



PRIMARY 6 MID-YEAR EXAMINATION 2014

Name : _____ () Date: 19 MAY 2014

Class : Primary 6 ()

Time: 8.00a.m. to 9.45 a.m.

Parent's Signature : _____

Duration: 1h 45min

Marks: _____ / 60

**SCIENCE
BOOKLET A**

INSTRUCTIONS TO CANDIDATES

Write your name, class and register number.

Do not turn over this page until you are told to do so.

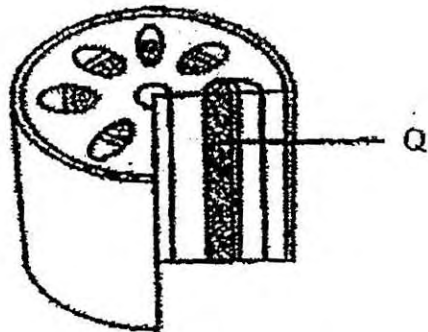
Follow all instructions carefully.

Answer all questions.

Booklet A (30 x 2 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 on the Optical Answer Sheet (OAS) provided.

1. The diagram shows a section through a stem.



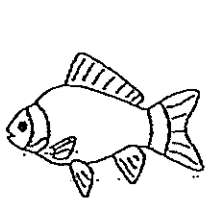
Which is the main transport function of tissue Q?

	Substance transported	Carried from	Carried to
(1)	sugar	roots	leaves
(2)	sugar	leaves	roots
(3)	water	roots	leaves
(4)	water	leaves	roots

2. Which of the following statements about dispersal is correct?

- (1) Dispersal only occurs in plants with seeds.
- (2) All dispersed seeds will grow into new plants.
- (3) Seeds that are dispersed by animals can be edible or inedible.
- (4) Dispersal has occurred when seeds are transferred from the anthers to the stigmas.

3. Jane had to classify the four animals shown.



fish



bat

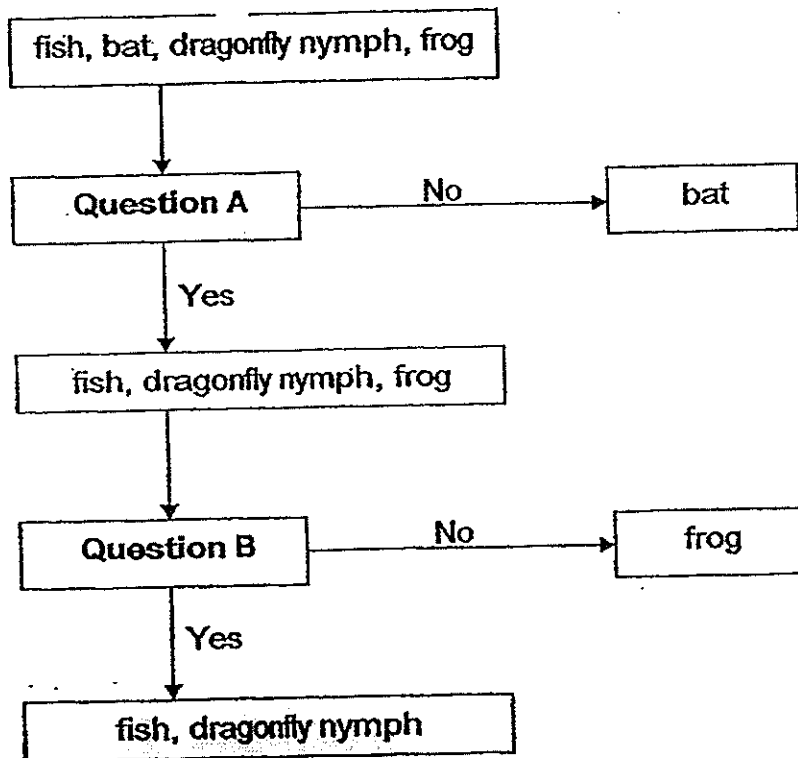


dragonfly nymph



frog

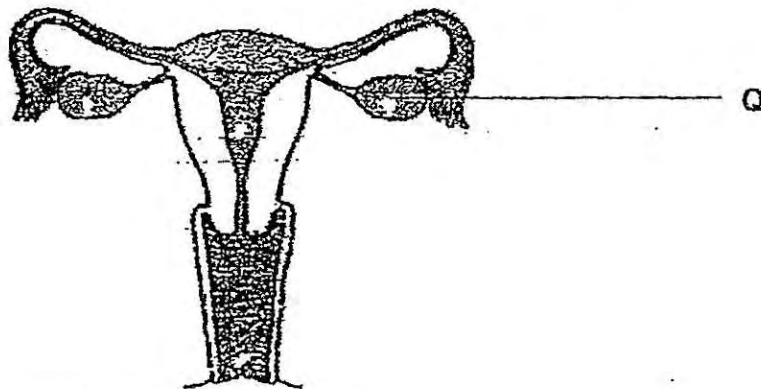
She classified them with the help of the chart below.



What were the two questions, A and B?

	Question A	Question B
(1)	Do they lay eggs?	Do they take care of their young?
(2)	Do they breathe underwater?	Do they have gills?
(3)	Do they have a tail?	Do their young spend part of their life cycle in water?
(4)	Do they have a 3-stage life cycle?	Do their young feed on insects?/

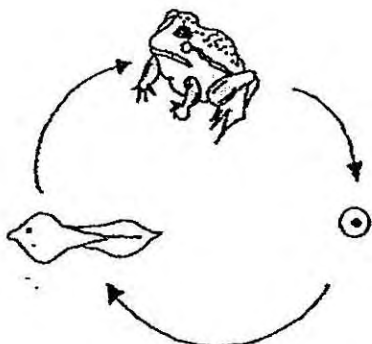
4. Study the diagram of the female reproductive system of a human below.



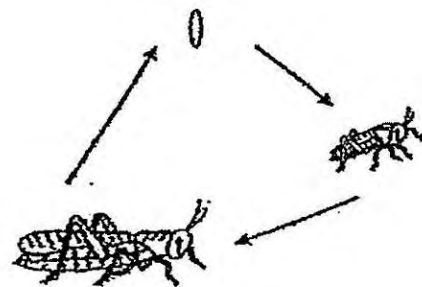
Which of the following occurs at Q?

- (1) Eggs are released.
- (2) The sperm fuses with the egg.
- (3) The fertilised egg develops into a foetus.
- (4) The foetus gets its digested food and oxygen from its mother.

5. Study the life cycles of Animal X and Animal Y below.



Animal X



Animal Y

Which of the statements is true of the life cycles shown above?

- (1) Only the young of Animal X resembles the adult.
- (2) Animal X lays eggs while Animal Y gives birth to young alive.
- (3) Both Animal X and Animal Y have a larval stage in their life cycles.
- (4) Both Animal X and Animal Y have the same number of stages in their life cycle.

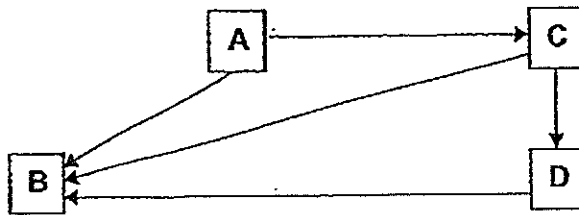
6. Study the food chain as shown below carefully.

Grass → Grasshopper → Frog → Snake

Which of the following is definitely true about the food chain?

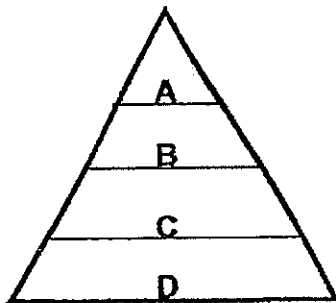
- (1) The grasshopper is both a prey and predator.
- (2) The snake gets its energy directly from the sun.
- (3) The frog feeds on the grasshopper and the grass.
- (4) The grasshopper is an indirect source of food for the snake.

Study the food web below carefully. Organisms A, B, C and D belong to the same community. Use it to answer questions 7 and 8.

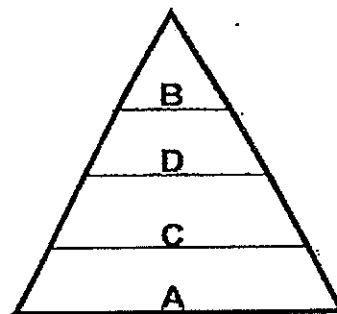


7. Which of the following food pyramids correctly shows the balanced food relationship, in terms of energy transfer, among the organisms above?

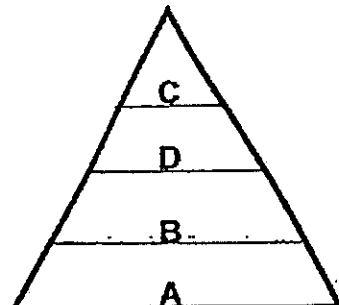
(1)



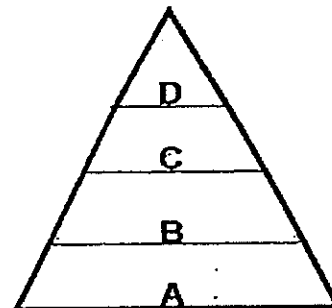
(2)



(3)



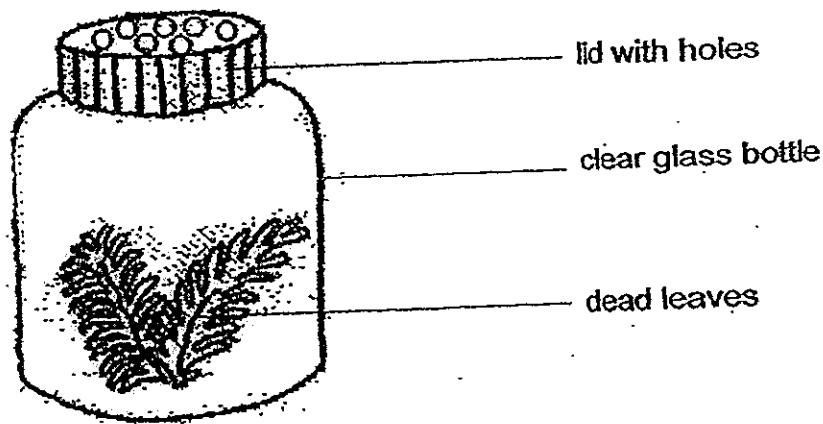
(4)



8. A new organism is introduced into the habitat. It also feeds on Organism C and has no predators. Which of the following would most likely occur?

- (1) The population size of Organism B will increase.
- (2) The population size of Organism D will decrease.
- (3) The population size of Organism A will not be affected.
- (4) The population size of Organism C will increase, then decrease.

9. Shane carried out an experiment to study the decomposition of dead leaves. He placed some dead leaves in a container as shown below and placed it in a cupboard. After 2 weeks, he noticed that no decomposition had taken place.



What change should he make to the set up so that it will work?

- (1) Add some water.
- (2) Add more dead leaves.
- (3) Remove the lid of the container.
- (4) Place the set-up in an air-conditioned room.

10. Jessica counted the number of different organisms in a tree and recorded the data in the table below.

Organism	Number of organisms
Ant	25
Aphid	15
Mould	5
Spider	2
Butterfly	3
Caterpillar of butterfly	8

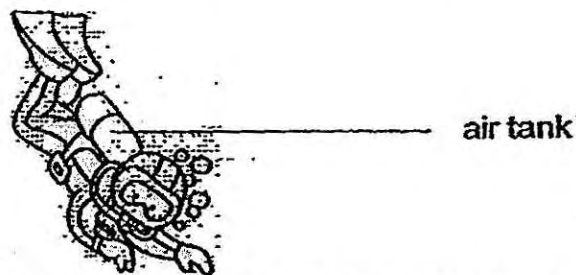
Based on the table above, which of the following is correct?

- (1) There are 6 communities.
 - (2) There is one community with 5 populations.
 - (3) There are a total of 53 organisms living on the tree.
 - (4) There are six populations with a total of 58 organisms.
11. Which of the following is a behavioural adaptation of the camels to survive in the desert?
- (1) Store fat reserves in the humps.
 - (2) Long eyelashes to block out sand.
 - (3) Drink up to 200 litres of water in one day.
 - (4) Large padded feet to prevent sinking when walking on soft, deep sand.

12. The table below shows the characteristics of the environment found in 4 different habitats. In which of the habitats would centipedes, ants and earthworms, most likely be found?

Characteristics of the environment.			
	Temperature	Amount of water	Amount of light
(1)	Moderate	Little	Very little most of the time
(2)	Low most of the time	A lot	Only present in small amounts during the summer months
(3)	Higher in the day than at night	A lot	More on the surface and less below the surface
(4)	Very high in the day, very low at night	Very little	Abundant in the day

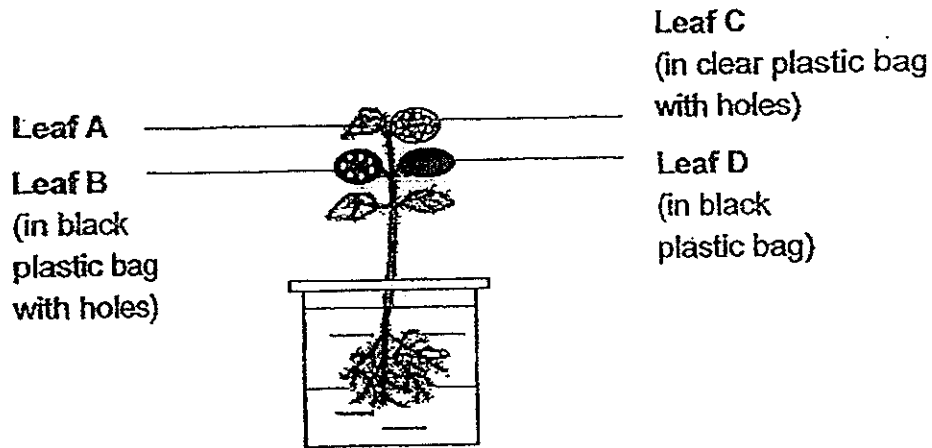
13. Some inventions of Man imitate the adaptations of animals. Scuba divers control their position in the water by breathing in air from the air tank and breathing out. They breathe in to go higher in the water and breathe out to go lower in the water. The diagram below shows a man in scuba diving gear and air tank under water.



Which animal did Man get the idea of using air tank to help him to go higher or sink lower in the water?

- (1) Duck
- (2) Goldfish
- (3) Platypus
- (4) Water scorpion

14. Joyce set up an experiment. She wrapped 3 similar leaves, Leaf B, Leaf C and Leaf D, in different types of bags as shown. The bags were of the same size and thickness. She left the plant in the open for several hours.



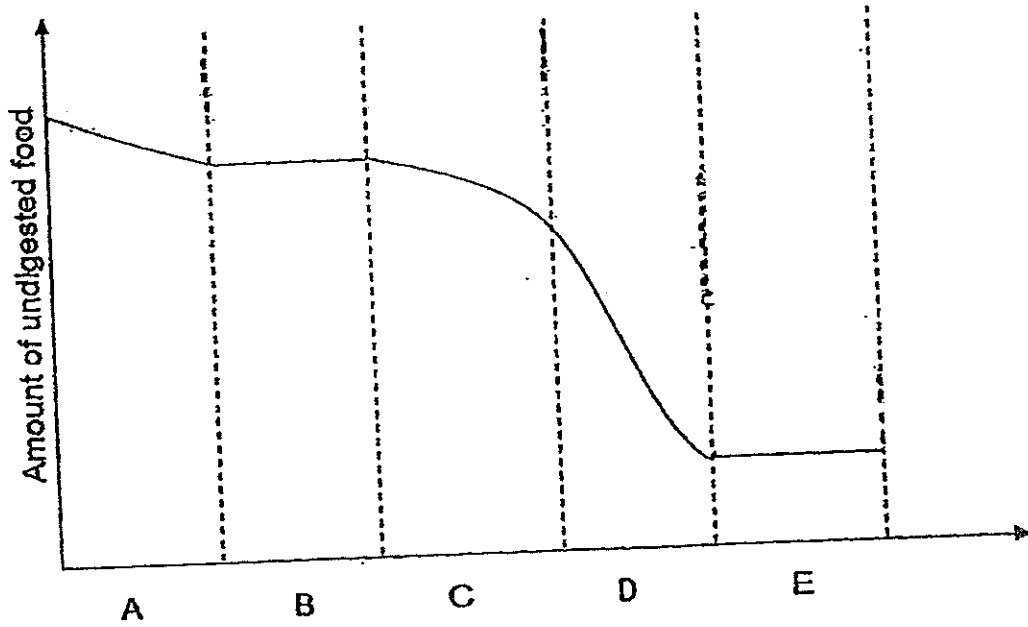
Which of the following shows the correct order of the amount of starch found in each leaf after several hours?

	Greatest amount of starch → Least amount of starch			
(1)	A	C	B	D
(2)	C	B	A	D
(3)	C	A	B	D
(4)	D	C	B	A

15. Albert took a sample of the air breathed out during his exercise. The table below shows the percentage composition of four samples of air. Which is the sample which Albert had taken to test the percentage composition?

	Sample	Percentage Composition			
		Carbon dioxide	Nitrogen	Oxygen	Water Vapour
	Normal air	Less than 1	78	21	Less than 1
(1)	1	0	83	17	0
(2)	2	5	80	15	0
(3)	3	4	78	15	3
(4)	4	0	78	21	1

16. Sam had a sandwich for lunch. The graph below shows how the amount of undigested food changes in his digestive system after lunch. A, B, C, D and E are parts of his digestive system.



Based on the graph above, at which part of the digestive system was most food digested?

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

17. Shaun wanted to carry out an investigation. At the beginning, he took his pulse rate and breathing rate. Then he exercised vigorously for five minutes. Finally, he recorded his pulse rate and breathing rate for the subsequent five minutes at a one-minute interval in the table below.

Minute intervals		Pulse rate/ beats per minute	Breathing rate / breaths per minute
Before exercise		80	15
After exercise	1	155	42
	2	145	36
	3	130	30
	4	110	20
	5	80	15

What do you think is ^{Shaun's} ~~Alice's~~ aim for this investigation?

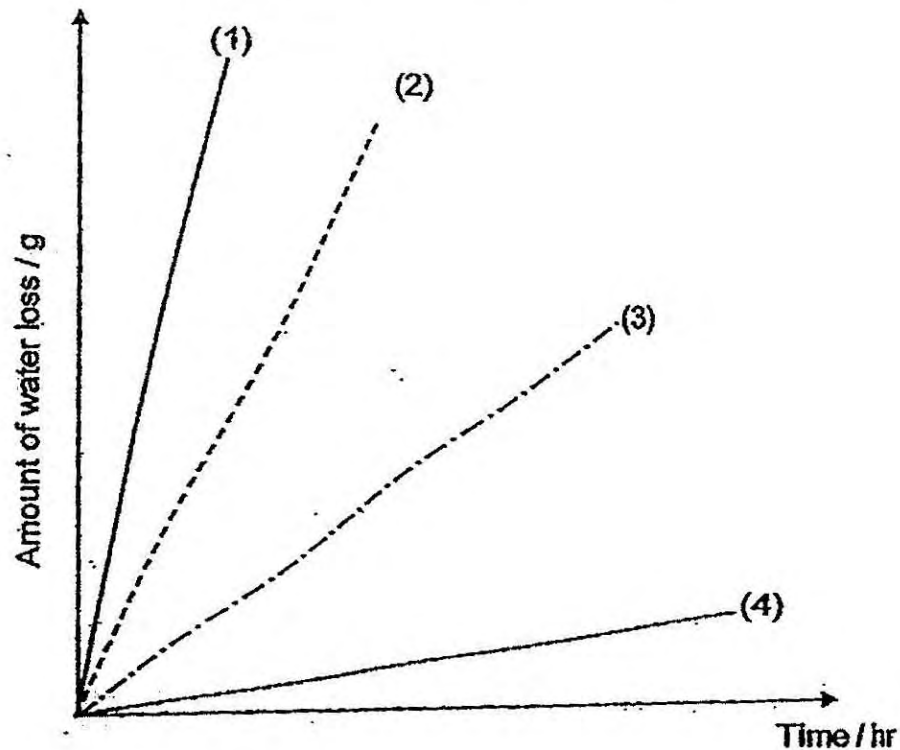
- A : To find out how exercise affects his pulse and breathing rates.
 B : To compare his pulse rate with his breathing rate after an exercise.
 C : To show that his pulse and breathing rates begin and end with the same values.
 D : To show that his pulse rate increases faster than his breathing rate after his exercise.

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

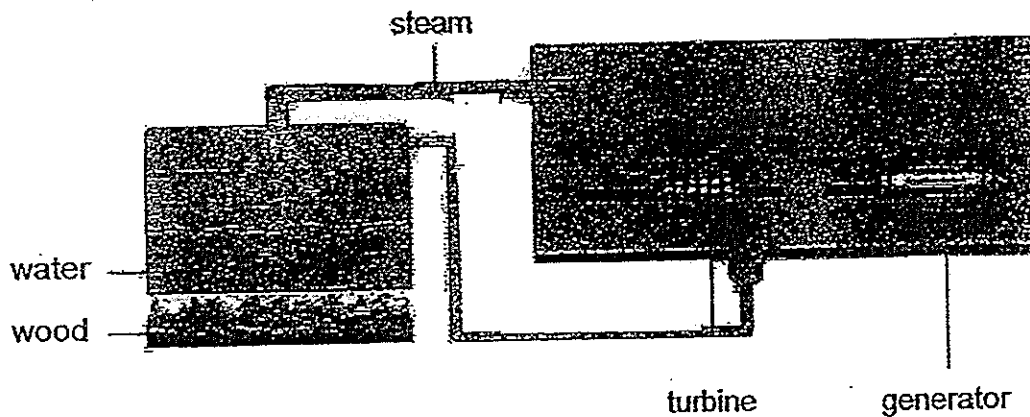
18. Michelle conducted an experiment on the loss of water through leaves. She plucked 4 similar leaves, A, B, C and D, and recorded their initial mass. She then coated 3 of the leaves with oil (as specified in the table below) and allowed all the 4 leaves to hang in the open for a day. Finally, she recorded the final mass of the leaves.

Leaf	Upper surface coated with oil	Lower surface coated with oil
A	No	Yes
B	Yes	Yes
C	Yes	No
D	No	No

The graph below shows the amount of water loss by the four leaves A, B, C and D. Which one of the line graphs best represents Leaf B?



19. The diagram below shows how electricity is produced.



What is the source of energy for the set-up above?

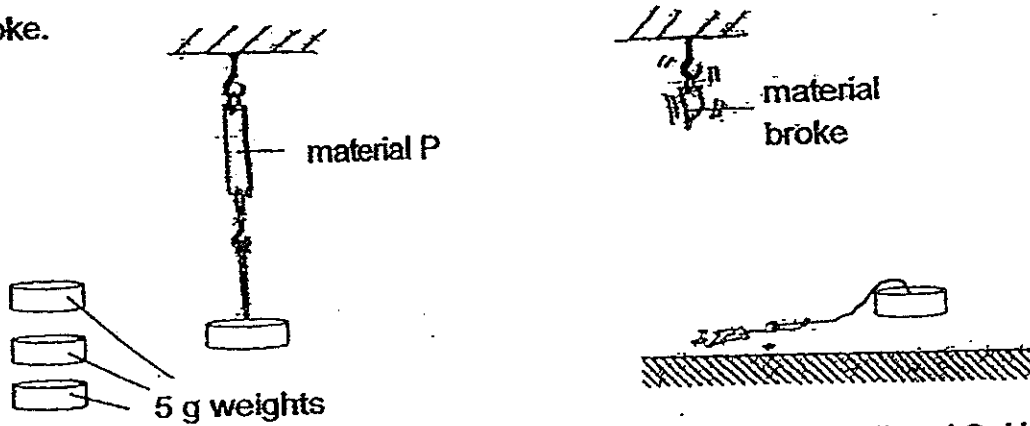
- (1) Wood
 - (2) Water
 - (3) Steam
 - (4) Electricity
20. The table below shows the melting and boiling points of Substances X, Y and Z.

Substances	Melting Point ($^{\circ}\text{C}$)	Boiling Point ($^{\circ}\text{C}$)
X	55	92
Y	40	80
Z	32	60

At which one of the following temperatures are the three substances X, Y and Z in the same state?

- (1) 38°C
- (2) 48°C
- (3) 58°C
- (4) 78°C

21. Sean set up an experiment using four materials of similar length and thickness (P, Q, R and S), as shown in the diagram below. He hung material P from a hook. Then he hung 5-gram weights on it, one at a time, until it broke.



He repeated the steps for each of the other three materials, Q, R and S. He recorded the mass of weight that could be hung on the material before it broke for each material in a table as shown below.

Material	Mass of weight that could be hung on each material before it broke(g)
P	60
Q	15
R	30
S	90

Based on the results of the above experiment, which of the following statements about the materials is/are true?

- A P is lighter than S.
- B R is weaker than P
- C Q is the softest material.
- D S is the strongest material.

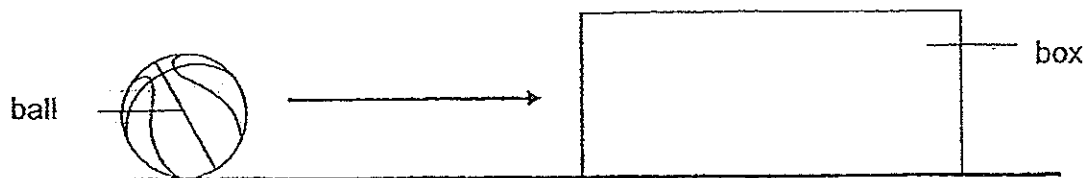
(1) A only

(2) B and D only

(3) C and D only

(4) B, C and D only

22. June wanted to find out how the speed of a ball affects the distance moved by an empty box. She set up the experiment as shown below.



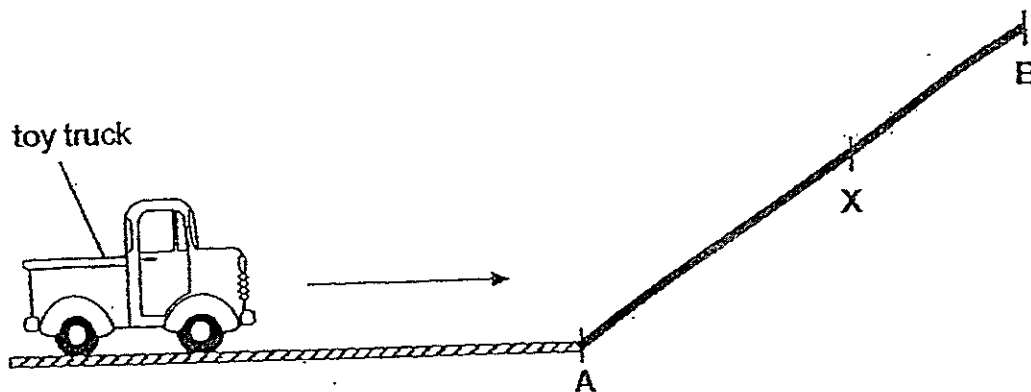
The results of the experiment are shown in the table below.

Speed of ball (cm/s)	Distance moved by the box (cm)
10	5
20	9
30	15
40	21

Which of the following statements is correct?

- (1) The slower the speed of the ball, the further the distance moved by the box.
- (2) The gravitational potential energy of the ball increases as its speed increases.
- (3) The kinetic energy of the box increases as the speed of the ball increases.
- (4) The kinetic energy of the ball is converted into chemical potential energy in the box for it to move.

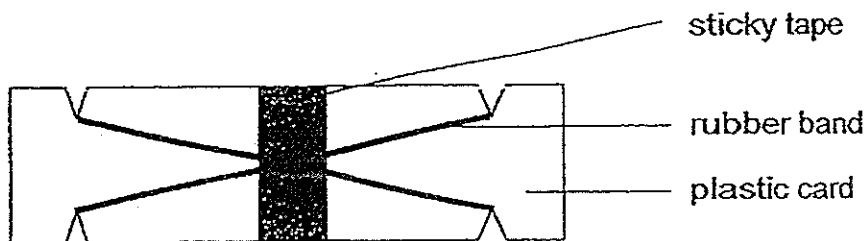
23. A toy truck was pushed towards a plank, AB, as shown in the diagram below. It moved up the plank, stopped at X, and then rolled down the plank.



Which of the following statements about the movement of the toy truck is true?

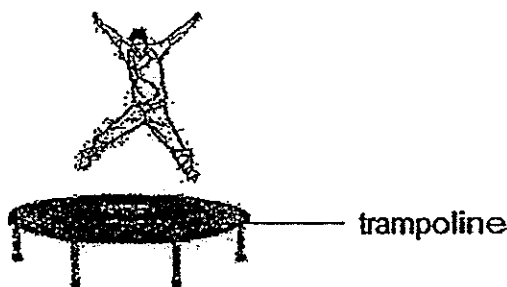
- (1) The toy truck stopped at X because it had lost all its kinetic energy.
- (2) The toy truck rolled down from X because it still had kinetic energy from the start of the experiment.
- (3) The toy truck rolled down from X because its gravitational potential energy had been converted into kinetic energy.
- (4) The toy truck stopped at X because all its kinetic energy had been converted into sound energy and heat energy.

24. Ben made a jumping toy using two pieces of strong plastic cards, sticky tape and a rubber band as shown below. He stretched the rubber band, pressed the toy down and measured the height in which the toy jumped to once he released his finger.



Which of the following correctly shows the energy conversion in the toy when Ben released his finger?

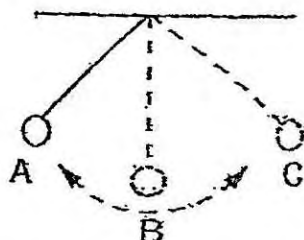
- (1) elastic potential energy \rightarrow kinetic energy \rightarrow gravitational potential energy
- (2) gravitational potential energy \rightarrow kinetic energy \rightarrow sound energy + heat energy
- (3) chemical potential energy \rightarrow gravitational potential energy \rightarrow kinetic energy
- (4) chemical potential energy \rightarrow elastic potential energy \rightarrow kinetic energy \rightarrow sound energy + heat energy
25. James was jumping on the trampoline. He was being pulled down by Force A. When he landed on the trampoline, he was being pushed upwards by Force B.



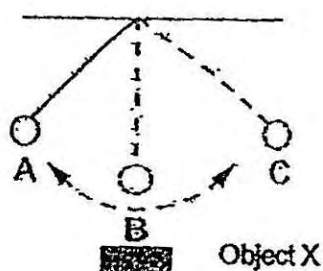
Which of the following correctly identifies Force A and Force B?

	Force A	Force B
(1)	Magnetic force	Gravitational force
(2)	Frictional force	Elastic spring force
(3)	Elastic spring force	Gravitational force
(4)	Gravitational force	Elastic spring force

26. Fang Li set up an experiment by letting a steel ball swing from point A to point C. It took 18 seconds to come to rest at position B.



She repeated the experiment by placing different objects X, Y and Z under position B respectively, using similar steel ball and similar length of strings.



The results were tabulated in the table shown below.

Object	Time taken for the ball to come to a complete stop at B (s)
X	3
Y	13
Z	18

Which of the following statements is true?

- (1) Objects X, Y, Z are magnets.
- (2) Object Y is a weaker magnet than object X.
- (3) There are 3 different forces acting on the steel ball all the time.
- (4) Object X increases the gravitational force acting on the steel ball.

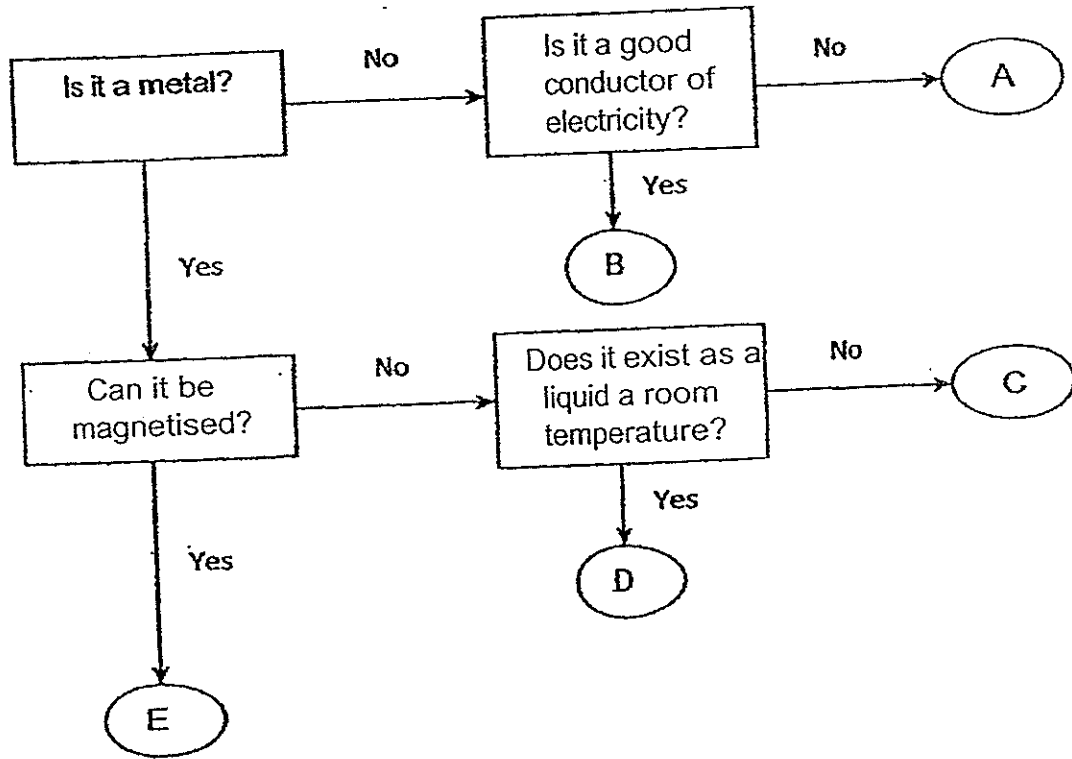
27. The table below shows examples of activities involving forces.

Action	Gravitational Force	Frictional Force	Magnetic Force
A	✓	✓	
B	✓		✓
C	✓	✓	

Which of the following correctly shows the forces in action?

	A	B	C
(1)	Skating up a ramp	Dropping a piece of bar magnet onto a copper plate	Walking on a road
(2)	Walking along a winding path	Dropping an apple from the second level of a building	Writing with a pencil
(3)	Riding up a slope on a horse	Holding a piece of magnet with pins attracted	Pushing a chair across the classroom
(4)	Stretching a rubber band	Swimming in a pool	Applying brakes to a moving car

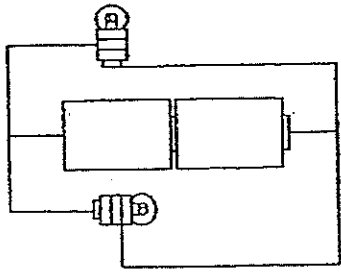
28. Study the flowchart below.



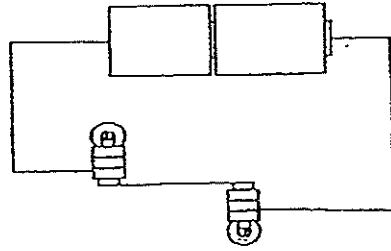
Which one of the following correctly represents A, B, C, D and E?

	A	B	C	D	E
(1)	wood	diamond	iron	mercury	steel
(2)	glass	plastic	aluminium	water	copper
(3)	plastic	rubber	copper	silver	nickel
(4)	rubber	graphite	gold	mercury	iron

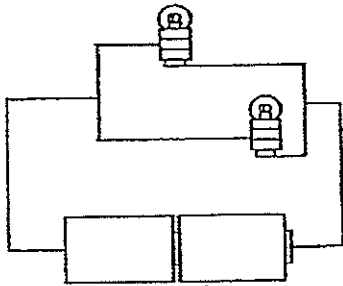
29. Study the electric circuits below carefully.



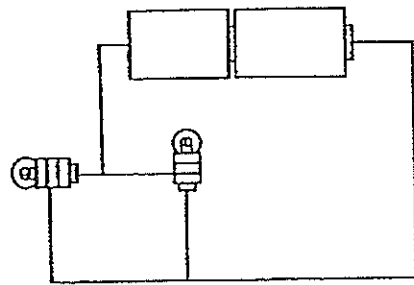
A



B



C

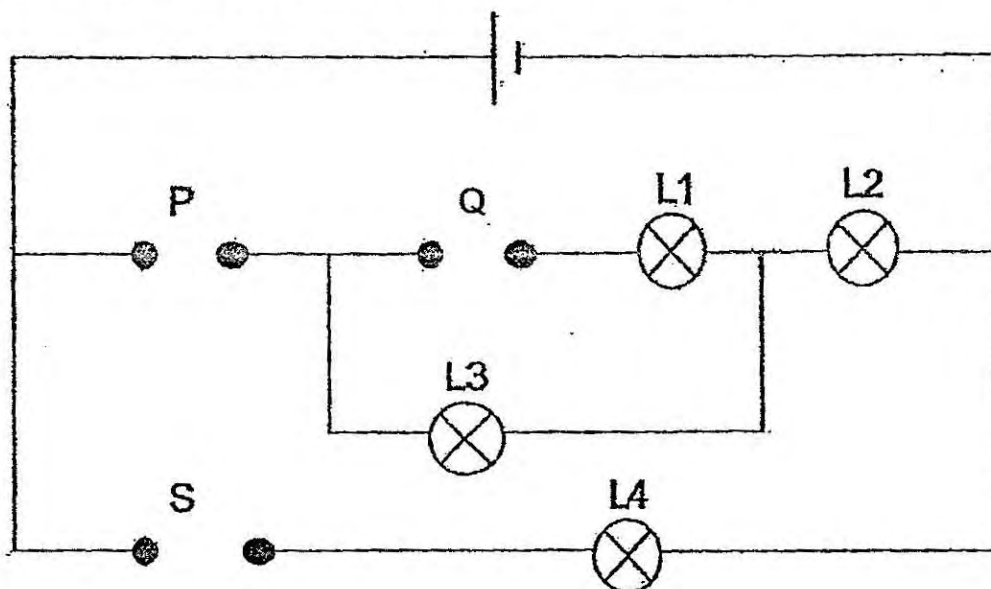


D

In which set-up, A, B, C or D, would the other bulb not light up when one bulb is removed?

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

30. Weili has 3 rods, X, Y and Z, of unknown materials. She placed them in various positions, P, Q and S, of the circuit shown below.



The results of the experiment were shown in the table below. When any of the lamps, L1, L2, L3 or L4, lit up during the experiment, a tick (✓) was placed in the box.

Positions where rods were placed			Lamp			
P	Q	S	L1	L2	L3	L4
X	Y	Z	✓	✓	✓	

Which one of the following shows the correct result if the rods, X, Y and Z, were placed at different positions?

	Positions where rods were placed			Lamp			
	P	Q	S	L1	L2	L3	L4
(1)	Z	X	Y		✓	✓	
(2)	Y	Z	X		✓	✓	✓
(3)	Z	Y	X	✓	✓	✓	
(4)	Y	X	Z				✓



PRIMARY 6 MID-YEAR EXAMINATION 2014

Name : _____ () Date: 19 MAY 2014

Class : Primary 6 ()

Time: 8.00a.m. to 9.45 a.m.

Parent's Signature : _____

Duration: 1h 45min

Marks: _____ / 40

SCIENCE BOOKLET B

INSTRUCTIONS TO CANDIDATES

Write your name, class and register number.

Do not turn over this page until you are told to do so.

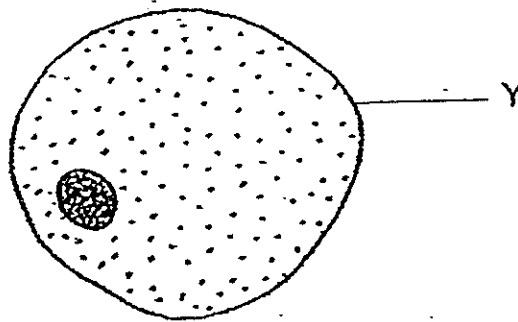
Follow all instructions carefully.

Answer all questions.

Booket B (40 marks)

For questions 31 to 44, write your answers clearly in the spaces provided.

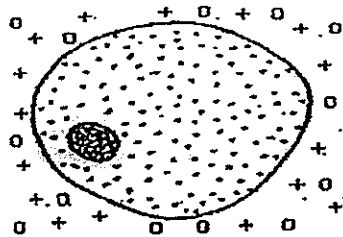
31. The diagram below shows an animal cell.



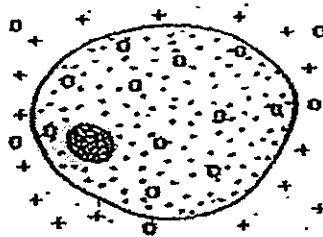
(a) Name part labelled Y.

[1]

The animal cell is then placed in a new environment. Two diagrams below show the cell before and after it has been introduced into its new environment:



When the cell is just introduced to the new environment.



One hour later

Key

o : Water molecules

+ : Other molecules

(b) What can you conclude about the function of Y from the diagrams above? Explain your answer.

[1]

32. Ken observed the different stages of development of a tomato plant for some time and recorded his observations as shown below.

Date	Observation
1 May	The seed coat cracked.
5 May	The shoot appeared.
15 May	The roots appeared.
25 May	First leaves appeared.

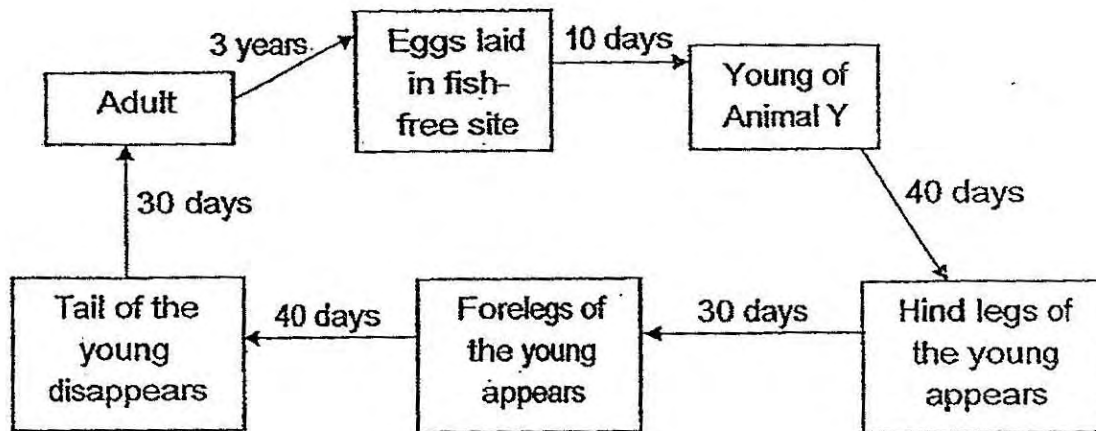
- (a) Ken's mother told him that he had made an error in his recording. What was wrong with his recording? [1]

Three months later, Animal X was observed to be feeding on the leaves of the tomato plants. Ken sprayed pesticide on the leaves to prevent Animal X from eating them. The table below shows the number of tomatoes produced when different amounts of pesticide were used for the similar tomato plants.

Amount of pesticide used (ml)	Amount of tomatoes produced (kg)
70	2
80	4
90	6
110	4
130	2

- (b) Give a reason why the amount of tomato produced decreased when the amount of pesticide increased? [1]

33. The diagram below shows the life cycle of Animal Y.

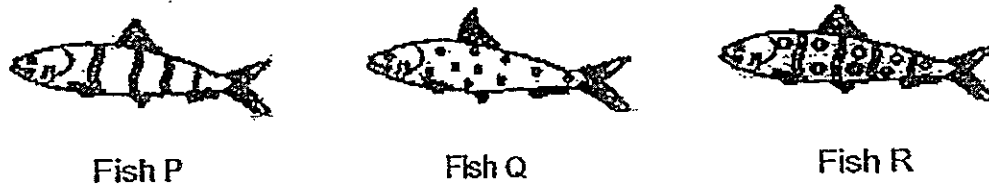


(a) How many stages are there in the life cycle of animal Y? [1]

(b) How long does it take for the young to become an adult? [1]

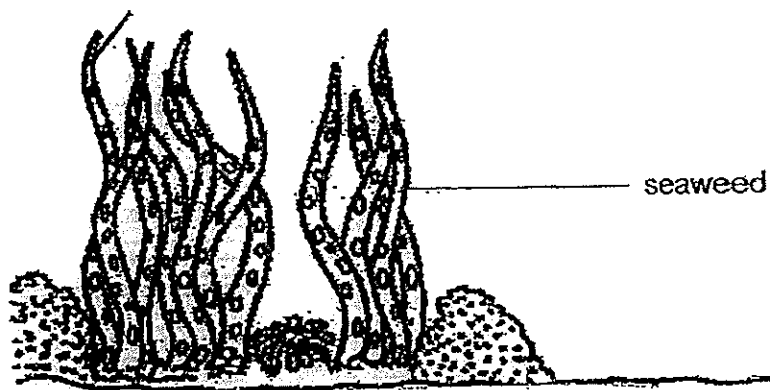
(c) The young of Animal Y lives in water while the adult lives on land. List one advantage for the young and the adult to live in different surroundings. [1]

34. The diagram below shows two types of fishes, P and Q, and their young Fish R.



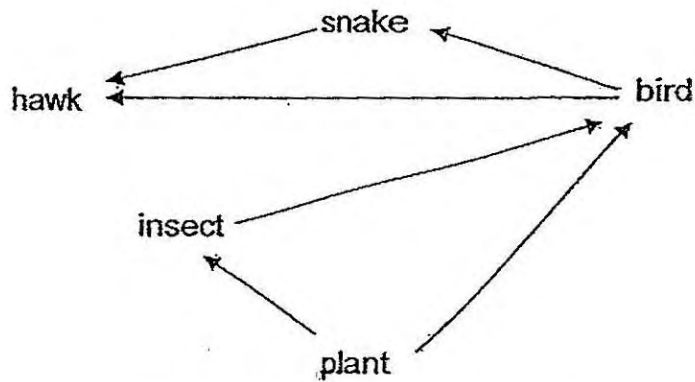
(a) What characteristic has been passed down from Fish P to Fish R? [1]

The fishes live amongst the seaweed as shown below and a predator of all 3 fishes was introduced into the habitat.



(b) Which fish, P, Q or R, would be least preyed upon? Why? [1]

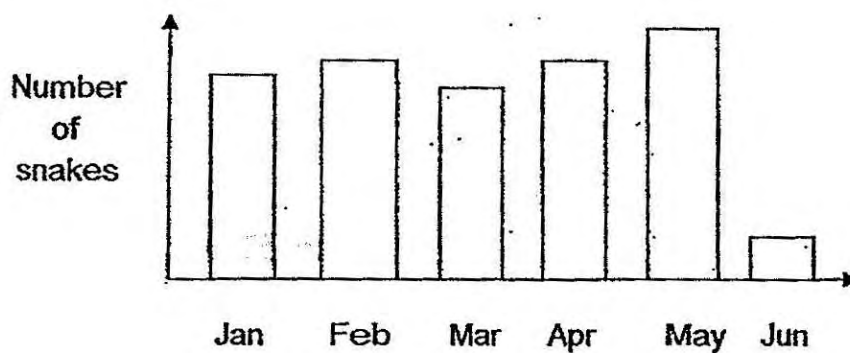
35. Study the food web below carefully.



(a) Write down one food chain that has 4 organisms in it. [1]

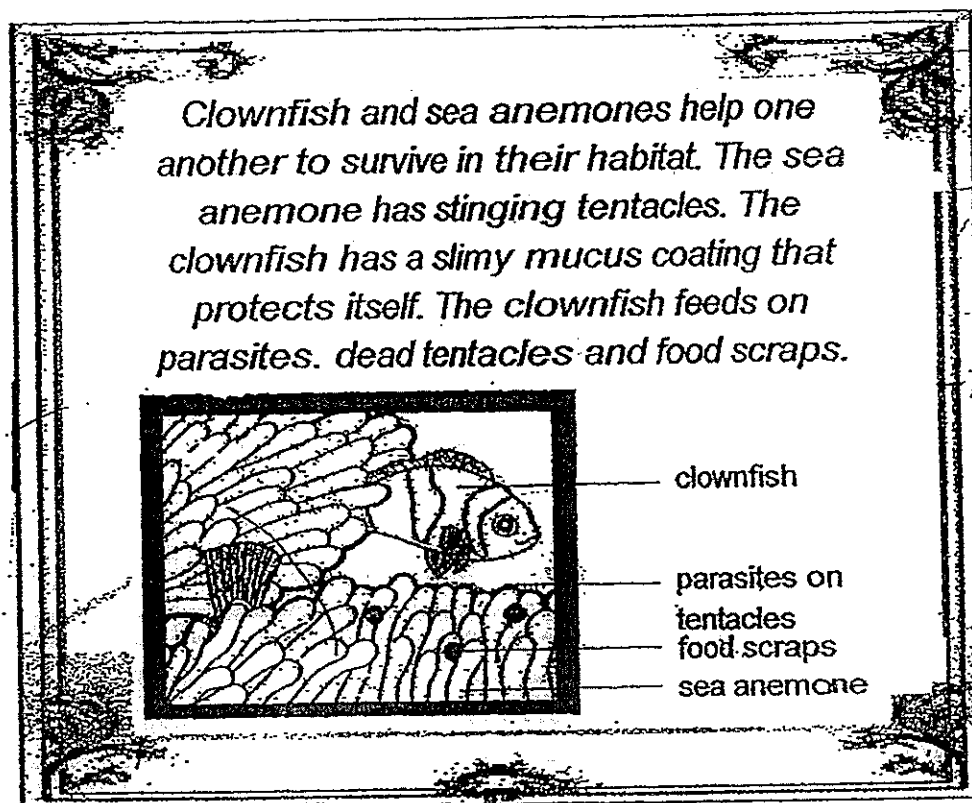
(b) Based on the food chain you have given in (a) which organism is/are both a prey and predator? Explain your answer. [1]

There was a drastic decrease in the population size of the snakes after half a year.



(c) State a possible reason for this occurrence. [1]

36. Clownfish and sea anemones are usually found together. They depend on each other for survival. The following article describes the characteristics of both organisms.



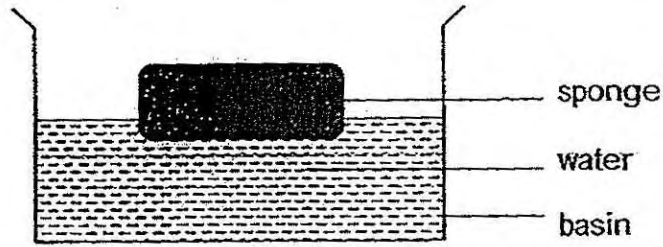
(a) How do clownfish and sea anemone benefit from this relationship? [2]

(i) Benefit for clownfish:

(ii) Benefit for sea anemone:

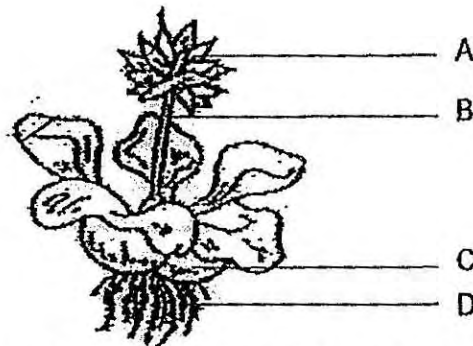
(b) Both the clownfish and sea anemone are part of a food web. What role do they play in the food web? [1]

37. Mike placed a sponge in a basin of water as shown below.



(a) When he pushed the sponge into the water, he observed bubbles escaping from the sponge. What do the bubbles contain? [1]

The diagram below shows a water hyacinth plant. It is commonly found floating in ponds.

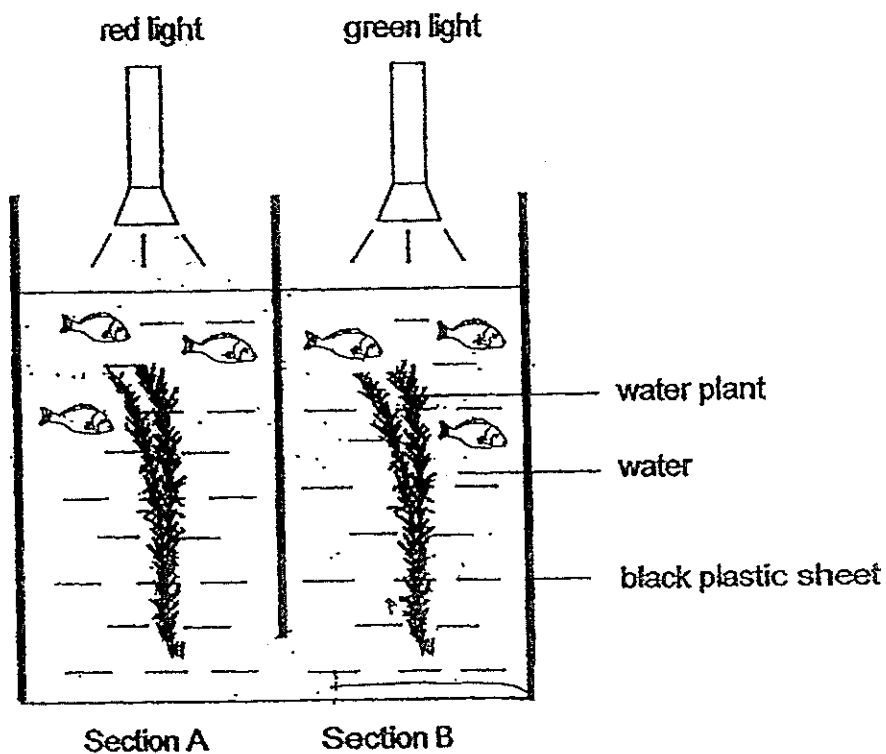


(b) Which part of the plant, A, B, C or D, allows it to float in water? [1]

(c) Explain how the sponge and the part that you have selected in (b) allow both the sponge and the water hyacinth plant to float in water. [1]

(d) Name another characteristic of the plant that helps it to float in water. [1]

38. Joy set up an experiment in a dark room to find out which coloured lights, red or green could be used for photosynthesis. She used a tank divided into 2 sections, A and B, by black plastic sheets as shown in the diagram below. The coloured lights were of the same brightness. She also placed an equal number of fishes in each section at the start of the experiment.



- (a) What should Joy observe about the fishes to find out if the plants have photosynthesised? [1]

- (b) Explain your answer in (a). [1]

The table below shows the results of her experiment.

Section	Type of light used	Number of fishes found in each section
A	Red light	5
B	Green light	1

(c) Which light should Joy use for her aquarium if she wants the plants to photosynthesise at a faster rate? Explain your choice. [1]

(d) Name one variable that ought to be kept constant for the experiment. [1]

39. Hazri conducted an experiment to find out which of the two materials, R or S, was better in preventing a block of ice from melting too fast. He used each material of similar size and thickness to wrap around identical blocks of ice respectively. He recorded the time taken for each ice to completely melt into water.

Materials	Time taken for the ice to melt completely (min)
R	81
S	23

- (a) Based on the table above, which material is a better conductor of heat? [1]
Explain your answer.

Hazri wanted to select a material to make the lining of a winter jacket.



- (b) Which material, R or S, should he choose as the lining? Explain your answer. [1]

40. Kai Wen placed a plastic block on the floor. He gave it a push. The block moved and came to a stop after 90 cm.



- (a) Name the force that caused the block to stop moving. [1]

- (b) Kai Wen sprayed some water on the floor. He pushed the plastic block with the same amount of force as before. This time, the block moved to 140 cm before coming to a stop. [1]

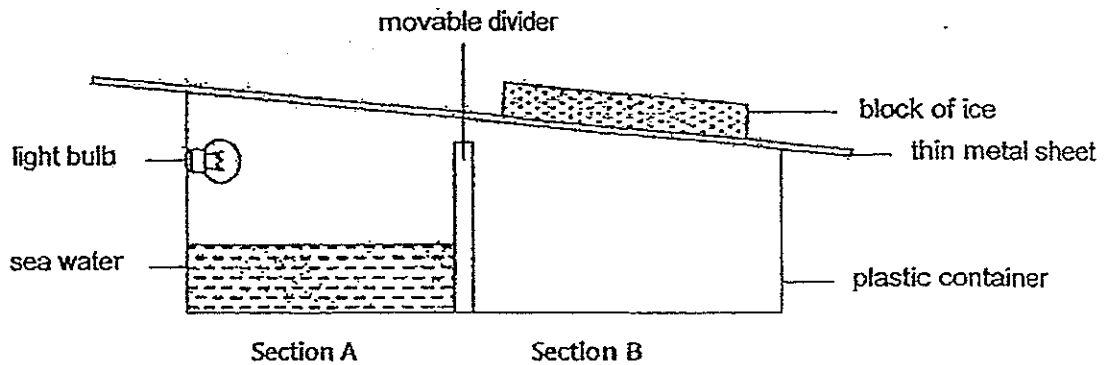
Give a reason why the block could move further when the floor was wet.

On rainy days, some shopping centres provide plastic bags for shoppers to put their wet umbrellas in, as shown in the picture below.



- (c) Based on Kai Wen's experiment, give a reason why shoppers should keep their wet umbrellas in the plastic bag when they enter the shopping centre. [1]

41. Kai Cheng placed some sea water in the Section A of a plastic container. He then covered the container with a thin metal sheet and placed a block of ice above the thin metal sheet as shown below.

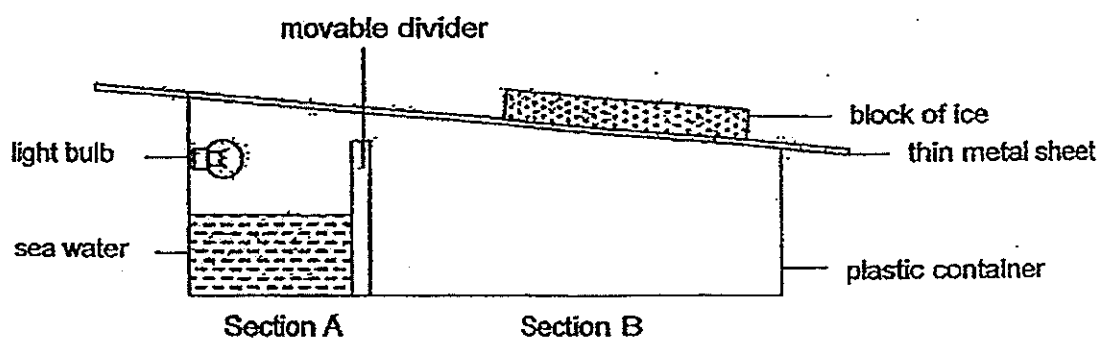


He switched on the electric light bulb and after three hours, some water could be found in Section B of the plastic container.

- (a) Explain why there is water in Section B of the container.

[2]

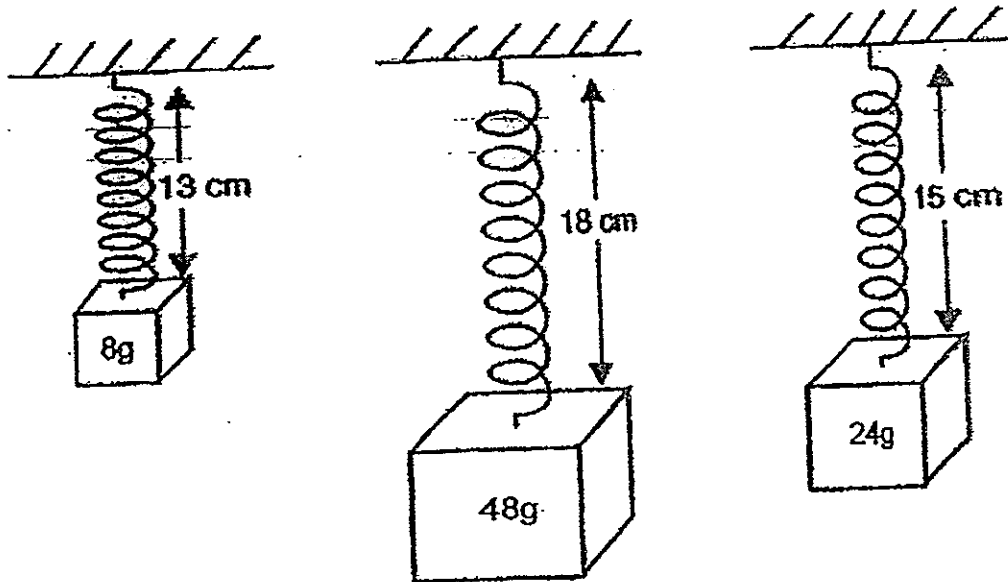
Kai Cheng repeated his experiment. This time, he wanted to increase the amount of water collected in Section B of the container. He placed the same amount of sea water in Section A but moved the divider to the left such that there was now more space in Section B as shown in the diagram below.



- (b) Will the amount of water collected in Section B after three hours increase, decrease or remain the same after the change? Explain your answer.

[1]

42. Using the same spring, Ruixiang hung 3 objects of masses, 8g, 48g and 24g. The spring extended as shown in the diagram below.



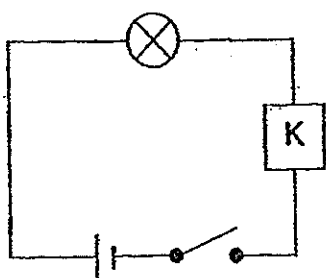
(a) What is the original length of the spring?

[1]

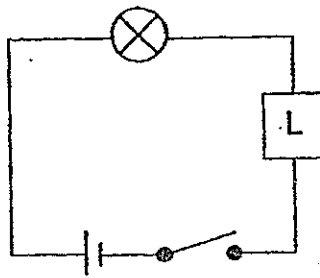
(b) What is the extension of spring when a 32 g load is hung on it?

[1]

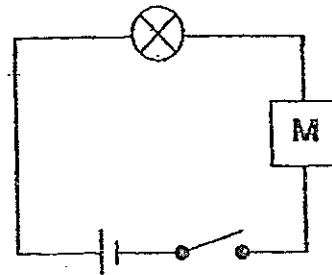
43. Randy set up 3 similar circuits using identical bulbs, batteries and objects, K, L and M, as shown below. The objects are of the same size but made of different materials.



Circuit A



Circuit B



Circuit C

He made the following observations when the switch for each circuit was closed at the same time.

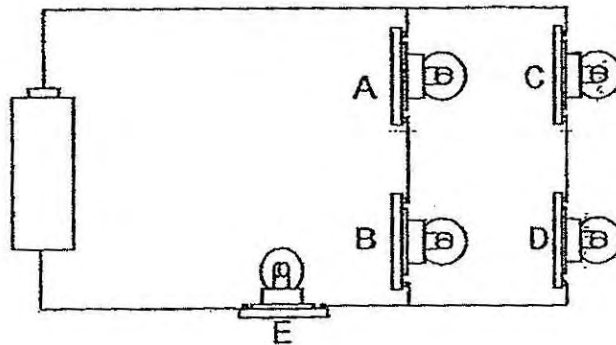
Circuit	Observation
A	Bulb lighted up dimly
B	Bulb did not light up
C	Bulb lighted up brightly

Based on the observations made by Randy, which of the following statements is/are true, false or not possible to tell. Put a tick (✓) in the correct box below.

[4]

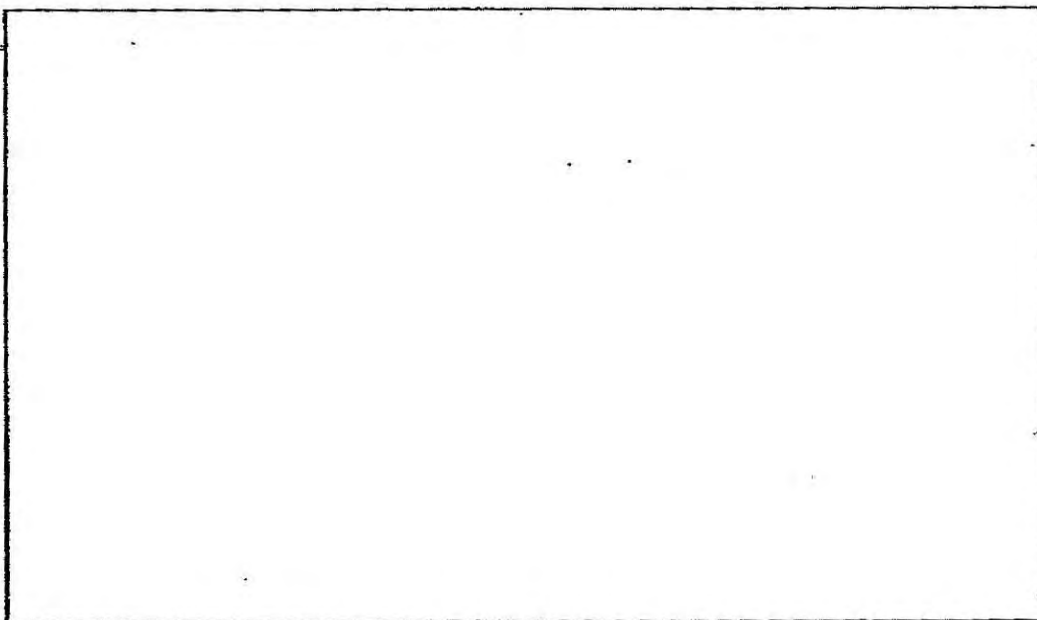
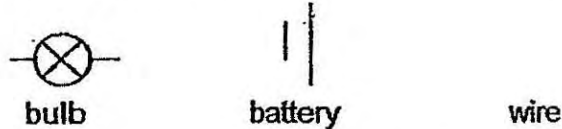
	Statements	True	False	Not possible to tell
(a)	M is a magnet.			
(b)	K is made of iron.			
(c)	K is a better conductor of electricity than M.			
(d)	L is an electrical insulator.			

44. Alice set up the circuit shown below with identical bulbs, bulb holders and batteries.



- (a) Alice removed one of the above bulbs from the bulb holders and none of the rest of the bulbs remains lit. Which bulb did she remove? [1]

- (b) Alice wants all the bulbs, A, B, C, D and E, to light up as brightly as possible. Rearrange the electrical circuit using the same electrical components. Using the symbols given below, draw the correct circuit diagram in the box provided. [2]



ANSWER SHEET

EXAM PAPER 2014

SCHOOL : TAO NAN

SUBJECT : PRIMARY 6 SCIENCE

TERM : SA1

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

Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30
4	1	3	2	3	3	1	4	2	3	4	2	2

31)a)Cell membrane.

b)Y only allows water molecules to enter.

32)a)The roots should appear before the shoot.

b)Pesticide kills pollinators and hence reduce fertilization of the flowers.

33)a)There are 3 stages in the life cycle of animal Y.

b)140 days.

c)No competition for food as they have a different food source.

34)a)Stripes on the body.

b)R. It has stripes and spots to camouflage amongst the seaweed hence it is not easily spotted and eaten by predators.

35)a)Plant→bird→snake→hawk.

b)The snake is both a prey and a predator. The snake eats the bird so it is a predator and the hawk eats the snake which makes the snake a prey too.

c)Migration of birds to another place and there is less food available.

36)a)i)The clownfish can eat the parasites on the sea anemone.
ii)The sea anemone can get rid of the parasites on it with the help of the clownfish.

b)They are food consumers.

37)a)The bubbles contain air.

b)Part C.

c)Air spaces trap air so they are lighter than water.

d)Waxy leaves.

38)a)Swim towards the plants instead of the surface of the water.

b)Plants give off oxygen when they photosynthesis. The fishes take in the oxygen for respiration.

c)Red light more fishes are found in the section which means the plants photosynthesis at a faster rate and gave off more oxygen.

d)The type of plants she used.

39)a)Material S. The ice that was wrapped with Material S melted the faster which means material's is a better conductor of heat then Material R.

b)This will keep the person who is wearing the jacket warm. Material R as it took a longer time for the ice to gain heat from the surroundings and melt, hence it is a poorer conductor of heat.

40)a)It is frictional force.

b)Water reduces the friction between the bottom of block and the surface of the floor.

c)Water from the wet umbrella will chip onto the floor. As water reduces friction between the surface of the floor and sloes of the shoes, the shoppers may slip and fall more easily.

41)a)Heat from the light bulb causes the water in sea water to evaporate into water vapour which upon coming into contact with the cooler surface of the thin metal sheet loses heat and condenses to form water droplet. As more water droplets are formed, they accumulate and become heavier. Hence dripping in side B of the container.

b)The exposed surface area of the sea water has decreased hence the rate of evaporation of water also decreased.

42)a)12cm.

b)4cm.

43)a)Not

b)F

c)F

d)T

44)a)She removed bulb E.

b)

