



RAFFLES GIRLS' PRIMARY SCHOOL

**PRELIMINARY EXAMINATION
2018**

Section A	56
Section B	44
Your score out of 100 marks	
Parent's signature	

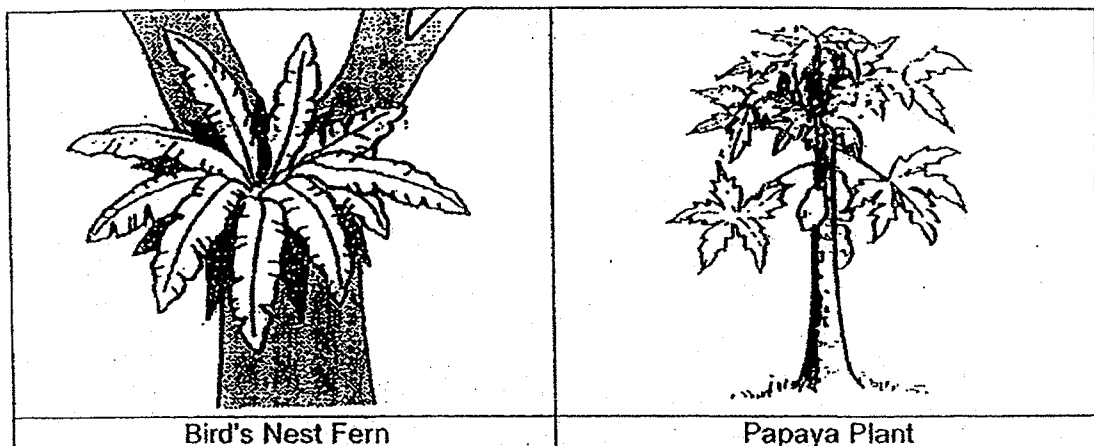
Name : _____ Index No: _____ Class: P6 _____

27 August 2018 SCIENCE Attn: 1h 45min

SECTION A (28 X 2 marks)

For each question from 1 to 28, 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.

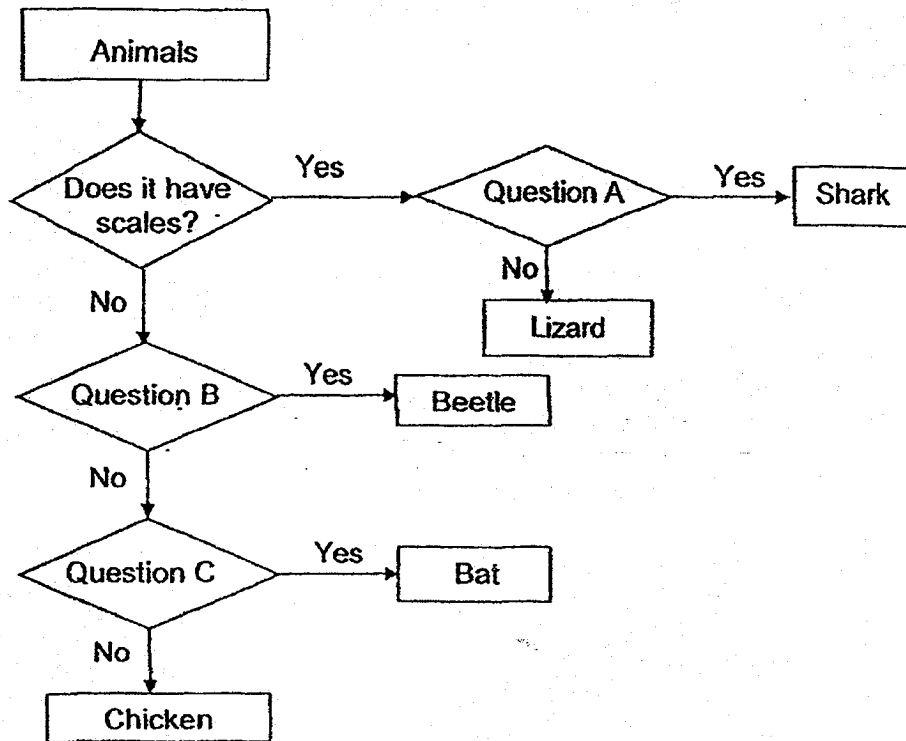
1. The diagrams below show two plants.



Which one of the following similarities and differences between the two organisms are correct?

	Similarity	Difference
(1)	Both reproduce by seeds.	Bird's nest fern cannot make its own food but a papaya plant can.
(2)	Both make their own food.	Bird's nest fern reproduces by seeds but a papaya plant reproduces by spores.
(3)	Both get their energy directly from the Sun.	Bird's nest fern does not bear flowers but a papaya plant does.
(4)	Both are non-flowering plant.	Bird's nest fern is a decomposer but a papaya plant is a producer.

2. Study the flowchart below.

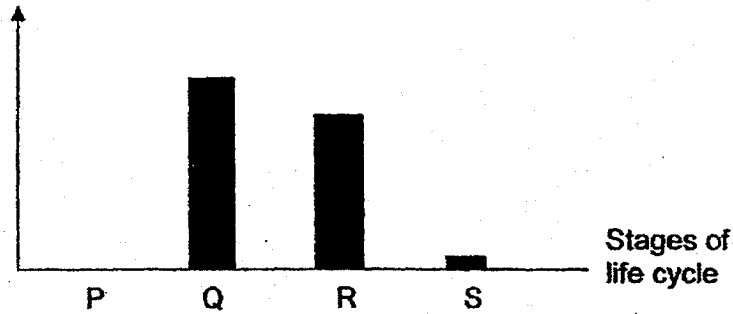


Which one of the following represents questions A, B and C correctly?

	A	B	C
(1)	Does it lay eggs?	Does it have three body parts?	Does it have hair?
(2)	Does it have lungs?	Does it have wings?	Does it lay eggs?
(3)	Does it have gills?	Does it have six legs?	Does it have wings?
(4)	Does it have gills?	Does it have six legs?	Does it have hair?

3. The bar graph below shows the average amount of food taken in by organism X per day at each stage of its life cycle.

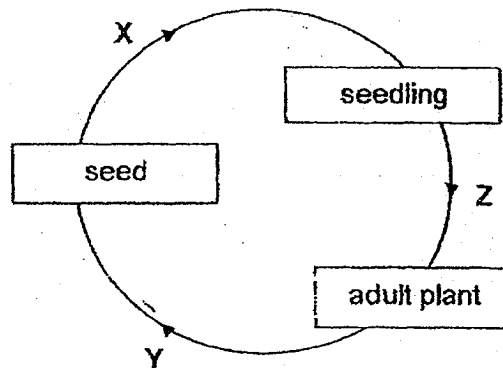
Average amount of food taken in per day (g)



Which one of the following matches P, Q, R and S to the correct stages of the life cycle of organism X?

	Egg	Larva	Pupa	Adult
(1)	P	Q	R	S
(2)	S	P	R	Q
(3)	S	R	P	Q
(4)	R	P	Q	S

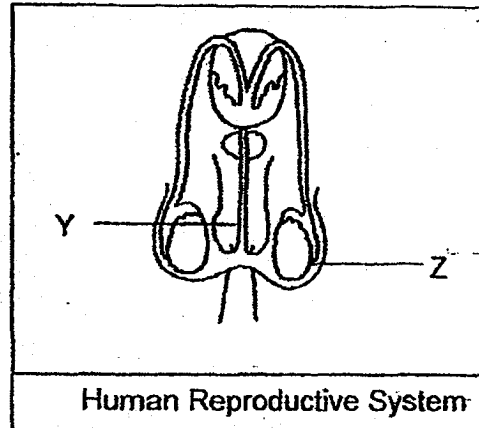
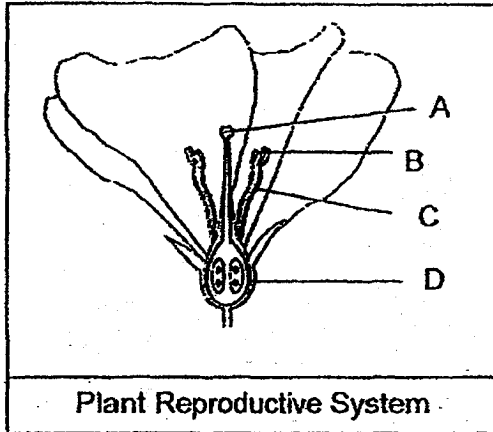
4. The diagram below shows the life cycle of a flowering plant.



Which of the following statements is correct?

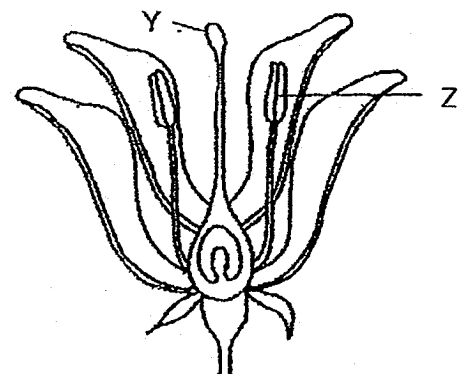
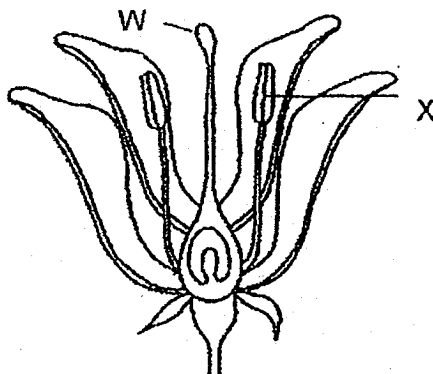
- (1) Pollination takes place at Z.
- (2) The flower develops into a fruit at Y.
- (3) The plant does not need sunlight at Y.
- (4) The male and female reproductive cells fuse at X.

5. The diagrams below show a human reproductive system and a plant reproductive system.



Which one of the following statements is correct about the human and plant reproductive system?

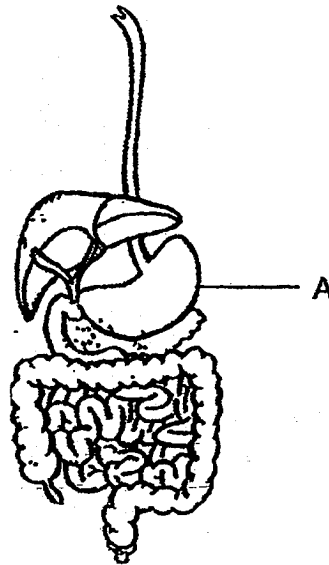
- (1) Fertilisation takes place in A and Z.
 - (2) Male reproductive cells travel down C and Y.
 - (3) Male reproductive cells are stored in B and Z.
 - (4) Female reproductive cells are found in D and Y
6. The diagrams below show two flowers, A and B, from the same plant.



Which one of the following shows how pollen grains are transferred during pollination?

- (1) From W to Y
- (2) From Y to X
- (3) From Z to W
- (4) From X to Z

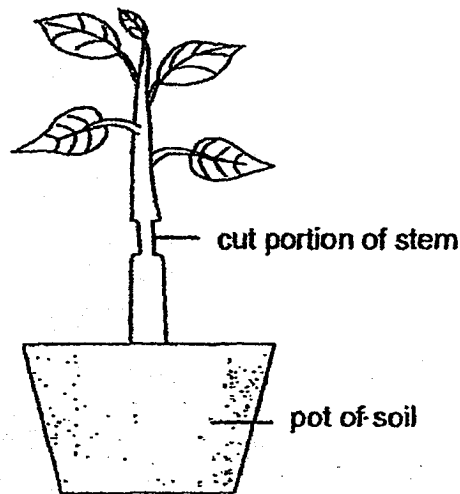
7. The diagram below shows the human digestive system.



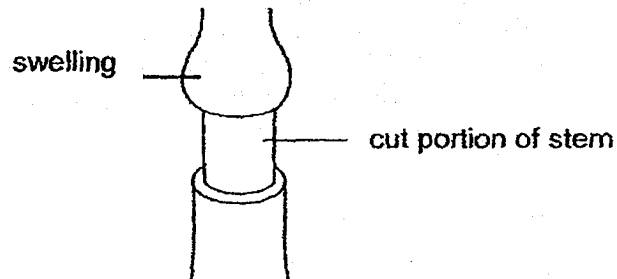
Which one of the following takes place at part A?

- (1) Digestion is completed.
- (2) Water is removed from the undigested food.
- (3) Digested food is absorbed into the bloodstream.
- (4) Food is partially broken down into simpler substances by digestive juices.

8. Bala removed a ring of a stem from a plant as shown in the diagram below.



He left the plant under well-lit condition and watered it regularly. He observed a 'swelling' just above the cut portion of the stem a few days later, as shown in the diagram below.

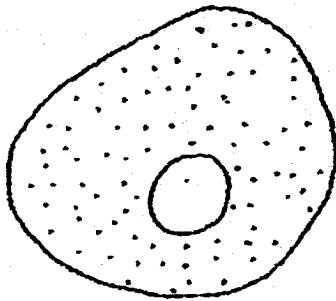


Which of the following statement(s) is/are correct?

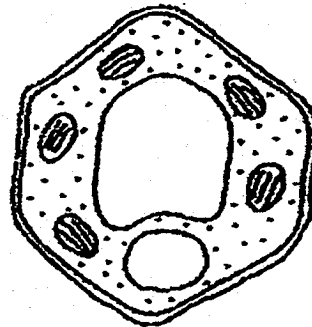
- A Water can be transported to all parts of the plants.
- B The food-carrying tubes were removed from the cut part of the stem.
- C The water-carrying tubes were removed from the cut part of the stem.
- D Food cannot be transported to the parts below the cut part of the stem.

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

9. The diagrams below show two cells.



Cell X



Cell Y

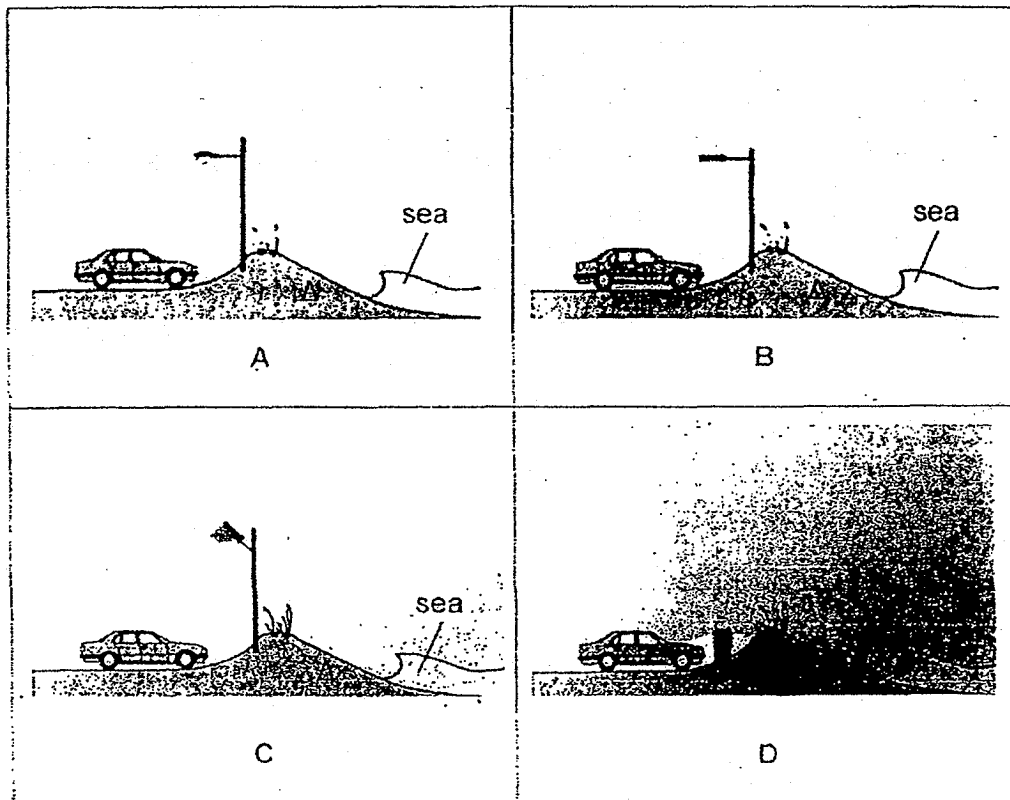
Which one of the following statements about Cells X and Y is correct?

- (1) Both cells are found in plants.
- (2) Cell Y can trap light but not Cell X.
- (3) Cell X has a fixed shape but Cell Y does not.
- (4) Cell Y enables certain substances to enter it but Cell X does not.

10. Sea turtle hatchlings must crawl their way to the sea as soon as they have been hatched. They find their way to the sea by sensing light reflected off the sea from the stars. However, artificial light can distract them and make them move away from the sea.

The diagrams below show different types of street lamps A, B, C and D, at car parks near the nesting sites of sea turtles at night.

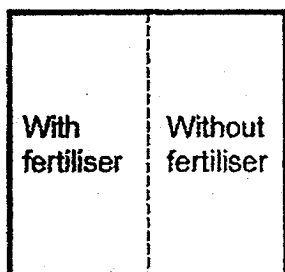
Legend
 Δ Location of sea turtle eggs



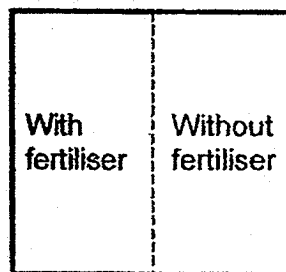
Which one of the above street lamps is most suitable to be erected at car parks near to the nesting sites of sea turtles so that the sea turtles hatchlings will not be distracted from crawling towards the sea?

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

11. Corn of the same variety was planted in farms P and Q. Farms P and Q were of the same size but have different types of soil. Each farm is divided into two equal plots of the same size, as shown in below.

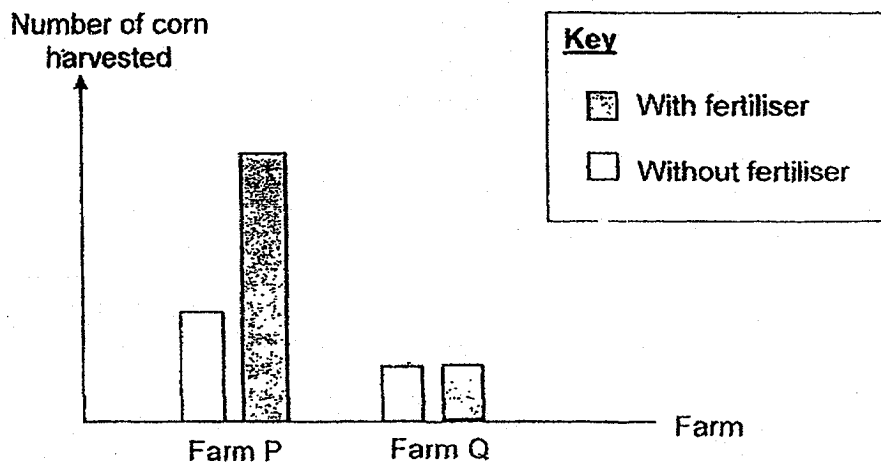


Farm P



Farm Q

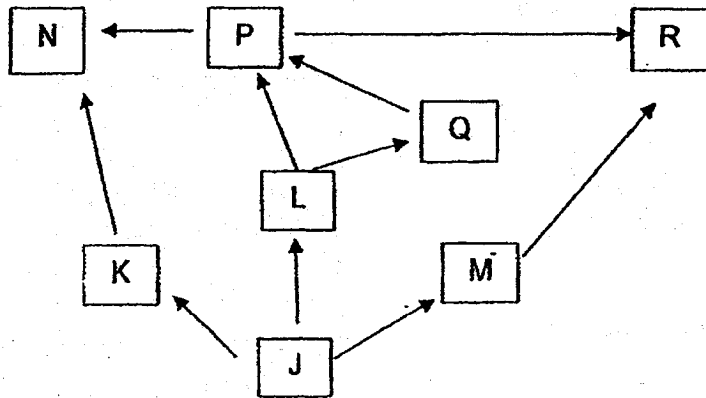
After a few months, the corn was harvested and the result is recorded in the graph below.



Based on the information above, which of the following statements below are correct?

- A The soil in Farm P is more suitable for growing corn than the soil in Farm Q.
 - B The soil in Farm Q is more suitable for growing corn than the soil in Farm P.
 - C Presence of fertilizer has no effect on number of corn harvested in Farm P and Farm Q.
 - D Presence of fertilizer has an effect on number of corn harvested in Farm P but not in Farm Q.
- (1) A and C only
 - (2) A and D only
 - (3) B and C only
 - (4) B and D only

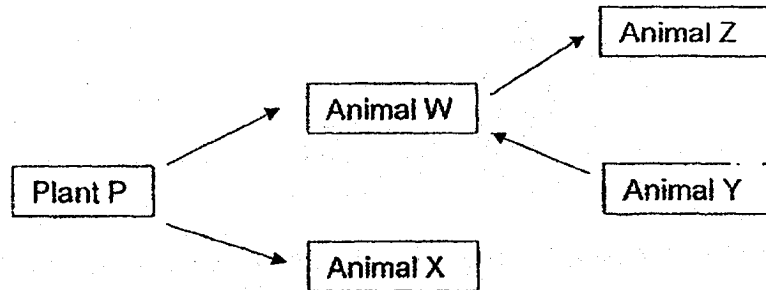
12. Study the food web below.



Which one of the following statements is correct?

- (1) J and L are producers.
- (2) N and R are plant-eaters.
- (3) P and Q are animal-eaters.
- (4) K and M are plant- and animal-eaters.

13. Study the food web below.



Which one of the following would result in a decrease in the number of animal W?

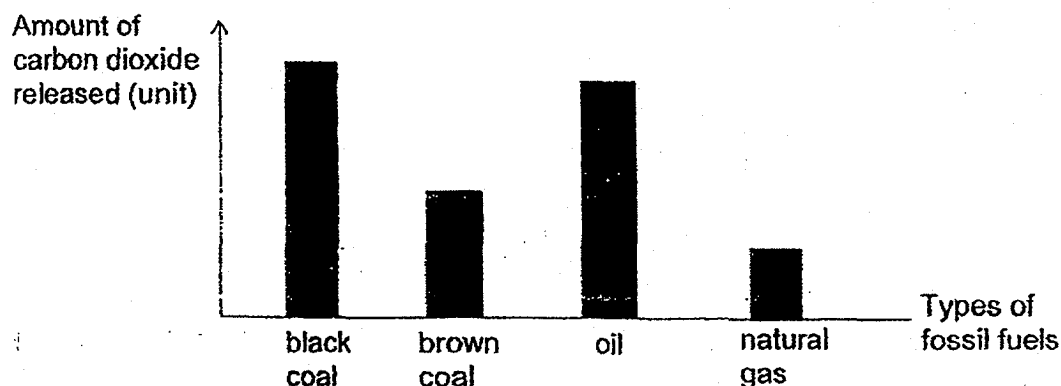
- (1) Plants P was infested with pests.
- (2) There is a disease outbreak which kills most of animals Z.
- (3) There is a mass migration of animals X to another habitat.
- (4) There is an increase in the rate of reproduction of animals Y

14. Kate studied the effect of temperature on the life cycle of organism P. She recorded her results in the table below.

Temperature (°C)	Number of days for one complete life cycle to take place
15	45
20	25
25	15
30	10
35	7
40	9

Which of the following statement(s) about organism P is/are definitely true?

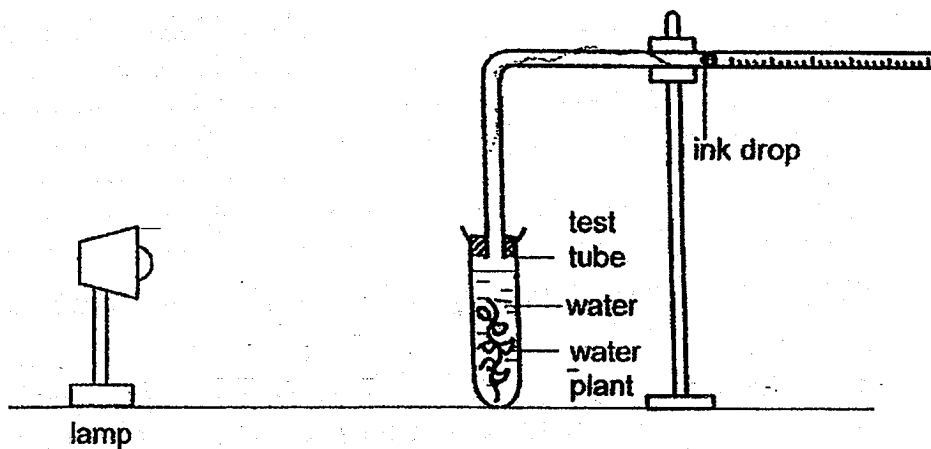
- A Organism P survives the best at 15 °C.
B The egg of organism P takes a shorter time to hatch at 30 °C than at 25 °C.
C The duration of the life cycle of organism P decreases as temperature increases until 35 °C.
- (1) B only
(2) C only
(3) A and C only
(4) B and C only
15. The graph below shows the amount of carbon dioxide released into the air when different types of fossil fuels were burned.



Which one of the following fossil fuels will contribute the least to global warming?

- (1) Oil
(2) Black coal
(3) Brown coal
(4) Natural gas

16. Bala set up the apparatus below to investigate the factors affecting the rate of photosynthesis.



What can Bala do to make the ink drop move to the right?

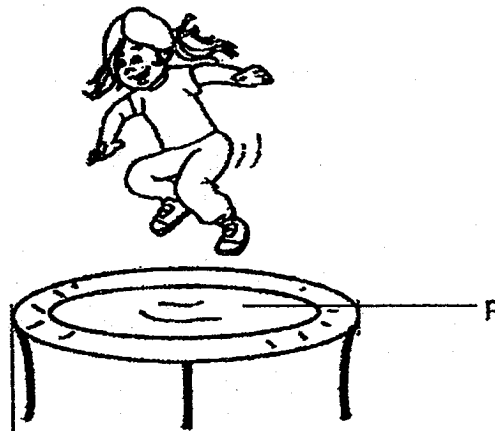
- A Add more water plants in the test tube.
- B Move the lamp closer to the water plant.
- C Add a solution to the test tube to increase the amount of oxygen in the water.

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

17. The table below shows the properties of four materials, W, X, Y and Z. A tick (✓) indicates the presence of the property.

Materials	Properties			
	Flexible	Waterproof	Strong	Elastic
W	✓	✓	✓	✓
X	✓			✓
Y	✓	✓	✓	
Z		✓		✓

The diagram below shows a child jumping up and down on a trampoline.



Which material is most suitable to make part P of the trampoline?

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

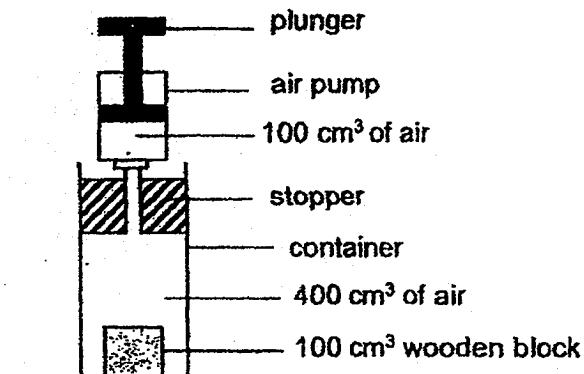
18. The table below shows some information about substances P, Q, R and S. A tick (✓) indicates the presence of the property.

	P	Q	R	S
Has mass	✓		✓	✓
Has a definite volume	✓		✓	
Takes the shape of the container			✓	✓

Which one of the following correctly identifies substances P, Q, R and S?

	P	Q	R	S
(1)	milk	sound	carbon dioxide	steam
(2)	marble	water vapour	milk	shadow
(3)	plasticine	shadow	water droplets	water vapour
(4)	water droplets	steam	marble	sand

19. The diagram below shows an air pump connected to a container.

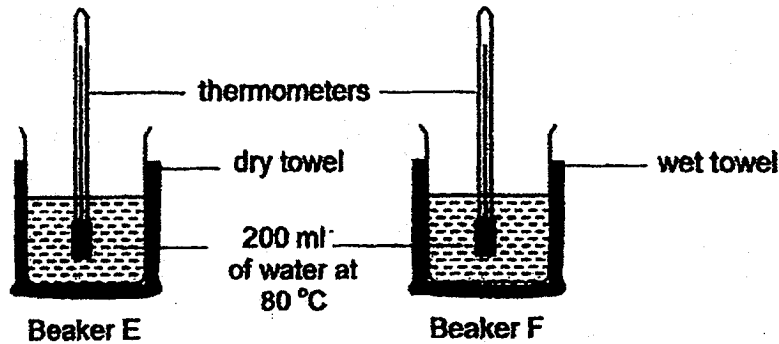


When the plunger is pushed in, 100 cm³ of air is pumped into the container.

Which one of the following shows the change in the volume and mass of the air in each container after the plunger is pushed?

	Volume of air	Mass of air
(1)	increase	increase
(2)	increase	remains the same
(3)	remains the same	increase
(4)	remains the same	remains the same

20. Shirley wrapped two identical beakers of water, E and F, with identical towels as shown below. One of the towels was dry while the other was wet.

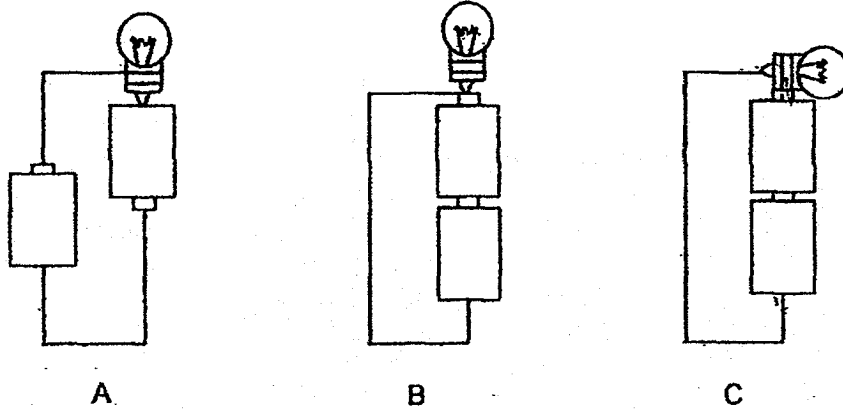


Shirley left the two set-ups near the window for one hour. She weighed the towels at the beginning and at the end of the experiment.

Which of the following observations would she make?

- A The volume of water in both beakers E and F will decrease by the same amount.
 - B The temperature of water in beaker F will decrease faster than that in beaker E.
 - C The mass of the wet towel will decrease while the mass of the dry towel will remain the same.
- (1) C only
 - (2) A and B only
 - (3) A and C only
 - (4) B and C only

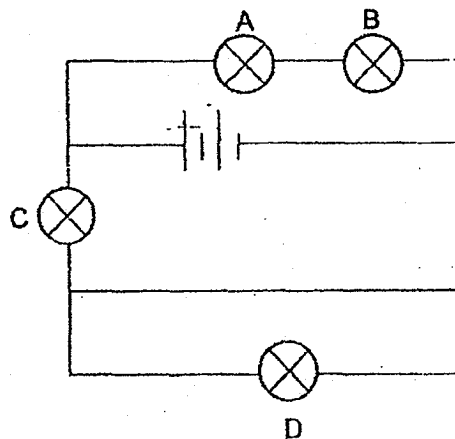
21. The diagrams below show four electric circuits which consists of identical electrical components.



In which of the following circuits will the bulb light up?

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

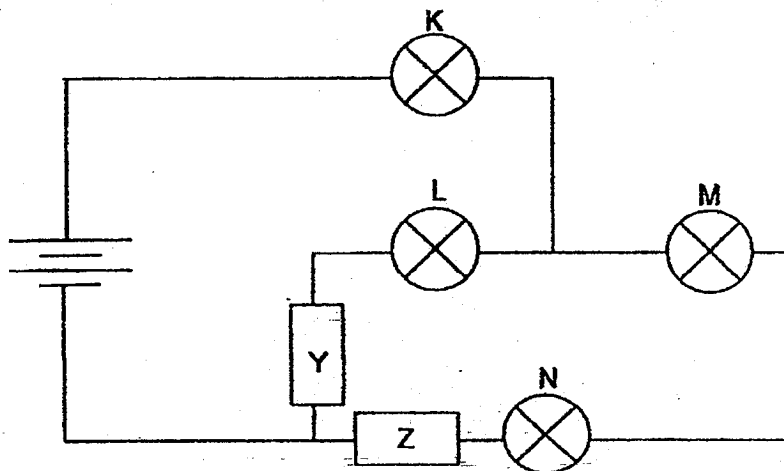
22. The diagram below shows an electric circuit.



Which of following correctly states the number of bulb(s) that would remain lit when one of the bulbs was fused?

	Bulb that was fused	Number of light bulb(s) that remain(s) lit
(1)	A	3
(2)	B	2
(3)	C	1
(4)	D	2

23. Sharon set up an electric circuit with four identical bulbs, K, L, M and N. She connected two different materials, Y and Z, to the circuit as shown in the diagram below.

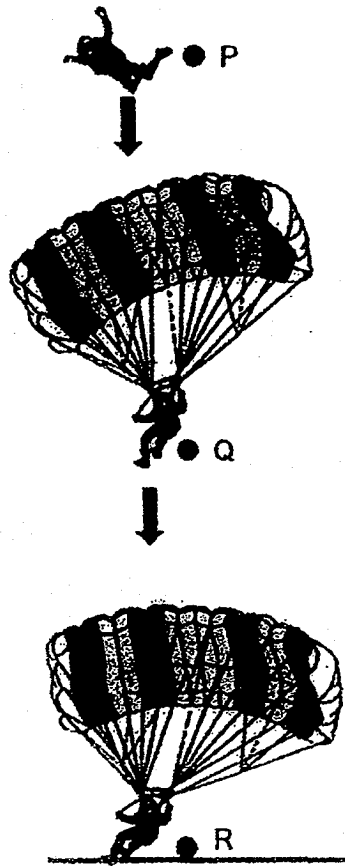


She observed that only bulbs K and L light up.

Which one of the following correctly identifies materials Y and Z?

	Material Y	Material Z
(1)	Aluminium	Copper
(2)	Plastic	Wood
(3)	Aluminium	Rubber
(4)	Wood	Copper

24. The diagrams below show a parachutist falling from point P to Q and then landing at R. He opened up his parachute just after point P.

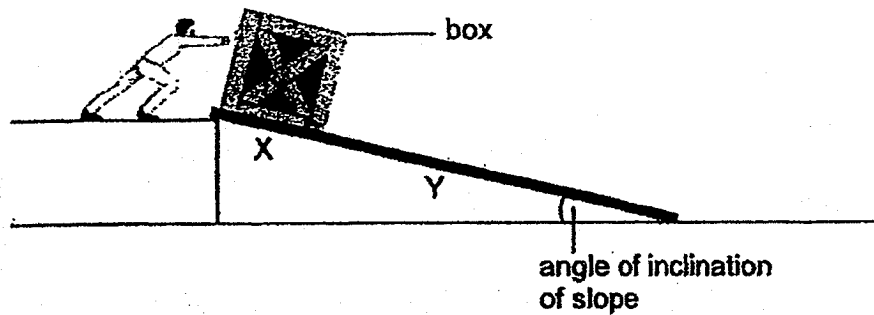


Which of the following statement(s) is / are correct?

- A The parachutist falls at greater speed at P than at Q.
- B There is no gravitational force acting on the parachutist at R.
- C The parachutist has to overcome more air resistance at Q than at P.
- D There is more gravitational force acting on the parachutist at P than at R.

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

25. A man wanted to move a box down a slope. He gave a push to the box at X, but the box only reached point Y.

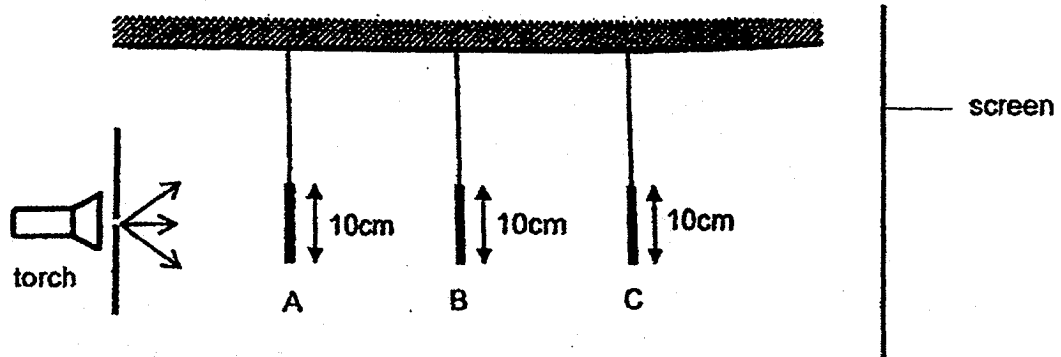


Which of the following actions will allow the box to move a greater distance down the slope?

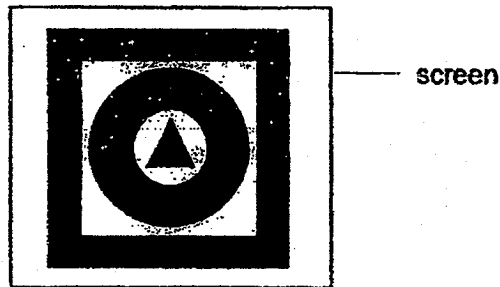
- A Use a slope with a rougher surface.
- B Apply oil on the surface of the slope.
- C Exert a greater push force on the box.
- D Decrease the angle of inclination of the slope.

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

26. The set-up below shows light shining on three shapes A, B and C made of cardboard. They are placed at different distances from the torch.



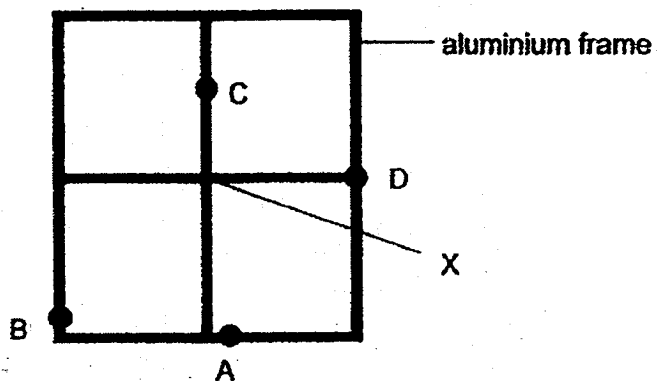
The diagram below shows what was seen on the screen.



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

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

27. Mala attached some thumbtacks, A, B, C and D, to the underside of an aluminium frame with equal amounts of wax, as shown below. The aluminium frame is in the shape of four squares.



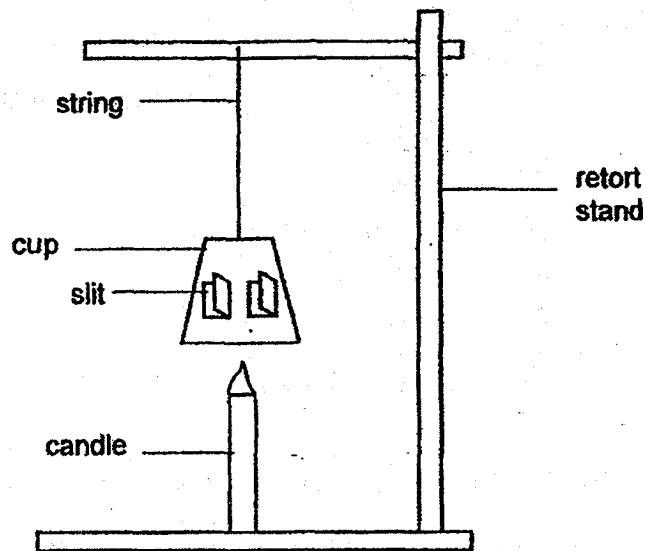
She heated point 'X', which is in the middle of the aluminium frame, with a lit candle.

Which one of the following shows the correct order in which the thumbtacks would drop off from the aluminium frame?

first to drop \longrightarrow last to drop

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

28. Hui En set up the experiment as shown below.

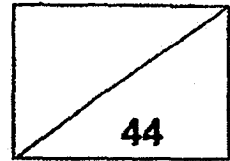


Which of the following actions will allow the cup to spin faster?

- A Add more lit candles.
- B Shorten the string attached to the cup.
- C Replace the candle with a smaller and shorter candle.

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

Name : _____ Index No : _____ Class : P6 _____



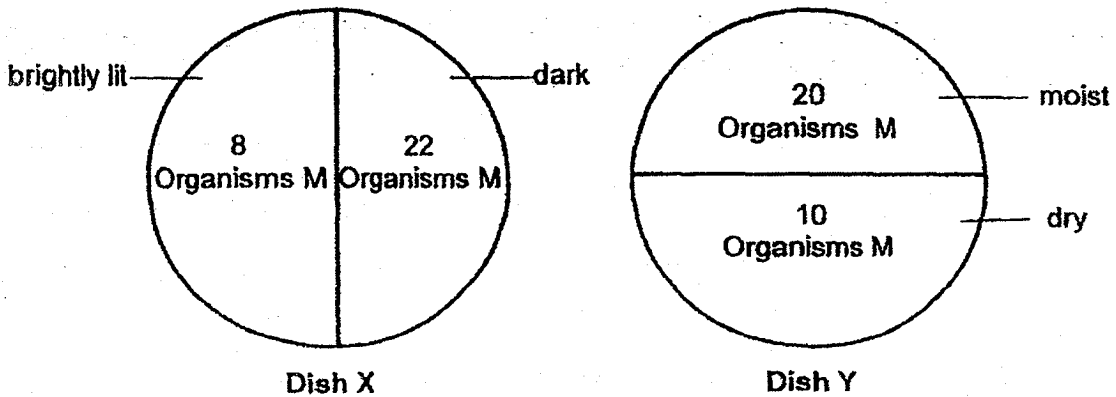
SECTION B (44 marks)

For questions 29 to 41, write your answers clearly in the spaces provided.

The number of marks available is shown in the brackets [] at the end of each question or part question.

29. Susan carried out an experiment to study the preferred environment of organisms M. Thirty similar organisms M were put in the middle of dish X. After ten minutes, the number of organisms M in each section of Dish X was counted.

She repeated the experiment with Dish Y. The results are shown in the diagrams below.

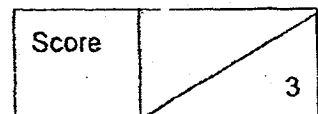


- (a) Based on the above information, state the conditions of the environment that organism M least preferred. [1]

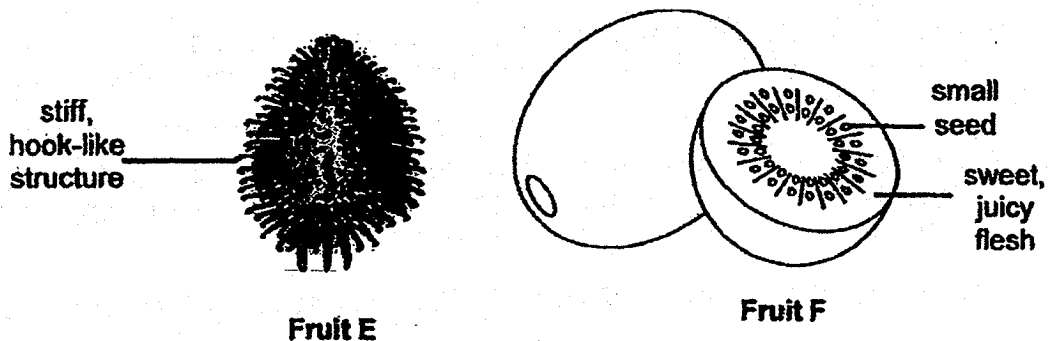
- (b) Living things need air, food and water to survive. Identify two other characteristics of living things that were demonstrated by organisms M in the experiment. [2]

(i) _____

(ii) _____

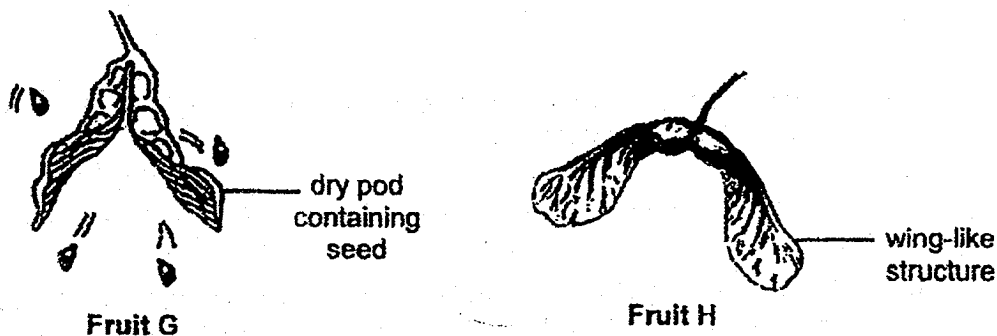


30. The diagrams below show two fruits, E and F.



(a) Describe the difference in the process of seed dispersal between fruits E and F [2]

The diagrams below show how fruit G and H disperse their seeds.



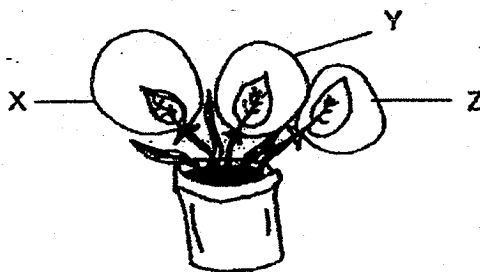
(b) State one disadvantage of fruit G's method of seed dispersal compared to fruit H's method of seed dispersal in the presence of wind. [1]

Score	3
-------	---

31. Fred coated clear oil on different parts of three similar leaves on the same plant as shown in the table below.

Leaf	Parts coated with oil
J	Top and bottom surface
K	Bottom surface
L	Not covered with oil

Then he wrapped each leaf with a clear plastic bag as shown in the diagram below.



He placed the plant in the garden from 9 am to 6 pm. He observed that there were most number of water droplets formed on the inner side of bag Z at the end of the experiment.

- (a) Which leaf, J, K or L was wrapped in bag Z? Explain your answer. [2]

- (b) Stomata on leaves tend to reduce in size on hot and dry days. Give a reason for this observation. [1]

Score	3
-------	---

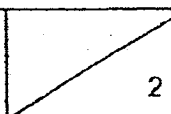
32. Peter wanted to investigate the effects of surrounding temperature on ants. He exposed identical containers, each containing 50 ants, to different surrounding temperatures.

After ten minutes, he recorded his results in the table below.

Surrounding Temperature (°C)	Number of active ants	Number of inactive ants
0	0	50
10	4	46
20	18	32
30	48	2
40	3	47
45	0	50

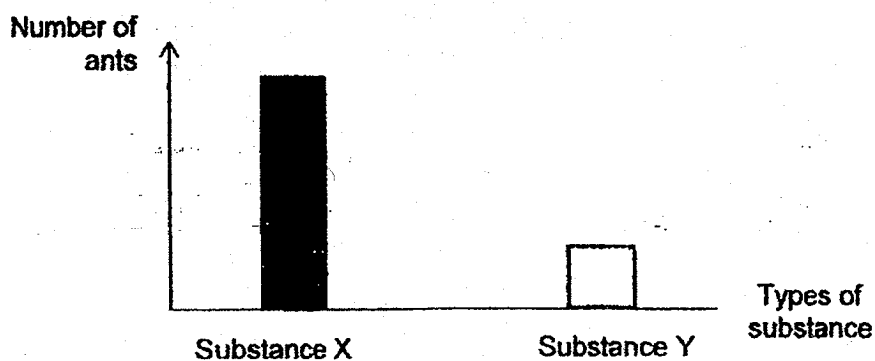
- (a) Based on the information above, what is the relationship between the surrounding temperature and number of active ants? [2]

Continue on next page

Score	
-------	---

Continued from previous page

Peter conducted another experiment to find out if ants prefer to feed on substance X or substance Y. He recorded the number of ants attracted to substances X and Y in the graph below.



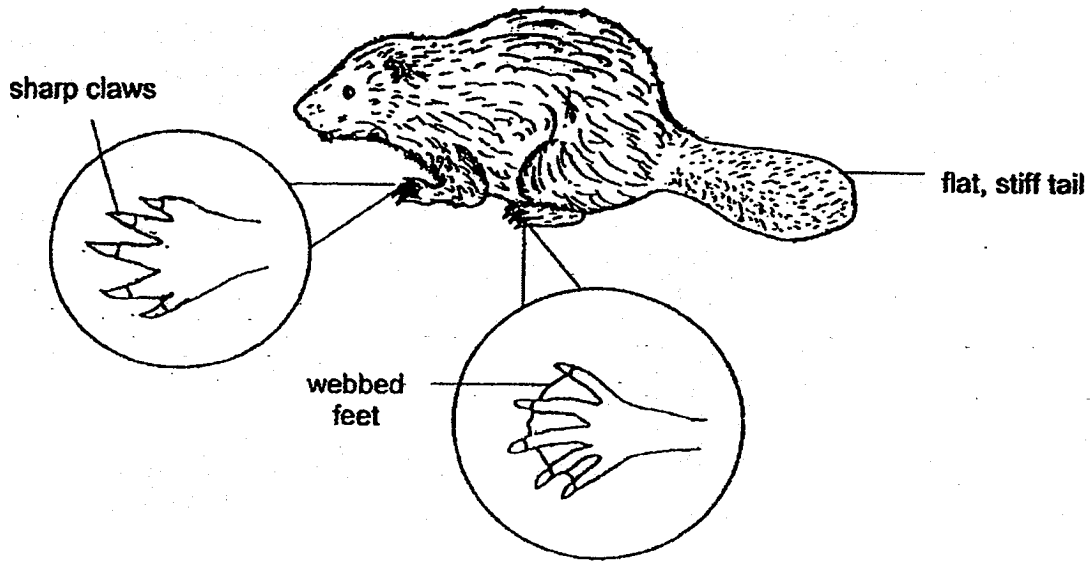
Solution P is poisonous to ant. Peter wanted to kill the ants using solution P. He prepared the following set-ups as shown below. A tick (✓) indicates the presence of the substance or solution.

Set-up	Surrounding temperature (°C)	Presence of substance X	Presence of substance Y	Presence of solution P
E	30	✓		✓
F	30		✓	✓
G	45	✓		✓
H	45		✓	✓

- (b) Based on all the results of Peter's experiments, in which set-up, E, F, G or H, would Peter observe most dead ants? Explain his observations. [2]

Score	2
-------	---

33. The diagram below shows animal X.



Animal X

- (a) Based on the information above, identify a structural adaptation that enables it to swim well. Explain how it enables animal X to swim well. [1]

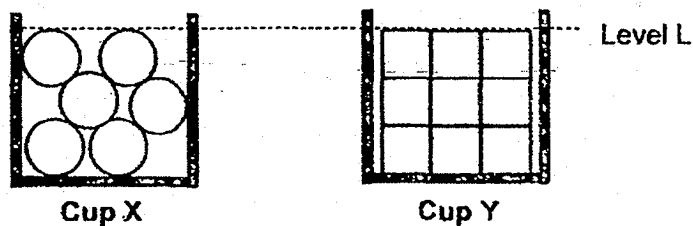
- (b) Animal X spreads oil over its fur to keep its skin dry underwater. Explain how this adaptation helps to keep itself warm when it is out of the water. [2]

Score	3
-------	---

34. The diagram below shows two objects, R and S, placed on each side of a balance. Objects R and S are of the same volume and made of the same material.



Two identical cups were filled to the same level, L, with objects R and S, as shown below. Cup X could contain less objects than cup Y.



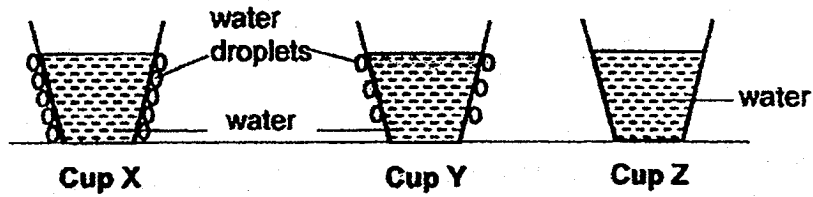
- (a) Based on the above information, describe one similarity between objects, R and S. [1]

- (b) Water is poured into each container until level L. Which cup, X or Y, is able to be filled with more water? Explain your answer. [2]

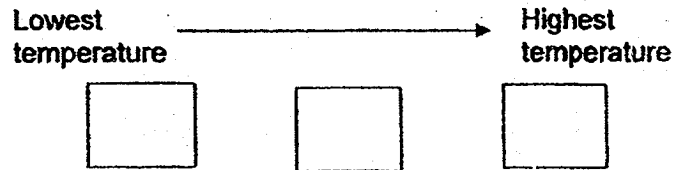
- (c) If all objects R in cup X are crushed into smaller pieces, would the volume of water to fill up cup X to the level L increase, decrease or remain the same? Give a reason for your answer. [1]

Score	4
-------	---

35. Jennie poured same volume of water at different temperatures into three identical cups, X, Y and Z, and left them on a table in the room. After some time, she observed that water droplets were formed on cups X and Y only, as shown below.



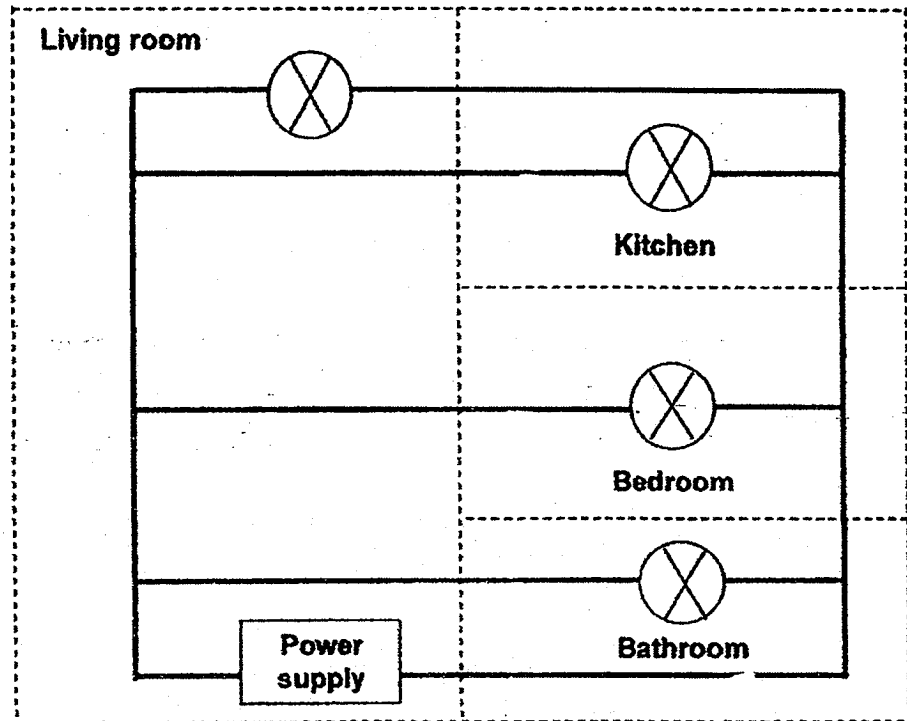
- (a) Arrange the cups, X, Y and Z, in the order of increasing temperature of water that was poured into the cups. [1]



- (b) Explain why no water droplets were observed on cup Z. [2]

Score	3
-------	---

36. The diagram below shows how bulbs are arranged in a house consisting of four areas, the living room, the kitchen, the bedroom and the bathroom.



- (a) The bulbs are of the same brightness.

Based on the circuit shown above, describe one advantage of this arrangement of bulbs. [1]

- (b) On the above diagram, mark four crosses 'X' to show the positions of four switches that should be added to the electric circuit such that each bulb can be turned on and off individually. [2]

Score	3
-------	---

37. Rachel prepared the set-up as shown in Diagram 1.

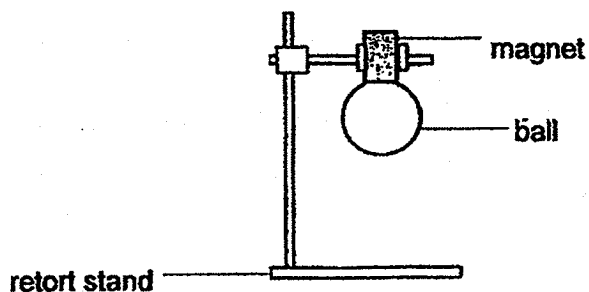


Diagram 1

- (a) Identify two forces acting on the ball. [1]

Rachel added object X to the set-up. She was able to suspend the ball in between object X and the magnet, as shown in Diagram 2.

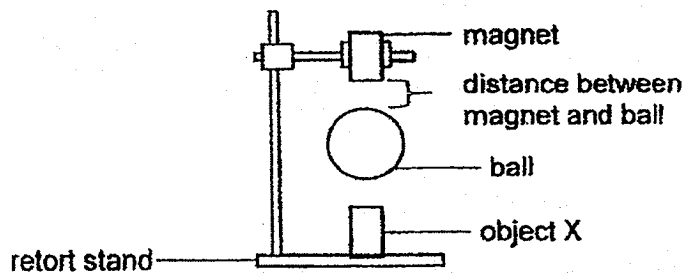


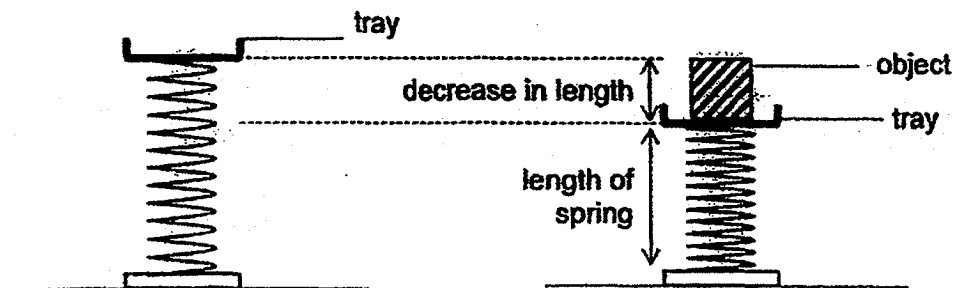
Diagram 2

- (b) Based on the information above, name a material that is used to make object X. [1]

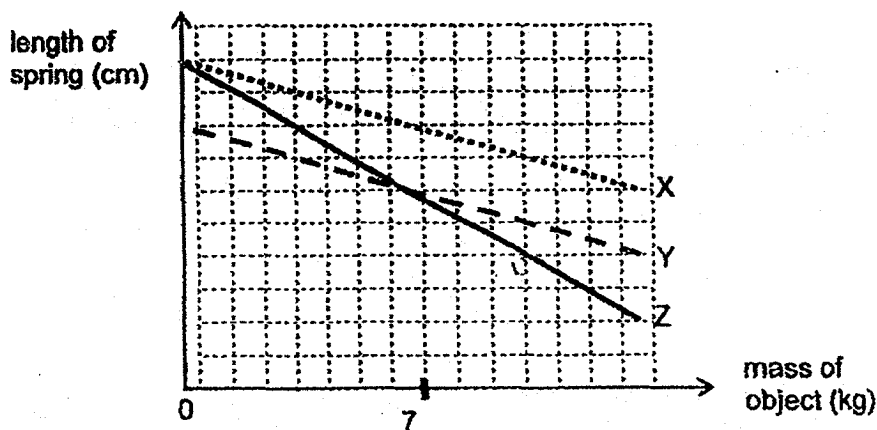
- (c) Objects X and Y are made of the same material. When Rachel replaced object X with object Y, she observed that the distance between the magnet and the ball decreases. Give a reason for her observation. [1]

Score	3
-------	---

38. Maya used the set-up below to study three types of springs, X, Y and Z. She placed objects of different masses on each spring and measured the length of the spring.



The results are shown in the graph below.



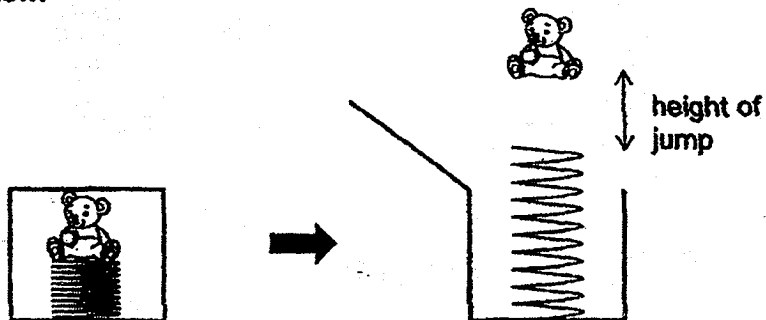
- (a) In which two of the 3 springs, X, Y and Z, will the decrease in the length of spring be the same when an object of 7 kg mass is placed on each spring? [1]

Continue on next page

Score	1
-------	---

Continued from previous page

Maya attached one end of a spring to the bottom of the box. Then she placed a toy on top of the spring and closed the lid. When she opened the lid, the toy jumped as shown in diagrams below.



- (b) Based on the information on the graph, which spring, X, Y or Z, would Maya use the least force to compress the spring in order to close the lid? Give a reason for your answer. [1]

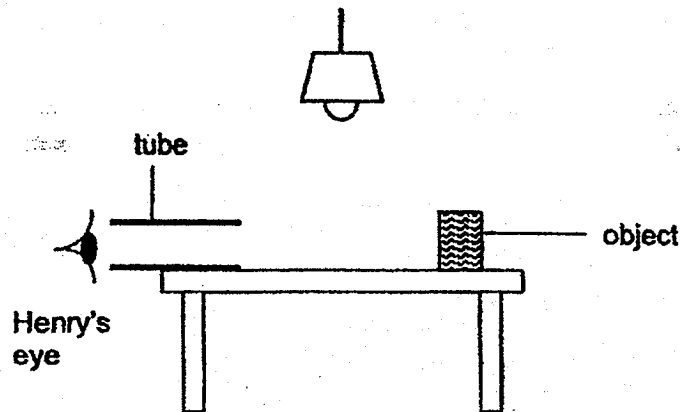
- (c) Maya used the spring in your answer in part (b) but changed the box to a taller box. Would the same toy jump to a greater, lower or the same height? Explain your answer in terms of force. [2]

The toy would jump to _____

Explanation : _____

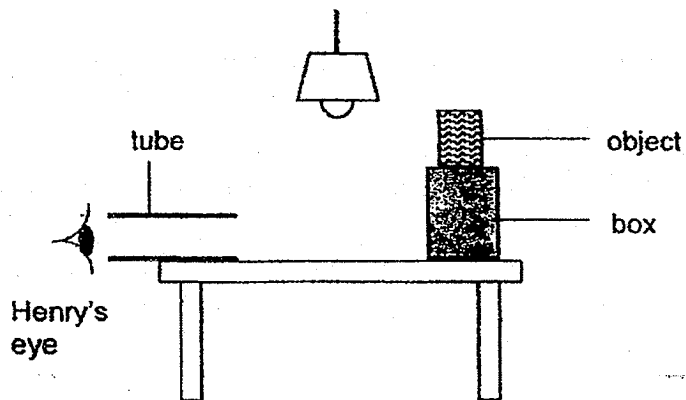
Score	3
-------	---

39. The diagram below shows Henry looking through a tube and saw the object on the table.



(a) State one property of light that enables Henry see the object. [1]

The object was raised by putting it on a box as shown in the diagram below.



(b) Would Henry be able to see the raised object? Explain your answer. [1]

Score	2
-------	---

40. Jack filled three identical pails, X, Y and Z, with the same amount of water of different temperatures. He dipped his hands into the pails and recorded his observations as shown in the table below.

Procedure	Observations	
	His left hand felt ...	His right hand felt ...
Step 1 : Dip left hand in pail X and right hand in pail Y.	(i) neither warm nor cool	(ii) cool
Step 2 : Remove both hands from the pails and immediately dip both hands into pail Z.	(iii) warm	(iv) ?

- (a) Give a reason for Jack's observation in part (i). [1]

- (b) Predict the observation in step (2) part (iv). Explain your answer clearly. [2]

Observation :

Compared with his left hand, Jack's right hand would feel _____

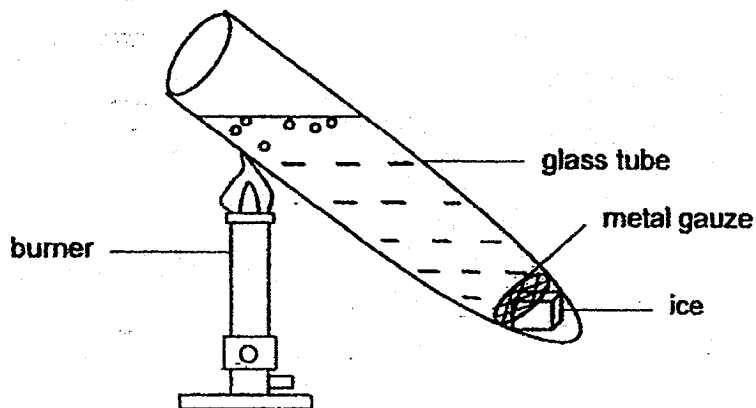
Explanation :

Continue on next page

Score	3
-------	---

Continued from previous page

Jack placed a piece of ice and a piece of metal gauze at the bottom of a glass tube. He filled the glass tube with tap water and heated the glass tube at the upper end as shown in the diagram below.



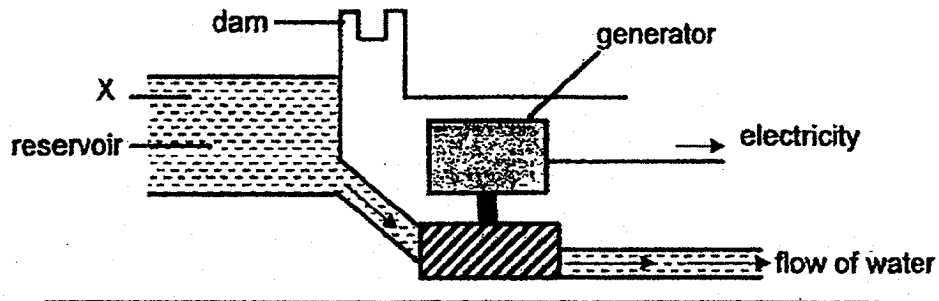
He observed that the water at the surface boiled after some time but the ice cube took a longer time to melt.

- (c) Based on Jack's observations, state a property of water. [1]

- (d) Give a reason why he placed a metal gauze in the test-tube. [1]

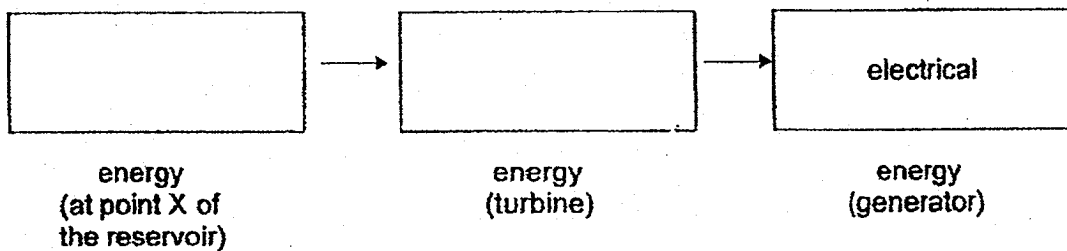
Score	2
-------	---

41. The diagram below shows a hydroelectric power station. The water turns the blades in the turbine so that electricity is produced by the generator.



- (a) How does using running water as a source of energy in power stations help to reduce global warming, as compared to the burning of fossil? [1]

- (b) Fill in the boxes below to show the conversion of energy. [1]

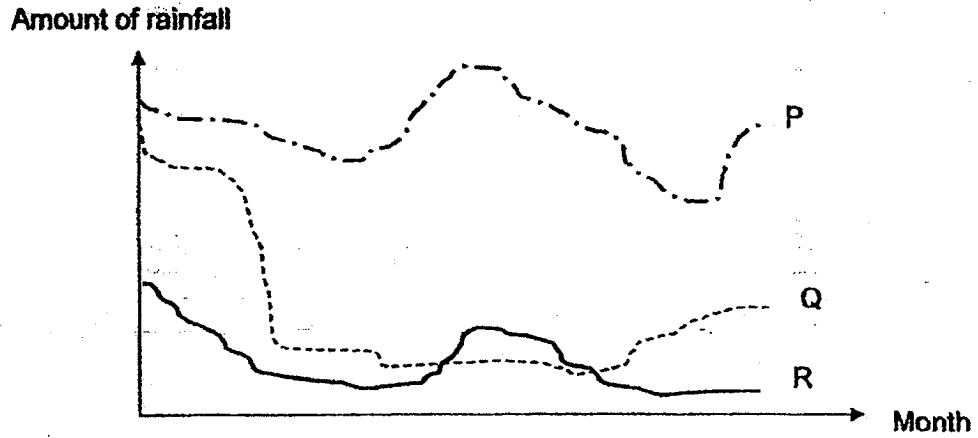


Continue on next page

Score	2
-------	---

Continued from previous page

The graph below shows the amount of rainfall at three locations, P, Q and R, over twelve months.



- (c) Which location, P, Q or R, is most suitable for a hydroelectric power station to be built? Explain for your answer. [2]

- END OF PAPER -

Score	2
-------	---

YEAR : 2018
LEVEL : PRIMARY 6
SCHOOL : RAFFLES GIRLS' PRIMARY
SUBJECT : SCIENCE
TERM : PRELIMINARY EXAMINATION

Booklet A

Q1	Q2	Q3	Q4	Q5	Q6	Q7
3	4	3	2	3	3	4
Q8	Q9	Q10	Q11	Q12	Q13	Q14
4	2	4	2	3	1	2
Q15	Q16	Q17	Q18	Q19	Q20	Q21
4	2	1	3	3	4	2
Q22	Q23	Q24	Q25	Q26	Q27	Q28
2	3	2	3	1	3	1

Booklet B

- Q29 (a)** Brightly lit and dry
(b) (i) Living things respond to changes around it.
 (ii) Living things can move on its own.
- Q30 (a)** When passing by Fruit E, the fruit's hooks cling onto humans' shoes or socks or animals' fur, so when they move around, they disperse the fruit far away from the parent plant but for Fruit F, after the animal eats the sweet, juicy flesh of the fruit that attracts it, it passes out the small seeds in its waste further away from the parent plant.
(b) The young of Fruit G will compete with the parent plant for space, nutrients, light and water.
- Q31 (a)** Leaf L. None of its surfaces were covered with oil, so most gaseous exchange will occur and most water vapour will be released through transpiration by the stomata which came into contact with and lost heat to the cooler inner side of bag Z, condensing to form the greatest amount water.

(b) Stomata reduce in size so as to lose less water through transpiration.

Q32 (a) The greater the surrounding temperature, the greater the number of active ants up to 30°C , beyond which the number of active ants decrease from 3 at 40°C to 0 at 45°C .

(b) Set-up E. In set-up E, the surrounding temperature is 30°C in which most number of ants are active, according to Peter's first experience indicating that most ants would be attracted to the substance X present in the set-up as they prefer to feed on it. The solution P present would then kill the most number of ants, so in set-up Peter would find the greatest number of dead ants.

Q33 (a) Webbed feet. It enables X to paddle and steer itself in water.

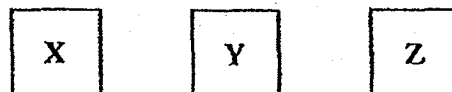
(b) Since oil repels water, when it comes out of the water, it would not be wet, so no water would gain heat from its body and evaporate to form water vapour and make feel cold hence keeping it warm.

Q34 (a) They have a definite shape.

(b) Cup X. In cup X, there are more air spaces between objects R than in cup Y due to the shape of object R, so more water could be poured in to fill the greater air spaces until level L.

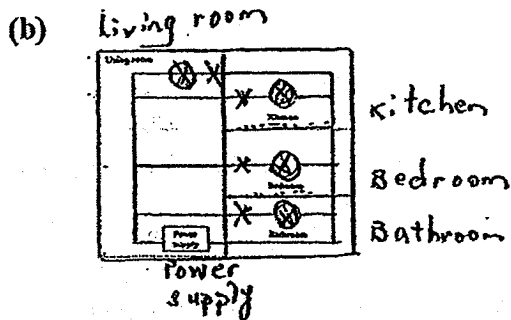
(c) Same. The volume of the objects in the cup remains the same.

Q35 (a) Lowest temperature \longrightarrow Highest temperature



(b) Water in cup Z must have been at room temperature, indicating that there was no temperature difference between it and the water vapour in the surrounding air so the water vapour did not lose heat to the outer surface of the cup to condense into water droplets.

Q36 (a) If one bulb fuses, the others remain lit.



Q37 (a) Gravitational force and magnetic force.

(b) Iron

(c) Object Y was a weaker magnet so its repulsion to the ball was not as strong as object X.

Q38 (a) Spring X and Y.

(b) Spring Z. It compressed the most when the same amount of mass was placed on it, so it is the most elastic and would be the easiest to compress.

(c) The toy would jump to lower height.

Explanation: The spring will be compressed less, hence it will have less elastic spring force.

Q39 (a) Light is reflected.

(b) No. Light from the lamp cannot be reflected by the object into Henry's eyes.

Q40 (a) The temperature of his hands is the same as the temperature of water in pails.

(b) **Observation:**
Compared with his left hand, Jack's right hand would feel warmer.

Explanation:

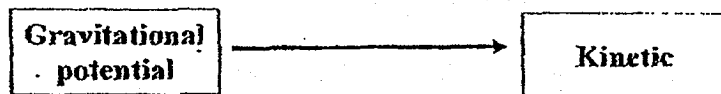
The temperature difference between the right hand and the water is greater than between the left hand and the water. Hence right hand gain more heat from water than left hand.

(c) It is a poor conductor of heat.

(d) To ensure that the ice does not float upwards towards the surface of the water.

Q41 (a) The use of running water in power station does not produce carbon dioxide hence trap less heat in the atmosphere unlike the burning of fossil fuels.

(b)



(c) **Location P.** In location P, it rains the most, ensuring that there would always be running water. Hence, most gravitational potential energy can be converted to most kinetic energy and then to most electrical.

End