HENRY PARK PRIMARY SCHOOL

2010 SEMESTRAL EXAMINATION 2

PRIMARY 6 SCIENCE

Booklet A

Name: _____ ( )

Class: Primary 6 _____

60

30 Questions
60 Marks

Total Time for Booklet A and B: 1 h 45 min

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

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

Booklet A (60 marks)

For each question from 1 to 30, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the **Optical Answer Sheet.**

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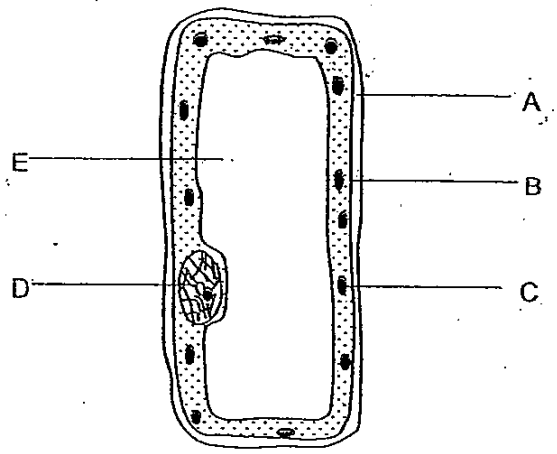
1. The diagram below shows a plant cell.



Which of the following parts of the plant cell, A, B, C, D or E are **not** found in an animal cell?

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

2. Which of the following changes follow a cycle?

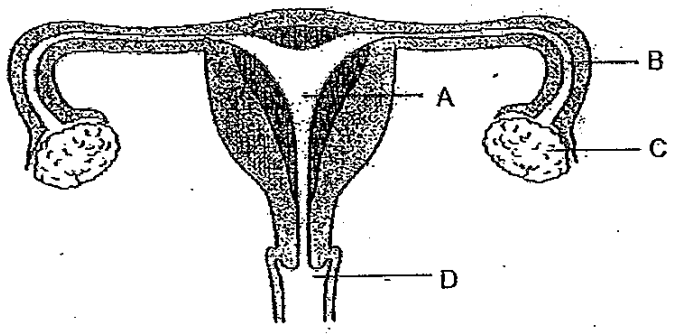
A: The change of tides.

B: The change of seasons.

C: The change from day to night.

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

3. The diagram below shows the female reproductive system of a human.

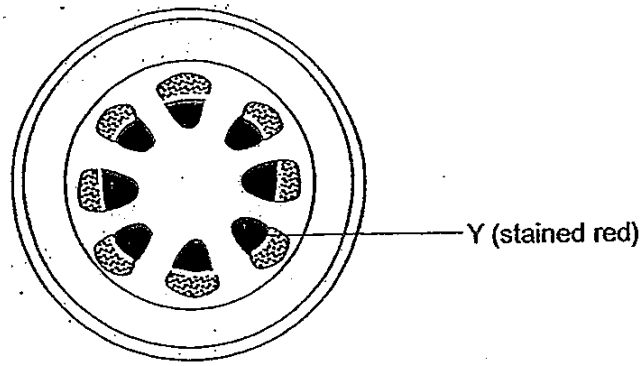


At which one of the parts A, B, C or D of the female reproductive system does a sperm fertilise the egg?

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

( )

4. The roots of a plant are dipped into a beaker of red-coloured solution. The diagram below shows the cross-section of the stem after a period of time.



Based on the experiment, part Y is likely to transport _____.

A: food
B: water
C: oxygen

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

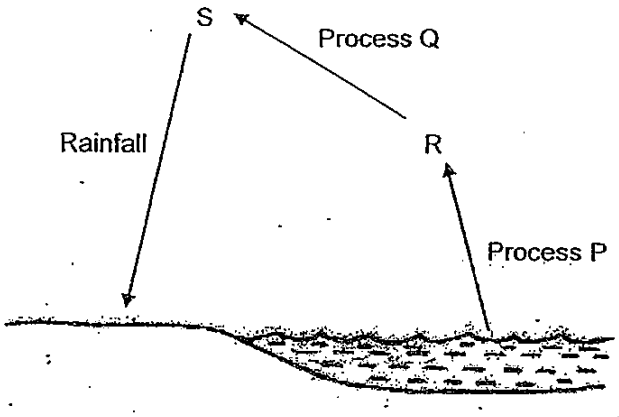
( )

5. Air contains a mixture of gases.

Which one of the following gases most likely remains unchanged in amount in inhaled and exhaled air?

(1) oxygen
(2) nitrogen
(3) water vapour
(4) carbon dioxide ( )

6. The diagram shows part of the water cycle.

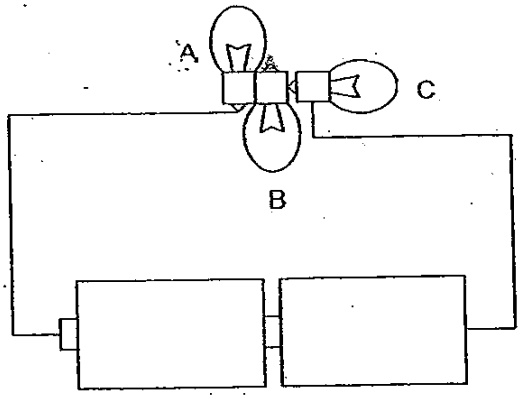


Which one of the following correctly identifies P, Q, R and S?

	Processes		State of water	
	P	Q	R	S
(1)	condensation	evaporation	gas	liquid
(2)	evaporation	condensation	liquid	gas
(3)	evaporation	condensation	gas	liquid
(4)	condensation	evaporation	liquid	gas

( )

7. The diagram below shows 3 bulbs, A, B and C, connected to 2 batteries.

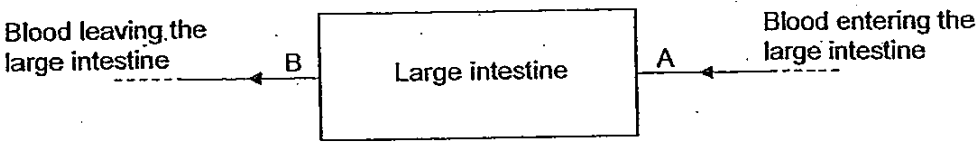


Which of the bulbs will light up?

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

( )

8. The diagram shows how blood flows in a certain part of the human body a few hours after a meal.



Which of the following is true about the amount of oxygen, carbon dioxide and water in the blood flowing in B as compared to A?

	Blood flowing in B has		
(1)	more oxygen	less carbon dioxide	more water
(2)	more oxygen	more carbon dioxide	less water
(3)	less oxygen	more carbon dioxide	more water
(4)	less oxygen	less carbon dioxide	less water

( )

9. Eunice wanted to investigate whether seeds grow faster in the presence of light.

She used 2 similar pots of garden soil for her experiment.

Which other variables should Eunice control to ensure that the experiment was fair?

A: The type of seeds in each pot
B: The number of seeds in each pot
C: The amount of water given to each pot
D: The location where the pots were placed

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

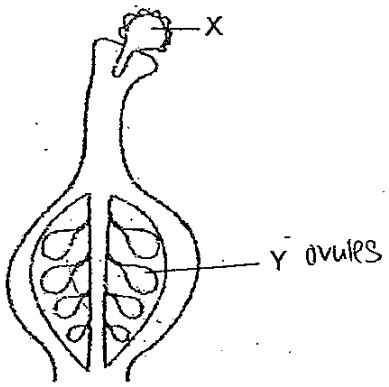
10. A seed is planted in the soil.

Which of the following are reasons for the root of the baby plant to grow out of the seed first?

A: To get sunlight
B: To absorb water
C: To photosynthesise
D: To anchor in the soil

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

11. The diagram shows a cross-section of a part of a flower at a particular stage during reproduction.

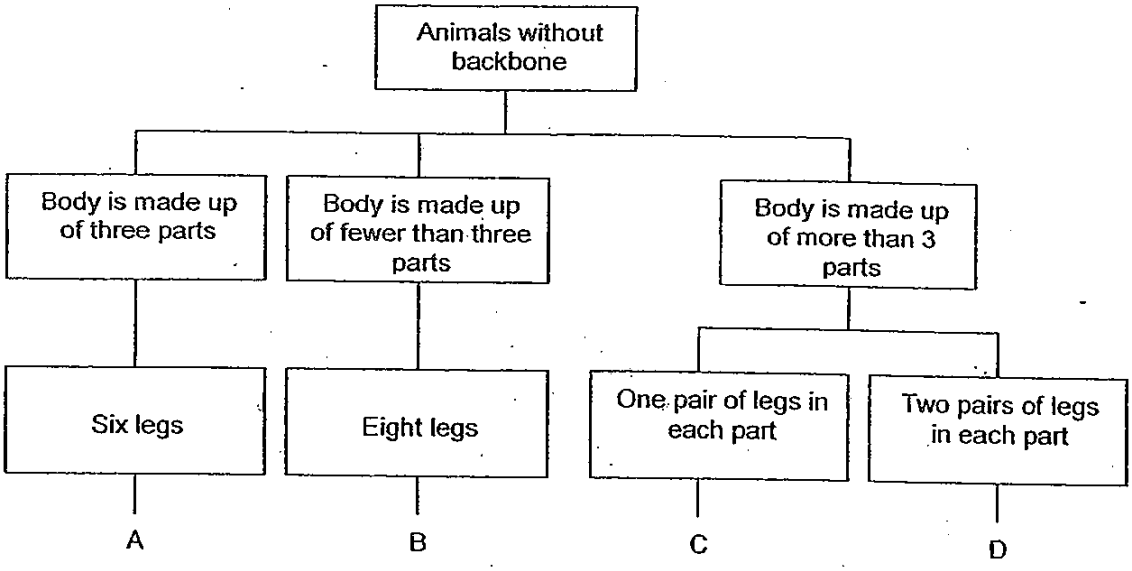


Which of the following best describes structures X and Y?

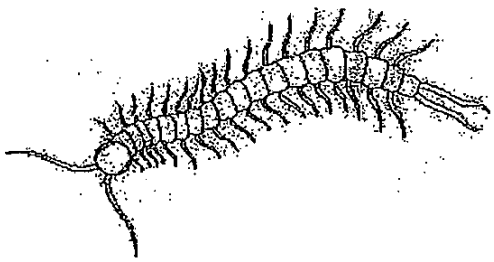
	Structure	
	X	Y
(1)	A pollen after pollination but before fertilisation	A seed after pollination and fertilisation
(2)	A pollen after pollination but before fertilisation	An ovule after pollination but before fertilisation
(3)	A pollen before pollination but after fertilisation	A seed after pollination and fertilisation
(4)	A pollen before pollination but after fertilisation	An ovule after pollination but before fertilisation

( )

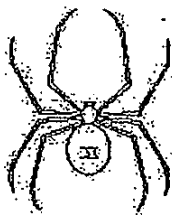
12. Study the classification chart below.



Dyan found 2 animals, P and Q, in the garden as shown below.



Animal P



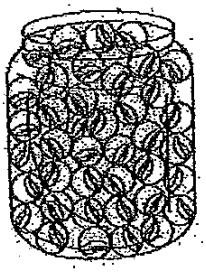
Animal Q

Which groups, A, B, C or D, do the 2 animals, P and Q, belong to?

	Animal P	Animal Q
(1)	C	A
(2)	C	B
(3)	D	A
(4)	D	B

( )

13. In an experiment, Ryan filled a container with marbles until he could not put any more marbles into it. He said that there was no more space in the container for him to put anything into it.



However, his friend, Samuel said that he was wrong.

How can Samuel prove that Ryan is wrong?

A: Shake the container of marbles.
B: Pour sand into the container of marbles.
C: Heat the container of marbles with a flame.
D: Pour water into the container of marbles.

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

( )

14. The small intestine and the large intestine are 2 long tube-like structures found in the human digestive system.

The table below shows the length of each of them.

Small intestine	About 6.7 m to 7.6 m
Large intestine	About 1.5 m

Why is the small intestine longer than the large intestine?

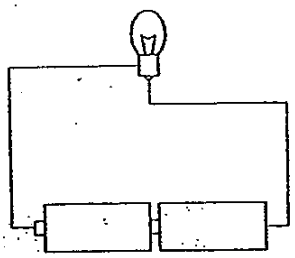
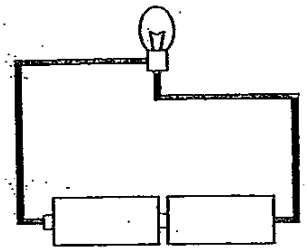
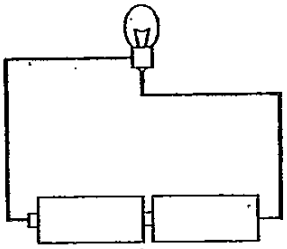
A: Sufficient time to digest food completely.
B: Sufficient time to absorb water completely.
C: Sufficient time to absorb digested food into the blood.

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

( )

15. Brian carried out an experiment with 3 similar bulbs and some wires of the same length in the Science room. He also used batteries of the same voltage for his experiment.

The table below shows his experimental results.

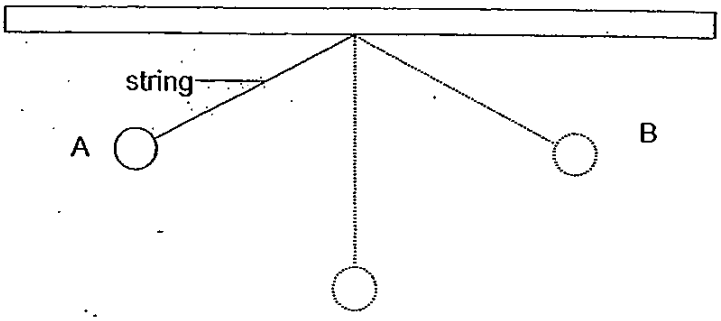
Set-up	Circuit	Temperature of Science Room (°C)	Brightness of the bulb
A		30	Very bright
B		30	Not very bright
C		30	Bright

What hypothesis is Brian testing?

(1) As the length of the wire increases, the brightness of the bulb decreases.
(2) As the thickness of the wire increases, the brightness of the bulb decreases.
(3) As the number of the batteries increases, the brightness of the bulb decreases.
(4) As the temperature of Science Room increases, the brightness of the bulb decreases. ( )

16. John wanted to find out how long it would take for a pendulum to swing from A to B and back to A again. He repeated the experiment with strings of different lengths and bobs of different masses.

The table below shows the results of his experiment.

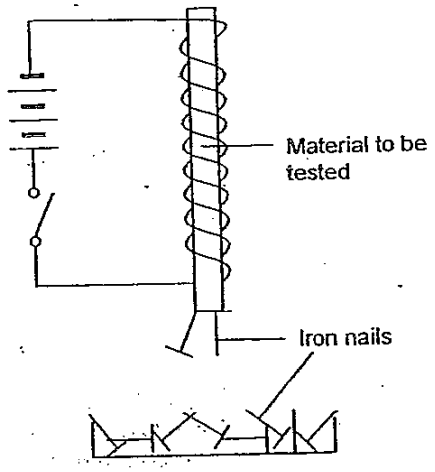


Length of string (cm)	Average time taken to complete 10 swings (seconds)		
	50g bob	150g bob	200g bob
40	13.6	13.4	13.5
70	17.7	17.6	17.3
110	22.5	22.7	22.7
140	25.3	25.2	25.5

What should be done to ensure that the pendulum complete 10 swings in less than 13.4 seconds?

(1) Increase the mass of the bob to more than 200g
(2) Decrease the mass of the bob to less than 50g
(3) Decrease the length of the string to less than 40cm
(4) Increase the length of the string to more than 140cm ( )

17. 4 different magnetic materials, W, X, Y and Z, were tested to find out which one would be most suitable to be used as an electromagnet.



When the switch was closed, the material picked up some of the iron nails and the number of iron nails picked up was recorded.
When the switch was opened, some of the iron nails fell off and the number of iron nails left attracted to the material was recorded.

The table below shows the results for the 4 different materials tested.

Material	Number of iron nails picked up	Number of iron nails left attracted
W	50	12
X	50	40
Y	50	5
Z	50	30

Which one of the materials, W, X, Y or Z, would be the most suitable material as an electromagnet?

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

( )

18. An astronaut weighing 700N on Earth visited 4 moons, P, Q, R and S. He recorded his weight on each of the moons and tabulated his results in the table below.

Moon	Astronaut's weight (N)
P	800
Q	550
R	200
S	640

If the astronaut exerted the same force in his attempt to jump on each of the moons, which moon is he most likely to be able to jump to the greatest height?

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

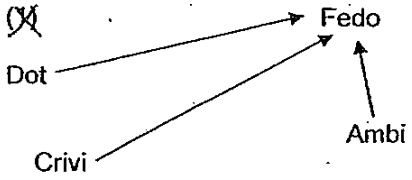
( )

19. On the planet Mario, which is very much like Earth, only 4 populations of organisms exist. They are Ambi, Fedo, Crivi and Dot.
The following describes the characteristics of each organism:

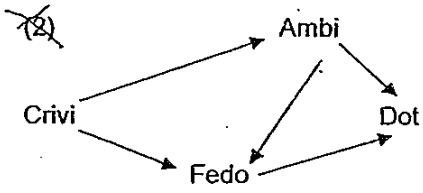
Ambi is the only herbivore.
Dot feeds on only Ambi.
Fedo eats both Dot and Ambi.
Fedo is an omnivore.
Crivi is the only food producer.

Which one of the following food webs best describes the food relationship of the organisms on planet Mario?

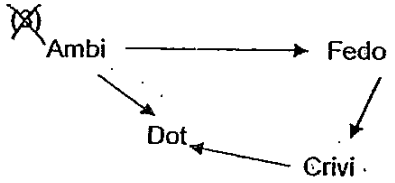
(1)



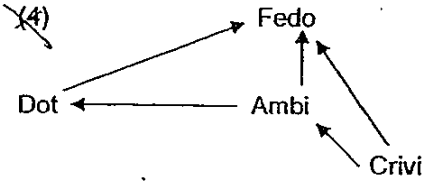
(2)



(3)

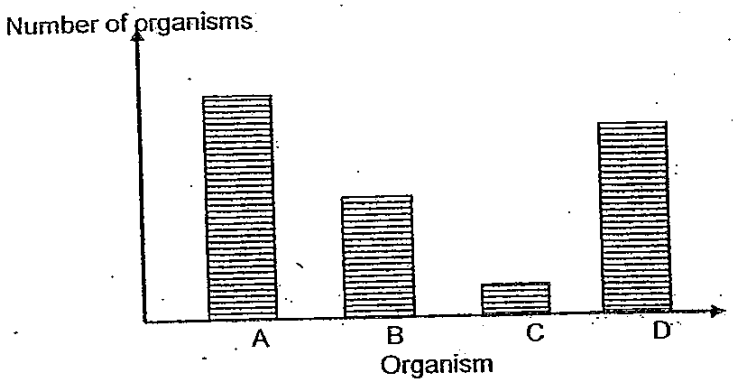


(4)



( )

20. The graph below shows the population of 4 organisms, A, B, C and D, in a particular food chain. These 4 organisms are found living in a garden habitat.

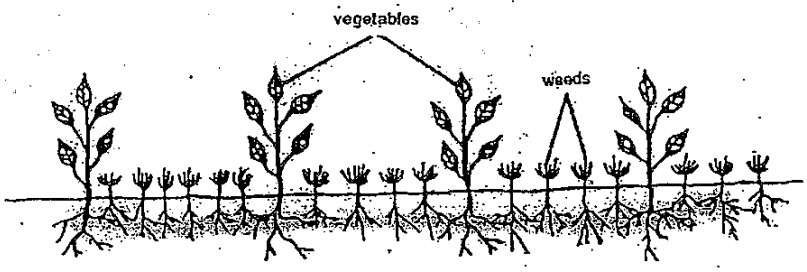


Which population, if decreased, will most likely cause all the other three populations to decrease as well?

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

( )

21. The diagram below shows some vegetables and weeds growing together in a plot of land.



Which of the following are the vegetables and weeds most likely to be competing for in the plot of land above?

A water
B oxygen
C mineral salts
D carbon dioxide

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

( )

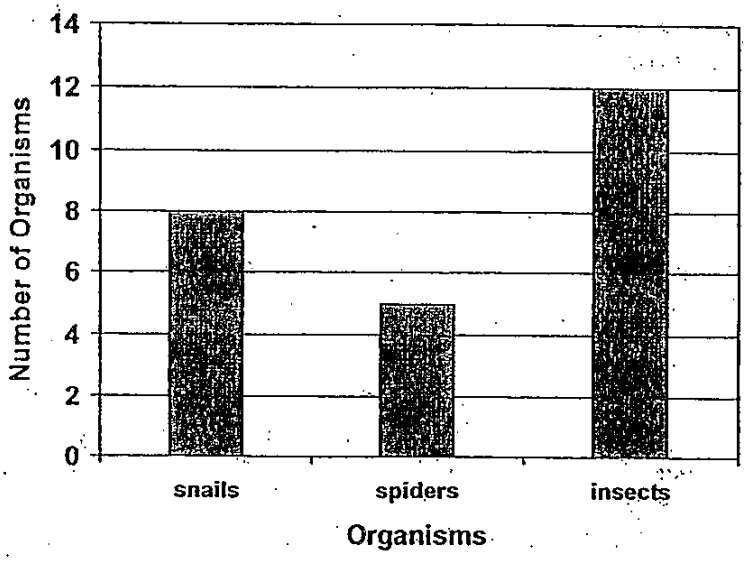
22. How do the plants in a pond community help the animals living there?

A: The plants provide shelter for the animals.
B: The plants are a food source for the animals.
C: The plants provide carbon dioxide for the animals to make food.
D: The plants break down dead organisms into simple substances.

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

( )

23. Jim counted the number of some organisms he found on a banana tree. His results are shown in the graph below.



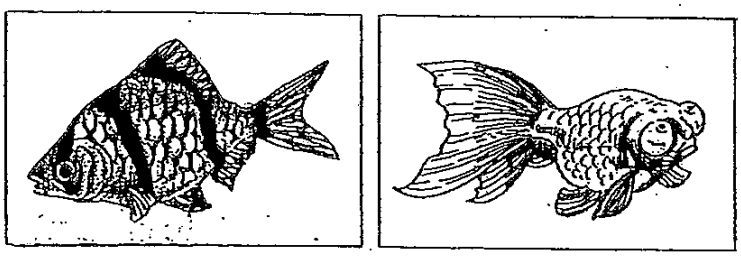
Based on the results shown in the graph, which of the following statements are definitely correct?

A: The banana tree is one community.
B: There are 5 types of spiders on the tree.
C: There are at least 3 populations of animals.
D: There are 25 populations of animals in total.

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

( )

24. The diagrams below show 2 fish, A and B.
Fish A is better adapted to escape from its predators than Fish B.



Fish A Fish B

Which of the following describe adaptations that Fish A has which enable it to escape from its predators better than Fish B?

A: Larger tail fin
B: Patterns on its body
C: Streamlined body shape
D: Position of eyes on the top of its head

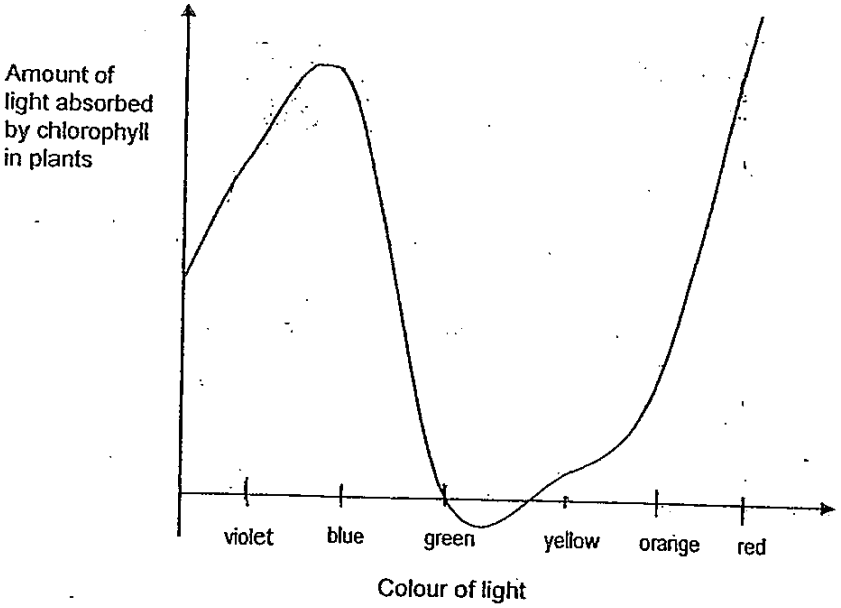
(1) A and B only
(2) A and C only
(3) B and C only
(4) A, B and D only ( )

25. Which of the following situations are likely to be a result of deforestation?

A: Oil spill
B: Soil erosion
C: Global warming
D: Extinction of animals and pests

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

26. The graph below shows the amount of different coloured lights absorbed by chlorophyll during photosynthesis in plants.



2 plants, X and Y, were exposed to different coloured lights. A leaf was then plucked from each plant and tested for starch. The results are shown in the table below:

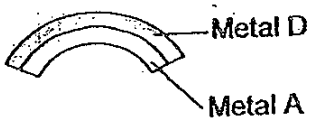
	Results of Iodine test
Leaf from plant X	Iodine solution remained brown.
Leaf from plant Y	Iodine solution turned dark blue.

Which one of the following correctly identifies the coloured light that each plant was exposed to?

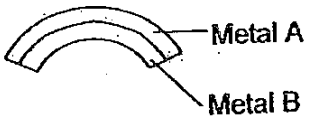
	Colour of lights plant was exposed to	
	Plant X	Plant Y
(1)	Red	Blue
(2)	Green	Red
(3)	Red	Green
(4)	Blue	Yellow

( )

27. A bimetallic strip is formed when two different metals are joined together. 4 metals, A, B, C and D, were used in different combinations to form four bimetallic strips.
The diagrams below show how each strip bent when heated equally for 5 minutes.

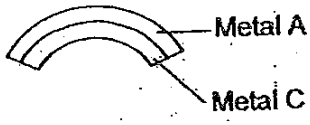


Strip 1



Strip 3

Strip 2



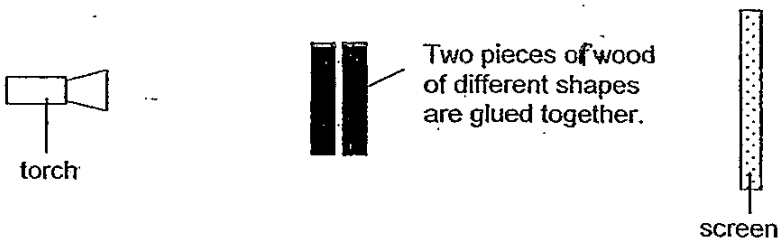
Strip 4

Based on the information given above, which one of the following shows metals A, B, C and D , arranged in the correct order, based on how much the metal had expanded?

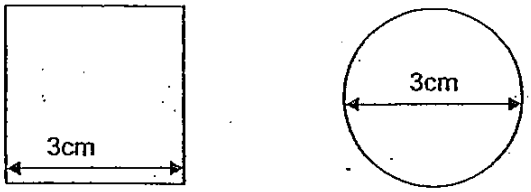
	Expanded most →			Expanded least
(1)	A	B	C	D
(2)	D	A	B	C
(3)	C	B	A	D
(4)	D	A	C	B

( )

28. 2 pieces of wood are glued together. They are then placed between a torch and a screen as shown below.

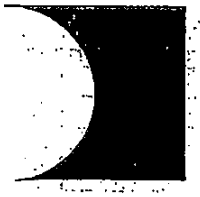


The 2 pieces of wood are of different shapes as shown below.



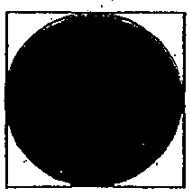
Which of the following shadows can possibly be formed on the screen when the torch is switched on?

A



B:

C:

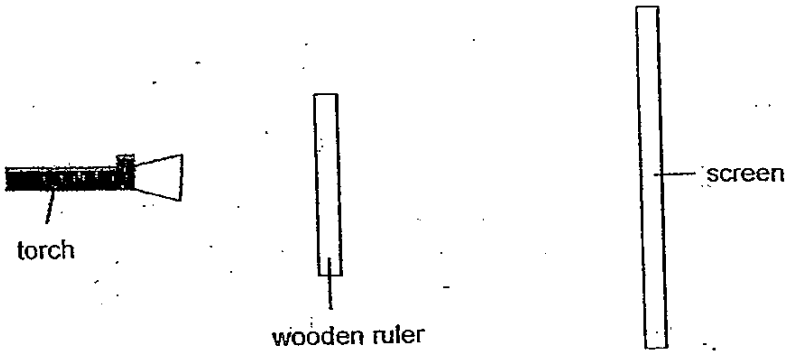


D:

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

( )

29. Ken positioned a wooden ruler between a screen and a torch as shown below.



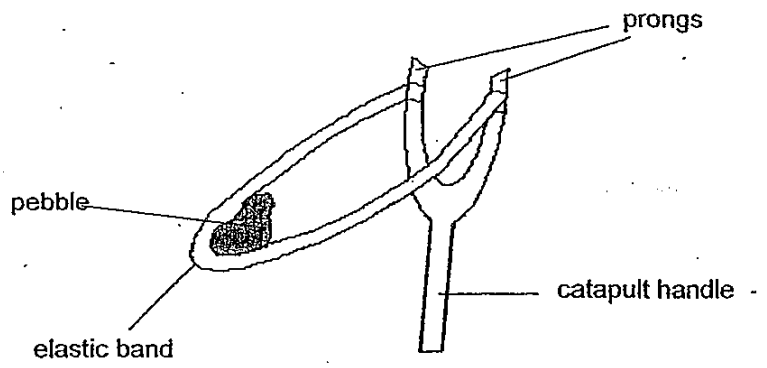
He then followed the procedure as listed in the steps described.

Step 1: Switch on the torch
Step 2: Measure the height of the shadow of the ruler formed on the screen.
Step 3: Move the ruler 5cm closer to the torch.
Step 4: Measure the height of the shadow again.
Step 5: Repeat steps 3 and 4 two more times, moving the ruler another 5cm closer to the torch each time.

Which one of the following hypothesis was he investigating?

(1) The brighter the light source is, the darker the shadow formed.
(2) The further the light source is from the object, the sharper the shadow formed.
(3) The nearer the light source is to the object, the brighter the shadow formed.
(4) The further the light source is from the object, the smaller the shadow formed. ( )

30 The diagram below shows a catapult which is used to shoot a pebble at a target located 3m away.



How can the speed of the pebble be increased without replacing the elastic band?

A Use a pebble with a shinier surface
B Use a pebble with a smaller mass
C Stretch the elastic band further back
D Use a catapult with a longer handle

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

End of Booklet A

HENRY PARK PRIMARY SCHOOL

2010 SEMESTRAL EXAMINATION 2

PRIMARY 6 SCIENCE

Booklet B

Name: _____( )

/40

Class: Primary 6 _____

14 Questions
40 Marks

Total Time for Booklet A and B: 1 h 45 min

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

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

Booklet B (40 marks)

Write your answers to questions 31 to 44 in the spaces given.

31. The table below shows the freezing points and boiling points of 3 substances, X, Y and Z.

Substance	Freezing point (°C)	Boiling point (°C)
X	29	678
Y	17	118
Z	-7	59

a) What are the states of substances, X and Y at 20°C? *(1m)*

Write your answers in the boxes of the table below.

Substance	State of substance
X	
Y	

b) Other than having mass and occupying space, state another property of substance Z when it is at 100°C. *(1m)*

32. X is a chemical similar to the digestive juice in the human digestive system.

Kelly wanted to study the effect of Chemical X on cooked and raw minced meat.
She used 2 similar petri dishes, A and B, for her experiment.
The items in petri dishes, A and B, are shown in the table below.

Petri Dish	Cooked/raw minced meat	Amount of minced meat (g)	Amount of Chemical X (ml)
A	cooked	30	15
B	raw	30	15

a) Give a reason why the amount of minced meat should be kept the same to ensure that the experiment was fair. *(2m)*

_____

_____

b) In the investigation, the meat is minced at the start of the experiment. Similarly, food is chewed at the start of digestion. *(1m)*

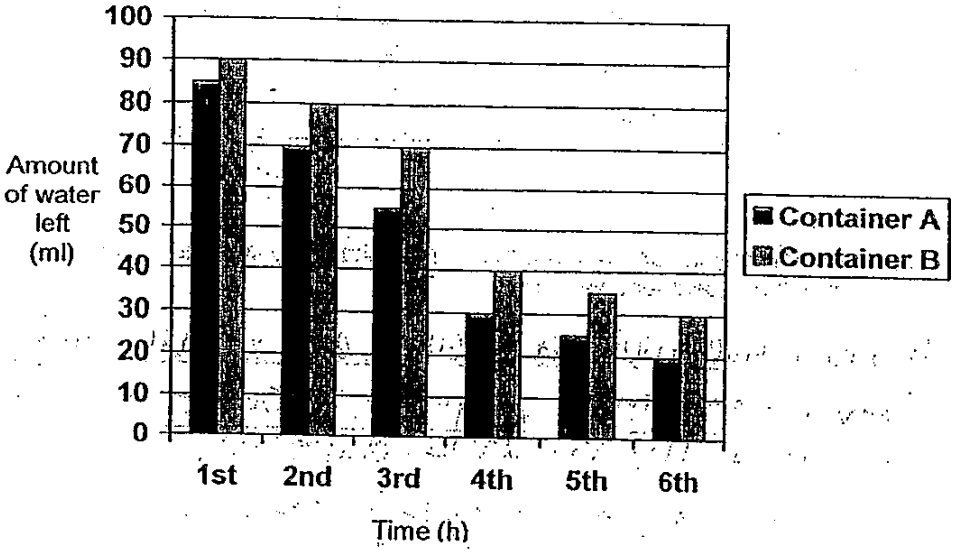
Explain why this is necessary.

_____

_____

33. Lydia conducted an experiment to find out if the exposed surface area of a container will affect the rate of evaporation. She used 2 containers, A and B, made of the same material. The experiment was conducted in an undisturbed open field for a period of 6 hours. The amount of water left after each hour is measured.

The experimental results are shown in the graph below.



a) Besides keeping the amount of water in each container the same, state another variable that should be kept the same in order for the experiment to be fair. *(1m)*

_____

_____

b) Which container has a greater exposed surface area? Why? *(1m)*

_____

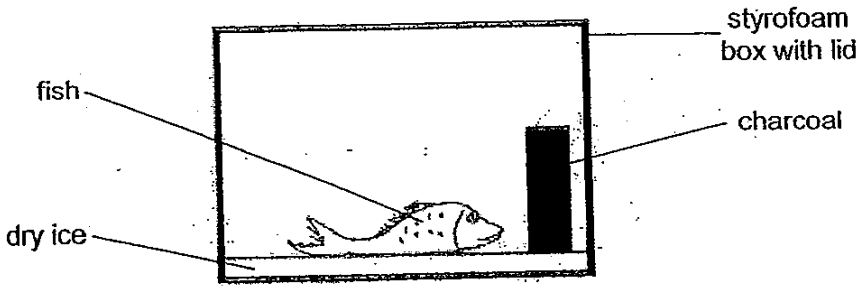
_____

c) During which hour was the temperature of the air in the open field likely to be the highest? Give a reason to support your answer. *(1m)*

_____

_____

34. Joshua found out from his mother that charcoal can absorb smell in a refrigerator. He decided to carry out an experiment to find out if this is true. The diagram below shows his experiment setup.



After a period of time, Joshua observed and concluded that charcoal absorbs the smell from the fish. However, his classmate, Eric said that Joshua needed another setup in order to make an accurate conclusion.

a) Explain why there was a need for the other setup. *(2m)*

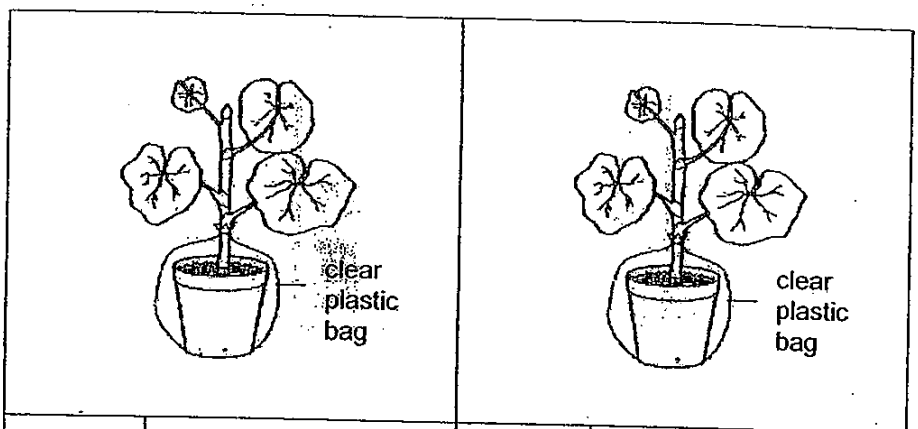
_____

_____

b) Tick [√] in the appropriate boxes below to show what Joshua should use in the other setup mentioned in (a). *(1m)*

Item	
Styrofoam box with lid	
Dry ice	
Charcoal	
Fish	

35. Ali carried out an experiment to investigate the change in the mass of potted plants with damp garden soil over a fixed period of time. He used 2 similar well-watered potted plants, A and B, which were wrapped with clear plastic bags for his experiment as shown in the diagram below.

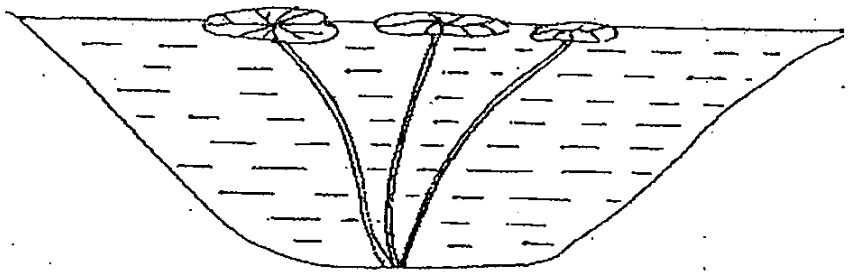


A	Smear oil on the upper surfaces of all the leaves	B	Smear oil on the upper and lower surfaces of all the leaves

a) Which potted plant experienced more change in mass? *(1m)*

Give a reason to your answer in (a). *(1m)*

In another experiment, Ali smeared oil to cover the upper surfaces of all the leaves of a water lily plant as shown in the diagram below.



After some time, the water lily plant died.

Explain why this is so. *(1m)*

36. The diagrams below show the lungs in the human and the gills in the crab. They help the 2 organisms to breathe.

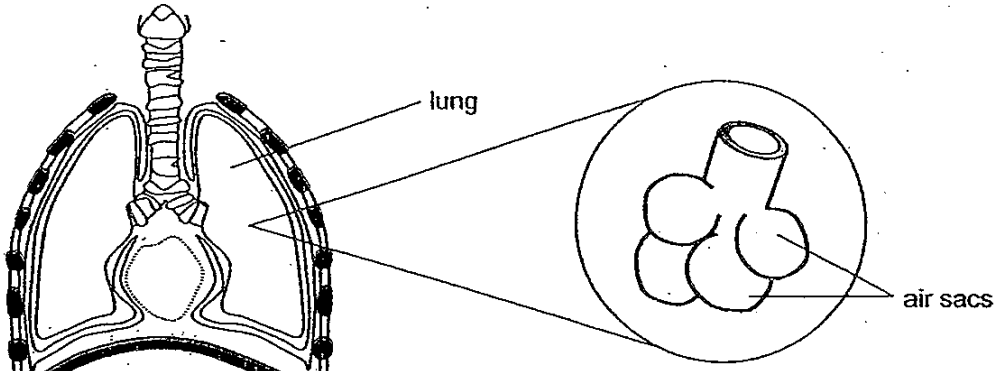


Diagram A – Enlarge view of part of the lung

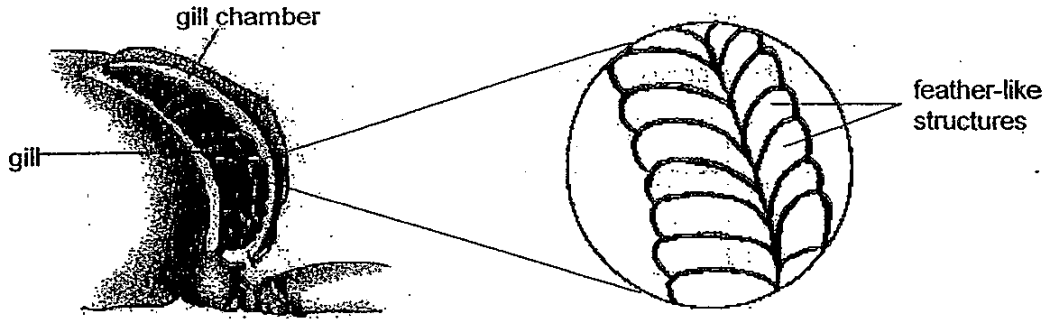


Diagram B – Enlarge view of part of the gill

a) State a difference in the gas that the lungs and the gills take in. *(1m)*

_____

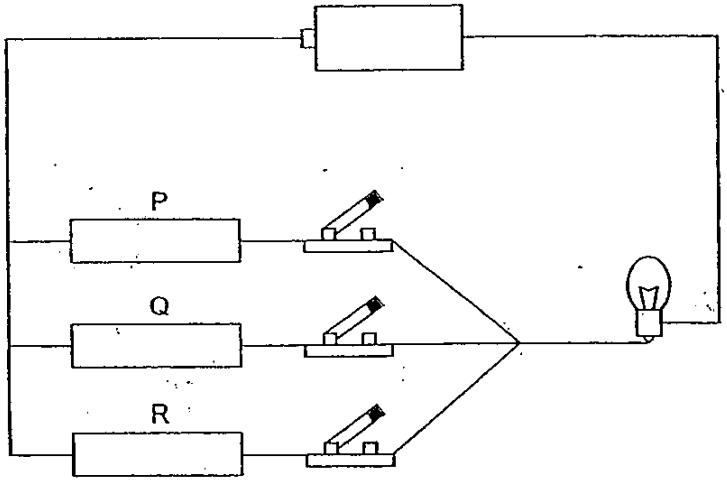
_____

b) Describe one similarity in the way structures in Diagrams A and B work to maximise gaseous exchange. *(1m)*

_____

_____

37. Ben set up the following experiment to find out which material, P, Q or R conducts electricity. He closed the switches, one at a time and observed whether the bulb lighted up.



He recorded the experimental results in a table as shown below.

Material	Bulb lights up
P	Yes
Q	Yes
R	Yes

a) Using appropriate symbols, draw a circuit diagram of the experiment in the box below. *(2m)*

b) What is the purpose of putting a bulb in the experiment? *(1m)*

_____

_____

In another experiment, he brought a magnet close to each of the materials, P, Q and R and observed which one of them would be attracted to it.

Again, he recorded the experimental results in a table as shown below.

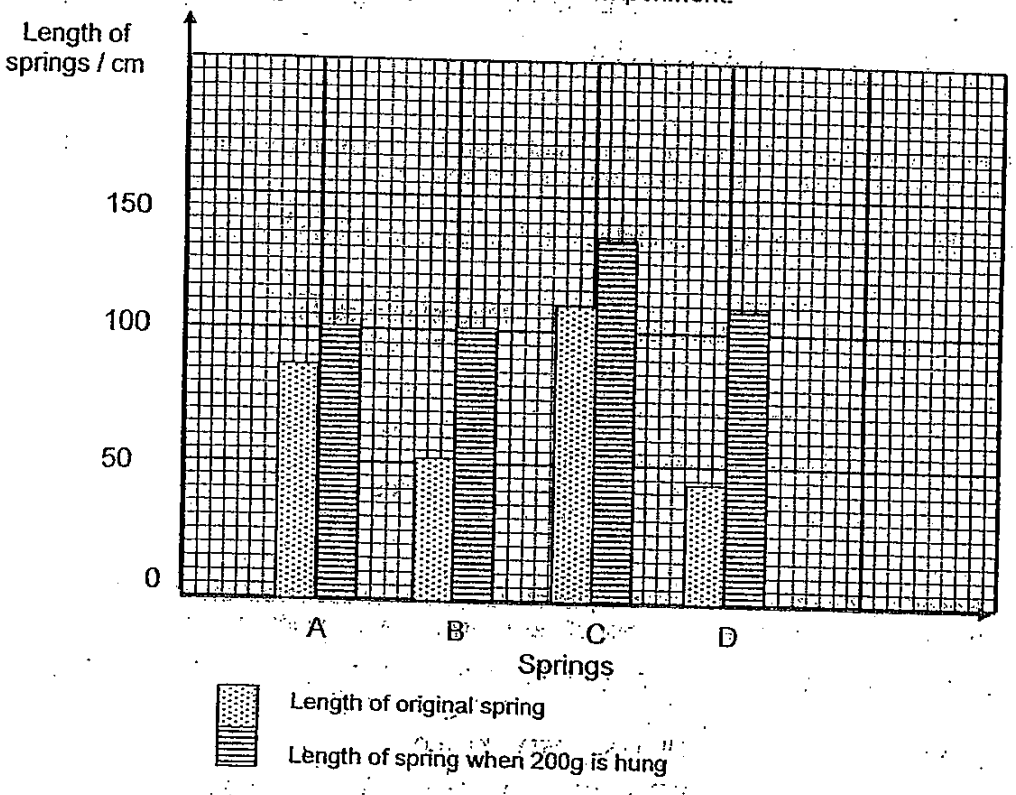
Material	Magnet attracts the material
P	Yes
Q	No
R	Yes

c) Based on the above experiments, what can you conclude about the likely relationship between a conductor of electricity and its magnetic property? *(1m)*

_____

_____

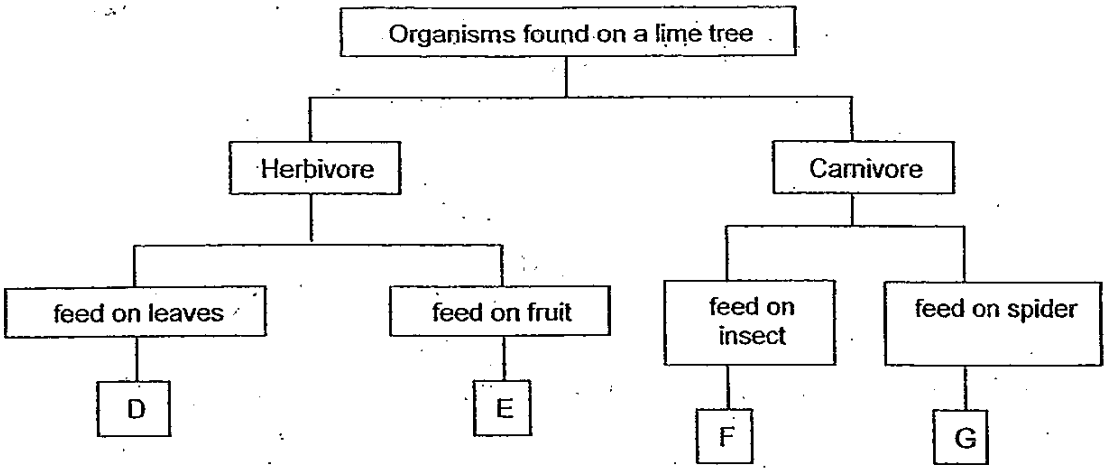
38. Mary conducted an experiment to investigate the effect of forces applied on four different springs, A, B, C and D, before and after a 200g weight was hung onto each of them. The graph below shows the results of her experiment.



a) Based on the graph above, which Spring, A, B, C or D, possesses the most elastic potential energy when a 200g weight is hung on it? Explain your answer. *(1m)*

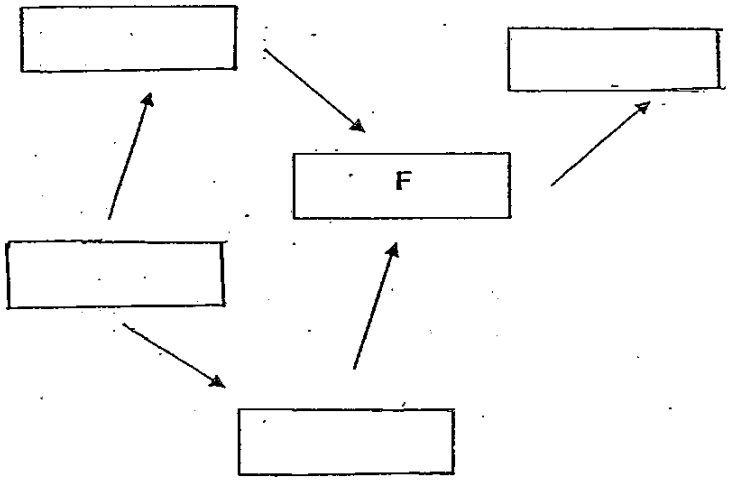
b) What is the extension of Spring B when a 100g weight is hung on it? *(1m)*

39. Sue classified the organisms, D, E, F and G, which are found on a lime tree in a chart shown below.



a) Based on the chart, explain why the different organisms do **not** need to compete for food in this habitat. *(1m)*

b) Sue observed the feeding habits of D, E, F and G, and drew a food web. In the food web shown below, fill in the boxes with the words '**lime tree**' and letters, **D**, **E**, and **G**, to represent the organisms in the food web. *(1m)*



c) If the population of G decreases over time, what is the most immediate effect likely to be observed in this community? Why? *(1m)*

40. 3 plants P, Q and R, are found along a river bank as shown below in Figure 1.

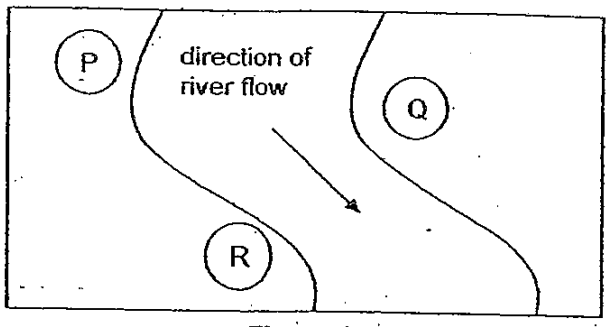


Figure 1

Figure 2 below shows the location of the young plants relative to their parent plants a year later.

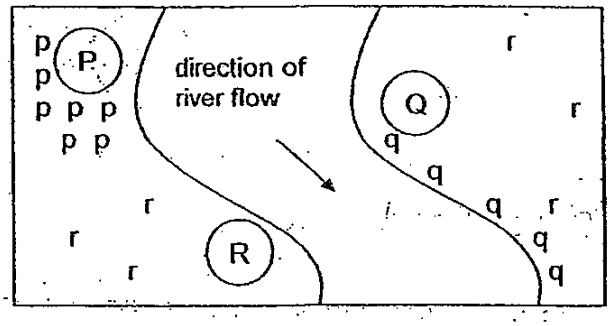


Figure 2

a) Based on the diagrams shown, identify the methods of dispersal for plants P, Q and R. *(1m)*

	Plant	Method of dispersal
(i)	P	
(ii)	Q	
(iii)	R	

b) Describe two possible adaptive features of plant R which enable it to disperse its young plants as shown in Figure 2. *(1m)*

(i) _____

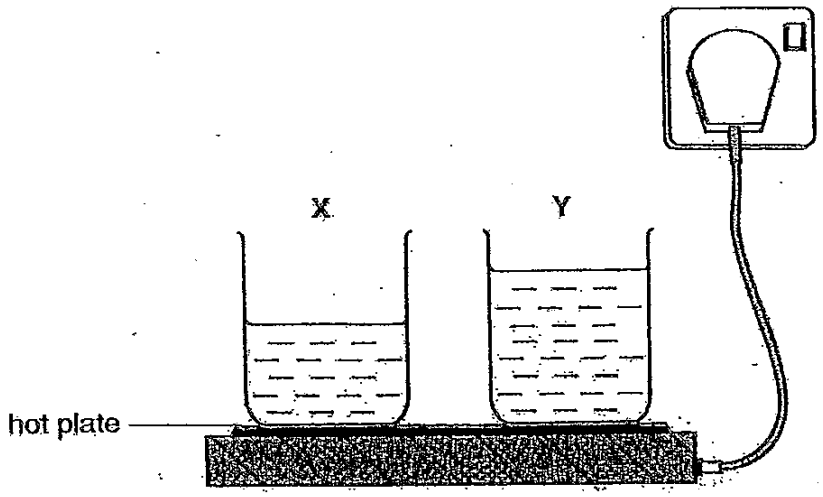
(ii) _____

c) Explain how the young of plant R has an advantage over the young of plant P. *(2m)*

_____

_____

41. Billy uses an electrical hot plate to heat two beakers of water, X and Y, to 100°C.



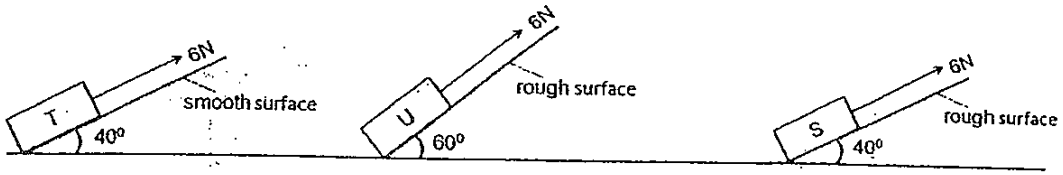
	Beaker X	Beaker Y
Volume of water (ml)	50	80
Temperature of water initially before heating (°C)	29	29

Based on the information above, put a tick (✓) in the appropriate boxes to indicate whether the statements are 'True', 'False" or "Not possible to tell'.

(2m)

	Statements	True	False	Not possible to tell
a)	The water in Beaker X will reach boiling point 30 minutes before Beaker Y.			
b)	The water in both beakers has the same amount of heat energy before heating.			
c)	Electrical energy is converted to heat energy when the hot plate is switched on.			
d)	More heat energy is required to boil the water in Beaker Y than in Beaker X.			

42. 3 blocks of different weights, T, U and S, were pulled up the ramp of 3 different set-ups as shown below. The surface of the ramp for set-up 1 was smooth while that of the other set-ups were rough.



Set-up 1 Set-up 2 Set-up 3

a) The force used to pull each block was 6N. Rank the blocks T, U and S according to their weights, starting from the heaviest to the lightest. *(1m)*

_____

b) Block S was placed on another surface W inclined at 40° as well. However, a force of only 4N was required to pull it up the ramp. *(2m)*

Explain why less force is required to move block S up surface W.

_____

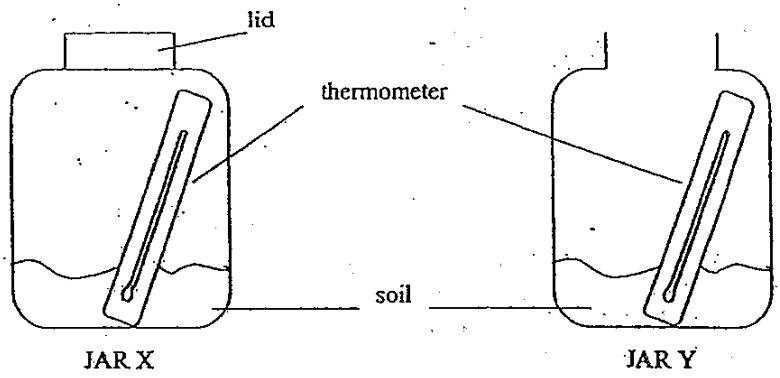
_____

_____

43. 2 similar glass jars, X and Y, which contained 100g of soil each, were placed under the Sun next to each other. Jar X was covered with a lid while jar Y was left open. A thermometer was placed into each jar and the temperature of the air inside each jar was measured at hourly intervals for 3 hours.

The table below shows the temperature readings of the air in the two jars.

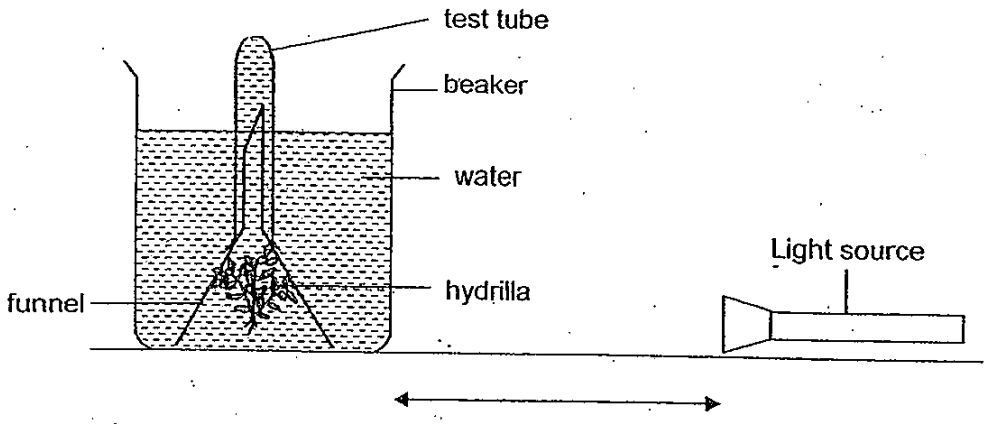
Temperature reading	Temperature (°C) at different times			
	10am	11am	12pm	1pm
Set A	30	32	39	45
Set B	30	33	37	40



a) Which set of readings, A or B, will most likely represent the temperature of air in jar X? Explain your answer. *(2m)*

b) Identify a gas on Earth which behaves in a similar way as the lid covering the jar and explain how it is similar. *(1m)*

44. David wanted to find out how the intensity of light source affects the rate of photosynthesis of hydrilla plants. He placed an inverted test-tube containing water over another beaker of water with hydrilla inside a funnel, as shown in the diagram below. He then placed a bright light source at a distance *d* away.



After 20 minutes, he counted the number of bubbles produced by the hydrilla over 30 seconds. He repeated the procedure five more times, increasing *d*, the distance between the light source and the beaker.
He recorded his observations in the table shown below.

Distance of light source from beaker, *d* (cm)	Number of bubbles produced in 30 seconds
10	55
20	47
30	33
40	26
50	14

a) Identify the gas in the bubbles produced. *(1m)*

_____

b) Besides the equipment shown in the diagram above, list two other variables which he must keep the same to ensure a fair test. *(1m)*

(i) _____

(ii) _____

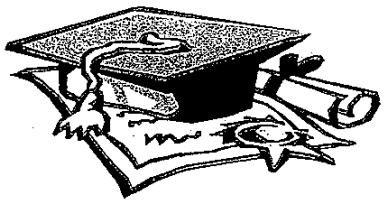
c) What can David conclude from the results of his experiment? *(1m)*

_____

_____

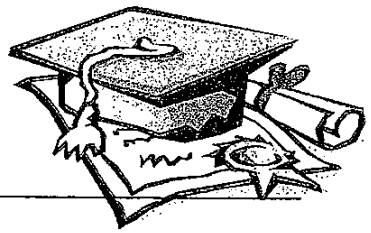
End of Booklet B

Setters: Mr Tan Joo Nam
Mrs Seow Jian Jian



ANSWER SHEET

EXAM PAPER 2010



SCHOOL : HENRY PARK PRIMARY
SUBJECT : PRIMARY 6 SCIENCE

TERM : PERLIMINARY

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

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

31)a)X: Solid Y: Liquid
b)It has no definite volume.

32)a)Amount of minced meat will also affect how much of the meat digested.
b)It is to increase the surface area for the digestive juice to interact with the meat.

33)a)Temperature of water at the start of the experiment.
b)Container A. After each hour, the water left in container A is lesser than container B. So container A has a greater exposed surface area.
c)4th hour. The difference in the amount of water left is the greatest.

34)a)The other set-up was a control to allow comparison and ensure that it was the charcoal that absorbs the smell of the fish.
b)

Item	
Styrofoam box with lid	√
Dry ice	√
Charcoal	
Fish	√

35)a)A.

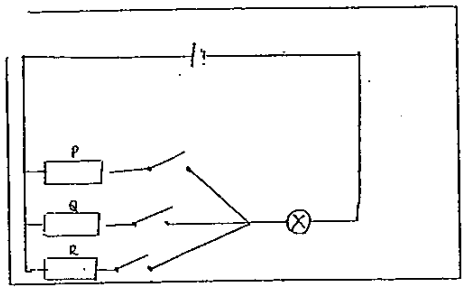
b)There are still stomata found on the underside of the leaves and water can still escape out of them.

c)Stomata mostly found on the upper surfaces are covered with oil and so ,no gaseous exchange can happen.

36)a)The lungs take in atmospheric oxygen while the gills take in dissolved oxygen.

b)They both have enlarged surface area for gaseous exchange.

37)a)



b)It is to test if the material is a conductor of electricity.

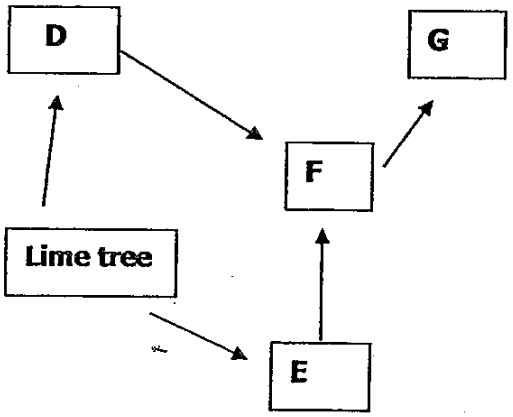
c)All materials does not have to be magnetic to be a conductor of electricity.

38)a)D. When a 200g weight is hung, the extension is longer than the other springs.

b)25cm.

39)a)They all feed on different instead of just one food source.

b)



c)Population of F will increase. G is the only predator of P.

40)a)i)splitting ii)water iii)wind
b)i)It is light ii)It has wind-like structures.
c)It will not compete with P for water and nutrients.

41)a)Not b)False c)True d)True

42)a)T, S, V
b)Surface W would have less frictional force than surface S and surface W is smoother.

43)a)The jar with a cover lid traps more heat as the heat cannot escape quickly.
b)Carbon dioxide. It traps the sun's heat on earth.

44)a)Oxygen.
b)i)Amount of water.
ii)Amount of hydrilla.
c)The greater the intensity of light, the greater the rate of photosynthesis.