at the bottom is raised to the top of the screw and then sprayed from there.



Which of the following sets of information correctly describes the changes in the amount of energy in the water at Points P, Q, R and S as the crank of the Archimedes' Screw is turned?

	Point P	Point Q	Point R	Point S
(1)	Kinetic energy is maximum	Potential energy is decreasing	Potential energy is minimum	Kinetic energy is increasing
(2)	Kinetic energy is minimum	Potential energy is increasing	Potential energy is maximum	Kinetic energy is increasing
(3)	Kinetic energy is minimum	Potential energy is increasing	Kinetic energy is maximum	Kinetic energy is decreasing
(4)	Kinetic energy is maximum	Potential energy is decreasing	Kinetic energy is minimum	Kinetic energy is decreasing

10. The bar graph below shows the average amount of calories needed by an average adult when sleeping, watching TV, jogging, cycling and playing basketball for 30 minutes.



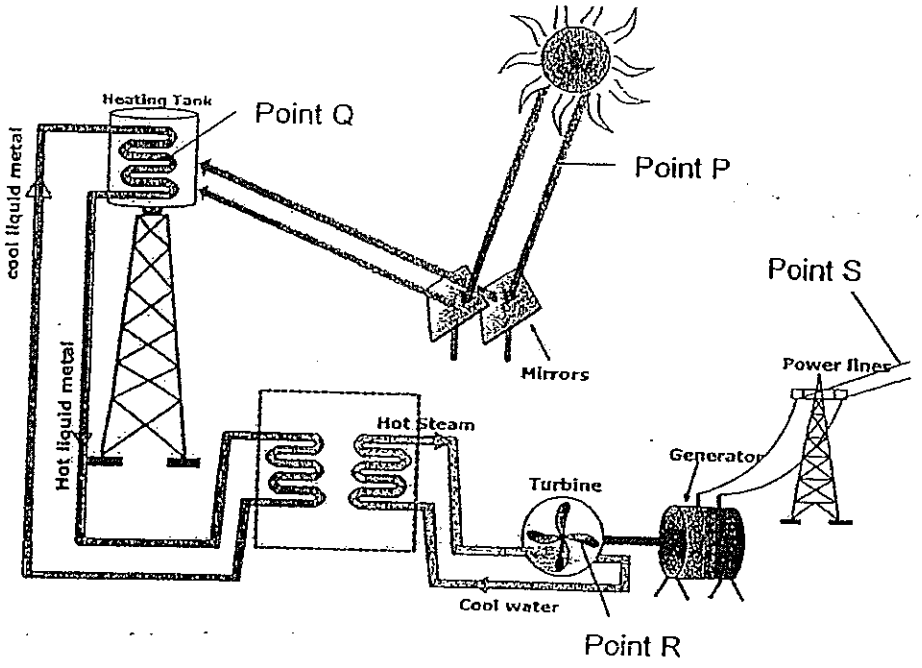
In addition, Ahmad found out the average amount of calories needed by the average adult when doing 4 other activities for 10 minutes as shown in the table below.

Activity	Walking	Skipping	Soccer	Fast swimming
Average amount of calories needed	50	65	100	300

Based on the information given above, which of the following 2 activities would an average adult require the same amount of energy for the same duration?

(1) walking and sleeping
(2) skipping and watching TV
(3) soccer and cycling
(4) fast swimming and cycling

11. The diagram below shows the energy conversion at the different parts P, Q, R and S in a solar power plant.



Taken from http://www.eas.asu.edu/

Which of the following sets correctly describes the forms of energy involved at the parts P, Q, R and S of the power plant?

	Part P	Part Q	Part R	Part S
(1)	Heat energy	Light energy	Kinetic energy	Electrical energy
(2)	Solar energy	Kinetic energy	Kinetic energy	Light energy
(3)	Light energy	Kinetic energy	Heat energy	Electrical energy
(4)	Solar energy	Heat energy	Kinetic energy	Electrical energy

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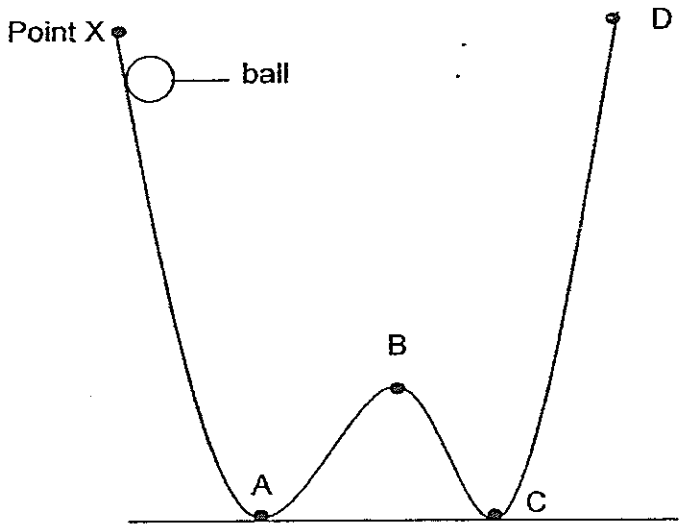
12. Study the diagram below carefully.



When the ball is released from Point X, which of the following is the furthest point it will travel?

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

13. Sufen conducted an experiment with a wind-up toy car. At each try, she changed the number of turns of the key and measured the distance travelled by the toy car upon release.

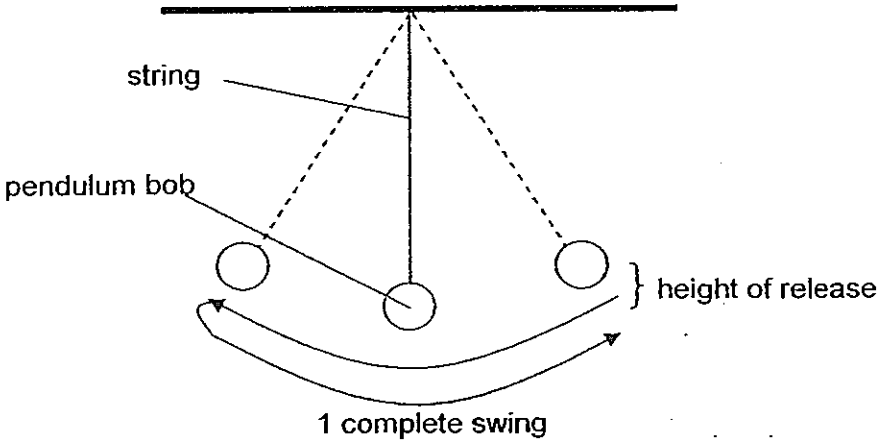
Which of the following is/ are possible aim(s) for the above experiment?

A To find out if potential energy will affect kinetic energy.
B To find out if the mass of the toy car will affect the distance travelled by the toy car.
C To find out if the number of turns of the key will affect the distance travelled by the toy car.

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

Read about the following experiment carefully to answer Questions 14 and 15.

Tom wanted to find out the factors affecting the time taken for a pendulum to make a complete swing. A complete swing is when the pendulum has swung back and forth from the point of release. He prepared the set-up as shown in the diagram below.



He varied the mass of the pendulum, length of the string and the height of release using the 5 different set-ups. He measured the time taken for the complete swings and tabulated his results as shown below.

Set-up	Mass of pendulum bob (g)	Length of string (cm)	Height of release (cm)	Time taken for a complete swing (s)
A	20	10	2	10
B	20	5	5	5
C	40	10	7	3
D	40	5	5	5
E	20	7	5	5

14. If Tom was to find out about the effect of length of the pendulum on time taken for a complete swing to be made, which of the following set-ups should he use for comparison?

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

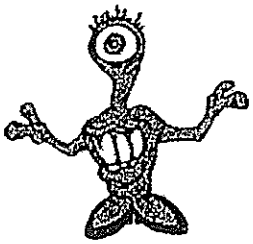
15. In which one of the following set-ups did the pendulum have the greatest amount of energy?

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

Part II (20 marks)

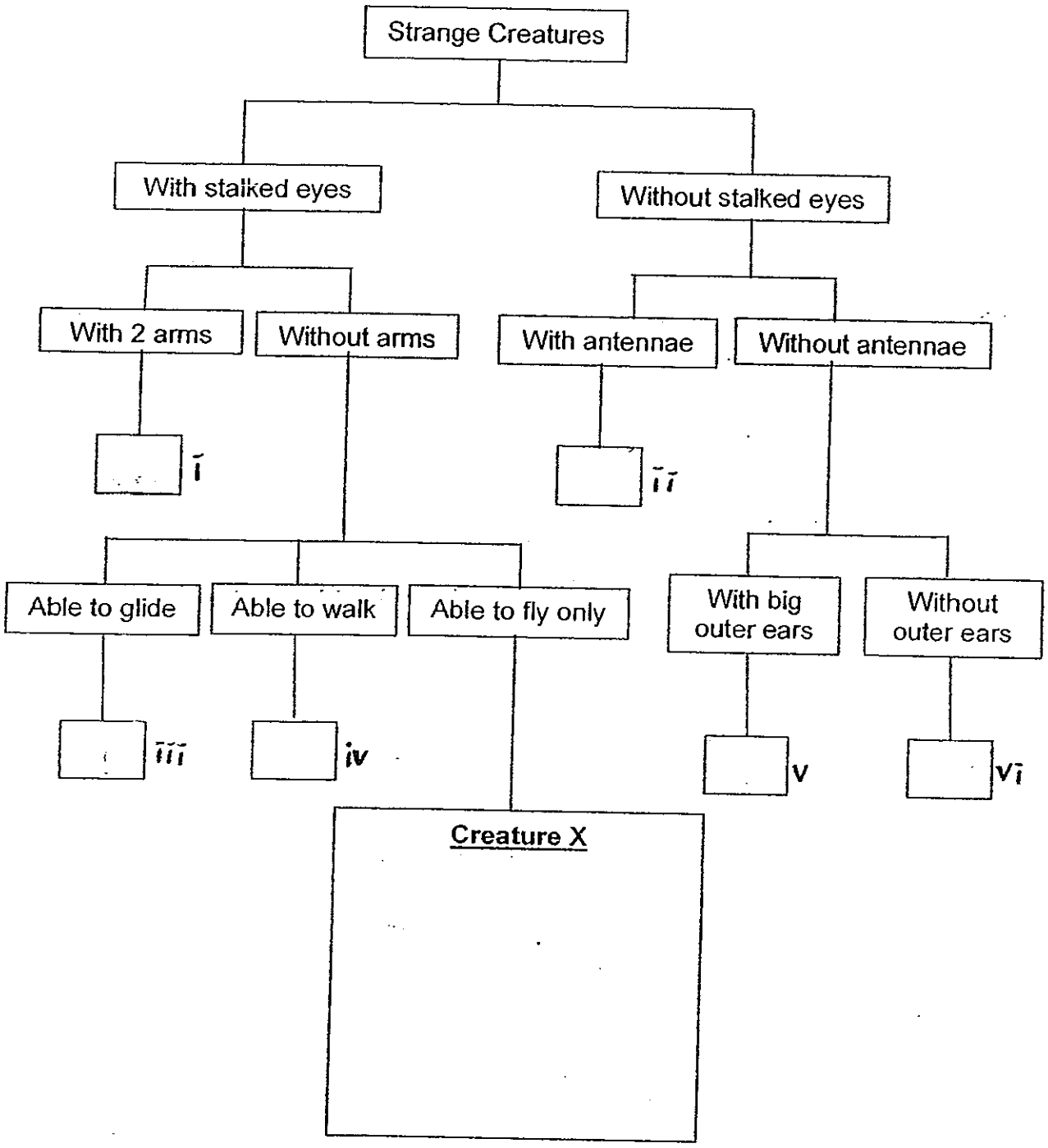
Write your answers to questions 16 – 23 in the spaces provided.

16. Study the following strange creatures carefully.

 P	 Q	 R
 S	 T	 U

Question 16 is continued on Page 13

The classification chart below is used to identify the strange creatures.



(a) Complete the above classification chart by filling in the 6 small boxes with the names of the strange creatures. [2]

(b) Draw Creature X in the big box provided above. [1]

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17. Study the classification table below.

Materials	
Group X	**Group Y**
steel iron	aluminium rubber plastic

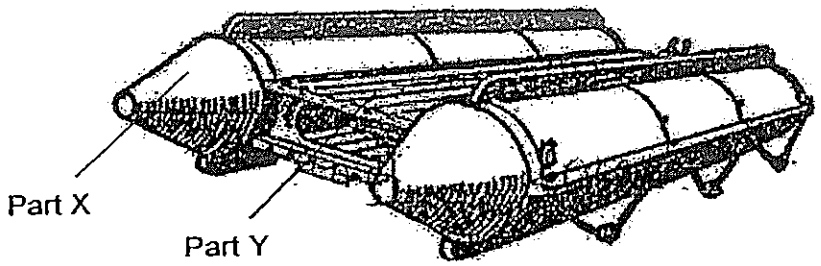
(a) Give suitable headings for group X and Y. [1]

Group X : _____

Group Y : _____

(b) Classify all the above materials using a different property. Draw a table to show your classification in the space provided below. [1]

18. The toy boat shown below ~~was~~ is designed to be able to stay afloat on water. Plastic ~~was~~ is used to make Part X and Part Y.



(a) State 2 properties of plastic to justify why it is used to make Part X. [1]

_____

(b) If cardboards ~~were~~ are used to make Part Y instead, what will happen to the toy boat? Explain why. [1]

_____

_____

_____

(c) If the toy boat is to be moved with the help of wind, describe a possible modification that can be made to its design. [1]

_____

_____

19. Plan an experiment to show that Fabric X is more absorbent than Fabric Y using the materials stated below. [2]

Materials :

- Fabric X
- Fabric Y
- 2 measuring cylinders with 200ml of water each
- 2 pieces of string
- A stopwatch

20a. Fill in the blanks with the correct answers. [1]

Electricity is generated by a wind turbine using _____ _____ from the wind. When the wind blows to spin the blades of the wind turbine, the generator will produce _____ _____.

(b) What is the disadvantage of using wind energy to turn the turbine in the power plant? [1]

21. The diagrams below show the circuit in an electric iron. A strip made up of 2 different metals is used in the circuit. Figure (i) and (ii) show how the strip works when the iron is switched on.

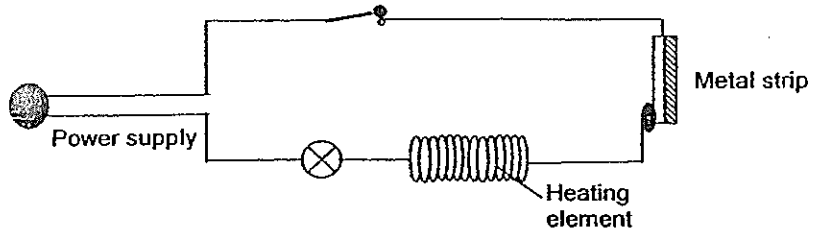


Figure (i)

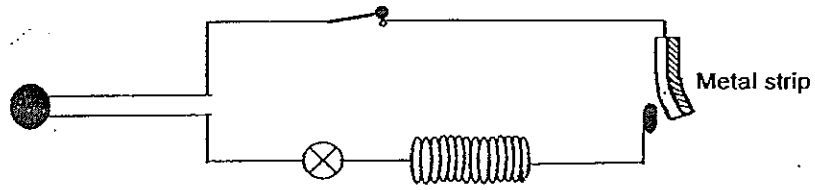
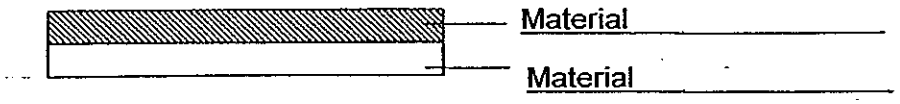


Figure (ii)

The metal strip breaks the circuit by bending outwards when heated and straightens again when cooled. The table below shows possible materials that can be used to make the metal strip.

Material	Length of material before heating (mm)	Length of material when heated (mm)
W	20	25
X	20	23
Y	20	21
Z	20	26

(a) Based on the information given in the above table, state in the blanks provided, the 2 materials that are suitable to make the metal strip such that it is able to open and close the circuit at the fastest rate. [1]



(b) What is the purpose of using metal strips in electric irons? [1]

_____

_____

(c) Besides changing the materials for the metal strip, what else can be done to allow the circuit to open and close at the fastest rate? [1]

_____

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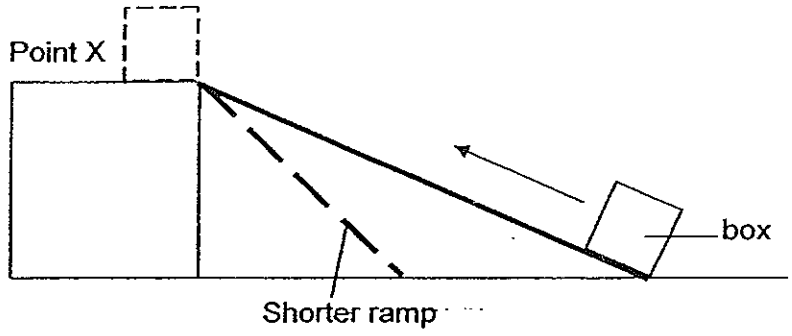
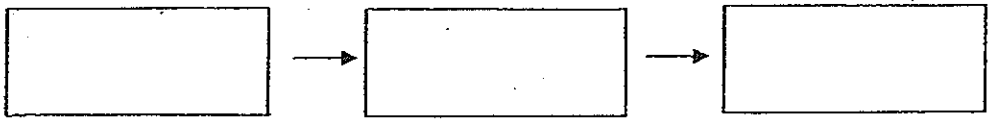
22. A box was pushed up a ramp from the ground to a higher level, Point X as shown in the diagram below.



(a) Describe the energy conversion that occurred when the box was moved. [1]

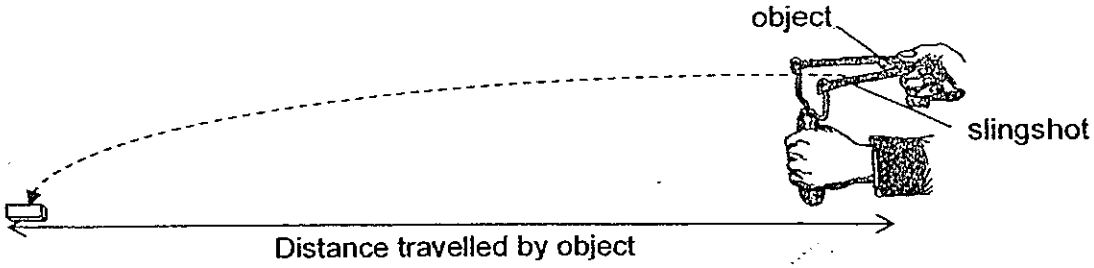


(b) Later, a shorter ramp was used to move the same box as shown in the above diagram.
Would the amount of potential energy at Point X be the same as when the longer ramp was used? Explain why. [1]

_____

_____

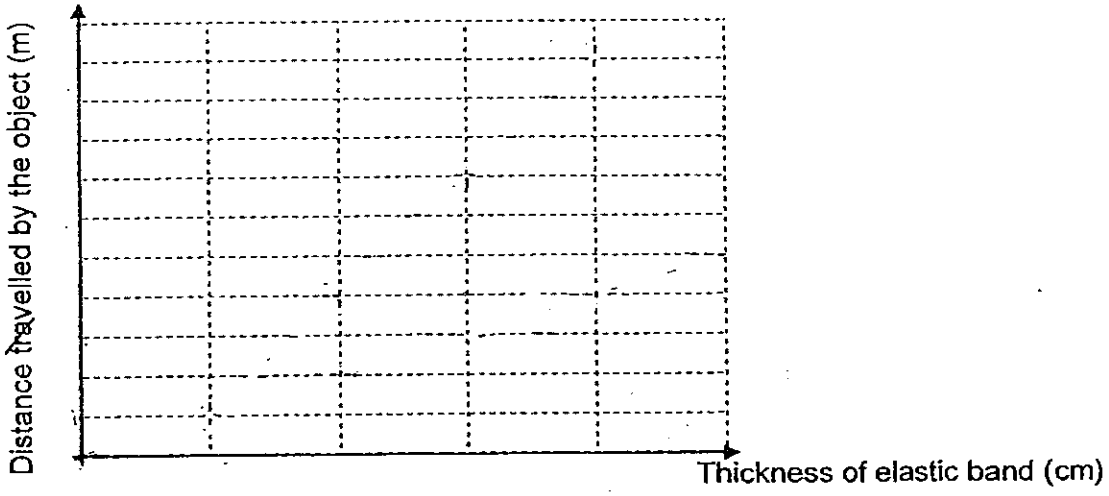
23. Lynn wanted to find out the distance travelled by an object propelled by a slingshot when elastic bands of different thickness were used. She stretched each elastic band fully before she released to propel the object forward. Then, she measured the distance the object travelled as shown in the diagram below.



She calculated the average distance travelled by the object when she used 3 elastic bands with different thickness. The results were recorded in the table below.

Thickness of elastic bands (cm)	Average distance travelled by object (m)
0.5	2
1.0	8
2.0	20

(a) Using the results of Lynn's experiment, complete the graph given below. [1m]



(b) Explain why the average distance travelled by the object increased when a thicker elastic band was used. [2]

_____

_____

_____

End of paper

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Rosyth Primary School

Primary 6 Science CA1 (2008)

Answers Key

Qn no.	Ans
1	3
2	4
3	1
4	3
5	3
6	3
7	3
8	3
9	2
10	3

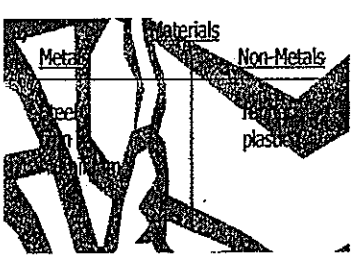
Qn no.	Ans
11	4
12	3
13	3
14	2
15	3

16a) i) **R**
ii) **S**
iii) **T**
iv) **P**
v) **U**
vi) **Q**

16b)

17a) **X: Magnetic Conductors**
Y: Non-Magnetic

17b)



18a) **It is waterproof, thus able to float on water and very light.**

18b) **The toy boat will sink in water. Cardboard is not waterproof and allows water to seep in and it does not float on water, therefore the boat sinks.**

18c) **A sail could be added to the boat so that when the wind blows, it would follow the direction of the wind.**

19) Immerse Fabric X into the measuring cylinder for 1 minute.
Removing Fabric X. Note the change in the water level. Repeat steps to for Fabric Y.
There is a bigger drop in the water level in the measuring cylinder.

20a) kinetic energy ⟶ energy ⟶ electrical ⟶ energy
20b) It is not available at all times.

21a) Y, Z
21b) To prevent over heating.
21c) Make the power supply's volt higher.

22a) Chemical Potential Energy ⟶ Kinetic Energy ⟶ Gravitational Potential Energy
22b) Yes, the amount of potential energy at point X would be the same. The height of point X did not increase; neither did it decrease, so there is no change in the amount of potential energy.

23a)

23b) The thicker the rubber band, the more elastic potential energy it will have that will be converted into more Kinetic energy in the object that propels it further.

Rosyth School
First Semestral Assessment for 2008
SCIENCE
Primary 6

Total Marks: ____/100

Name: _____

Class: Pr _____ Register No. _____ Duration: 1 h 45 min

Date: 12th May-2008 Parent's Signature: _____

Instructions to Pupils:

1. Do not open the booklets until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 booklets, Booklet A and Booklet B.
4. For questions 1 to 30 in Booklet A, shade the correct ovals on the Optical Answer Sheet (OAS) provided using a 2B pencil.
5. For questions 31 to 46, give your answers in the spaces given in the Booklet B.

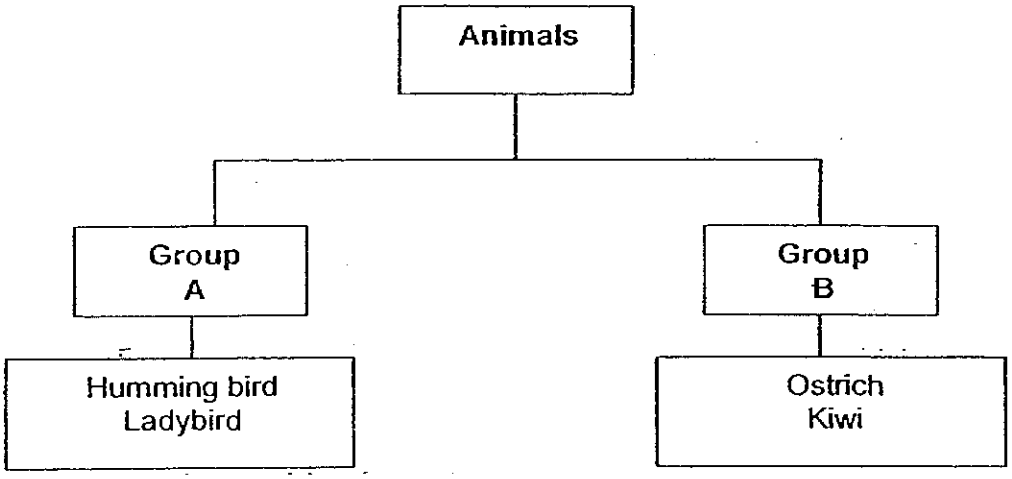
	Maximum	Marks Obtained
Booklet A	**60 marks**	
Booklet B	**40 marks**	
Total	**100 marks**	

* This booklet consists of 20 pages .

Booklet A (60 Marks)

For each question from 1 to 30, 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 Answer Sheet.**

1. Study the classification chart below.



Which of these animals should be classified under the same group?

	Group A	Group B
(1)	Flamingo	Earthworm
(2)	Eagle	Butterfly
(3)	Kingfisher	Sparrow
(4)	Caterpillar	Crow

2. Study the classification table below.

	Characteristics	Mosquito	Housefly
A.	Does it have a 4-stage life cycle?	Yes	Yes
B.	Can it spread diseases?	Yes	No
C.	Does it lay eggs in water?	Yes	No
D.	Does it have wings at the adult stage?	No	Yes

Which of the comparisons between a mosquito and a housefly are correct?

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

(Go on to the next page)

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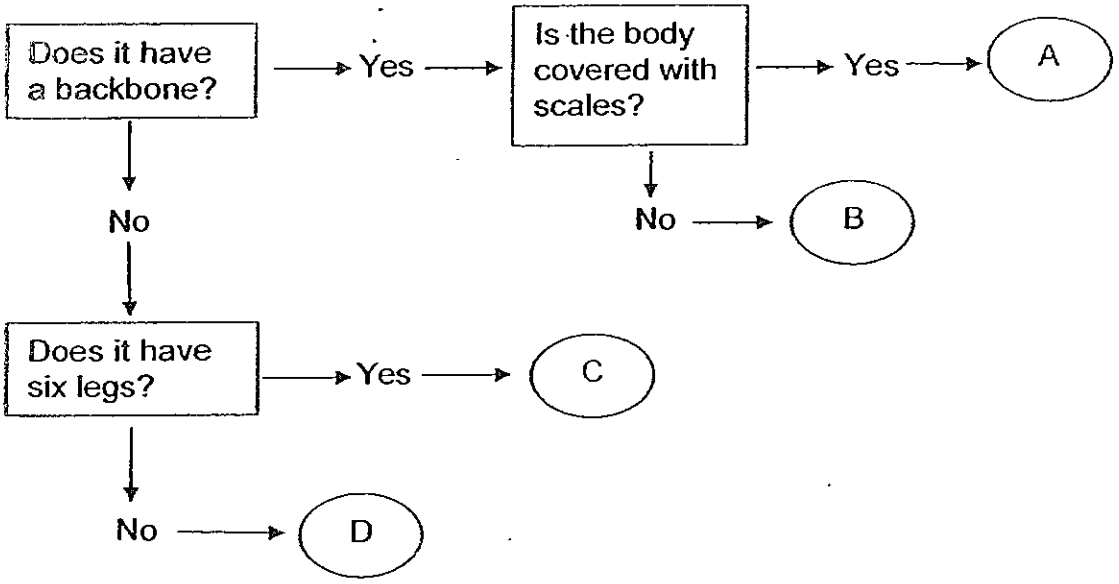
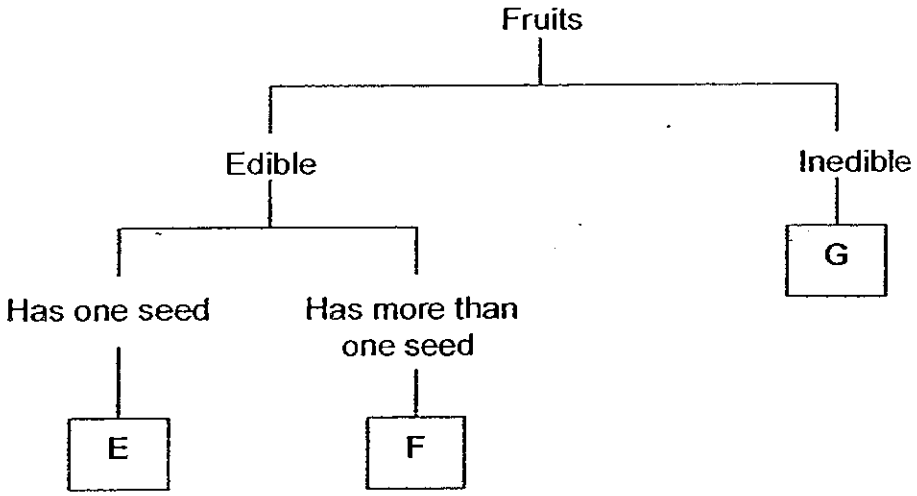
3. Study the classification below.



Which letter correctly represents a crocodile?

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

4. Study the classification table below.



Which of the following fruits are most likely to be Fruits, E, F and G respectively?

	Fruit E	Fruit F	Fruit G
(1)	rambutan	lady's finger	balsam
(2)	groundnut	shorea	angsana
(3)	kiwifruit	chilli	avocado
(4)	balsam	angsana	lotus

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(Go on to the next page)

5. Lilian and Jody were asked to classify the following fruits into two groups.

mango	coconut	love grass	pong pong

Lilian's classification:

Group A	Group B
mango	pong pong
Love grass	coconut

Jody's classification:

Group A	Group B
mango	love grass
coconut	pong pong

How did the girls group the fruits?

	Lilian		Jody	
	Group A	Group B	Group A	Group B
(1)	Flowering plant	Non-flowering plant	Smooth surface	Rough surface
(2)	Has many seeds	Has only one seed	Big	Small
(3)	Dispersed by animal	Dispersed by water	Edible	Inedible
(4)	Has fibrous husk	Has no fibrous husk	Grow well in sandy soil	Grow well in garden soil

6. Spectacle lenses are either made of glass or plastic. Parents usually prefer to have plastic lenses for their children's spectacles.
What are the possible reasons?

A: Plastic is lighter than glass.
B: Plastic is waterproof but not glass.
C: Plastic does not break easily, unlike glass.

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

(Go on to the next page)

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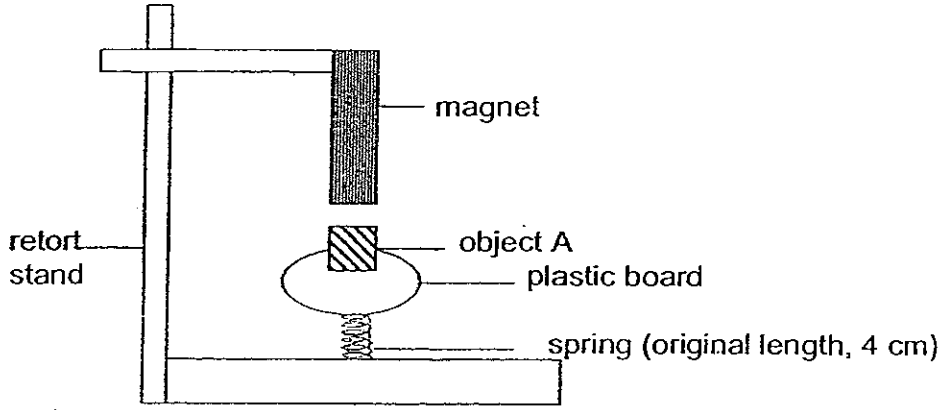
7. Silva set up the experiment as shown below. She wanted to find out if objects A, B, C and D would interact with the magnet hanging from the retort stand. She stuck object A securely onto the plastic board and measured the length of the spring. Then, she repeated the experiment with objects B, C and D one after another.



The results of the experiment were tabulated as below.

Object	Length of Spring (cm)
A	6
B	7
C	3
D	4

Based on the results above, what could objects A, B, C and D be?

	A	B	C	D
(1)	Copper bar	Magnet	Iron bar	Steel bar
(2)	Steel bar	Copper bar	Magnet	Iron bar
(3)	Iron bar	Steel bar	Copper bar	Magnet
(4)	Steel bar	Iron bar	Magnet	Copper bar

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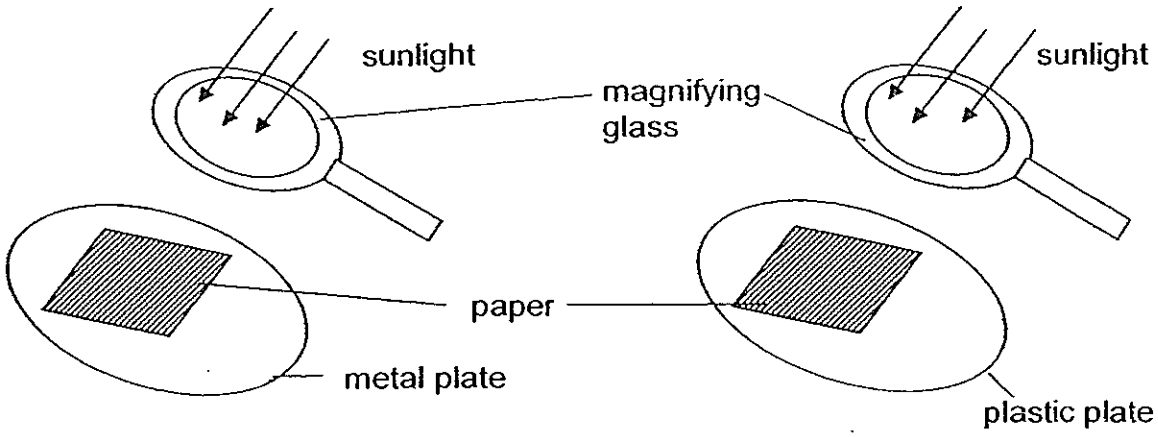
8. In the experiment below, two identical pieces of paper were each placed on a metal plate and a plastic plate. These plates were placed in the sun with a magnifying glass held above each paper.



After several minutes, the paper on the plastic plate started to give off smoke and then burn but not the one on the metal plate.

Why did the paper on the plastic plate burn but not the one on the metal plate?

(1) The plastic plate absorbed more heat than the metal plate.
(2) The heat from the Sun only made the metal plate hot but not the plastic plate.
(3) The metal plate conducted most of the heat away from the paper but not the plastic plate.
(4) The metal plate took a shorter time to get hot to burn the paper as compared to the plastic plate.

(Go on to the next page)

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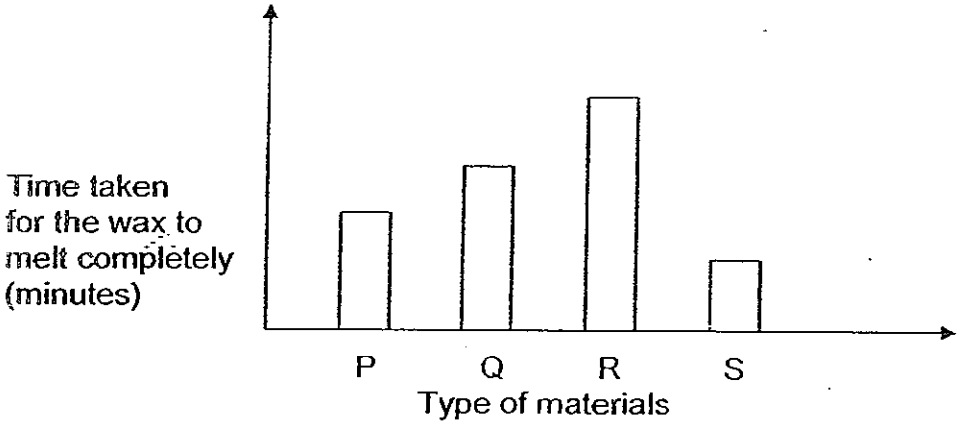
9. Alysia coated the 4 ends of different materials (P, Q, R, and S) with some wax. Next, she heated the other ends of each rod over a candle flame. She measured the time taken for the wax to melt completely. Her results are shown in the bar graph below.



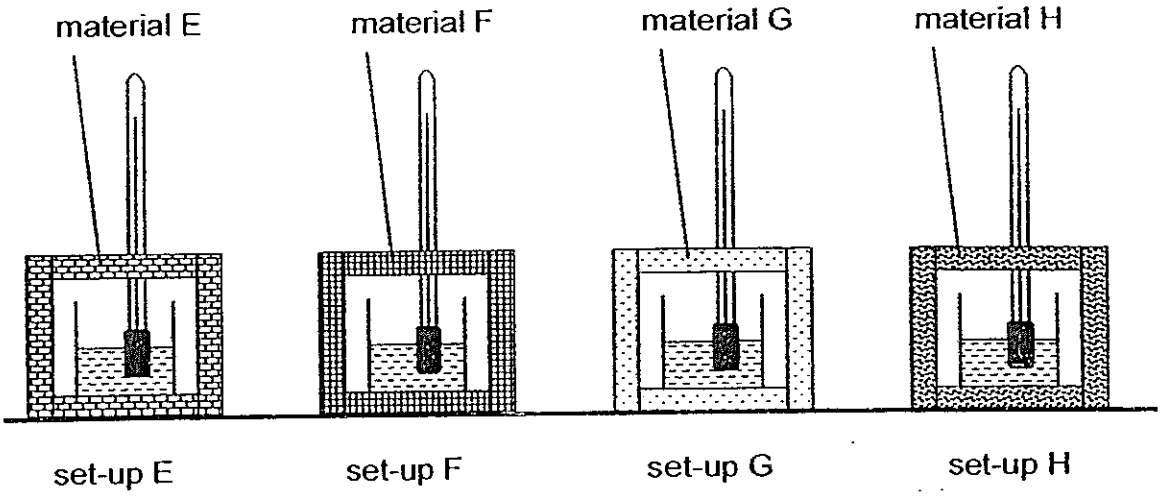
Which one of the following variables should she keep the same for a fair experiment?

A: Size of rods
B: Amount of wax
C: Intensity of the flame
D: Time taken for the wax to melt completely

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

(Go on to the next page) 1/51

10. Vincent set up the apparatus below using different insulation materials but of equal thickness. He used beakers of the same size containing equal amounts of water in each beaker.



He measured and recorded the temperature of water in each beaker at regular intervals using a thermometer. The table below shows the results of the experiment.

Time (min)	Temperature of water (°C)			
	Set-up E	Set-up F	Set-up G	Set-up H
0	100	100	100	100
5	77	65	90	88
10	69	42	88	76
15	56	39	83	71
20	40	37	80	69

Based on the results in the table above, which material is not ideal for making a container to store ice cream?

(1) E
(2) F
(3) G
(4) H

(Go on to the next page)

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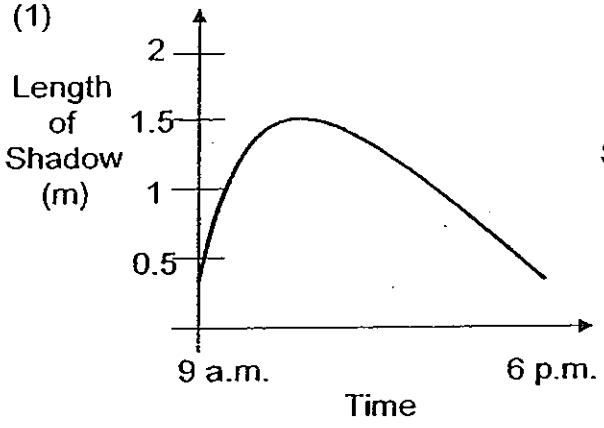
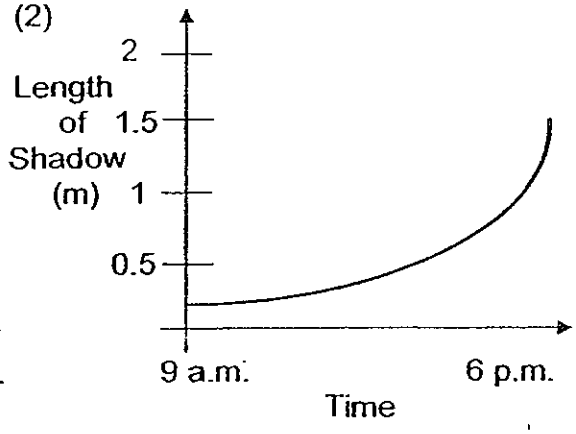
11. Study the four graphs below.
Which one of the following graphs shows the length of Lionel's shadow from 9 a.m. to 6 p.m. on a certain day?

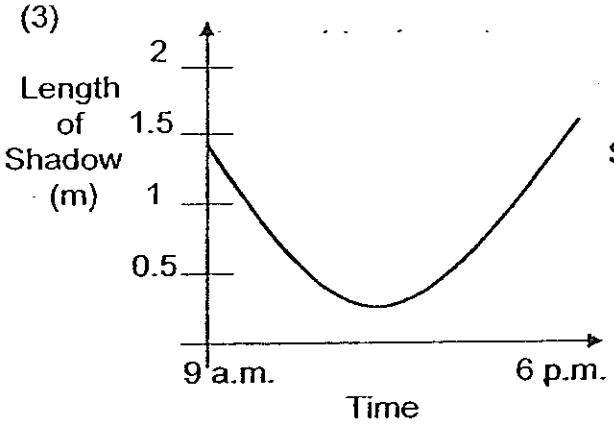
(1)



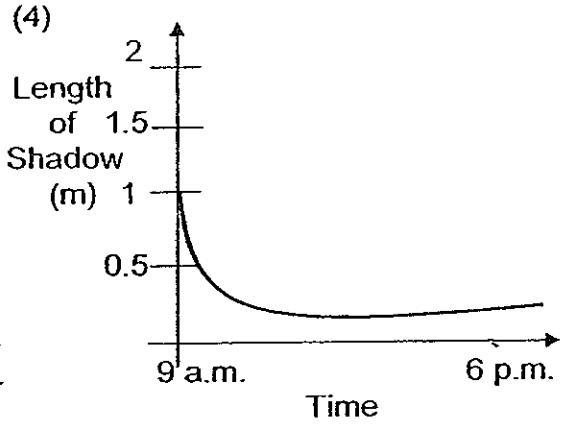
(2)



(3)



(4)



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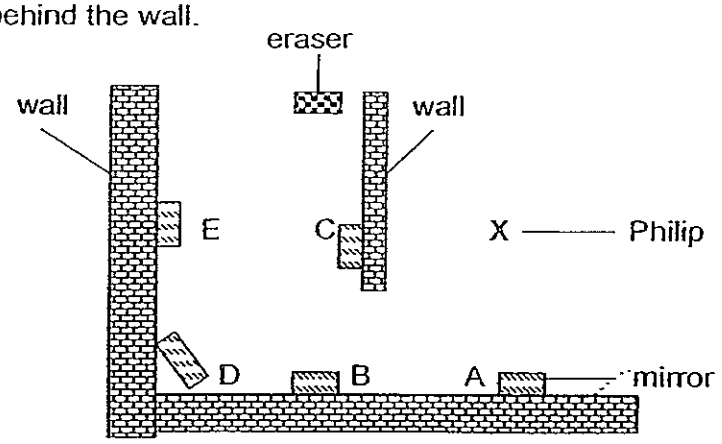
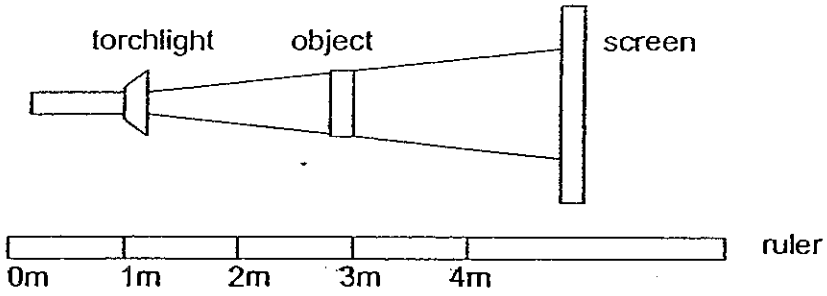
12. In the diagram below, Philip needs only two mirrors to help him see the eraser behind the wall.



Which two mirrors will help him see the eraser behind the wall?

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

13. A torchlight was placed at the 1m mark of a ruler. The torchlight shone at an object that was placed at the 3m mark of a ruler as shown below. A shadow was cast on the screen.



At which positions of the ruler should the torchlight and the object be placed so as to obtain a larger shadow on the screen than before?

	Position of torchlight	Position of object
A	1m	4m
B	0m	1m
C	2m	3m
D	0m	4m

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

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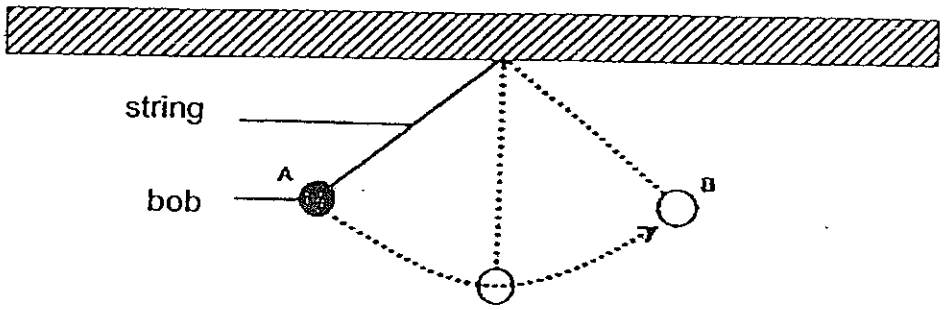
14, A group of pupils carried out an activity to find out how long it would take for a pendulum to swing from A to B and back to A again. They repeated the experiment with strings of different lengths and bobs of different mass. The table below shows the results of their experiment.



Length of String (cm)	Average time taken to complete 10 swings (seconds)		
	50g bob	200g bob	250g bob
35	12.1	12.1	12.2
65	17.2	16.2	16.2
100	20.1	20.1	19.3
145	23.7	22.5	23.7

What must be done so that the pendulum completes 10 swings in less than 12.1 seconds?

(1) Increase the mass of the bob.
(2) Decrease the mass of the bob.
(3) Reduce the length of the string until it is less than 35 cm.
(4) Increase the length of the string until it is more than 145 cm.

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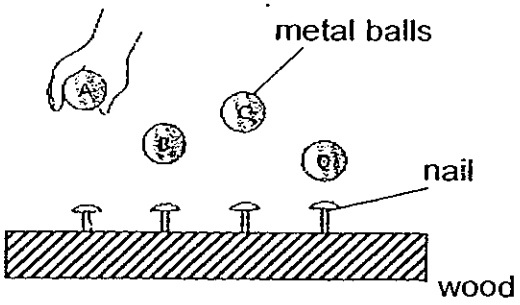
Refer to the diagram below and answer questions 15 and 16.
Four metal balls, from different positions, were dropped onto nails placed directly under them as shown below.



15. Which one of the following nails would be pushed deepest into the wood when the metal balls were dropped?

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

16. Which of the following is/are possible aim(s) for the above experiment?

A: To find out which ball has the greatest mass.
B: To find out which ball has the most potential energy.
C: To find out if the mass of the ball affects the speed at which the ball drops.
D: To find out if the height of the ball affects the amount of kinetic energy it has.

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

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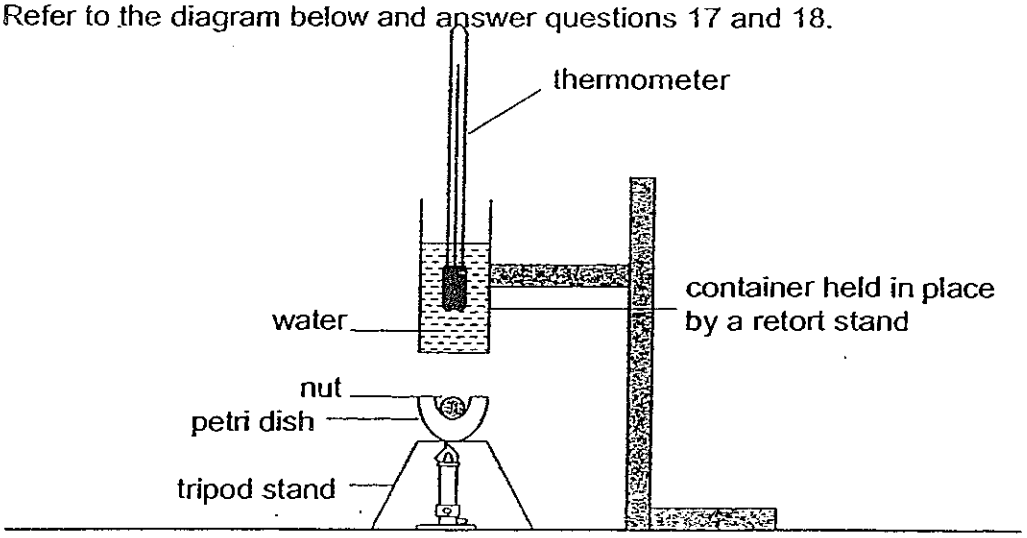
Refer to the diagram below and answer questions 17 and 18.



In the experiment shown above, the nut was placed in a petri dish and burned over a bunsen burner. The temperature of the water was then measured with the thermometer. The experiment was then repeated with a piece of marshmallow and a piece of dried corn.

The results were tabulated as shown below.

Type of food	Final temperature of water
Nut	45°C
marshmallow	35°C
dried corn	50°C

17. What could you infer from the results of the experiment?

A: The three types of food are sources of energy.
B: The three food are renewable resources of energy.
C: Dried corn produced more heat energy than nut and marshmallow.

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

18. Which one of the following variables should be kept constant to ensure a fair experiment?

A: Size of the food
B: Mass of the food
C: Intensity of the flame
D: Amount of water in the beaker

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

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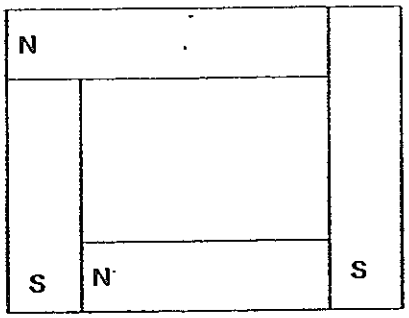
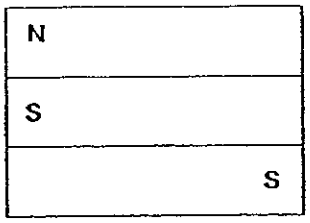
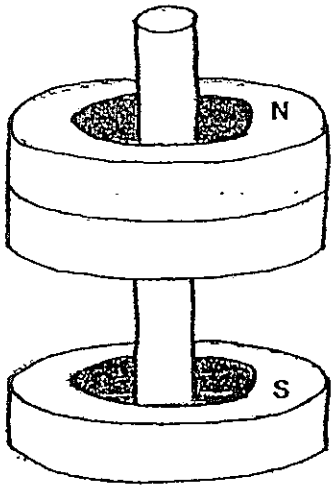
19. Study the diagrams of the four set ups, W, X, Y and Z below.



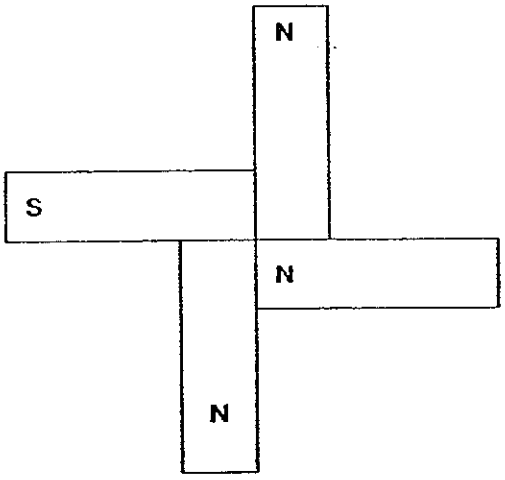
(W)



(X)



(Y)



(Z)

If the ring magnets are used in set-up Y and bar magnets are used in set-ups W, X and Z, which of the above arrangements is/are not possible?

(1) W only
(2) W and Y only
(3) X and Y only
(4) W, Y and Z only

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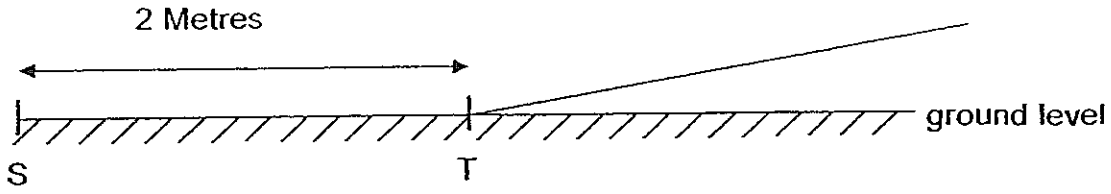
20. An experiment was carried out to find out the number of times the key to a toy car is turned and the distance it travelled. The car was placed at the same starting point, S each time. The car followed a horizontal track for 2 metres followed by a gentle slope starting at point T.



The results of the test were recorded in the table below.

Number of turns of the key	2	4	6	8	10
Average distance traveled (cm)	50	100	150	200	180

Which of the following types of forces cause the car to move backward when the key was turned 10 times?

A: frictional
B: elastic spring
C: gravitational
D: magnetic

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

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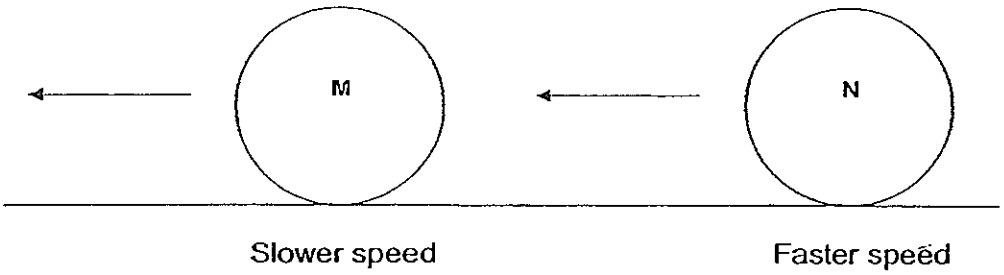
21. Two identical tennis balls, M and N, are moving over a marble floor at different speeds as shown below.

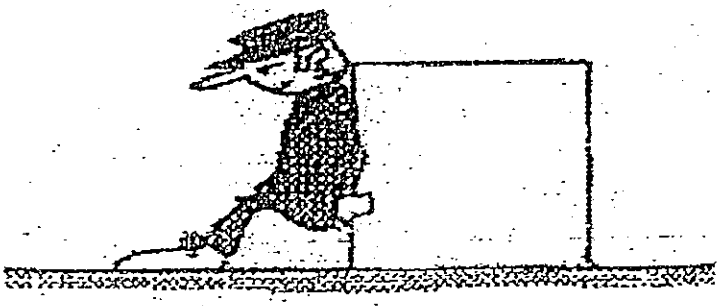


What would happen to tennis ball M and N after sometime?

A: N will hit M and then move on in the same direction.
B: N will hit M and then move in the opposite direction.
C: After being hit by N, M will move faster than before in the same direction.
D: After being hit by N, M will slow down and move in the opposite direction.

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

22. The picture shows a man trying to slide a heavy box along the floor.



Which of the following forces would help the man to move the heavy box along the floor?

A: The mass of the heavy box.
B: The push the man exerted against the box.
C: The friction between the box and the floor.
D: The friction between the man's feet and the floor.

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

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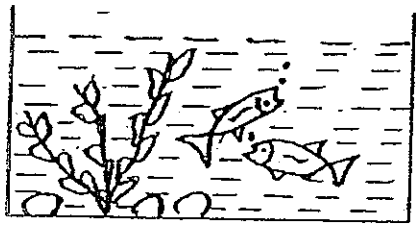
23. There are two Ponds, R and S in a village. Both ponds have plants and animals living in them. There are many plants growing at the bottom of Pond R but only a few plants growing at the bottom of Pond S.

Which of the following could be the possible reason(s) for this?

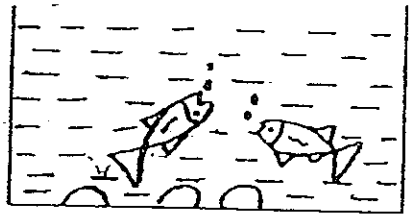
A: Pond R has fewer predators.
B: Pond R has fewer floating plants.
C: The water in Pond R is less muddy.

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

24. Ahmad and a few of his classmates wanted to find out the importance of submerged plants to animals. They set up two aquariums, X and Y, and observed them for a week.



Aquarium X
With Submerged Plants



Aquarium Y
Without Submerged Plants

After two weeks, they concluded that submerged plants are important to animals.

Which of the following observations would have helped them to arrive at that conclusion?

A: One of the fish in aquarium X was dead.
B: The fish in aquarium X laid eggs under the plants.
C: The fish in aquarium Y was dead.
D: The fish in aquarium Y swam near the surface of the tank.

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

(Go on to the next page)

25. Gary was taking a walk in his garden and spotted some organisms. He then classified them into two groups, plants and animals.

Plants	Animals
3 Rose plants	4 Caterpillars
2 Mango trees	3 Squirrels
5 Bird's nest ferns	2 Sparrows
	6 Butterflies
	3 Moths

How many populations had he spotted altogether?

(1) 7
(2) 8
(3) 23
(4) 27

26. Shawn found an animal and made the following observations about the animal.

The animal has a brown body.
The animal has a moist skin.
The animal will move away from light.

Which one of the following habitats is this animal most likely to be found?

(1) In a leaf litter
(2) In a fruit tree
(3) At the seashore
(4) Near the pond surface

(Go on to the next page)

27. May wanted to find out if overcrowding is a factor which would affect the animals living in an aquarium. The fish were placed in 4 similar tanks P, Q, R and S.

Tank	Amount of water (cm^3)	Number of fish	Type of fish
P	500	20	Swordtail
Q	5000	10	Goldfish
R	5000	20	Goldfish
S	10 000	20	Swordtail

A: P and R
B: P and S
C: Q and R
D: Q and S

Which of the following tanks, P, Q, R and S are possible combinations that she should use to carry out a fair experiment?

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

28. The Tasmanian tigers have become extinct due to various environmental factors. Which of the following are most likely the factors to cause the extinction of this animal?

A: The Tasmanian tigers were predators of many animals.
B: The Tasmanian tigers were once widely hunted and poached.
C: The Tasmanian tigers were wiped out by outbreak of epidemic.
D: The Tasmanian tigers were not able to adapt to climatic changes.

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

(Go on to the next page)

29. Tommy conducted an experiment using some similar seedlings over a period of two weeks. He then tabulated the variables into a table as shown below.

Pot	Type of soil	Amount of water used daily (cm^3)	Number of seedlings planted in each pot	Average height of the seedlings in each pot after two weeks (cm)
W	Clayey soil	100	10	5.0
X	Loamy soil	200	20	9.5
Y	Clayey soil	100	20	7.5
Z	Loamy soil	100	10	6.0

Which of the following are possible aims of Tommy's experiment?

A: To find out if overcrowding affects the average height of seedlings.
B: To find out if different types of soil used affect the average height of seedlings
C: To find out if different amounts of water used daily affect the average height of seedlings

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

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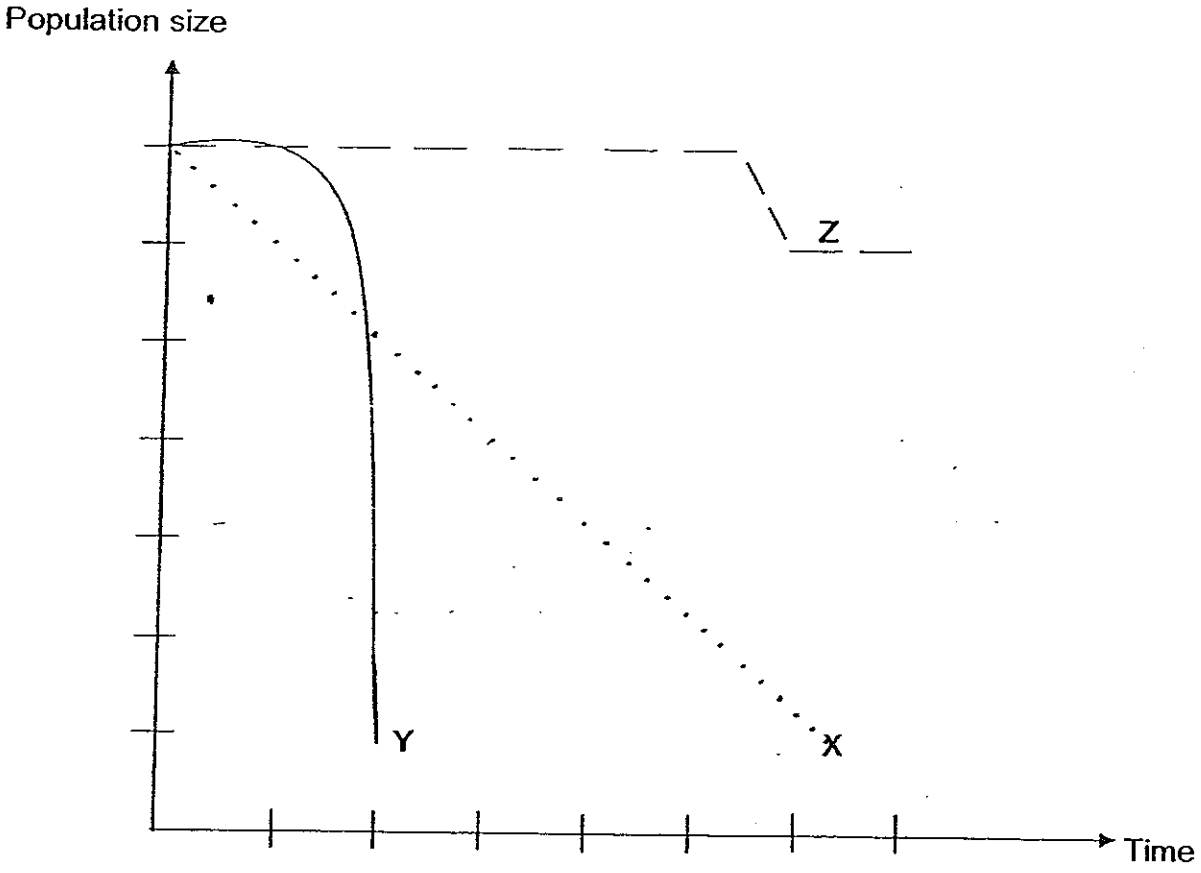
30. Study the graph below



Three populations of organisms, X, Y and Z were introduced to a community. The graph above shows their populations over a period of time. Which one of the following statements cannot be interpreted from the graph?

(1) The population of organism X decreased at a constant rate.
(2) The population of organism Y reproduced at a slower rate than organism Z.
(3) The population of the three organisms were the same at the beginning of the observation.
(4) The population of organism Z remained the largest at the end of the observation period.

End of Booklet A

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