

ANGLO-CHINESE SCHOOL
(JUNIOR)



SEMESTRAL ASSESSMENT 1 (2013)
PRIMARY 6

SCIENCE

BOOKLET A

THURSDAY

Name : _____ ()

Class : P6 _____

INSTRUCTIONS TO PUPILS

DO NOT TURN OVER THE PAGES UNTIL YOU ARE TOLD TO DO SO

Follow all instructions carefully.

There are 15 questions in this booklet.

Answer **ALL** questions.

INFORMATION FOR PUPILS

The total marks for this booklet is 30.

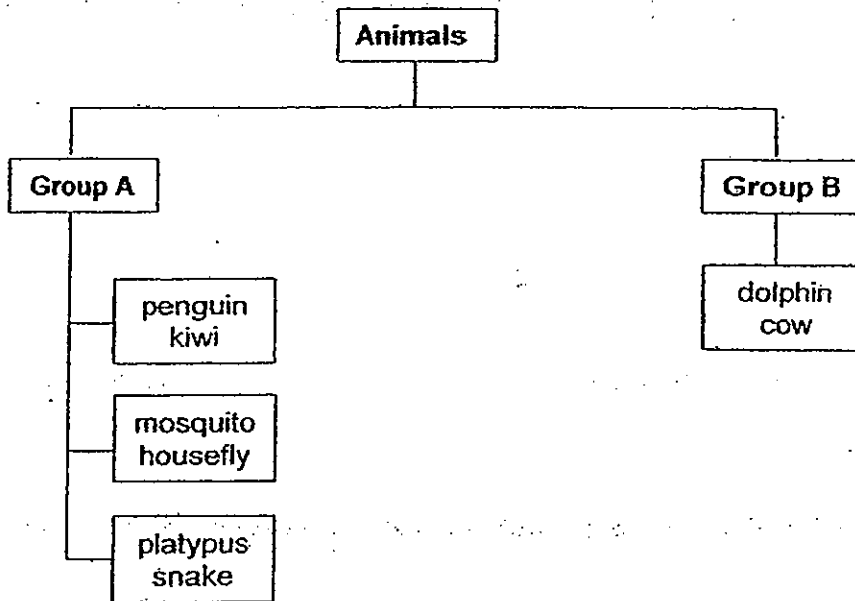
The total time for Booklets A and B is 1 hour.

This question paper consists of 8 printed pages. (Inclusive of cover page)

Section A (60 marks)

For each question from 1 to 30, four options are given. One of them is the correct answer. Choose the correct option (1, 2, 3 or 4) and shade the correct oval on the Optical Answer Sheet (OAS) provided.

1 The animals below are classified into two groups, A and B.



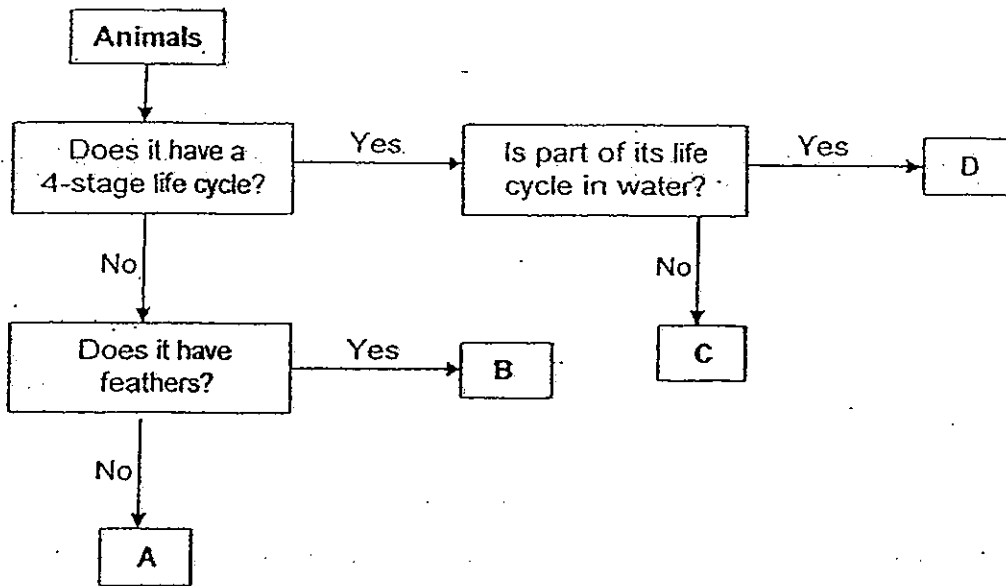
Based on the classification chart shown above, the animals are grouped according to _____

- (1) their diet
- (2) how they breathe
- (3) their body covering
- (4) the method of reproduction

2 Substance W melts at 15°C and boils at 110°C . Substance W is a solid at _____

- (1) 10°C
- (2) 40°C
- (3) 65°C
- (4) 125°C

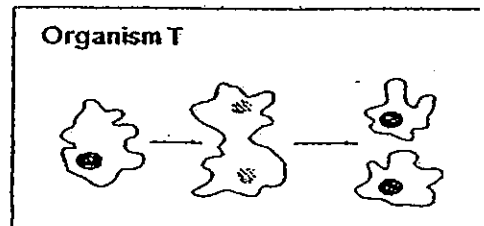
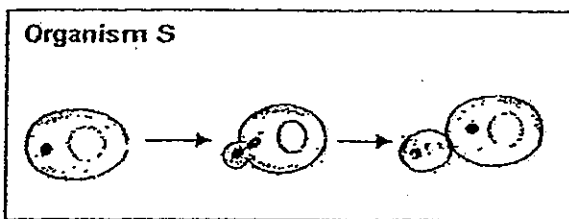
3 Look at the flow chart below carefully.



Which of the following correctly identifies the animals that the letters A, B, C and D represent?

	A	B	C	D
(1)	whale	penguin	housefly	mosquito
(2)	butterfly	eagle	dragonfly	guppy
(3)	cockroach	moth	snake	dragonfly
(4)	spider	sparrow	butterfly	tubifex worms

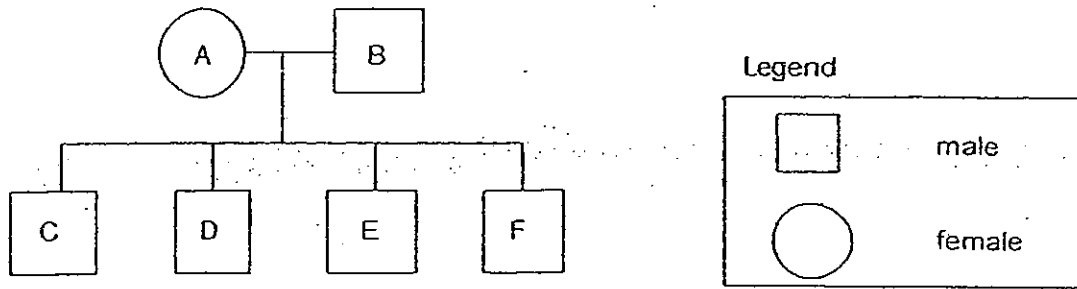
4 The diagrams below show two organisms reproducing themselves.



Which one of the following statements best describes Organisms S and T in the diagrams?

- (1) They are both single-celled organisms.
- (2) They reproduce through sexual reproduction.
- (3) Fertilisation has taken place in both organisms.
- (4) Each cell that is produced has different characteristics.

5 The following diagram shows the family tree of Wayne and his brothers.



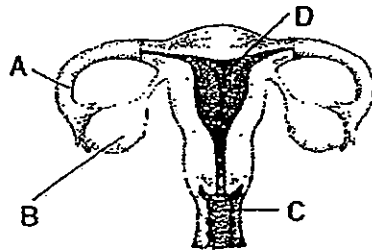
The table below shows the characteristics of his family members and a tick (✓) indicates that the person has that characteristic. Wayne is the one in the family who most resembles his father.

Family member	Characteristics			
	Single eyelids	Round face shape	Straight hair	Detached earlobe
A		✓	✓	✓
B	✓			✓
C	✓	✓	✓	
D		✓		✓
E	✓			✓
F	✓		✓	

Which letter in the family tree represents Wayne?

- (1) C
- (2) D
- (3) E
- (4) F

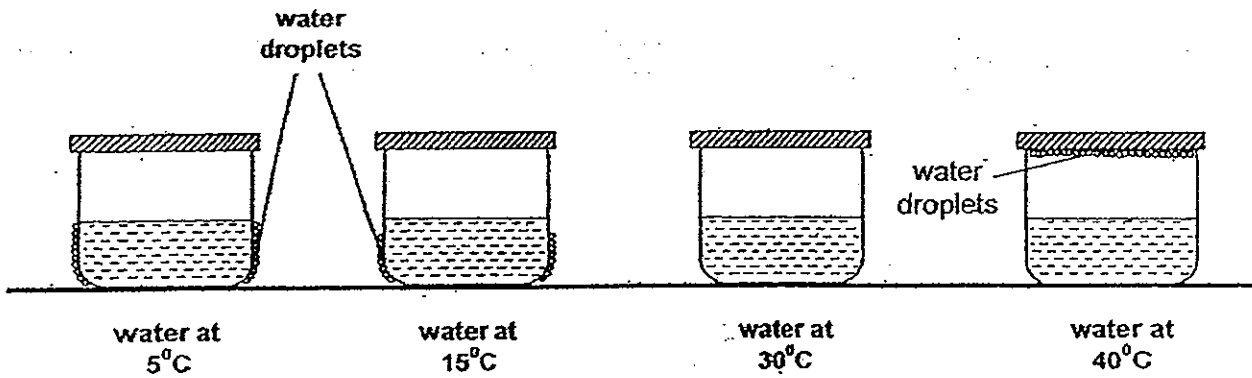
6 Doctors are able to fertilise a woman's egg in a test-tube before implanting the embryo into the woman's reproductive system.



In which part of the woman's reproductive system should the embryo be implanted?

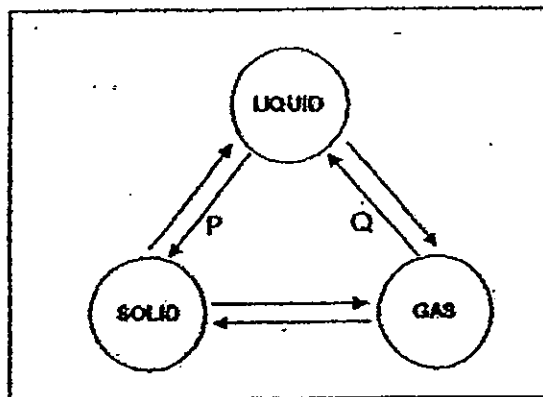
- (1) A
- (2) B
- (3) C
- (4) D

7. Haikal prepared four containers filled with equal amounts of water at 5°C , 15°C , 30°C and 40°C . He capped the containers and placed them in a special room. After 15 minutes, he observed the following.



What is the most likely temperature of the special room?

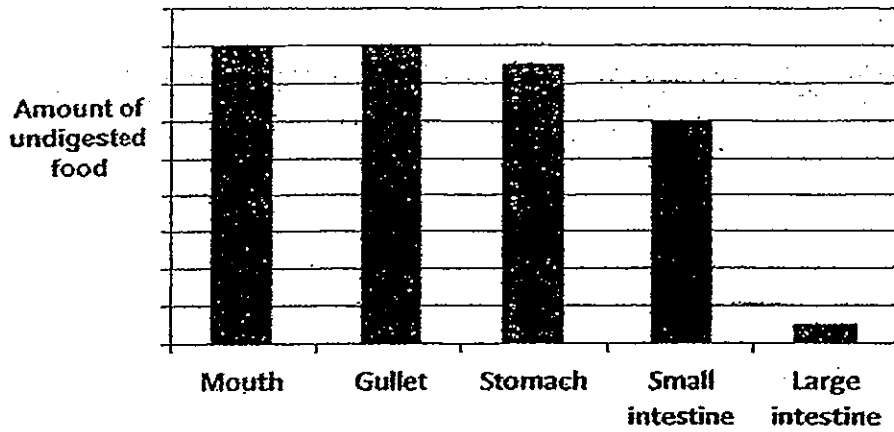
- (1) 10°C
 - (2) 18°C
 - (3) 32°C
 - (4) 50°C
- 8 Water can change from one state to another as shown below.



P and Q represent the processes in which water changes from one state to another. Which of the following is true about heat loss or heat gain during processes P and Q?

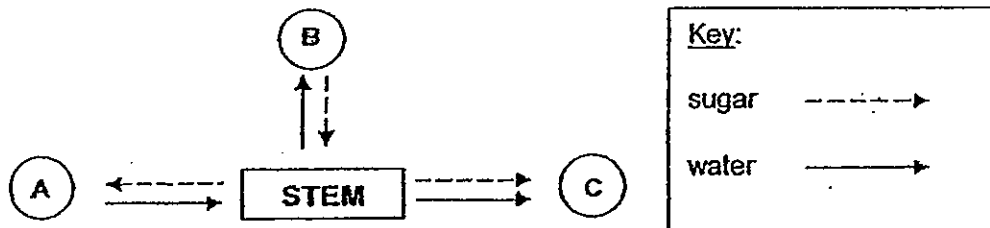
	P	Q
(1)	gained heat	gained heat
(2)	lost heat	lost heat
(3)	gained heat	lost heat
(4)	lost heat	gained heat

9. The graph below shows the amount of undigested food in the organ as it enters that organ in the digestive system.



Based on the graph shown, in which organ did most of the digestion take place?

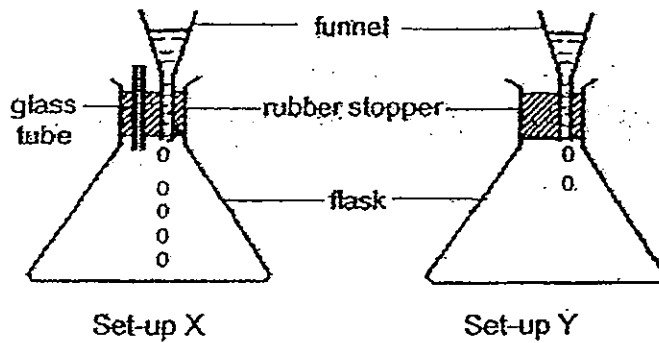
- (1) Mouth
 (2) Stomach
 (3) Small intestine
 (4) Large intestine
10. The diagram below shows how sugar and water are transported to and from different parts of a plant. The different parts of the plant are represented by the letters A, B and C.



Which of the following best represents the parts of the plant A, B and C?

	A	B	C
(1)	flowers	leaves	roots
(2)	roots	flowers	leaves
(3)	roots	leaves	fruits
(4)	fruits	roots	leaves

11 Aaron prepares two set-ups as shown below.

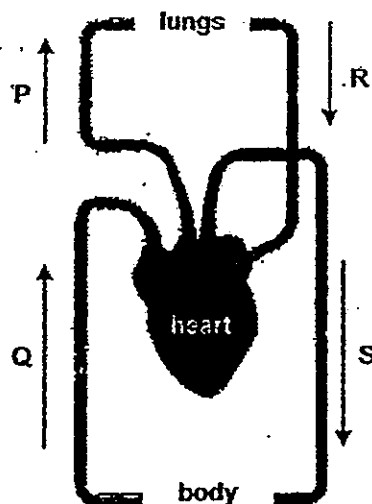


He pours water into the funnels of both set-ups. He observes that the water flows easily through the funnel in set-up X but only a few drops flow through the funnel in set-up Y.

Which of the following best explains his observation?

- (1) There is more water in set-up X.
- (2) The air in set-up X could escape.
- (3) The funnel in set-up Y is smaller.
- (4) The rubber stopper in Set-up Y was too big.

12 The diagram below depicts the human circulatory system.



P, Q, R and S are blood vessels that connect the various organs. Which of the blood vessels carry oxygen-rich blood?

- (1) P and Q
- (2) P and S
- (3) Q and R
- (4) R and S

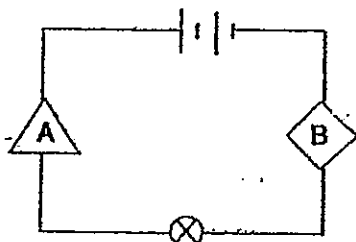
- 13 Zachary observed two cells and recorded the observations in the table below. A tick (✓) indicates that the part is present in the cell.

Cell part	Cell M	Cell N
Nucleus	✓	✓
Cell membrane	✓	✓
Cell wall		✓
Cytoplasm	✓	✓
Chloroplasts		✓

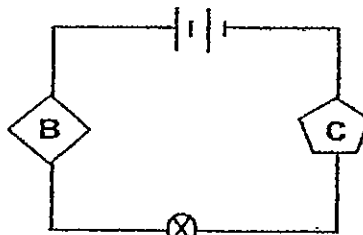
Based on the table above, what can Zachary conclude about Cells M and N?

	M	N
(1)	From an animal	From a plant
(2)	From the root of a plant	From the leaf of a plant
(3)	Is a red blood cell	Is a white blood cell
(4)	From a plant	From an animal

- 14 Dylan set up the circuits below using a bulb, 2 batteries and 3 objects A, B and C.

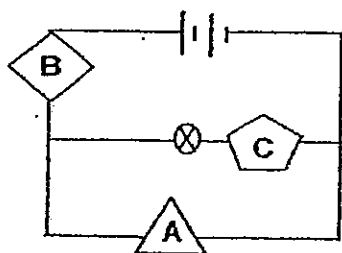


Circuit 1

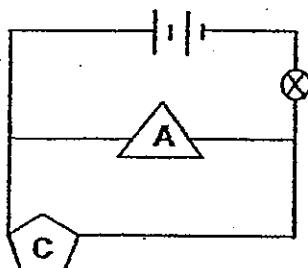


Circuit 2

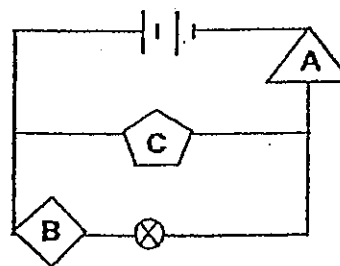
He observes that Circuit 2 lights up but Circuit 1 does not light up. He uses the same objects A, B and C to form the circuits below.



Circuit 3



Circuit 4



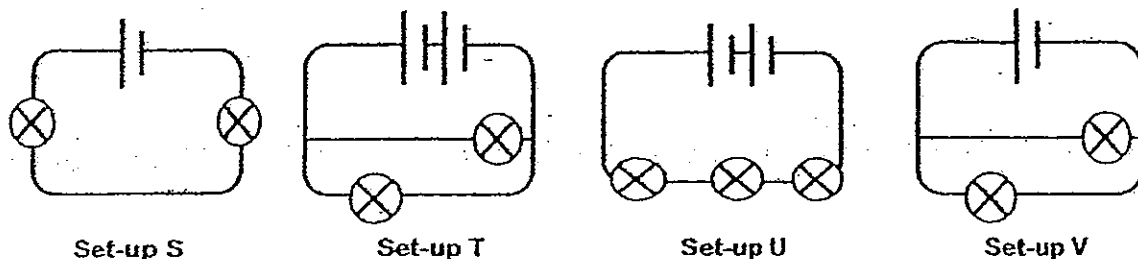
Circuit 5

He used the objects A, B and C again to set up the circuits below.

Dylan would see the bulb lighting up in circuit(s) _____.

- (1) 4 only
- (2) 3 and 4 only
- (3) 4 and 5 only
- (4) 3, 4 and 5

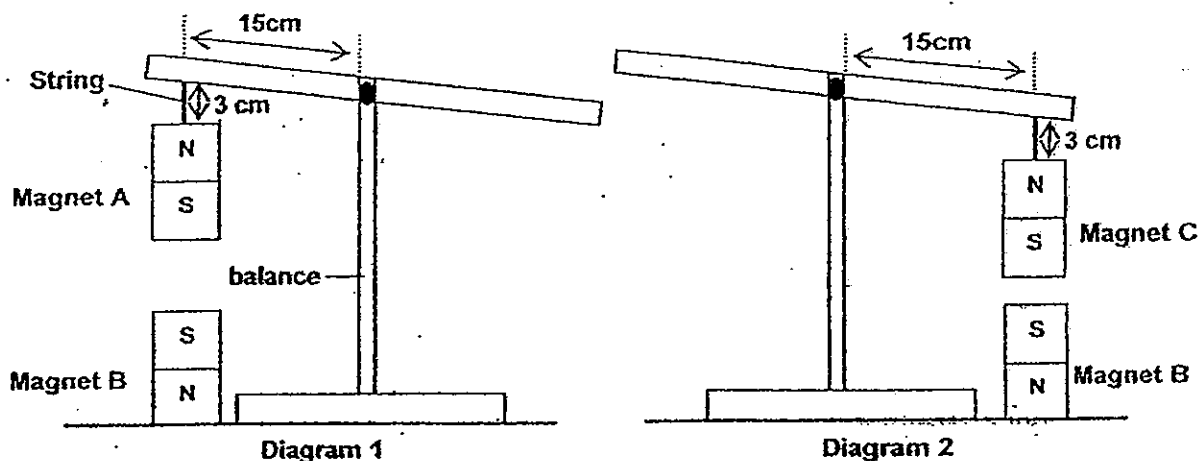
15 Raju wanted to find out if the arrangement of bulbs would affect the brightness of the bulbs.



If the bulbs are similar and the batteries are of equal voltage, Raju should use set-ups _____ to ensure a fair test.

- (1) S and T
- (2) S and V
- (3) T and V
- (4) U and V

16 Gabriel has three magnets, A, B and C, of the same size and mass. He set up an experiment as shown in diagram 1 using magnets A and B and repeated his experiment with magnets B and C.

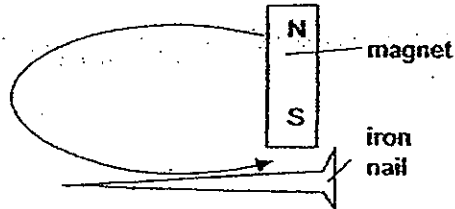


Based on the above results, which of the following statement(s) about the magnets is/are correct?

- A All the magnets are of equal strength.
- B A force is present between the magnets in the set up above.
- C Magnet A would be able to attract more steel paperclips than C.

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

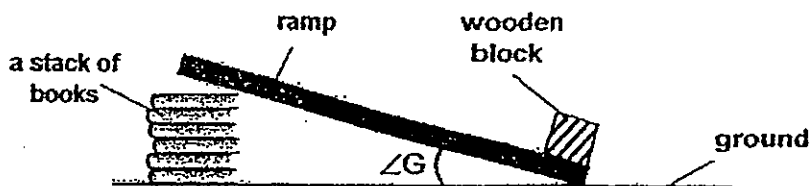
- 17 Jane used the stroking method shown below to turn her iron nails into temporary magnets. She then tried to pick up as many paper clips as she could with her magnetised nails. The table below shows the number of paper clips each magnetised nail managed to pick up.



	Nail A	Nail B	Nail C	Nail D
Number of paper clips picked up	2	7	5	10

Arrange the strength of the magnetised nails from the weakest to the strongest.

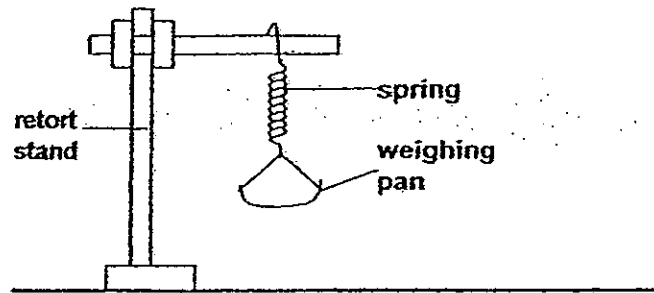
- (1) A, C, B, D
 (2) A, D, C, B
 (3) B, A, D, C
 (4) B, D, C, A
- 18 Xavier conducted an experiment as shown below to investigate how the angle of a ramp, ($\angle G$), affects the amount of force needed to move a wooden block up the ramp.



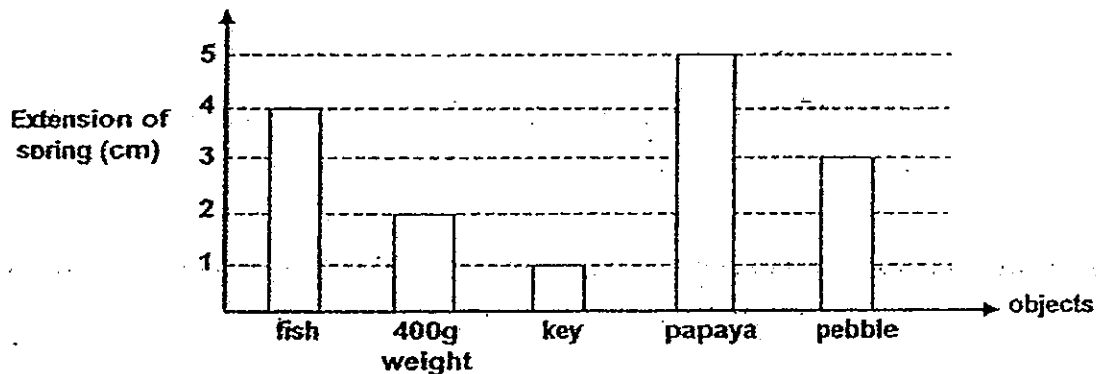
Which of the following variables must he keep the same to ensure that his experiment is fair?

- A Number of books
 B Material of the ramp
 C Size of the wooden block
 D Mass of the wooden block
- (1) A, B and C only
 (2) A, C and D only
 (3) B, C and D only
 (4) All of the above

- 19 William conducted an experiment to determine how much a spring would stretch when different objects were placed in the weighing pan. He set up the apparatus as shown below.



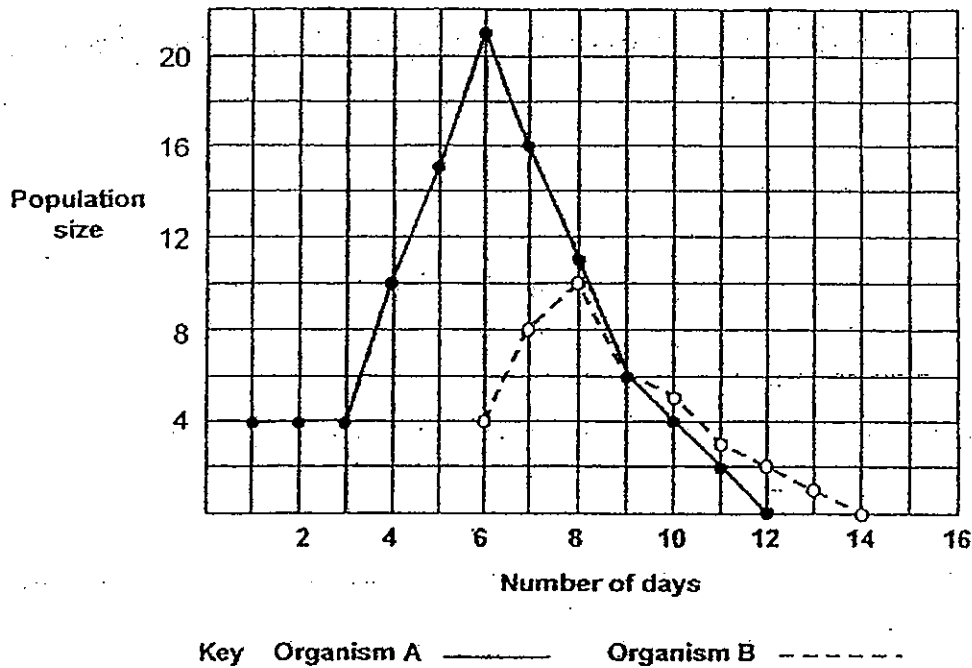
He plotted the results of his experiment in the graph below.



Which object is likely to weigh 600g?

- (1) key
 - (2) fish
 - (3) pebble
 - (4) papaya
- 20 An Angsana tree along Winstedt Road has two bird's nest ferns and some dragon scale ferns growing on it. Ants, squirrels and some mynahs live on the tree too. There are some chicks in the mynahs' nest. How many populations are sustained by the tree?
- (1) 4
 - (2) 5
 - (3) 6
 - (4) 7

- 21 Andy and his friends placed some organisms A in an aquarium. A few days later, they placed some organisms B into the same aquarium. They observed how the number of organisms A and B changed over two weeks and plotted their observation in the graph below. The living condition in the aquarium was favourable for both types of organisms.



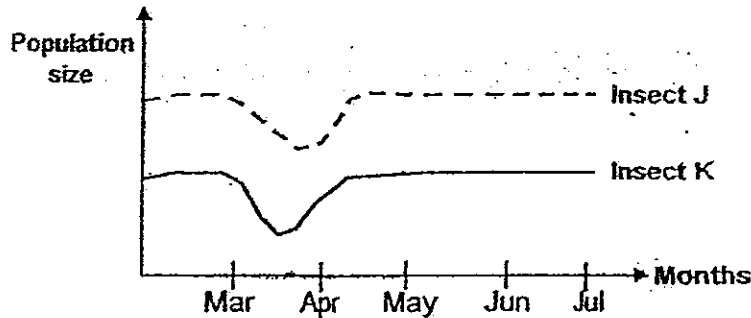
The children made the following statements at the end of their investigation.

- John : Organism A was the predator of organism B.
 Kumar : There were no more organisms A and B at the end of the two weeks.
 Alice : The population size of both organisms was the same on one of the days.
 Andy : The largest population size of organism A was 20 while that of organism B was 10 during the two weeks.

Based on the information from the graph only, whose statements are correct?

- (1) Andy and Alice
- (2) Andy and John
- (3) Alice and Kumar
- (4) John and Kumar

- 22 Farmer Lee sprayed insecticide in March to prevent insects J and K from destroying his crops. He monitored how the population of both insects changed before and after he sprayed the insecticide and recorded his observation in the graph below.

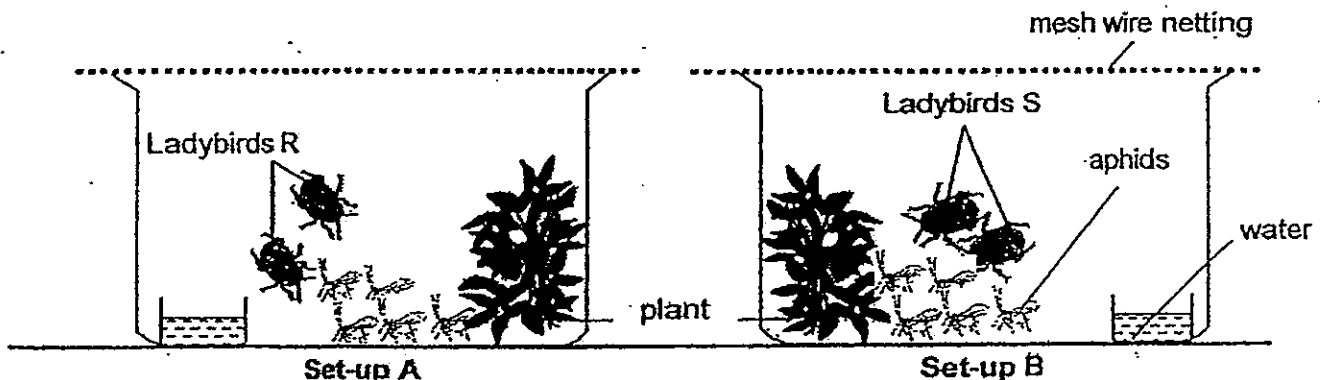


Which of the following are possible reasons for insects J and K to return to their original numbers after some time?

- A The farmer stopped spraying insecticide.
- B Heavy rain washed away the insecticide.
- C Other types of insects joined the community.
- D The insects were not affected by the insecticide.

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

- 23 Ian conducted an experiment to find out which species of ladybird, R or S, can better control the population of aphids in his plantation. He put 2 Ladybirds R in Set-up A and 2 Ladybirds S in Set-up B. He also placed an equal number of aphids in each set-up and left them undisturbed for a day.



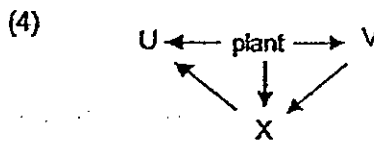
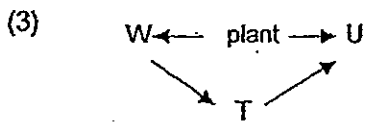
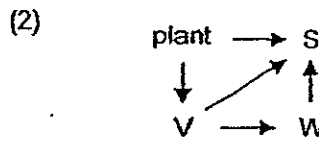
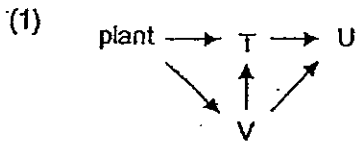
To determine which specie of ladybird to use to control the aphids, he should choose the set-up which has the _____.

- (1) most amount of water left
- (2) least amount of leaves left
- (3) least number of aphids left
- (4) most number of ladybirds left

24 The table below shows how some animals have been grouped.

Herbivore	Carnivore	Omnivore
S	T	U
V	W	X

Which of the following is a possible food web based on the above information?

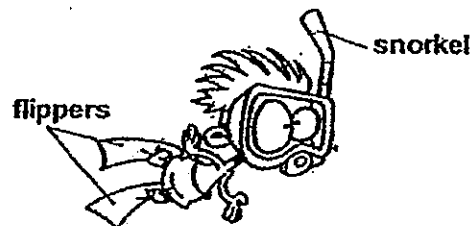


25 Which of the following examples are behavioural adaptations of animals?

- A Wolves hunt in packs to catch their prey more easily.
- B Some animals have a special smell to attract their mates.
- C Some birds move from one place to another to avoid winter.
- D Some butterflies have eyespots on their wings to scare their predators.

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

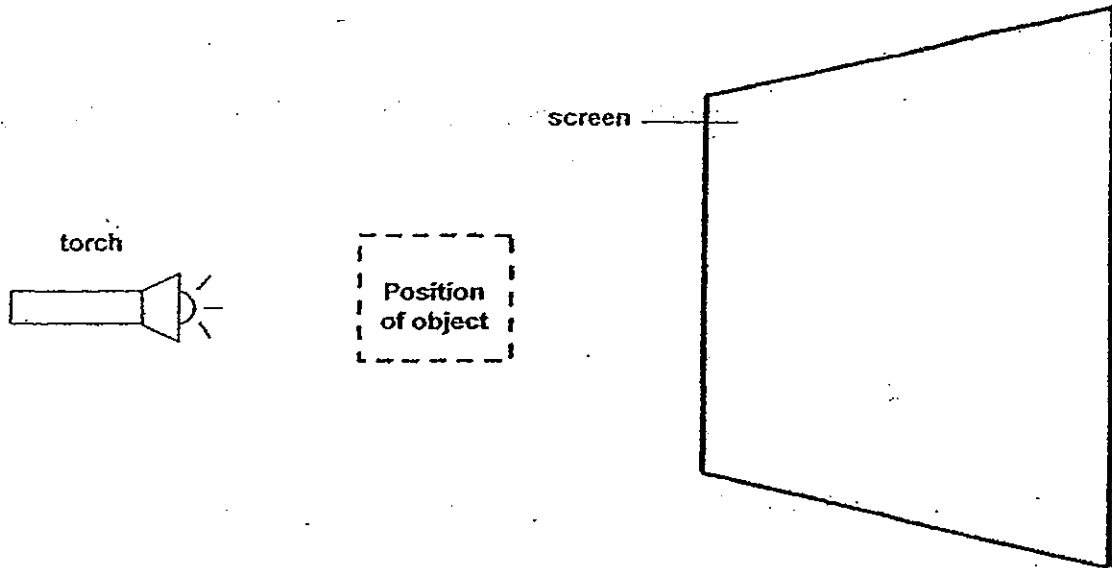
26 Some inventions imitate the adaptations of animals. The diagram below shows a girl wearing snorkelling gears and flippers under water. Which of the following animals could flippers and snorkelling gears have been imitated from?



- A Turtle
- B Dragonfly nymph
- C Water stick insect
- D Great diving beetle

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

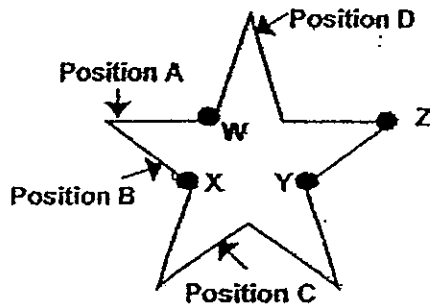
27 The diagram below shows a torchlight shining at an object.



Which one of the following objects would cast the darkest shadow when light is shown at it? *Shon!*

- (1) glass beaker
- (2) frosted glass
- (3) tracing paper
- (4) five-cent coin

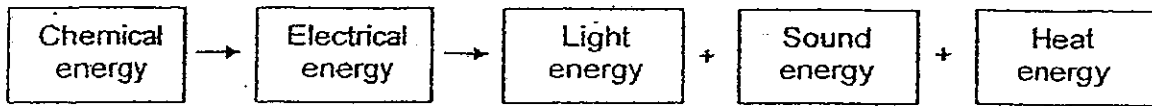
28 W, X, Y, and Z are 4 similar blobs of wax on a piece of copper wire that was bent into the shape of a regular star. When the copper wire was strongly heated at a certain point, the blobs of wax began to melt in the order of W, X, Z, Y.



At which position, A, B, C or D, was the wire most likely to be heated?

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

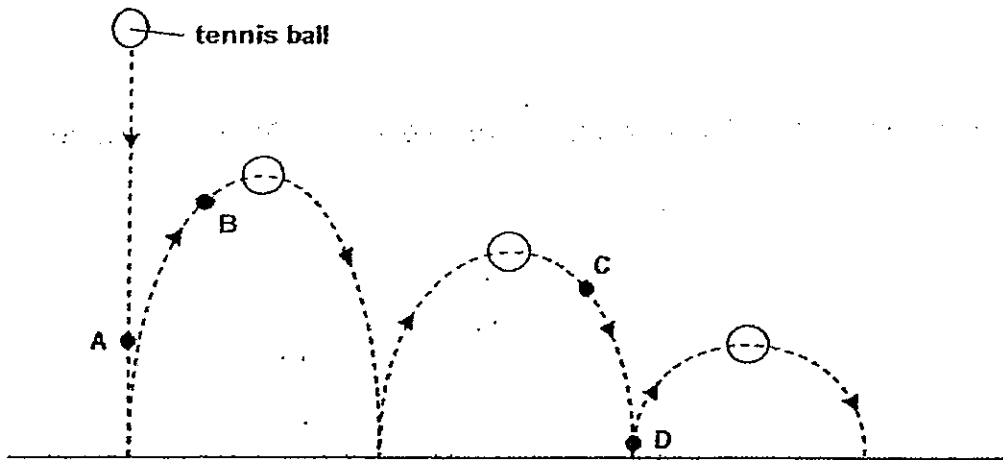
29 Study the energy conversion below.



The energy conversion shown above is most unlikely to be found in a _____.

- (1) Radio
- (2) Television
- (3) Street lamp
- (4) Mobile phone

30 Winston dropped a tennis ball from a certain height. The ball bounced to a lower height each time it hit the ground as shown below.



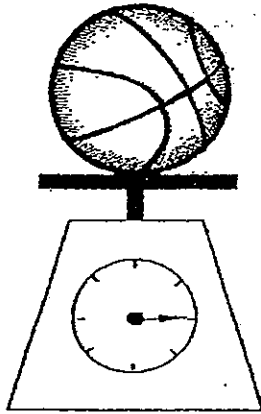
At which points does the tennis ball have more kinetic energy than gravitational potential energy?

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

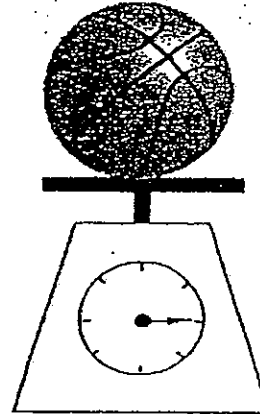
Section B (40 marks)

For questions 31 to 44, write your answers in this booklet. The number of marks available is shown in brackets [] at the end of each question or part question.

31. Jonathan placed two similar basketballs, A and B, on weighing scales as shown below. The basketballs have equal volumes of $6\,000\text{ cm}^3$

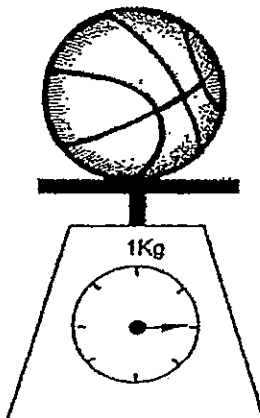


Basketball A

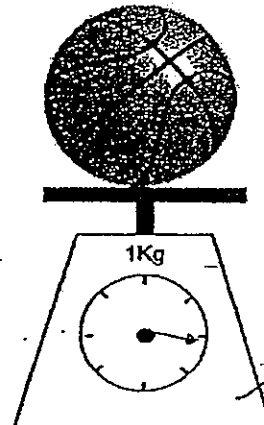


Basketball B

- (a) Jonathan pumped 500 cm^3 of air into basketball B and placed both basketballs on the weighing scales again. In the space below, draw the needle of the weighing scale to show what Jonathan would observe about the reading. [1]



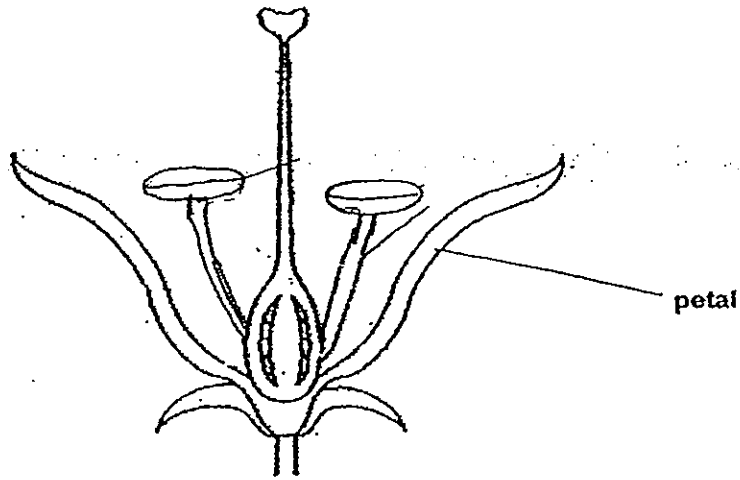
Basketball A



Basketball B

- (b) After 500 cm^3 of air was pumped into basketball B, what would be the total volume of air in basketball B? Explain your answer. [1]

32. The diagram below shows a bisexual flower (having both male and female parts) with missing parts.



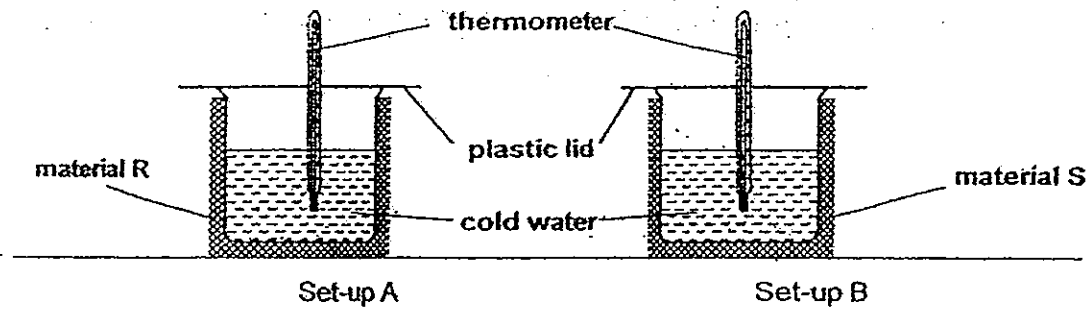
- (a) Will the flower shown in the diagram be able to develop into a fruit? Give a reason for your answer. [1]

- (b) The flower in the diagram has large petals. Explain what might the flower not be able to do if the petals were removed. [1]

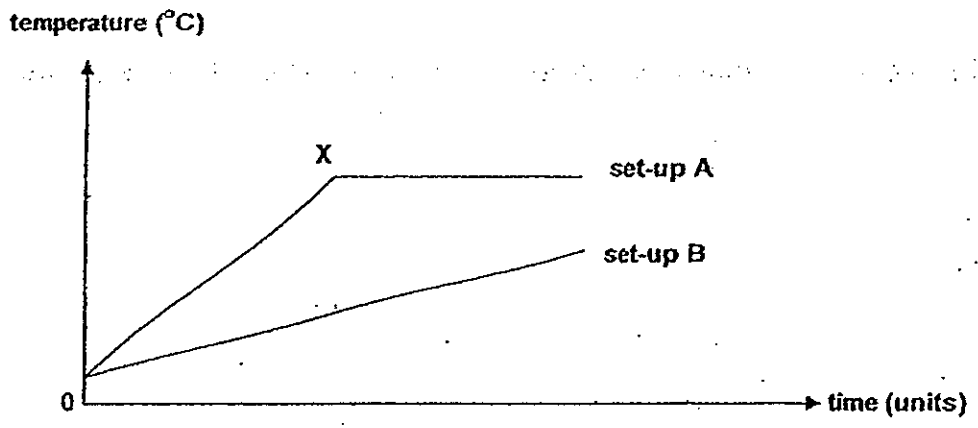
- (c) In the diagram above, draw and label the missing parts of the flower. [1]

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33. Lukas conducted an experiment using set-ups A and B as shown below. He wrapped a glass beaker with material R and another identical glass beaker with material S. He filled both beakers with the same volume of cold water at 5°C.



Lukas measured the temperature of the water at regular intervals over an hour and plotted his results in the graph below.

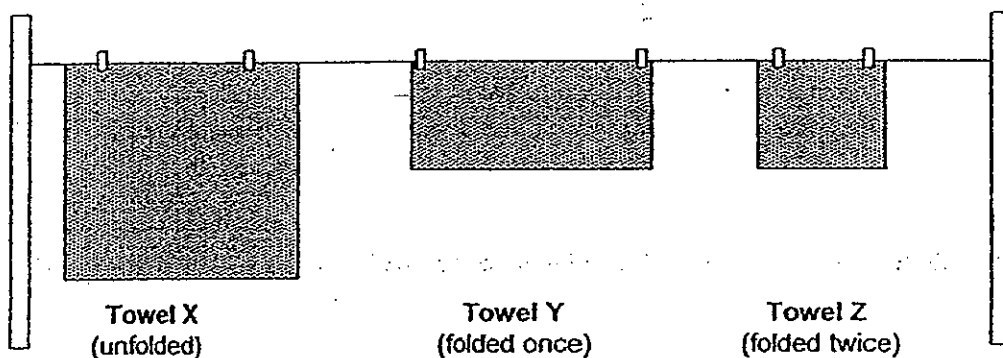


- (a) What happened at point X of the graph of set-up A that caused the temperature to remain constant after that? [1]

- (b) Compare the rate of heat gain between the water in set-up A and set-up B. [1]

(c) Which material is better suited for making a frying pan? Explain your choice. [1]

34. Nicholas carried out an experiment using three towels, X, Y and Z, which are of the same size. He soaked each of the towels in water and weighed them to ensure that each of them weighed 200g. He folded Towel Y once and Towel Z twice. Towel X was unfolded. He then hung them out to dry in the open. Nicholas wanted to prove that Towel X would weigh the least at the end of 60 minutes since it had the biggest exposed surface area.



He weighed the towels at 15-minute intervals and recorded the mass of the towel in the table below.

Towel	Start of experiment	15 min	30 min	45 min	60 min
X	200g	185g	172g	158g	140g
Y	200g	160g	130g	95g	57g
Z	200g	170g	142g	118g	90g

(a) What was the aim of Nicholas' experiment? [1]

(b) Towel X did not weigh the least at the end of 60 minutes. Suggest a reason why this might be so. [1]

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(c) How would the results have been different if the towels had been hung indoors?

35. The table below describes the various stages of the growth of a bean seed.

Stage Number	Description
	The seed leaves drop off.
	The root grows downwards.
	The shoot grows upwards.
1	Seed coat breaks.
	The young leaves appear.

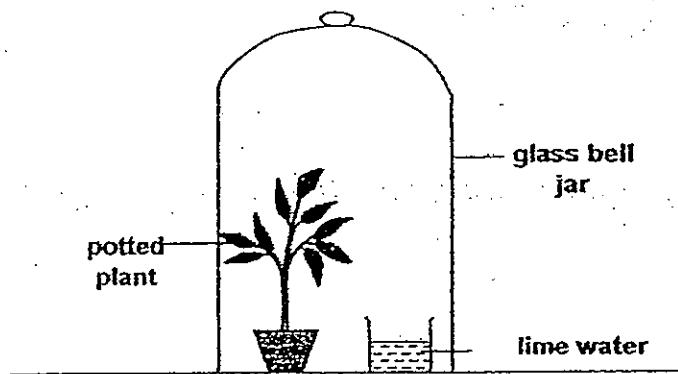
(a) Arrange them in the correct order by writing its stage number, 1 to 5, in the box next to the description. Stage 1 has been indicated for you. [1]

(b) What conditions are necessary for the seed to reach Stage 1? [1]

(c) What is the source of energy for the seed at Stage 1? [1]

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Zavier set up the experiment shown below and left the set-up in a darkened room.



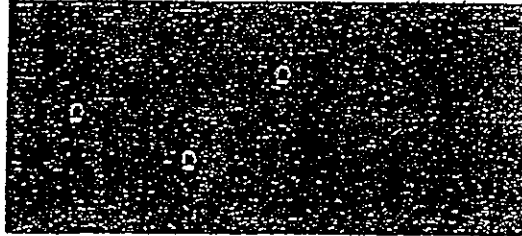
After two days, he observed the set-up and made the conclusion that carbon dioxide is given out during respiration.

(a) Why did Xavier have to put the set-up in a darkened room? [1]

(b) In the space provided below, draw and label a control experiment to confirm the result of his experiment. [1]

(c) What difference should Xavier observe between the two set-ups after two days to confirm the results of his experiment? [1]

37. Alex set up a circuit with a switch, two batteries and three identical bulbs X, Y and Z. The circuit was hidden in a box while the bulbs were exposed. The diagram below shows the position of the bulbs.

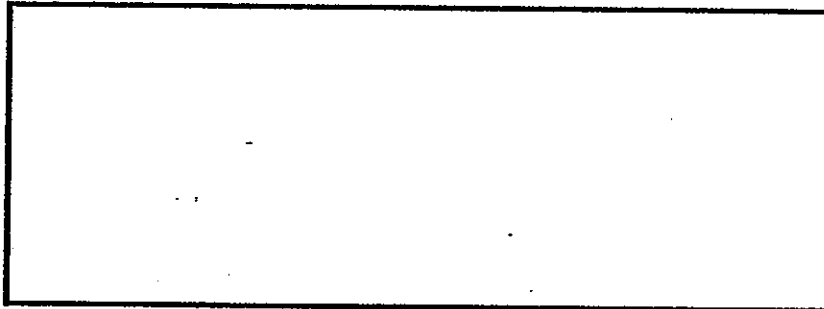


- (a) When the switch was closed, all three bulbs lit up. Alex then removed the bulbs X, Y and Z one at a time while the switch remained closed. He made the following observations. (Only one bulb was removed from the circuit each time.)

Bulb removed	Observations
X	Y and Z remained lit
Y	Z went off but X remained lit
Z	Y went off but X remained lit

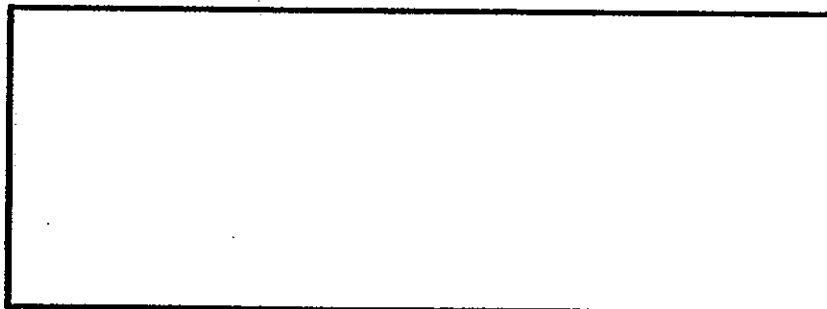
In the space provided below, draw how the circuit has been connected. Label the bulbs.

[1]



- (b) Alex wanted the other 2 bulbs to stay lighted up when any one of the bulbs is removed while the circuit is closed. Draw how he should connect the circuit in the space provided below. Label the bulbs.

[1]

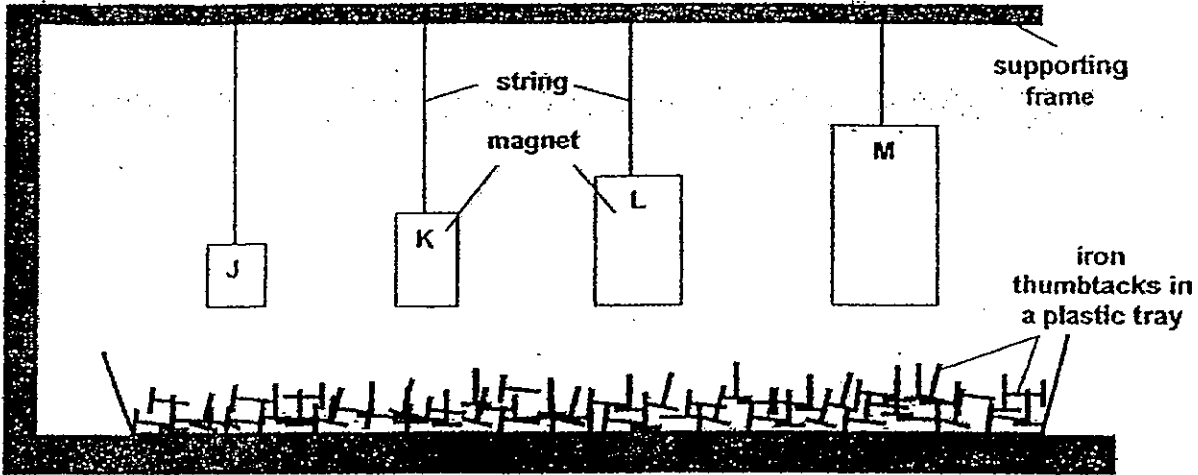


- (c) Without moving or changing the bulbs, what could he do to the circuit in part (b) if he wanted the bulbs to glow brighter?

[1]



38. Fred hung four different magnets, J, K, L and M, an equal distance from a tray of thumbtacks as shown below.



He recorded the number of pins each magnet was able to attract in the table below.

Magnet	Number of pins attracted to the magnet			
	1 st try	2 nd try	3 rd try	Average
J	18	17	19	18
K	7	5	6	6
L	12	13	14	13
M	3	2	4	3

- (a) Based on the results of Fred's experiment, what could he be trying to find out? [1]

- (b) From the data collected, what could Fred conclude about the strength of the magnets and its size? [1]

- (c) Based on the result of Fred's experiment, arrange the magnets according to their strength. Begin with the weakest magnet. [1]

39 Georgina planted long bean plants in four similar flower beds A, B, C and D. The table below shows the conditions of the flower beds.

Bed	Presence of weeds	Presence of dead plants
A	Absent	Absent
B	Absent	Present
C	Present	Present
D	Present	Absent

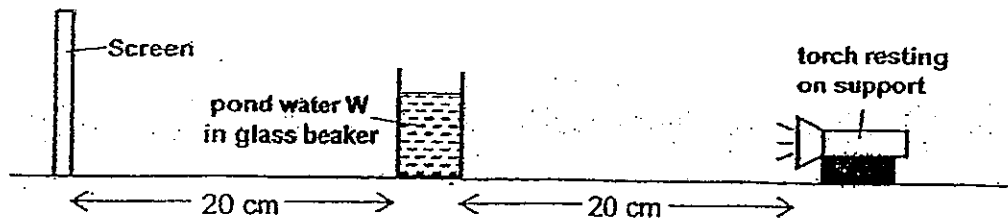
- (a) If Georgina wanted to find out if the presence of dead plants would affect the growth of the long bean plants, which 2 flower beds should she use to conduct her investigation in order to get the best conclusion? [1]

- (b) Based on the above information, which flower bed would grow the best long bean plant? Explain your choice. [1]

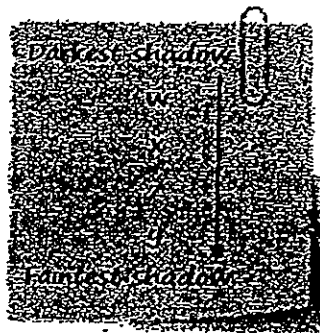
- (c) How does the presence of weeds affect the growth of the long bean plants? [1]

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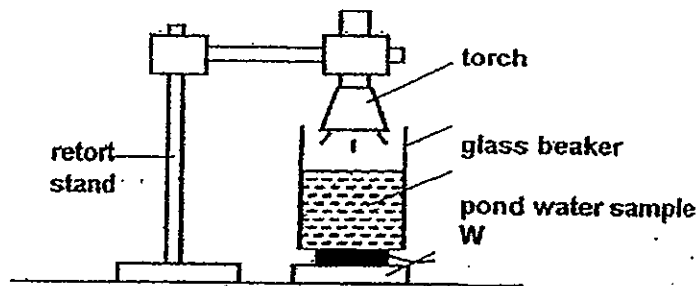
40. Gareth collected four samples of pond water, W, X, Y and Z. He first set up the experiment as shown below. Each sample of pond water was placed 20cm from the screen and 20cm from the torch.



He noted the darkness of the shadow cast by each sample of pond water on a piece of paper as shown below.



Using the same samples of pond water, Gareth set up another experiment as shown below.



He shone light through 100ml of pond water W. Using a light sensor which is attached to a datalogger, he measured the amount of light that was able to pass through the beaker of pond water. He repeated the same experiment with pond water samples, X, Y and Z, and recorded his observation in the table below.

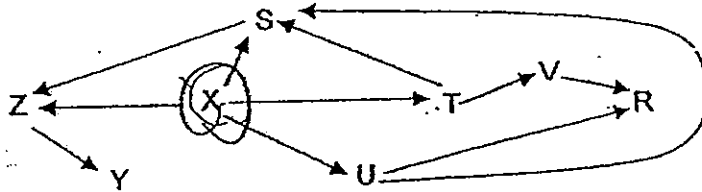
Pond water sample	Amount of light detected for each sample of pond water (lux)			
	1 st reading	2 nd reading	3 rd reading	Average reading
	501	498	486	495
	800	802	810	804
	62	58	63	61
	1103	1112	1106	1107

- (a) In his hurry to complete the experiment, Gareth forgot to indicate the pond water samples in his table. Using information from the first experiment, write "W", "X", "Y" and "Z" in the table above. [1]

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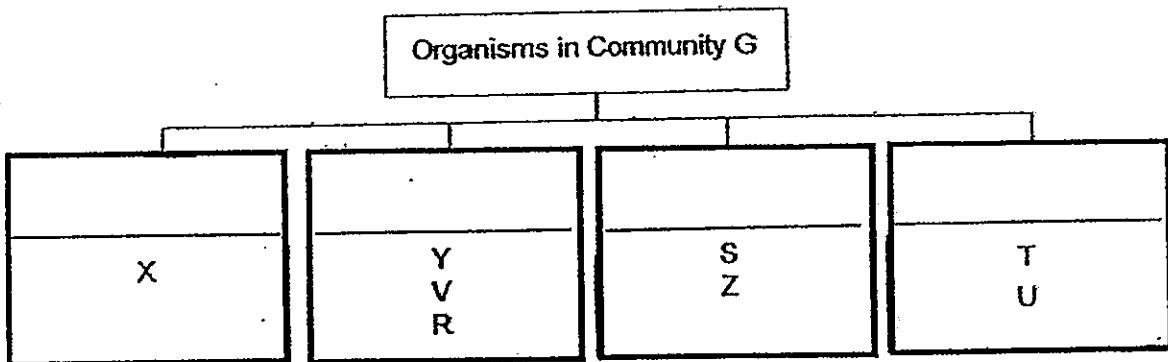
- (b) Based on the results of Gareth's investigation, which pond water sample will expect the fully-submerged aquatic plants to grow best? Give a reason. (1)

41 The diagram below shows a food relationship in Community G.



- (a) Write down a 4-organism food chain that involves organism Y. [1]

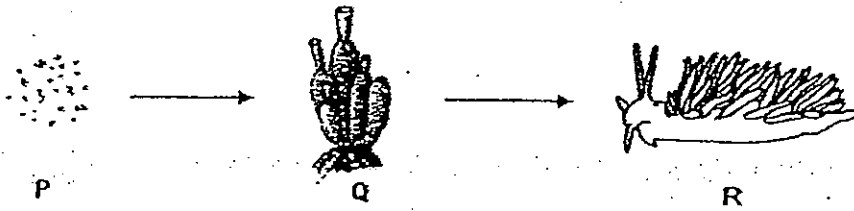
- (b) The organisms were classified into 4 groups as shown below. Write suitable sub-headings for each group in the blanks below. [1]



- (c) Explain how the population of V will be affected if the population of S were to decrease. [2]

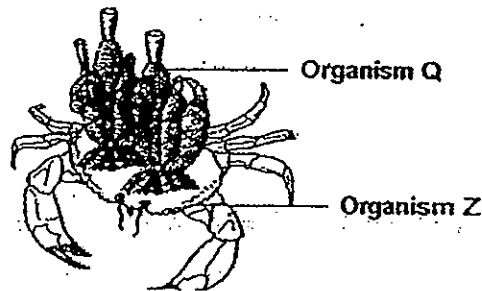
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42. The food chain below shows the food relationship among three organisms, P, Q and R.



Organism Q can be found in water that is slightly further away from the seashore. It has only a few types of predators as it is usually poisonous.

The diagram below shows how two organisms, Q and Z, depend on each other. Organism Z cuts out pieces of Organism Q and attaches them onto itself. The pieces of Organism Q which are attached on Organism Z can survive well.



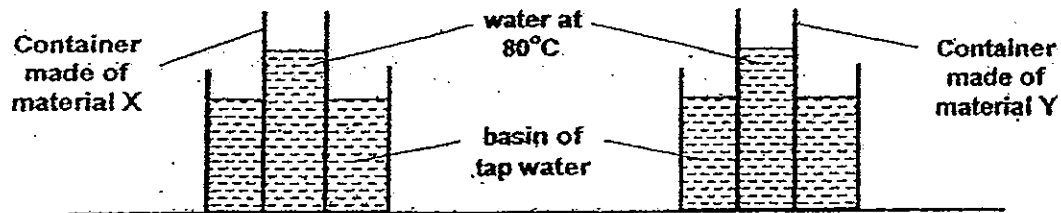
(a) Give a reason for Organism Z to attach pieces of Organism Q onto itself. [1]

(b) State 2 ways in which the pieces of Organism Q that are attached to Organism Z may benefit from the above relationship. [2]

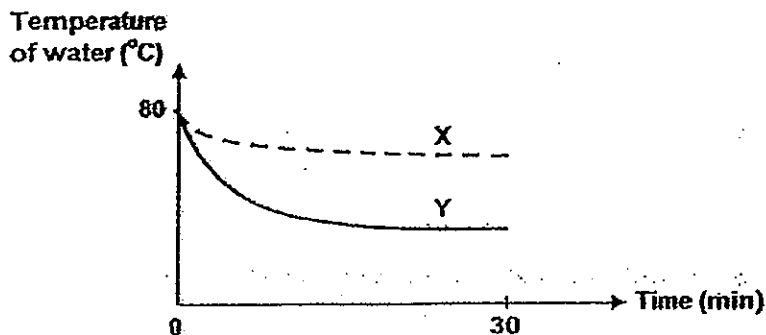
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43

Ivan wanted to investigate the thermal conductivity of two materials, X and Y. Using two similar-sized containers made of X and Y, he poured water of 80°C into each of them. He then placed the two containers into two identical basins each filled with an equal amount of tap water as shown in the diagram below and left both set-ups in the same room.



Ivan measured the temperature of the water in both containers every 2 minutes for 30 minutes and plotted his observation in the graph below.

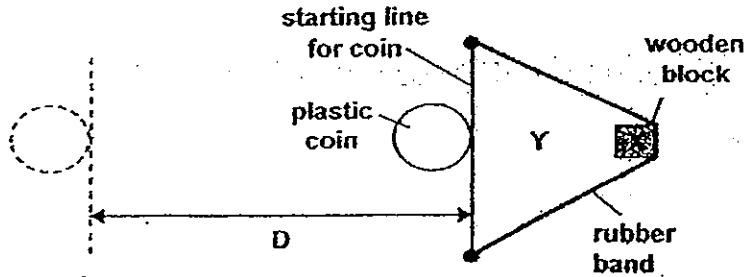


(a) State a variable which Ivan has to keep constant to ensure that his investigation is fair. [1]

(b) Based on the results of Ivan's investigation, compare the ability of materials X and Y to conduct heat. [1]

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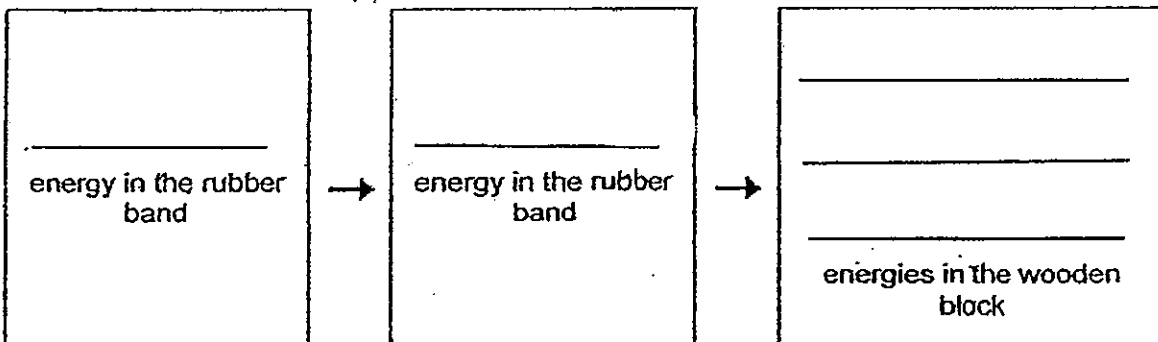
- 44 James conducted an investigation to find out how the mass of a plastic coin would affect the distance it will move when it is pushed by a wooden block. He placed the coin at the starting line and then pulled the wooden block with a rubber band attached to it to point X as shown below.



James observed that when he released the wooden block, it moved forward and pushed the coin. The distance moved by the coin, (D), was measured and recorded in the table below. He repeated the experiment using plastic coins of different mass.

Mass of plastic coin (g)	Distance moved (D) / (cm)		
	1 st try	2 nd try	Average
20	32.3	30.7	31.5
30	23.7	22.1	22.9
40	15.2	13.8	14.5

- (a) Fill in the blanks to show the energy conversion from the time the rubber band was pulled to point X to the time when the plastic coin stopped moving. [1]



- (b) Based on the results of James' investigation, what is the relationship between the mass of the plastic coin and the distance moved by the coin? [1]

- (c) James repeated the experiment by pulling the same wooden block with the same rubber band to point Y this time. Explain how the distance moved would be affected. [1]

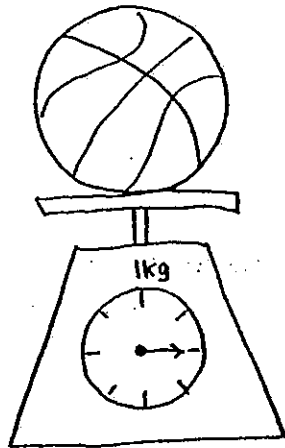
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Exam Paper 2013 Answer Sheet

School: ANGLO-CHINESE SCHOOL (JUNIOR)
Subject: PRIMARY 6 SCIENCE
Term: SA1

1) 4	6) 4	11) 2	16) 3	21) 3	26) 1
2) 1	7) 3	12) 4	17) 1	22) 1	27) 4
3) 1	8) 2	13) 1	18) 3	23) 3	28) 1
4) 1	9) 3	14) 2	19) 3	24) 4	29) 3
5) 3	10) 3	15) 2	20) 2	25) 1	30) 2

31. (a)

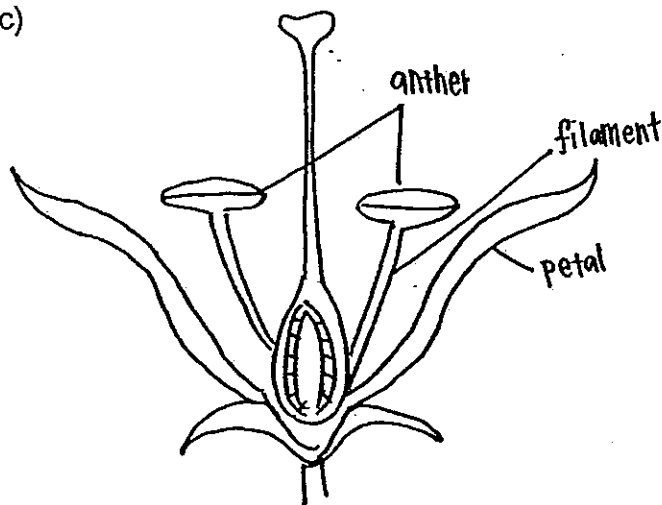


(b) The total volume of air is still 6000 cm^3 because air can be compressed.

32. (a) Yes, it will. The flower is pollinated by insects. It has the needed parts, the stigma, style, the ovary and the ovules to develop into a fruit.

(b) It might be able to attract insects to help it with pollination.

(c)



33. (a) The water reached room temperature.

(b) The cold water in set-up A gained heat faster than the cold water in set-up B.



(c) Material R. It is a good conductor of heat thus it will cook the food in a frying pan faster.

34. (a) He wanted to find out if the amount of surface area affects the rate of evaporation.

(b) Towel X was made of a different material.

(c) There would be a smaller decrease in the mass.

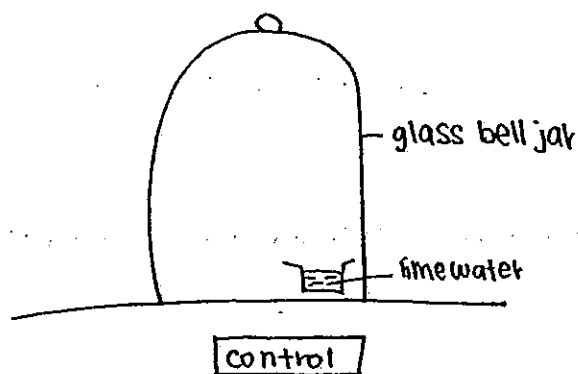
35. (a) 5, 2, 3, 1, 4

(b) Water, warmth, air.

(c) They stored food in the seed leaves.

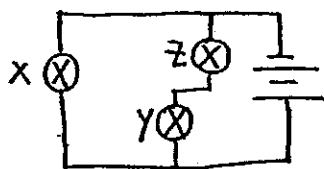
36. (a) So that the plant would not use up the carbon dioxide to photosynthesis.

(b)

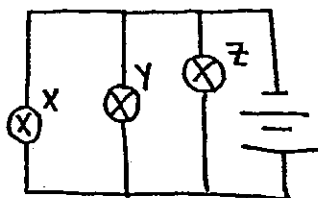


(c) Xavier would observe the limewater in the set-up with the potted plant turn chalky while the limewater in the control set-up would not turn chalky.

37. (a)



(b)



(c) He could add more batteries.

38. (a) Fred was trying to find out how the different magnets can affect the number of pins attracted.



(b) The bigger the magnet does not mean the magnet is strong, the smaller the magnet does not mean the magnet is weak.

(c) M, K, L, T

39. (a) A and B.

(b) Flower bed B. When other organisms decompose the dead plant, the nutrients of the decomposed plant would seep into the soil thus allowing the long bean to take in the nutrients.

(c) When there are weeds, they will fight with the long bean plants for water, sunlight and mineral salts.

40. (a) X, Z, W, Y

(b) Pond water sample Y. Most of the light can pass through it and reach the fully submerged aquatic plants thus allowing them to photosynthesis.

41. (a) $X \rightarrow S \rightarrow Z \rightarrow Y$

(b) Food producer; Carnivores; Omnivores; Herbivores

(c) When the population of S decreases, the population of T increases, as there is more X for T to feed on. With more T, there will be more prey for organism V to feed on and the population of V will increase.

42. (a) As Q is usually poisonous, organism Z uses it to scare away its predators.

(b) As Z carries Q around with it, Q can get to move around to feed on more food. Q can also escape from its predators.

43. (a) The amount of basin water.

(b) X conducts heat away slower than Y.

44. (a) Elastic potential \rightarrow Kinetic \rightarrow Kinetic + Sound + Heat

(b) The heavier the mass of the plastic coin, the lesser the distance moved by it.

(c) There is lesser elastic potential energy in the rubber band thus it would be converted into lesser kinetic energy in the moving rubber band thus the distance moved by the plastic coin would be shorter.

