CONTINUAL ASSESSMENT 1 (2017)
PRIMARY 6

SCIENCE

BOOKLET A

THURSDAY **23 FEBRUARY 2017** **1 Hour**

Name: _____ ( ) Class : 6.( )

INSTRUCTIONS TO PUPILS

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

Follow all instructions carefully.

There are 14 questions in this booklet.

Answer **ALL** questions.

INFORMATION FOR PUPILS

The total marks for this booklet is 28.

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

This question paper consists of 11 printed pages (inclusive of cover page).

Booklet A (30 marks)

For each question from 1 to 15, four options are given. One of them is the correct answer. Choose the correct option (1, 2, 3 or 4) and shade the correct oval on the Optical Answer Sheet (OAS). (15 x 2 marks)

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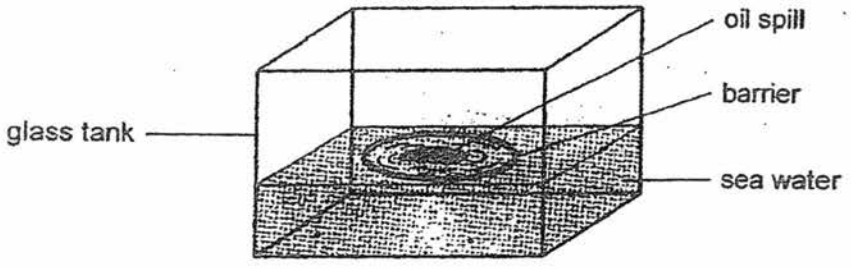
1 Which of the following statements are true for both fungi and bacteria?

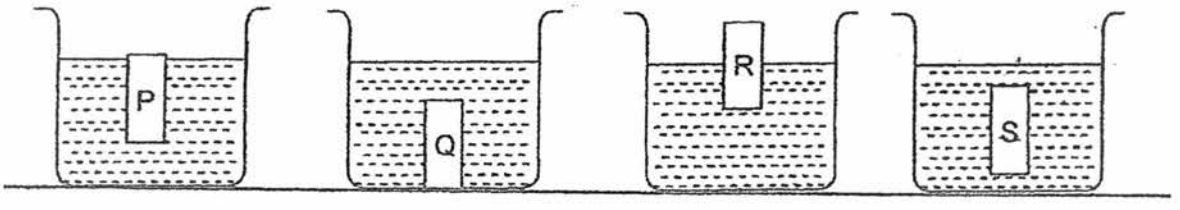
A Some are decomposers.
B They reproduce from spores
C They can only be seen with a microscope.
D They feed on living as well as dead organisms.

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

2 The diagram below shows a model of a barrier used to surround an oil spill in a glass tank of sea water. The purpose of the barrier is to contain the spread of the oil spill within the barrier.



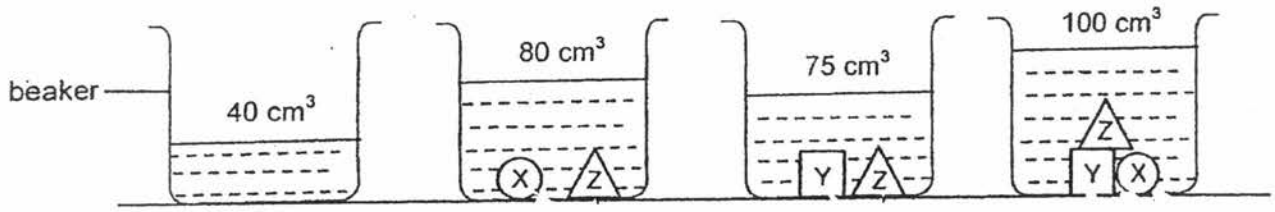
Tessa wanted to find out what material could be used to make such a barrier. She placed identically shaped blocks of different Materials P, Q, R and S in identical beaker containing an equal amount of sea water as shown in the diagram below.



Which material, P, Q, R or S is most suitable for making the barrier?

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

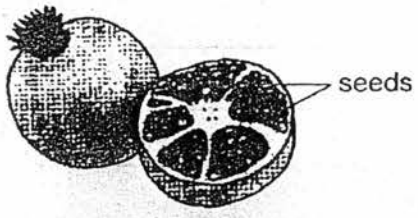
3 A beaker of water was filled with 40 cm^3 of water. Objects X, Y and Z were put into the beaker at separate times and the water level rose as shown in the diagram below.



What is the volume of object X?

(1) 15 cm^3
(2) 20 cm^3
(3) 25 cm^3
(4) 55 cm^3

4 The diagram below shows the cross-section of a pomegranate fruit. The fruit is sweet and juicy but contains many seeds.

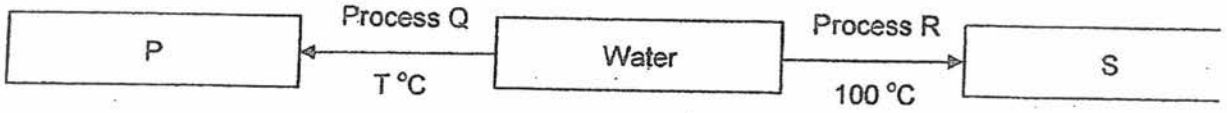


Which of the following statements about the pomegranate flower are correct?

A The flower has many ovaries.
B The ovary of the flower contained many ovules.
C The flower went through pollination before fertilisation.
D Fertilisation occurred when pollen landed on the stigma.

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

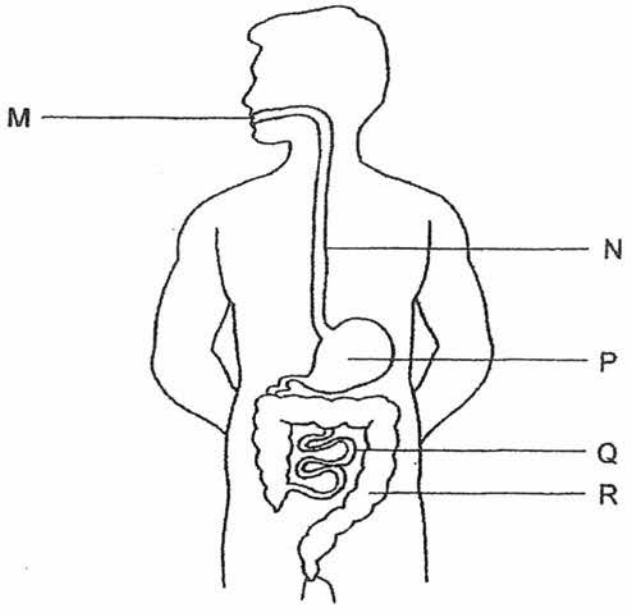
5 Study the diagram below.



Which of the following correctly represents P, Q, R, S and T?

	P	Q	R	S	T
(1)	Water	Melting	Evaporation	Water vapour	30
(2)	Ice	Freezing	Boiling	Steam	0
(3)	Ice	Melting	Evaporation	Water vapour	0
(4)	Water Vapour	Freezing	Condensation	Steam	10

6 The diagram below shows the human digestive system.

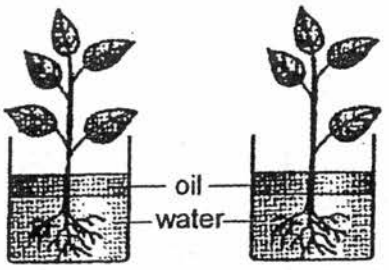


Which of the following correctly identifies the function(s) of M, N, P, Q and R?

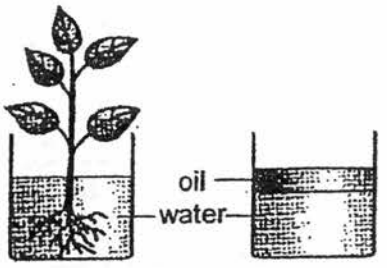
	Produces digestive juices	Where ~~digested food~~ digestion is completed	Removes water from undigested food
(1)	M, N, Q	Q, R	Q, R
(2)	M, P, Q	P, Q	R
(3)	M, N, P	Q	Q, R
(4)	M, P, Q	Q	R

7 Sally wanted to find out if ~~roots of~~ plants absorb water. Which of the following set-ups should she use in order to carry out her experiment?

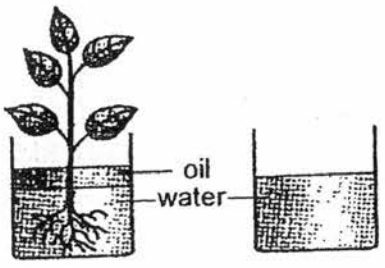
(1)



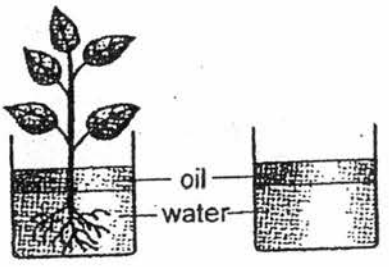
(2)



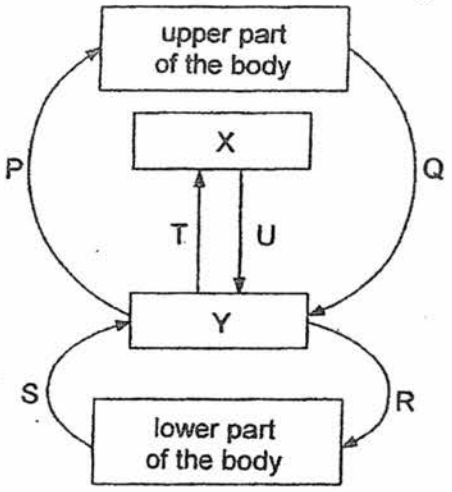
(3)



(4)



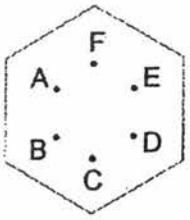
8 The diagram below shows the flow of blood from one part of the human body to another. X and Y represent certain organs in the human body while P, Q, R, S, T and U represent the blood vessels in the body.



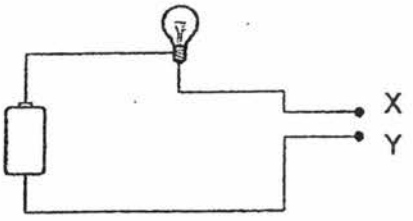
Which of the following correctly represents X and Y and the type of blood found in the blood vessels?

	X	Y	Blood Rich In Oxygen	Blood Rich In Carbon Dioxide
(1)	Heart	Lungs	P, S and T	Q, R and U
(2)	Lungs	Heart	P, R and T	Q, S and U
(3)	Heart	Lungs	P and R	Q, S, E and U
(4)	Lungs	Heart	P, R and U	Q, S and T

9 Calvin used a circuit tester to test a circuit card. He connected Points X and Y of the circuit tester to the various clips A, B, C, D, E and F on a circuit card to see if the bulb would light up.



Circuit Card



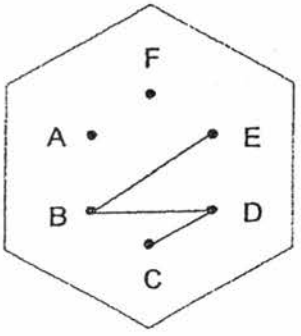
Circuit Tester

Calvin recorded the results of his experiment in the following table :

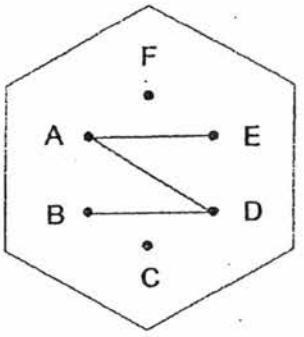
Clips Tested	Bulb of Circuit Tester
A and C	Did not light up
A and F	Did not light up
B and E	Lit up
C and E	Lit up
E and F	Did not light up

Which circuit card did Calvin use in his experiment?

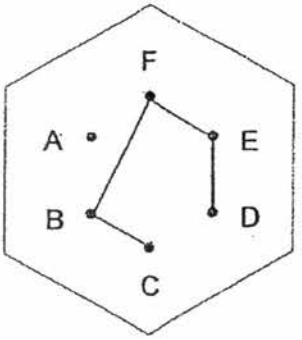
(1)



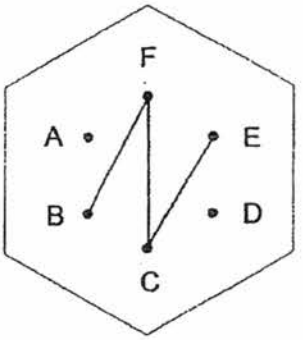
(2)



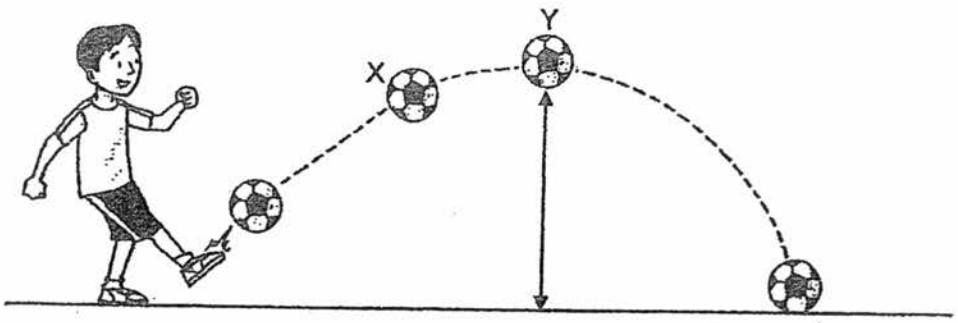
(3)



(4)



10 Calvin kicked a soccer ball. The diagram below shows the path taken by the ball after he had kicked it. Points W, X, Y and Z are different points along the path taken by the ball.



Which of the following statements are true?

A A push force started the ball moving.
B At Point Y, the frictional force, acting on the ball, was downwards.
C Gravitational force and frictional force caused the ball to change direction.
D Gravitational force started acting on the ball at Point Y and stopped at Point Z.

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

11 The following organisms are found in a school's eco-garden pond :

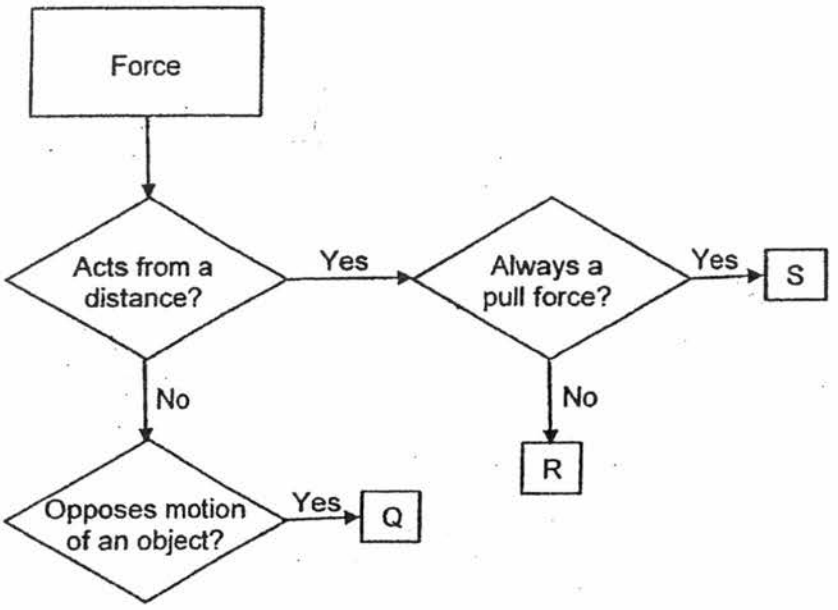
- Mosquitoes
- Frogs
- Guppies (A type of fish)
- Tadpoles
- Mosquito larvae
- Duckweeds ~~(a water plant)~~ a type of water plant
- Water Hyacinths (a type of water plant)
- Water Lily ~~(a water plant)~~ Lilies (a type of water plant)

Which of the following statements about the school's eco-garden pond are true?

A All the organisms live in the water.
B There are 6 populations of organisms.
C The animals and plants in the pond form a community.
D There are more populations of animals than populations of plants.

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

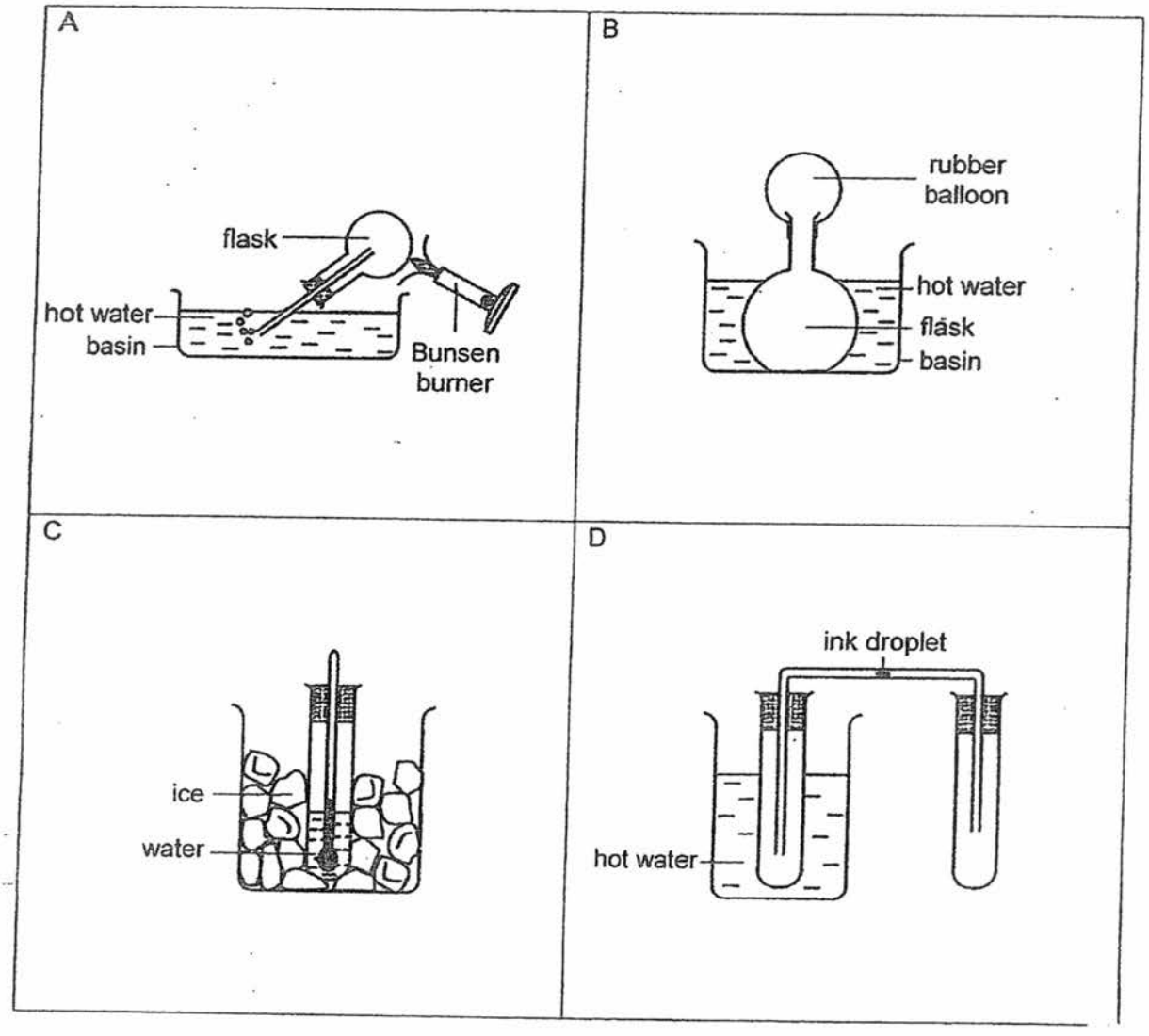
12 Study the flowchart below.



Which of the following correctly identifies the types of forces represented by Q, R and S?

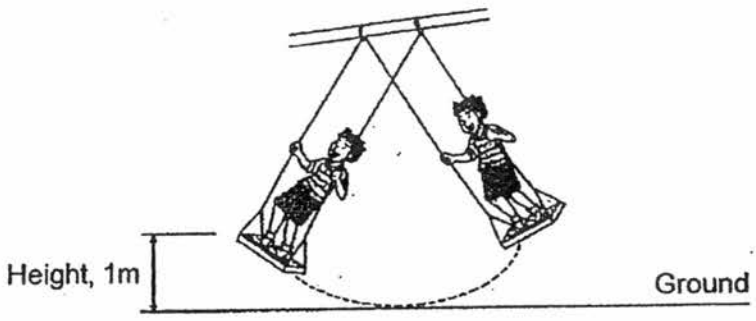
	Q	R	S
(1)	Magnetic force	Push force	Gravitational force
(2)	Frictional force	Gravitational force	Magnetic force
(3)	Magnetic force	Gravitational force	Push force
(4)	Frictional force	Magnetic force	Gravitational force

13 Which of the following experiments can be used to show that heat causes air to expand?



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

14 George stood on a swing and moved to and fro through a height as shown in the diagram below.

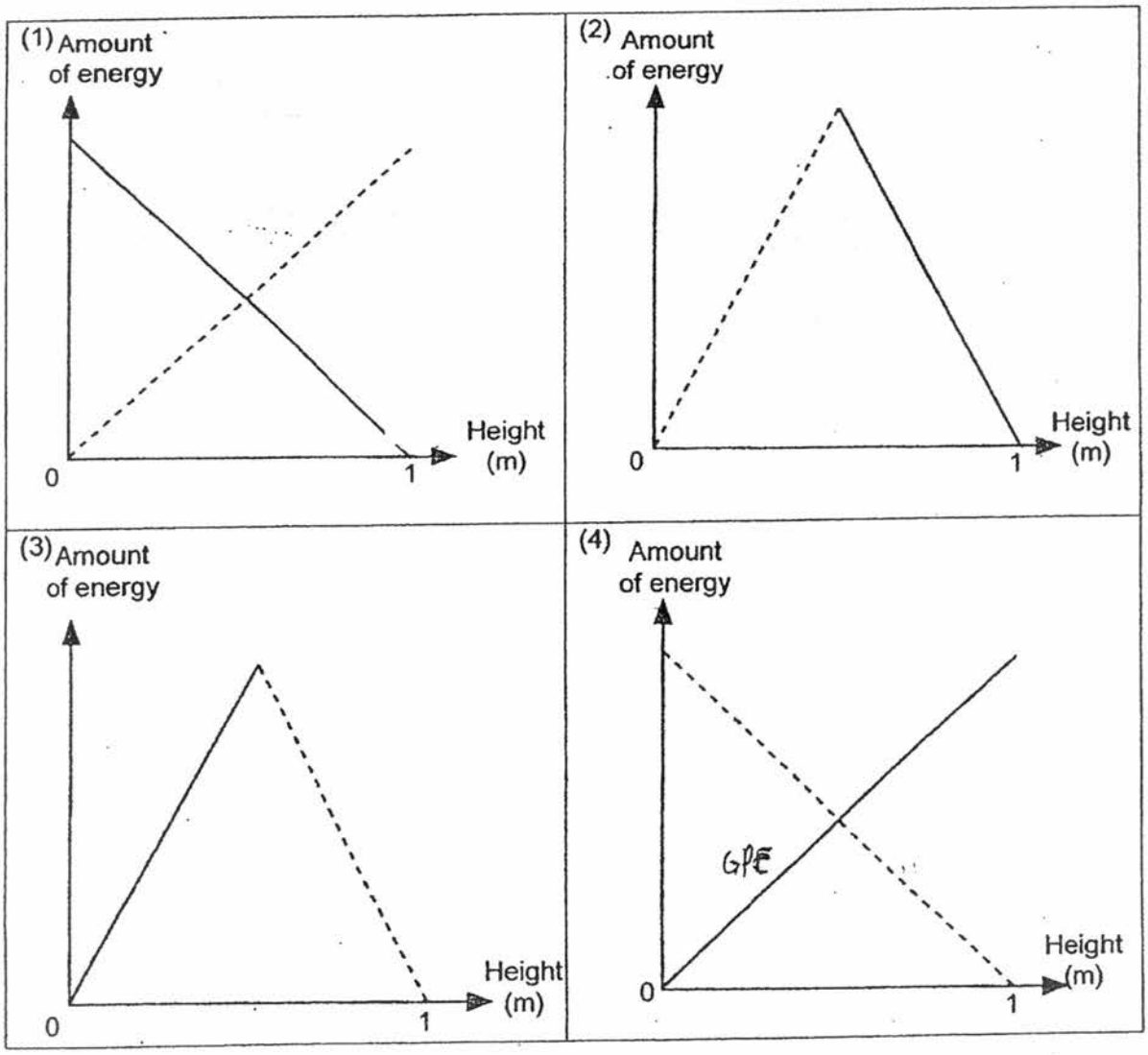


Key :

Gravitational potential energy ——————

Kinetic energy - - - - - - - - - - -

Which of the following graphs correctly shows the amounts of gravitational potential energy and kinetic energy of the swing as it changes with height?



CONTINUAL ASSESSMENT 1 (2017)
PRIMARY 6

SCIENCE

BOOKLET B

THURSDAY **23 FEBRUARY 2017** **1 Hour**

Name: _____ ( ) Class : 6.( ) Parent's Signature:_____

INSTRUCTIONS TO PUPILS

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

Follow all instructions carefully.

There are 7 questions in this booklet.

Answer **ALL** questions.

INFORMATION FOR PUPILS

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

The total marks for this booklet is 22.

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

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

Booklet	Possible Marks	Marks Obtained
A	28	
B	22	
Total	50	

Booklet B (22 marks)

For questions 15 to 21, write your answers in this booklet.
The number of marks awarded is shown in the brackets [ ] at the end of each question or part question.

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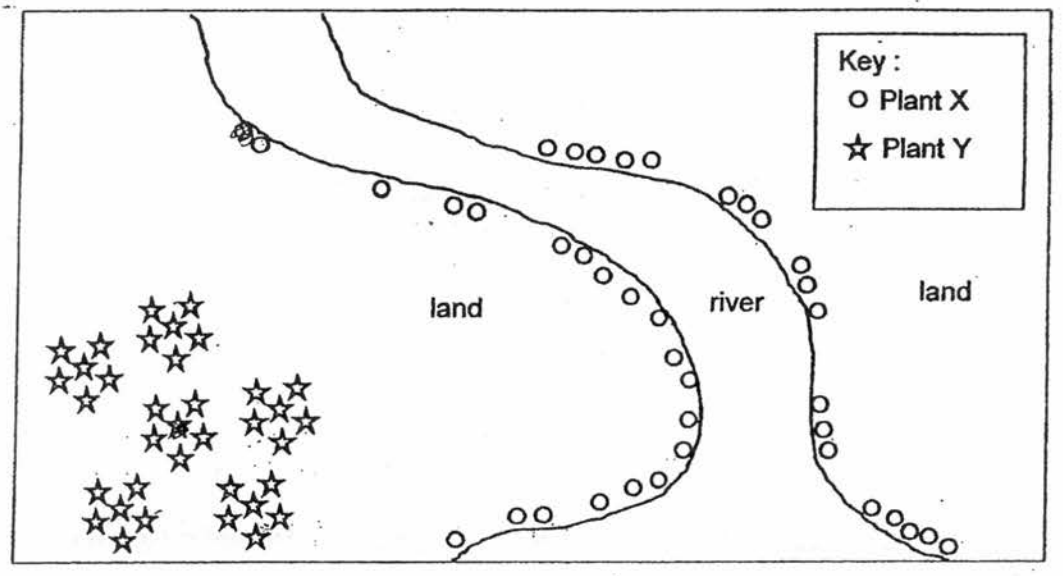
15 Two types of plants, X and Y are found in an area as shown in the map below.



(a) Based on your observation of the map above, state the method of seed dispersal for plants X and Y. Give a reason for the method of seed dispersal stated. [2]

Plant	Method of Seed Dispersal	Reason
X		
Y		

(b) Explain clearly how seed dispersal helps to ensure the survival of the next generation of plants. [1]

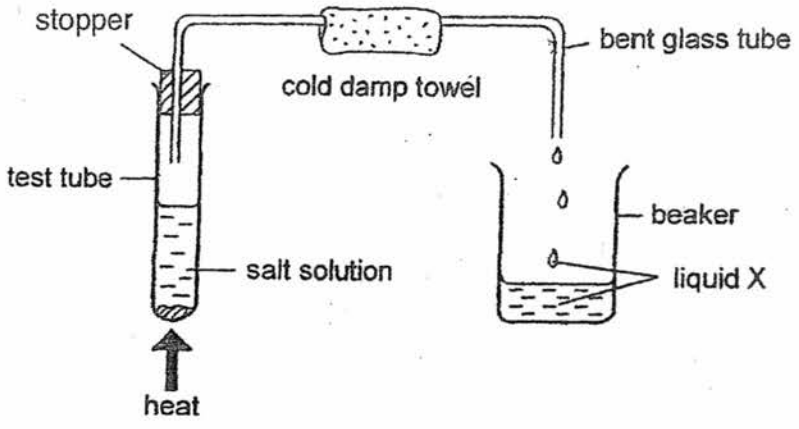
_____

_____

(Go on to the next page)

SCORE	
	3

16 Study the set-up shown in the diagram below.



(a) What is liquid X? Explain clearly how liquid X is collected in the beaker. [2]

_____

_____

_____

_____

(b) Suggest 2 ways that the above set-up can be changed so that more liquid X can be collected in a shorter time. [1]

_____

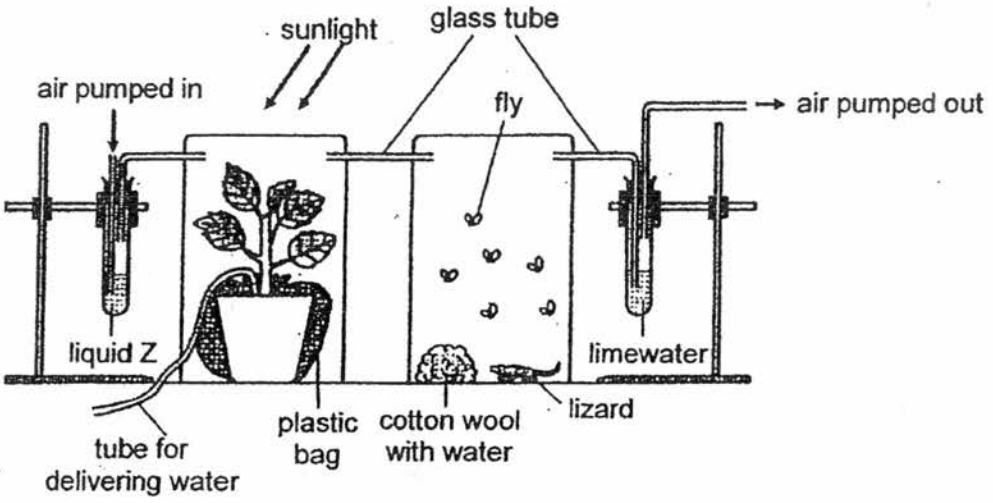
_____

_____

(Go on to the next page)

SCORE	
	3

17 Tom used the following set-up to carry out an experiment.



(a) Liquid Z was used to remove a gas which was required for the lizard's survival. Name that gas. [1]

_____

(b) Predict what would happen to the lizard if the set-up above was placed in a dark room. Explain your prediction. [2]

_____

_____

_____

_____

(Go on to the next page)

SCORE	
	3

18 Study the two diagrams below.

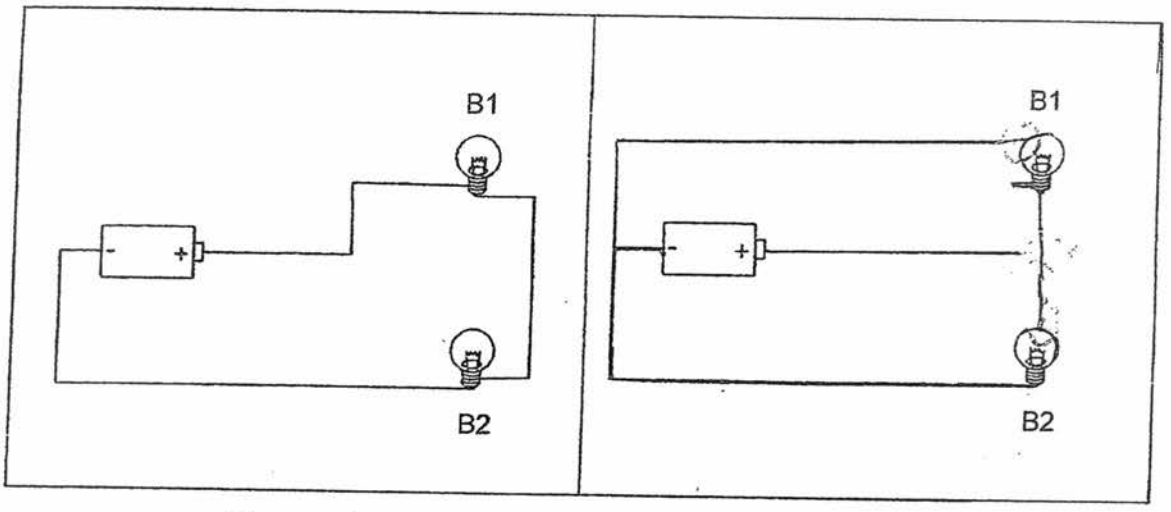


Diagram X

Diagram Y

(a) How are the bulbs B1 and B2 arranged in Diagram X? [1]

_____

(b) Draw wires to connect the battery and bulbs B1 and B2 in Diagram Y so that the bulbs will be brighter than those in Diagram X. State the name of this arrangement below. [1]

_____

(c) Which arrangement is more advantageous than the other? Give 1 reason (other than that given in 18 (b) above) to justify your answer. [1]

_____

_____

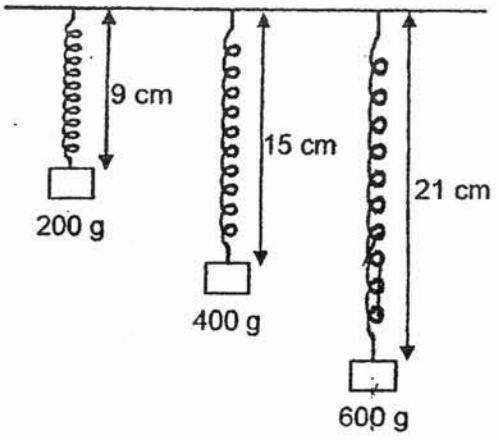
_____

(d) Mark an "X" in Diagram Y to represent the position a switch that will control both Bulbs B1 and B2 at the same time. [1]

(Go on to the next page)

SCORE	
	4

19 The diagram below shows how the length of a spring changes when 3 different masses were hung on it.



(a) State the forces acting on each of the masses. [1]

_____

(b) What is the original length of the spring? [1]

_____

(c) (i) Use the information in the above diagram to complete the table below. [½]

Mass (g)	Length of spring (cm)
	18

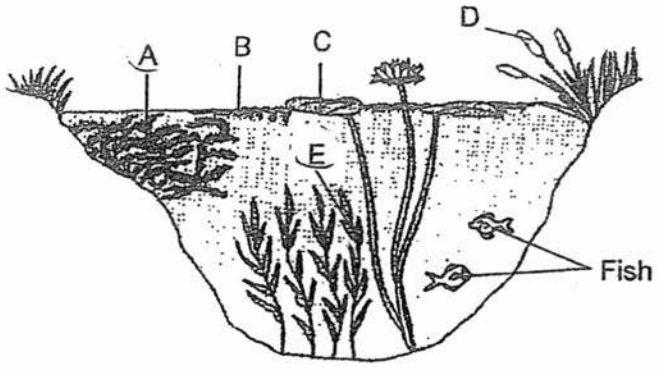
(ii) What will be the extension of the spring if 700g is added to the original spring? [½]

_____

(Go on to the next page)

SCORE	/ 3

20 The diagram below shows five plants growing in and around a pond. There are also many small fish living in the pond.



(a) It was found that plants A and E grow best when there was carbon dioxide present in the pond water. Explain why. [1]

_____

_____

(b) Describe two possible sources of carbon dioxide in the pond. [1]

_____

_____

(c) Which plants will be severely affected if the population of plant C were to increase rapidly? Explain your answer. [1]

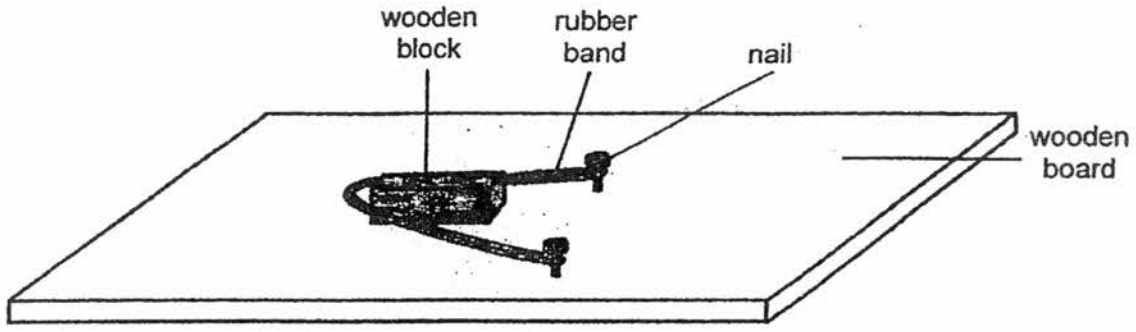
_____

_____

(Go on to the next page)

SCORE	
	3

21 Jack made a toy catapult by attaching a rubber band to two nails which had been driven into a wooden board as shown in the diagram below. He pulled the rubber band back with the wooden block before releasing it.



(a) State the forces acting on the wooden block after it is released. [1]

_____

_____

(b) Fill in the blanks to show the correct energy conversions that occur. [1]

_____ energy (in the stretched rubber band)	→	_____ energy (in the moving wooden block)	+	_____ energy	+	_____ energy

(c) State two ways how Jack can make the original wooden block travel further. [1]

_____

_____

End of paper

SCORE	
	3

YEAR : 2017
LEVEL : PRIMARY 6
SCHOOL : ANGLO-CHINESE SCHOOL (JUNIOR)
SUBJECT : SCIENCE
TERM : CA1

Booklet A

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

Booklet B

Q15 (a)

Plant	Method of Seed Dispersal	Reason
X	Water	Plant X can only be found by the river, showing that the seeds were most likely dispersed by water.
Y	Spliting	Plant Y are clustered around each other, showing that the seeds were split.

(b) It makes sure that there is no overcrowding and competition for space, water, nutrients and light.

Q16 (a) Liquid X is water. The water in the salt solution gained heat from the test tube and evaporated into water vapour which condensed in the cool glass tube. The water then flowed into the beaker.

(b) Place more cold damp towels on the glass tube.

Q17 (a) The gas is oxygen. Without it the lizard will die because it cannot respire.

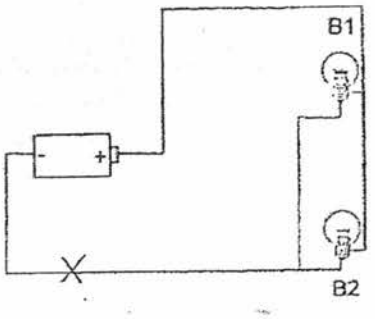
(b) The lizard would die. As plants can only make food and oxygen in the presence of light, placing it in a dark room does not allow oxygen to be produced. Hence, without oxygen the lizard will die.

Q18 (a) They are arranged in series.

(b) It is arranged in parallel.

(c) Parallel arrangement. If one bulb fuses, the other will still light up.

(d)



Q19 (a) Gravitational and elastic spring forces.

(b) It is 3 cm.

(c) (i)

Mass (g)	Length of spring (cm)
500g	18

(ii) 21 cm

ACS CHI

Q20 (a) This is because plants A and E need carbon dioxide to make food for itself and it cannot be taken in if it is not in the water.

(b) The fishes and the plants.

(c) Plants A and E. A and E will be affected because there is little light reaching it, making it unable to make much food for survival.

Q21 (a) Frictional and gravitational forces.

(b) Potential energy → Kinetic energy + Heat energy + Sound energy

(c) Jack can put oil on the wooden board or stretch the block further.

End