

**ANGLO-CHINESE SCHOOL  
(JUNIOR)**



**CONTINUAL ASSESSMENT 2 (2015)  
PRIMARY 5**

**SCIENCE**

**BOOKLET A**

**Wednesday**

**26 August 2015**

**50 minutes**

**Name : \_\_\_\_\_ (      )**

**Class : P5 \_\_\_\_\_**

**INSTRUCTIONS TO PUPILS**

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

Follow all instructions carefully.

There are 12 questions in this booklet.

Answer **ALL** questions.

**INFORMATION FOR PUPILS**

The total marks for this booklet is 24.

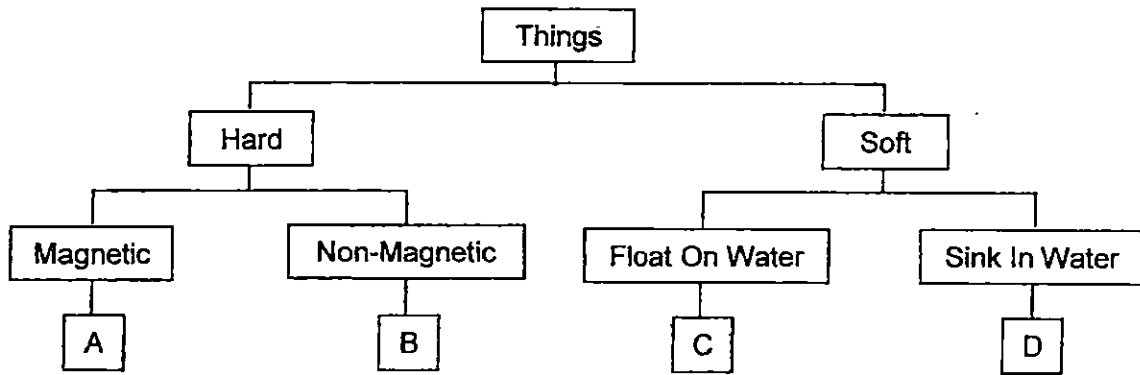
The total time for Booklets A and B is 50 minutes.

**This question paper consists of 12 printed pages (inclusive of cover page).**

**Section A (24 marks)**

For each question from 1 to 12, 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).

1 Study the flowchart.



Which of the following best represent A, B, C and D in the flowchart above?

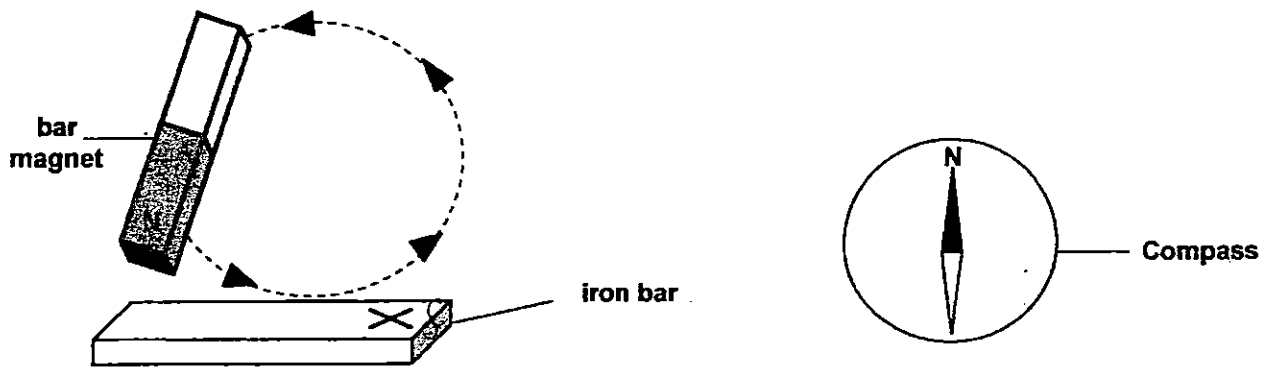
	A	B	C	D
(1)	Iron Filings	Aluminium Can	Styrofoam	Rubber Eraser
(2)	Steel Thumbtacks	Silver Coin	Rubber Eraser	Styrofoam
(3)	Steel Screw	Copper Coin	Plasticine Ball	Styrofoam
(4)	Aluminium Can	Steel Screw	Styrofoam	Plasticine Ball

2 Which of the following statements about fungi are true?

- A Fungi reproduce by spores.
- B All fungi are harmful to man
- C Some fungi are microscopic.
- D Fungi need sunlight to make their own food.

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

3 Calvin used a bar magnet to repeatedly stroke an iron bar as shown below.

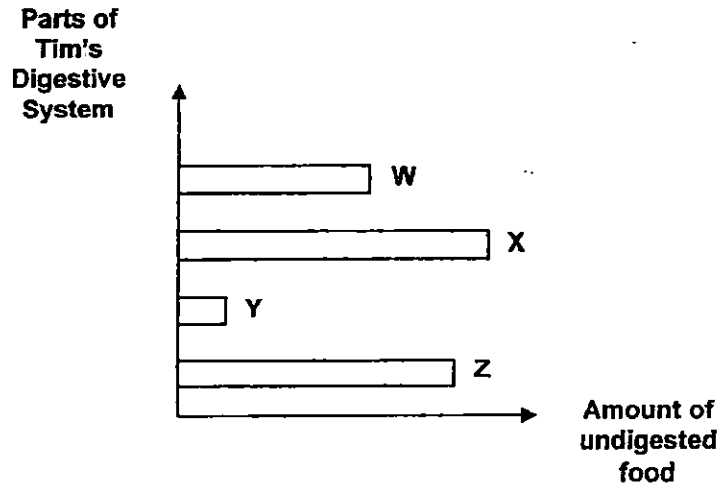


He then placed the iron bar next to a compass. Which of the following is a possible observation?

Possible Observation	
A	
B	
C	
D	

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

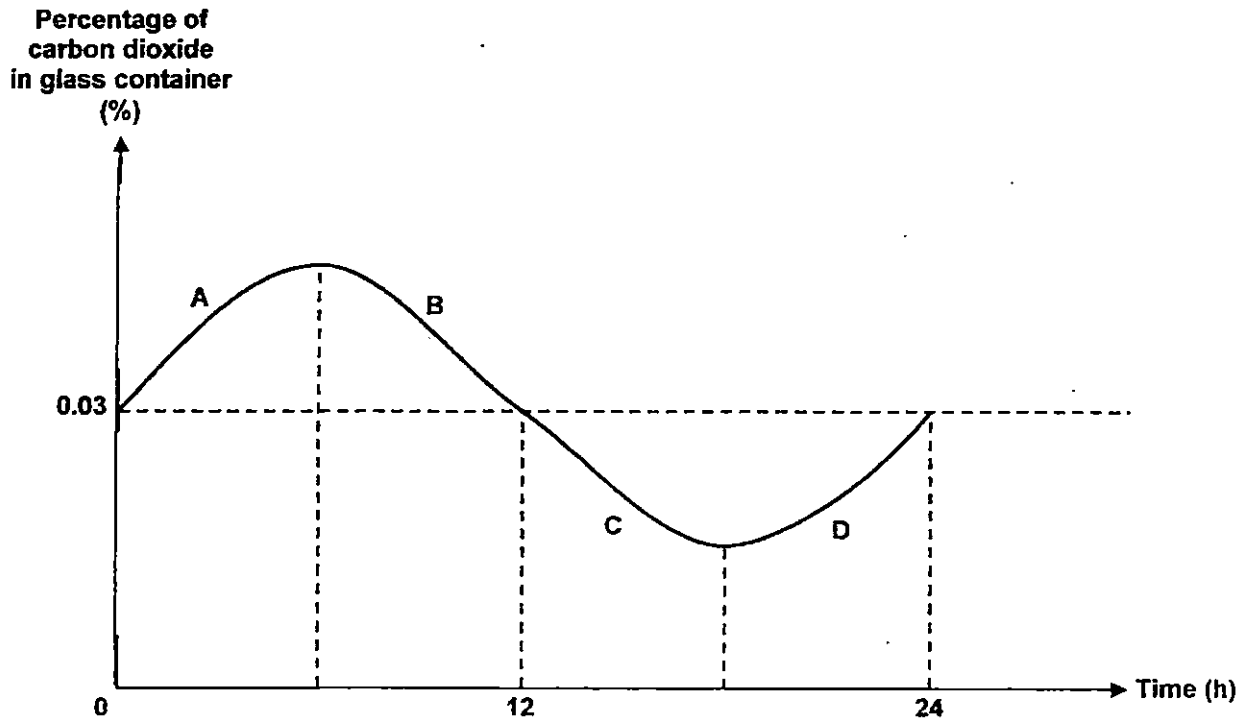
- 4 Tim ate a banana at 12 pm. The bar graph below shows the amount of undigested food in different parts, W, X, Y and Z, of his digestive system, as the food he ate first enters each organ between 12 to 3 pm.



Which of the following best represents the parts, W, X, Y and Z of Tim's digestive system as shown in the bar graph above?

	W	X	Y	Z
(1)	small intestine	large intestine	mouth	stomach
(2)	large intestine	small intestine	stomach	mouth
(3)	small intestine	mouth	large intestine	stomach
(4)	stomach	mouth	small intestine	large intestine

- 5 Anna placed a healthy potted plant in a glass container and sealed it. She placed the glass container in the garden and measured the percentage of carbon dioxide in the container at regular intervals over a 24 hour time period. She plotted the graph as shown below.

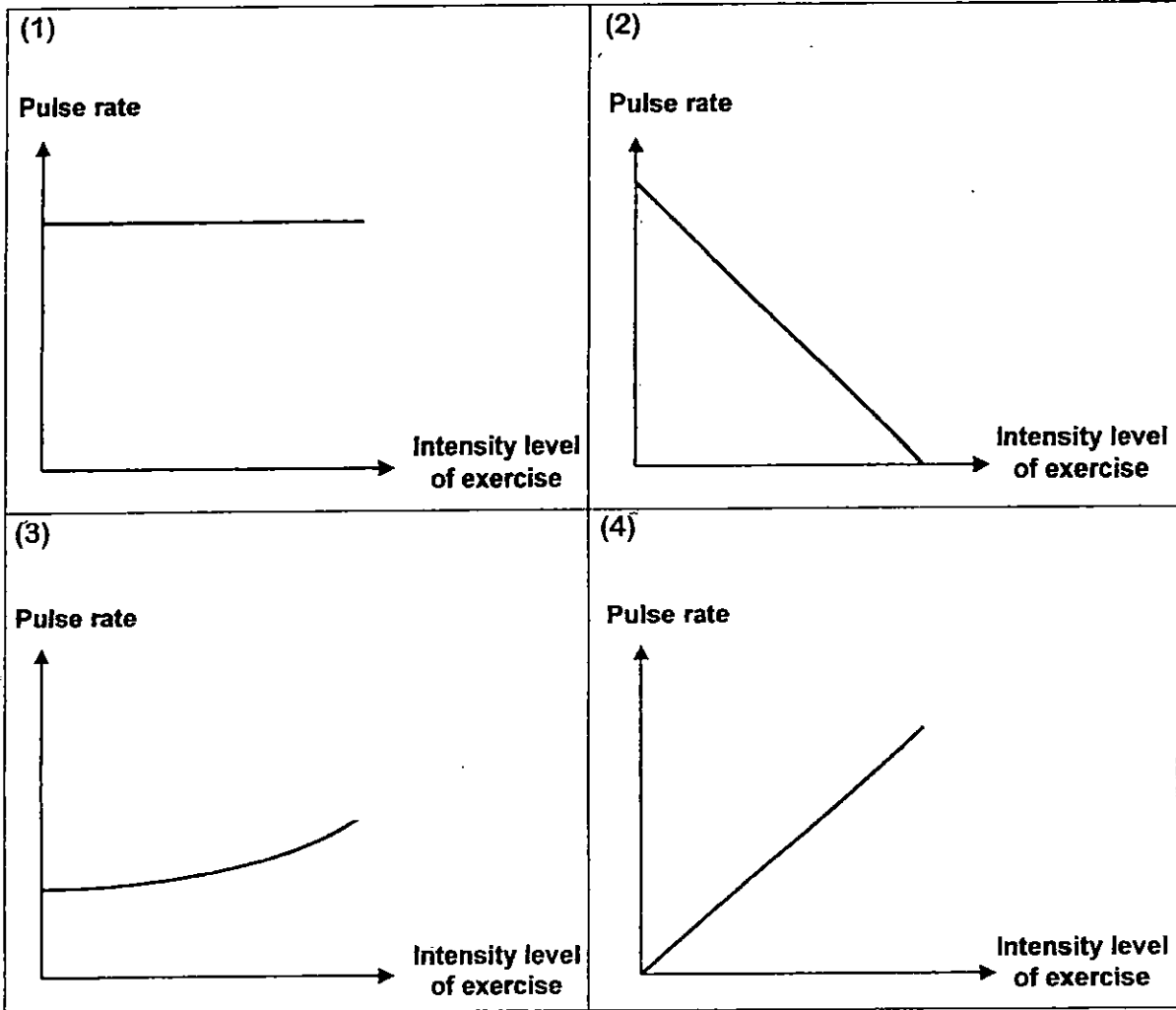


Which parts of the graph show that photosynthesis was taking place?

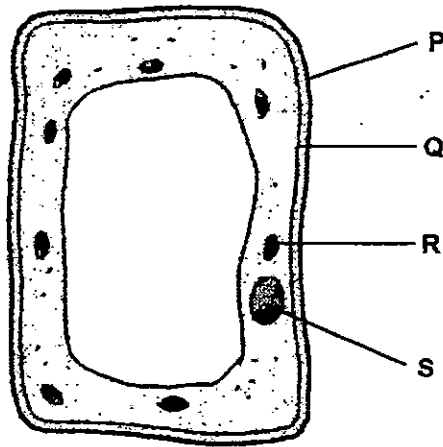
- (1) A and B only
- (2) B and C only
- (3) C and D only
- (4) A and D only

6

Which of the following graphs show the correct relationship between a person's pulse rate and the intensity level of the exercise that the person is involved in?



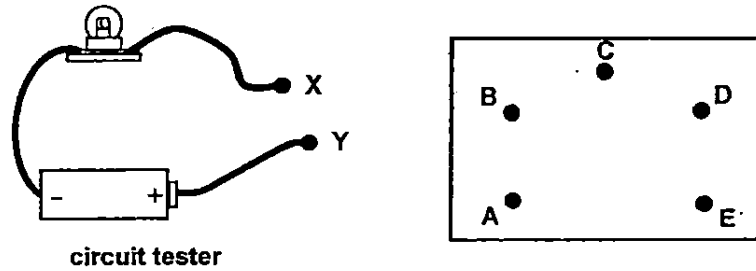
7 The diagram below shows a plant cell.



Which of the following correctly identifies the function of the cell parts P, Q, R and S?

	P	Q	R	S
(1)	Controls the movement of substances in and out of the cell	Gives the cell its shape	Enables the plant to make food	Controls all the activities in the cell
(2)	Gives the cell its shape	Controls the movement of substances in and out of the cell	Enables the plant to make food	Controls all the activities in the cell
(3)	Controls the movement of substances in and out of the cell	Gives the cell its shape	Controls all the activities in the cell	Enables the plant to make food
(4)	Gives the cell its shape	Controls the movement of substances in and out of the cell	Controls all the activities in the cell	Enables the plant to make food

- 8 Tessa used the circuit tester to test a circuit card. She connected the points X and Y of the circuit tester to the metal pins A, B, C, D and E on the circuit card to see if the bulb would light up. She recorded the results of the connections in the table below.



Metal Pins Connected	Did the bulb light up?
B and C	No
A and C	Yes
A and D	Yes
D and E	No

Which of the diagrams represent the circuit card which was tested?

(1)

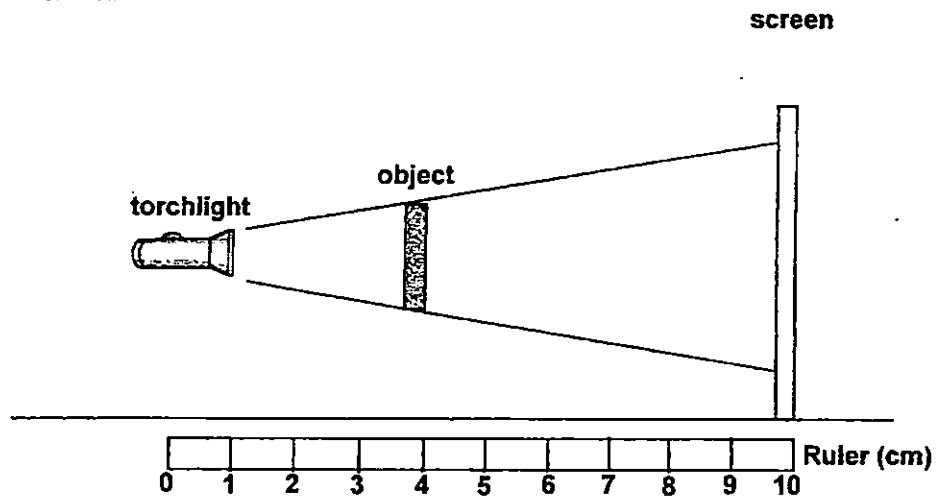
(2)

(3)

(4)



- 9 Calvin placed a small torchlight at the 1 cm mark of a ruler. The torchlight shone at an object that was placed at the 4 cm mark of the ruler as shown below. A shadow was cast on the screen.

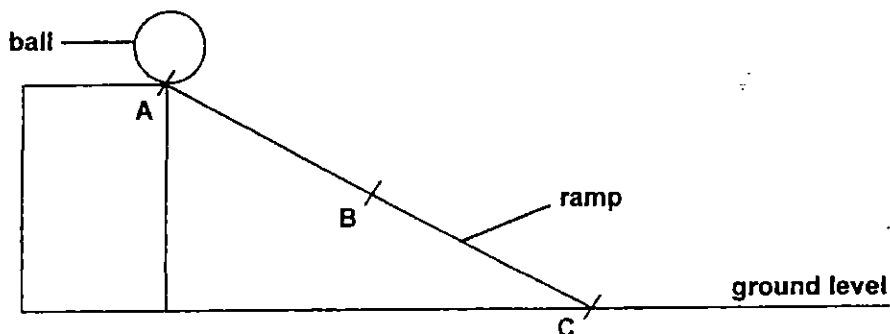


Which of the following, A, B, C and D, show the positions of the torchlight and object such that they will cast a larger shadow on the screen than before?

	Position of Torchlight (cm)	Position of Object (cm)
A	0	8
B	1	3
C	2	4
D	1	5

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

- 10 Lucy placed a ball at the top of a ramp at position A as shown below. When she released the ball, it rolled down the ramp from position A to position B and C.

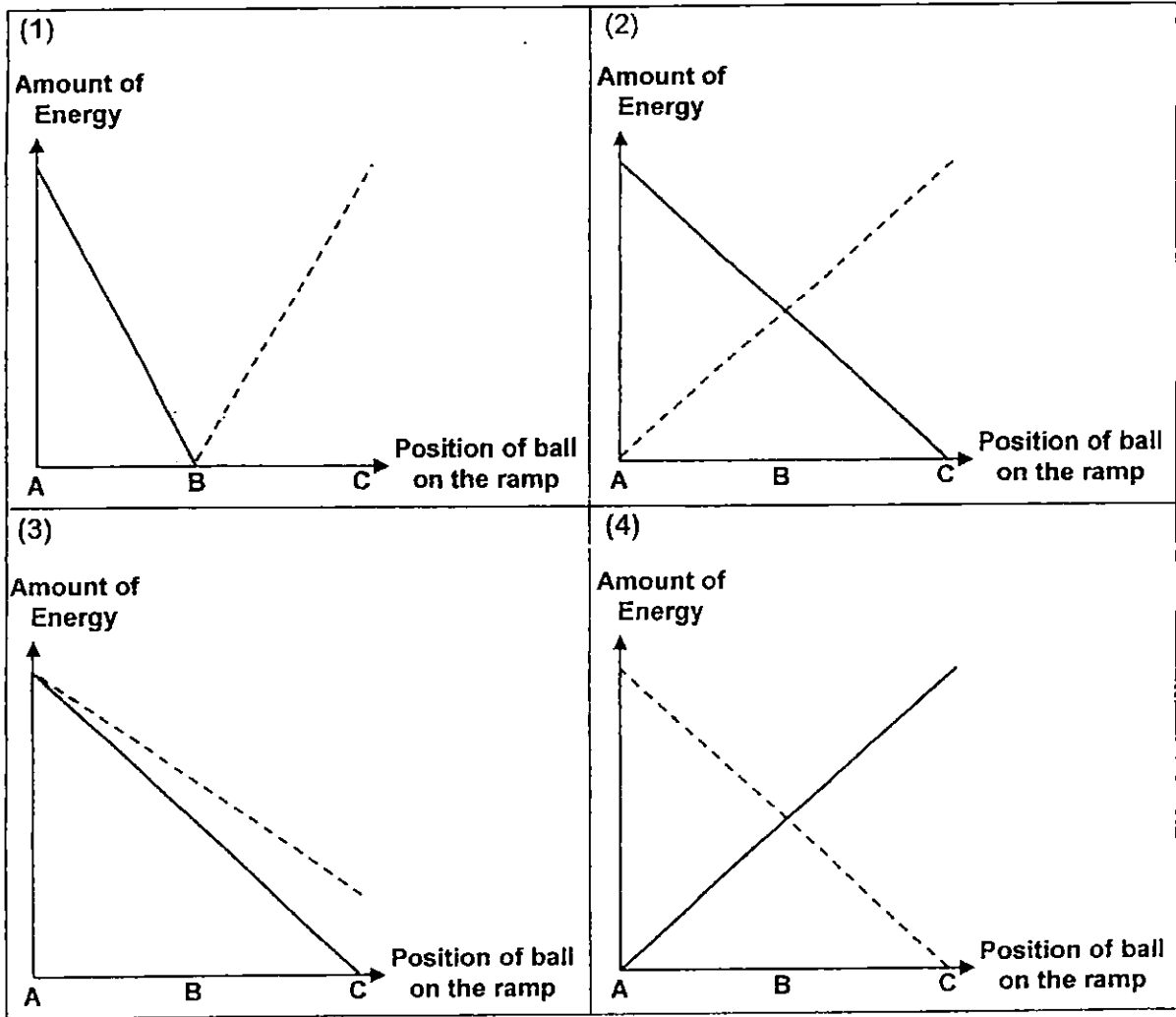


Which one of the following graphs correctly represents the change in the amount of gravitational potential energy and kinetic energy possessed by the ball as it rolled down the ramp from position A to C?

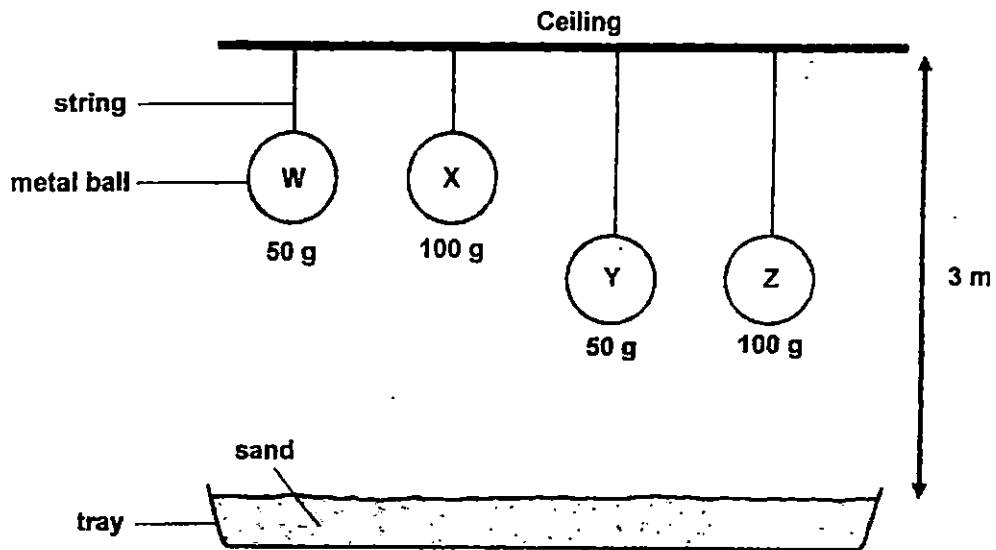
**Key :**

———— Gravitational Potential Energy

----- Kinetic Energy



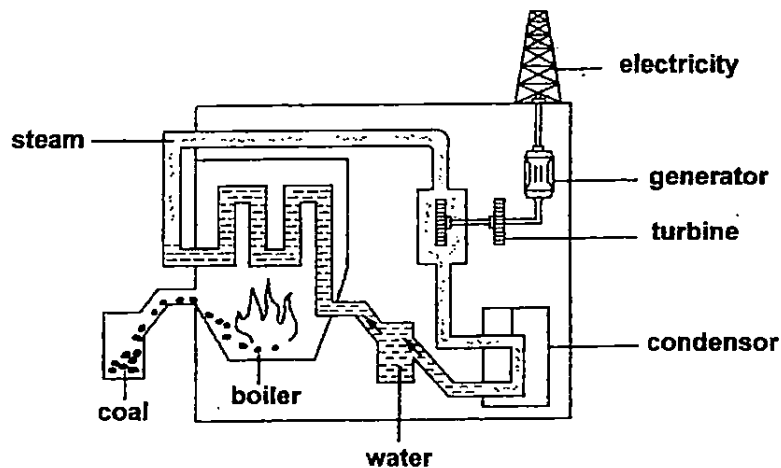
- 11 The diagram below shows 4 metal balls, W, X, Y and Z suspended by strings from the ceiling above a tray of sand. The ceiling is 3 m above the surface of the sand.



Which of the following statements are definitely true?

- A W has the same amount of gravitational potential energy as X.
  - B X has a greater amount of gravitational potential energy than Y.
  - C X and Z have the same amount of gravitational potential energy.
  - D Y will make the smallest depression in the sand, compared to the rest, if all the strings are cut.
- (1) A and C only  
(2) B and C only  
(3) B and D only  
(4) A and D only

12 The diagram below shows a fuel-burning power station.



Which of the following statements about the above power station are true?

- A The steam possesses kinetic energy.
- B Electricity is used to turn the turbine of the power station.
- C Kinetic energy of water is converted to kinetic energy of turbine.
- D The chemical potential energy of coal is converted to heat energy which is used to boil water.

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

ANGLO-CHINESE SCHOOL  
(JUNIOR)



CONTINUAL ASSESSMENT 2 (2015)  
PRIMARY 5

SCIENCE

BOOKLET B

Wednesday

26 August 2015

50 minutes

Name : \_\_\_\_\_.(     )

Class : P5 \_\_\_\_\_

**INSTRUCTIONS TO PUPILS**

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

Follow all instructions carefully.

There are 6 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 16.

The total time for Booklets A and B is 50 minutes.

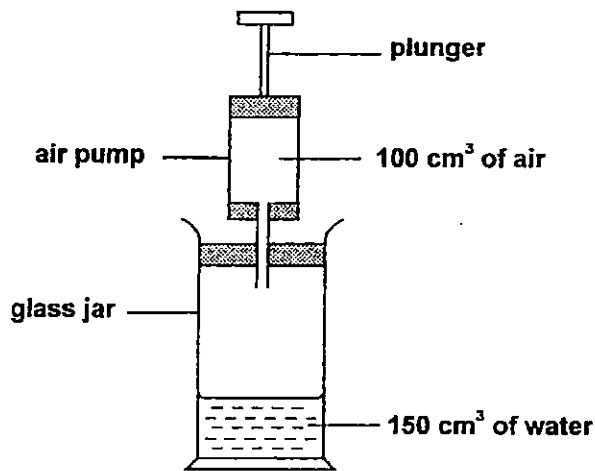
**This question paper consists of 7 printed pages (inclusive of cover page).**

PRACTICAL	/ 10
BOOKLET A	/ 24
BOOKLET B	/ 16
TOTAL	/ 50
Parent's signature/ Date-	

For questions 13 to 18, write your answers in this booklet.  
 The number of marks available is shown in brackets [ ] at the end of each question or part question.

(16 marks)

13 Ryan set up an experiment as shown below.



- (a) If the capacity of the glass jar is 400 cm<sup>3</sup>, what will be the volume of the air and water in the glass jar when the plunger is pushed all the way in? Fill in your answers in the table below. [1]

Type of Matter	Volume (cm <sup>3</sup> )
Air	
Water	

- (b) Based on the results of the above experiment, what can Ryan conclude about the property of the volume of air and water? [1]

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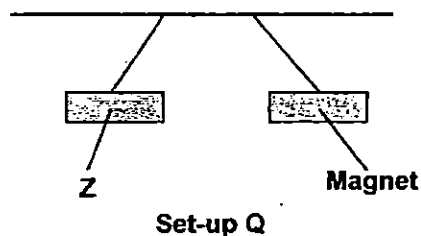
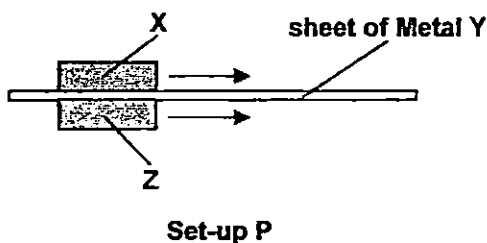


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SCORE	2
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14 Study the set-ups shown below.



In set-up P, object X was placed on top of a sheet of metal Y. When object Z was placed under the sheet of metal and moved directly under object X, object X moved along with object Z in the same direction as indicated by the arrows.

In set-up Q, object Z was hung freely on a string close to a freely suspended magnet. The diagram above shows what happened to object Z and the magnet.

- (a) What can you infer about object X and object Z? Indicate your answer by putting a tick (✓) in the correct column(s). [1]

Item	Is it made of magnetic material?	Is it made of non-magnetic material?	Is it a magnet?
Object X			
Object Z			

- (b) Predict what would happen to object X if a sheet of iron is used instead of metal sheet Y in the above experiment. Explain clearly the reason for your answer. [1]

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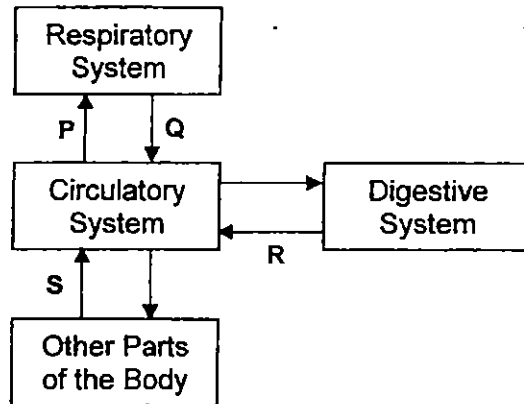


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SCORE	2
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- 15 The diagram below shows the blood vessels, P, Q, R and S between different systems and parts of a human body.



- (a) State the difference in the level of oxygen in the blood in P and Q. Explain why there is a difference. [1]

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- (b) Name two useful substances that are present in the blood in R that are provided by the digestive system. [1]

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- (c) Name two substances that are present in the blood in S that are produced by the other parts of the body, which have to be transported to other organs for removal. [1]

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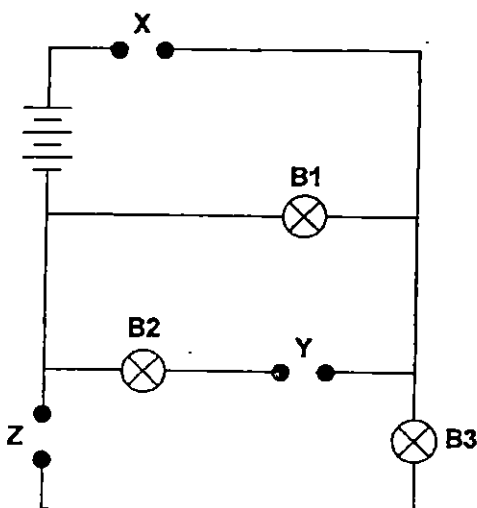
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SCORE	
	3



- 16 The circuit below is formed by 3 identical batteries, 3 identical light bulbs B1, B2 and B3, and some pieces of insulated wire.



- (a) When 3 identical iron bars are placed at X, Y and Z respectively, all 3 bulbs B1, B2 and B3 light up. How are the bulbs arranged in the above circuit? [1]

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- (b) State one advantage that the arrangement of bulbs in the above circuit can provide. [1]

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- (c) When the 3 identical iron bars are replaced with 3 new bars of unknown material M1, M2 and M3 at X, Y and Z respectively, only bulbs B1 and B2 light up. What can you conclude about M1, M2 and M3 based on this observation? [1]

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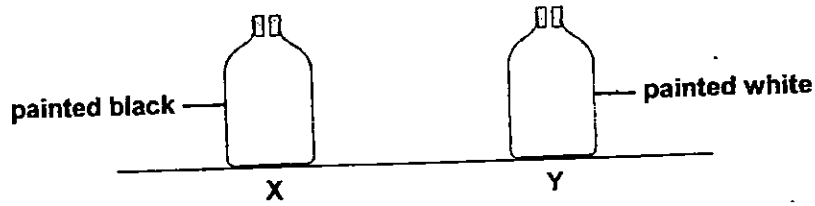


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SCORE	3
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- 17 Jack had two identical metal containers X and Y. He painted the external surface of X black and that of Y white.



He then filled the containers with an equal amount of water at room temperature, at 28°C, and left both containers under the hot sun for 1 hour. He then measured the temperature of the water in both containers and recorded his observations in the table below.

Container	Temperature of Water (°C)
X	40
Y	35

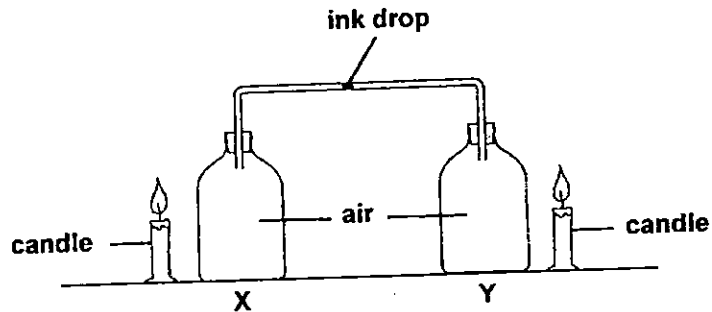
- (a) What can Jack infer from the results of his experiment to explain why the temperature of the water in X is higher than that in Y? [1]

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Jack emptied both containers and dried them. When both containers had cooled to room temperature, he used them in a second experiment as shown in the set up below. He used identical candles.



- (b) Predict what will happen to the ink drop. Explain clearly the reasons for your answer. [2]

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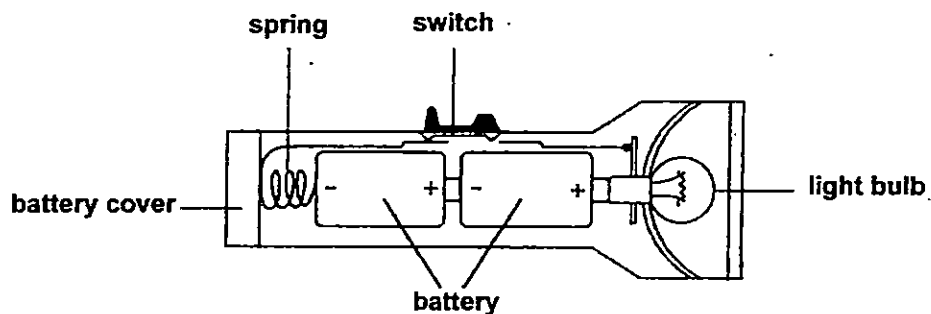
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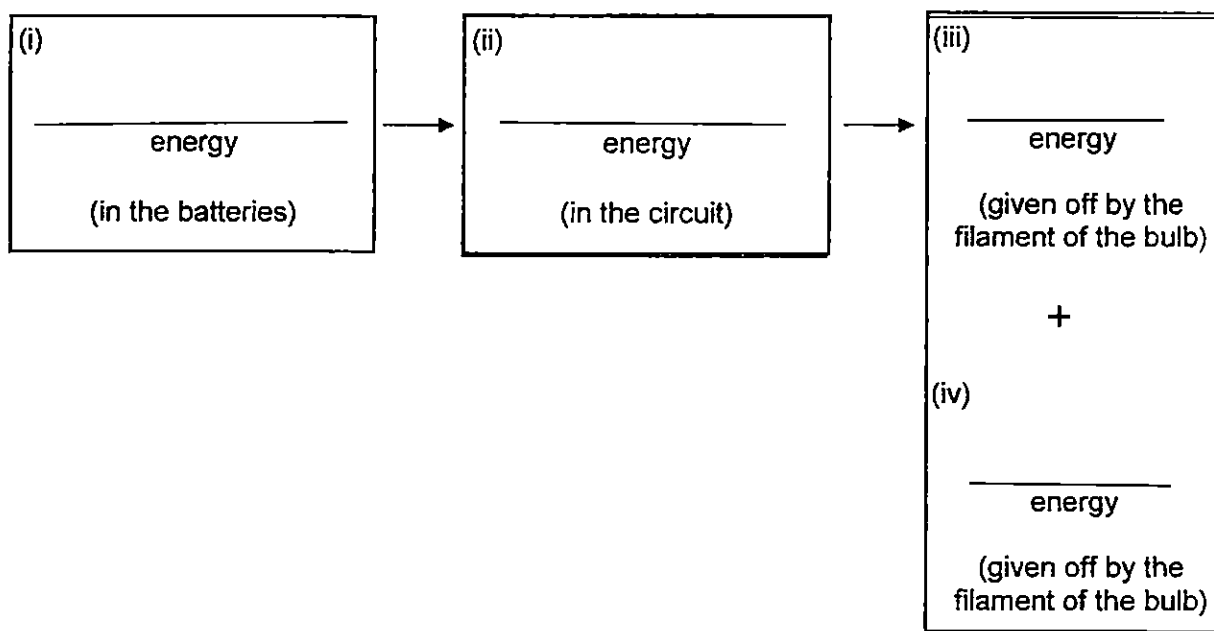
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- 18 The diagram below shows a cross-section of a battery-powered torch.



- (a) What form of energy does the spring have when the battery cover of the torch is screwed in place? [1]

- (b) What are the main energy conversions that take place when the torch is switched on? [2]



End of Paper.

SCORE	3
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**LEVEL : PRIMARY 5**  
**SCHOOL : ANGLO – CHINESE SCHOOL (JUNIOR)**  
**SUBJECT : SCIENCE**  
**TERM : CA2**

Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 10
1	1	4	3	2	3	2	4	2	2
Q 11	Q 12								
3	4								

Q13a. Air –  $250\text{cm}^3$  Q13a. Water –  $150\text{cm}^3$

Q13b. Air can be compressed while water cannot be compressed.

Q14a. Object X – Is it made of magnetic material

Q14a. Object Z – Is it made of magnetic material? N Is it a magnet?

Q14b. Object X would not move. When a sheet of iron was used instead of metal sheet Y, it is a magnetic material which does not allow magnetic force to pass through it. Hence Object X would not move as Object Z moved along .

Q15a. The level of oxygen in the blood P was lower than that of blood in Q. The blood in P was transported to the Respiratory system to release the carbon dioxide and pick oxygen at the lungs, hence blood at Q was rich in oxygen .

Q15b. Digested food and nutrients.

Q15c. Waste products and water.

Q16a. The bulbs are arranged in parallel.

Q16b. If one of the bulb fuses, the other bulbs would remain lit.

Q16c. M1 and M2 are electrical conductors while M3 is an electrical insulator.

Q17a. Container x conducted more heat from the surroundings to the container than container Y as X gained more heat. Hence the temperature in container X is higher than Y.

Q17b. X is able to gain / absorb more heat which heat the air inside X faster.

Q18a. Elastic potential energy

Q18b. i) Chemical potential → ii) electrical energy → iii) heat energy + iv) ight energy