RAFFLES GIRLS' PRIMARY SCHOOL
WEIGHTED ASSESSMENT 2
PRIMARY SIX
2025

SCIENCE

Name: _____ ( ) Date : 14 May 2025

Class: P6_____ Total Time: 30min

INSTRUCTIONS

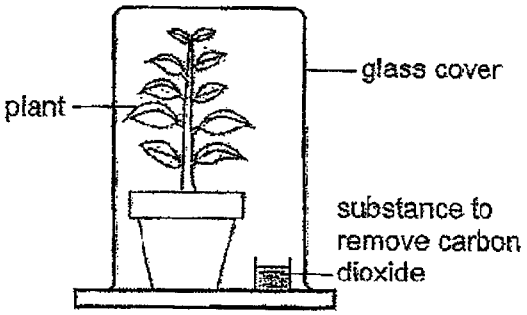
1. Write your name, class and index number in the spaces provided above.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. For Question 1- 20, use 2B pencil to shade your answers on the Optical Answer Sheet (OAS).

Your score **out of 40**	
Parent's signature	

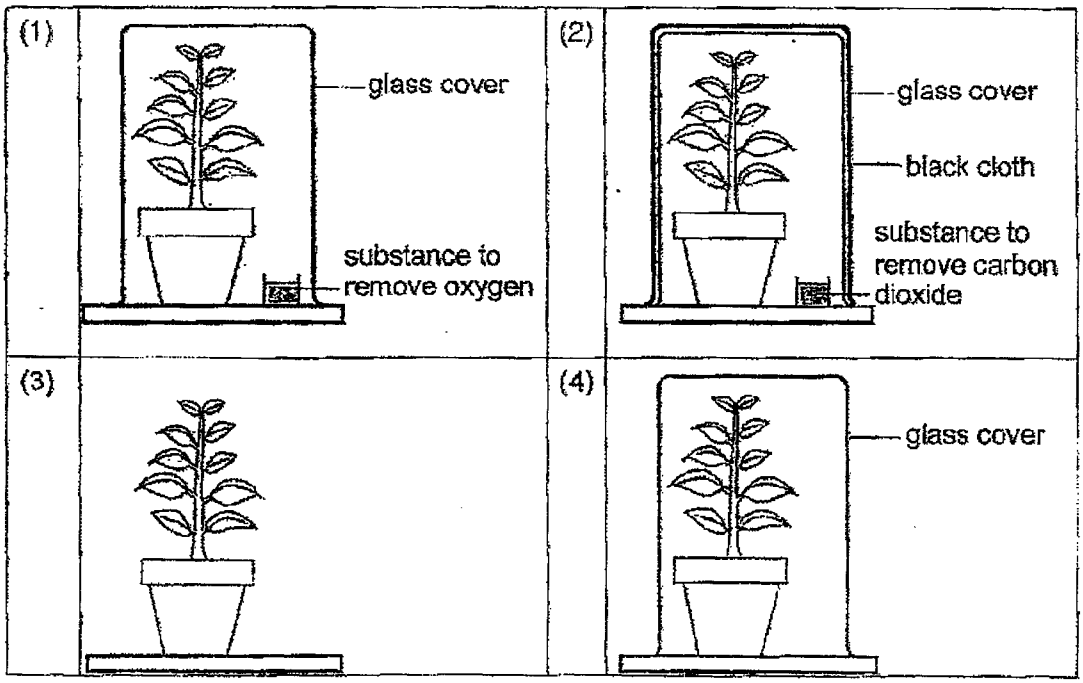
1. Which of the following statements about photosynthesis in plants is true?

(1) Plants make glucose during photosynthesis.
(2) Plants trap heat energy from the Sun to make food.
(3) Excess food made in the plants are stored only in the fruits.
(4) Only the chlorophyll found in the stem of the plants are needed to make food.

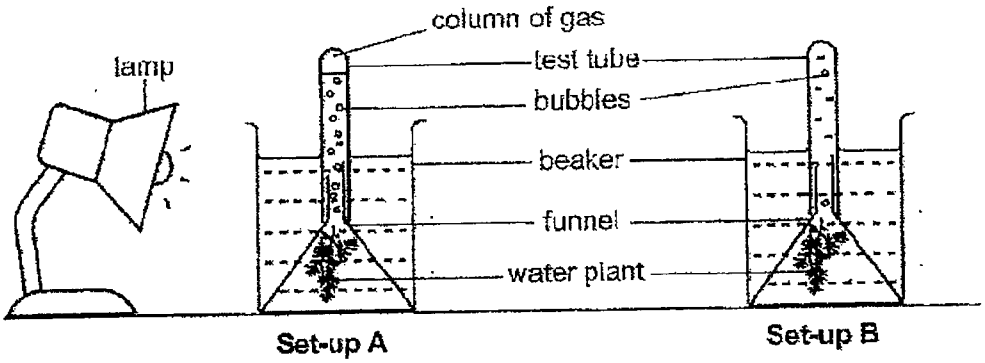
2. Larry conducted an experiment to find out whether carbon dioxide is needed for photosynthesis. He used the set-up as shown in the diagram.



Which of the following should Larry use as a control for his experiment?



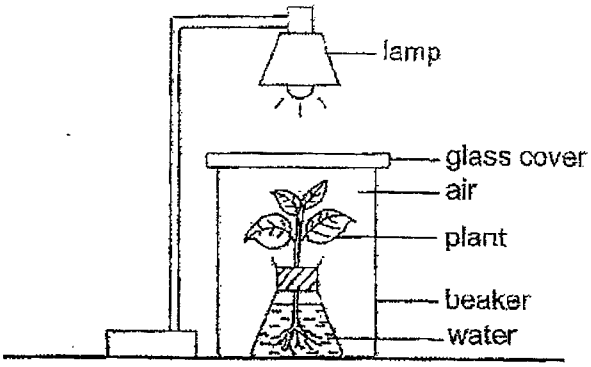
3. Jaya prepared two identical experimental set-ups, A and B, to find out if the light intensity would affect the rate at which water plants photosynthesise. A lamp was placed only beside set-up A for an hour as shown.



Which of the following identify the independent variable and dependent variable correctly?

	Independent variable	Dependent variable
(1)	The temperature of water in the beaker.	The amount of water left in the beaker after one hour.
(2)	The distance between the lamp and the set-up.	The height of the gas column at the top of the test tube.
(3)	The amount of water left in the beaker after one hour.	The temperature of water in the beaker.
(4)	The height of the gas column at the top of the test tube.	The distance between the lamp and the set-up.

4. Thaddeus set up an experiment as shown in the diagram.

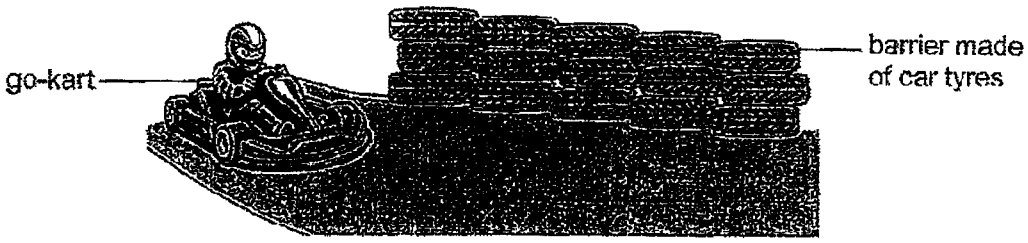


After some time, the rate of photosynthesis of the plant decreased.

Which of the following best explains the decrease in the rate of photosynthesis?

(1) There was too much water in the set-up.
(2) There was insufficient oxygen in the set-up.
(3) There was insufficient nutrients in the water.
(4) There was insufficient carbon dioxide in the set-up.

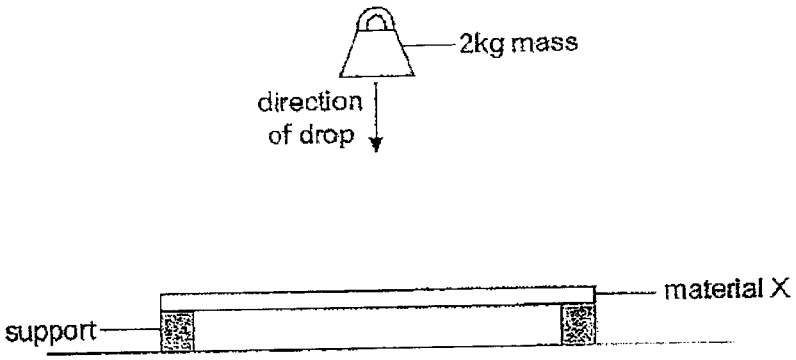
5. Car tyres are tied together to form a barrier along go-kart racing tracks. This helps to protect the go-kart race drivers when accidents happen.



Which properties of the car tyres used to make the barrier help to ensure safety of the drivers?

(1) Strength and flexibility
(2) Magnetic and strength
(3) Magnetic and flexibility
(4) Strength and ability to float

6. Mun Wai dropped a 2kg mass on material X from a fixed height as shown in the diagram.



He recorded the number of times the 2kg mass was dropped before material X started to break in the result table.

He repeated the experiment with two other materials, Y and Z, of identical thickness and length.

The results are as shown in the table below.

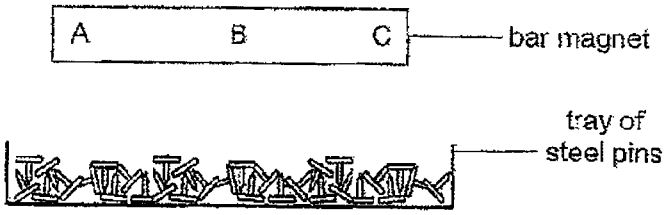
Material	Number of times the 2kg mass was dropped before the material started to break
X	36
Y	48
Z	72

Based on the results above, which of the following statements are true?

A Material Y is the weakest material.
B Material X is the strongest material.
C Material Y is weaker than material Z.
D Materials X and Y each has less strength than material Z.

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

7. Jason lowered a bar magnet into a tray of steel pins as shown in the diagram.

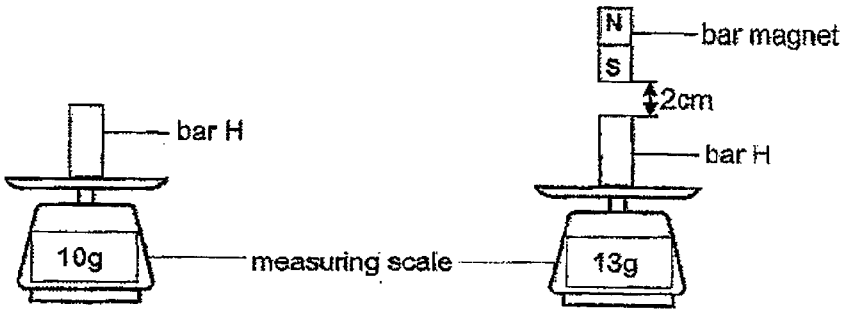


He counted the number of steel pins that were attracted to each of the parts labelled A, B and C.

Which one of the following most likely shows the number of steel pins attracted to the bar magnet?

	Number of steel pins attracted		
	Part A	**Part B**	**Part C**
(1)	5	10	12
(2)	10	2	2
(3)	15	3	12
(4)	12	15	3

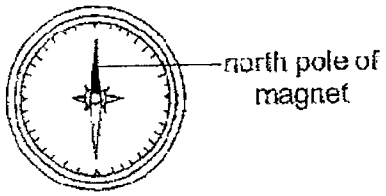
8. The diagrams show the readings on a measuring scale before and after Seema placed a bar magnet 2cm above bar H.



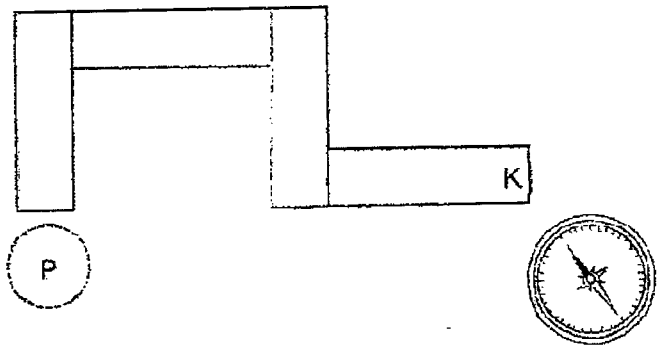
What can Seema conclude about bar H?

(1) Bar H is a magnet.
(2) Bar H is a steel rod.
(3) Bar H is a copper rod.
(4) Bar H is a wooden rod.

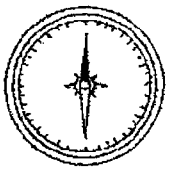
9. The diagram shows a compass which has a small magnet that can rotate freely.



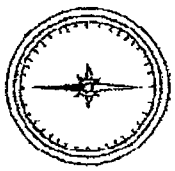
Four bar magnets were arranged such that they were attracted to one another. A compass was then placed near end K and the direction of the compass needle is as shown.

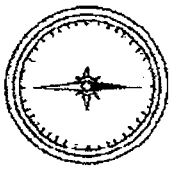


What would be the direction of the needle when the compass is placed at P?

(1) 

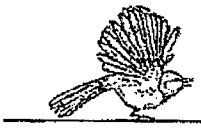
(2) 

(3) 

(4) 

10. The diagrams show a bird during three stages, A, B and C, of flight.

Stage B : Flying



Stage A: Taking off

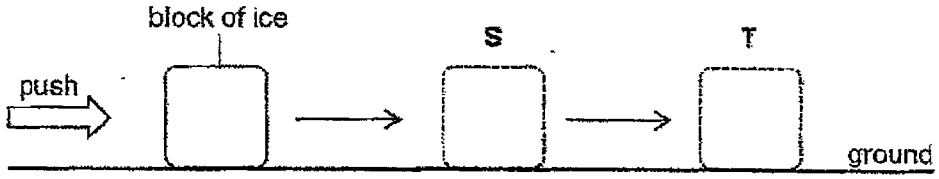
Stage C: Landing

At which stage(s) do/does gravity act on the bird?

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

11. A block of ice was pushed in the direction, indicated by the arrows, shown in the diagram.

The block of ice moved along the ground to position S and then to position T. The block of ice stopped at position T.

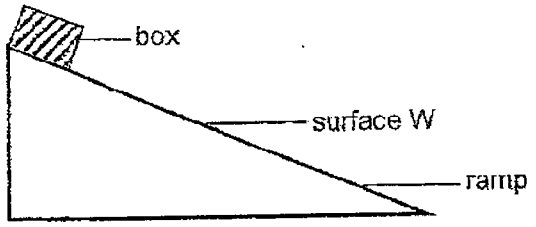


Which of the following shows the forces acting on the block of ice while it was being pushed to position S and when it stopped at T?

	Being pushed to S		Stopped at T	
	Friction	Weight	Friction	Weight
(1)	✓		✓	✓
(2)		✓	✓	✓
(3)	✓	✓		✓
(4)	✓	✓	✓	

Key
✓ : present

12. A box was released from the top of a ramp with surface W. The time taken for the box to reach the bottom of the ramp was recorded.



The experiment was repeated using another three identical ramps with different surfaces, X, Y and Z.

The results are as shown in the table below.

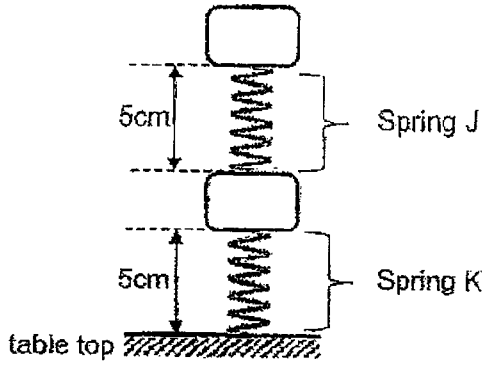
Type of surface	Time taken to reach the bottom of ramp (s)
W	12
X	16
Y	4
Z	8

Which of the following shows the surfaces of the ramps with the least to most amount of friction?

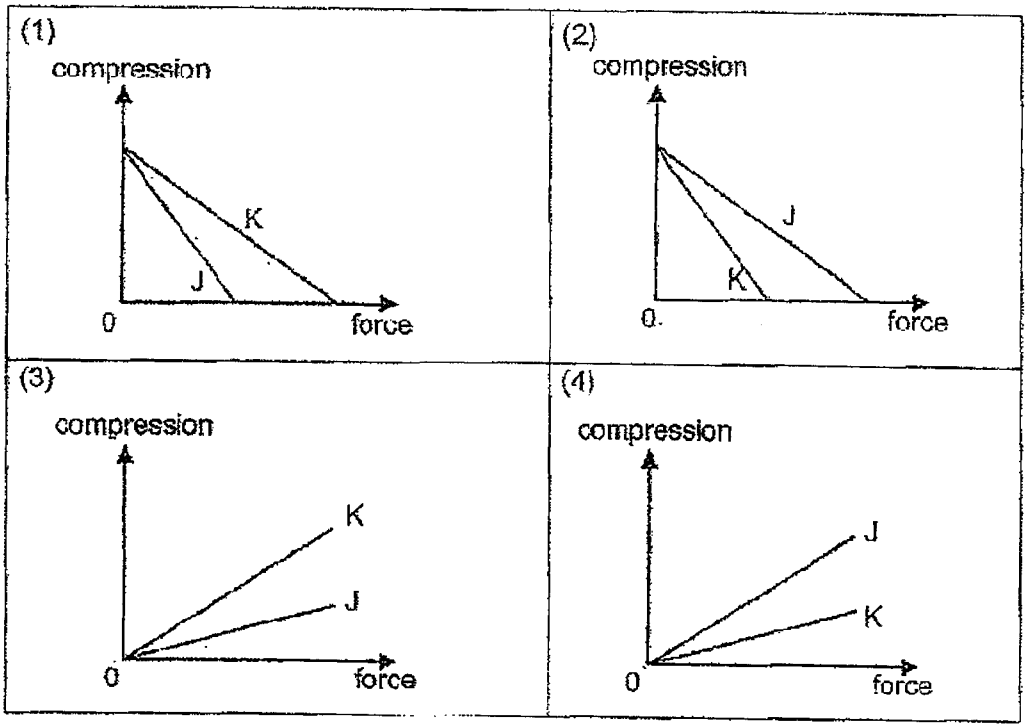
	Least → Most			
(1)	W	X	Y	Z
(2)	X	W	Z	Y
(3)	Y	Z	W	X
(4)	Z	X	Y	W

13. Two different springs, J and K, have the same length.

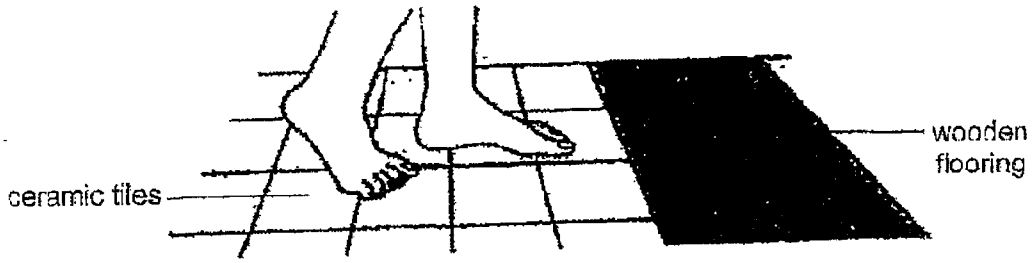
When two identical cubes are placed on springs J and K, the results are as shown.



Based on the information above, which of the following correctly shows the relationship between the elastic spring force and compression for springs J and K?



14. Elena walked barefoot on some ceramic tiles and then on the wooden flooring in a room. The room temperature was 28°C.



Which of the following statements most likely explains why her feet felt cold on the ceramic tiles but not on the wooden flooring?

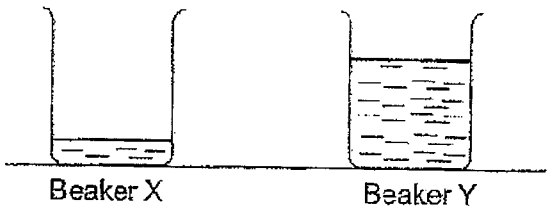
(1) The feet gained heat from the ceramic tiles.

(2) The ceramic tiles is a poorer conductor of heat than the wooden flooring.

(3) The wooden flooring is a poorer conductor of heat than the ceramic tiles.

(4) The temperature of the wooden flooring is higher than the temperature of the ceramic tiles.

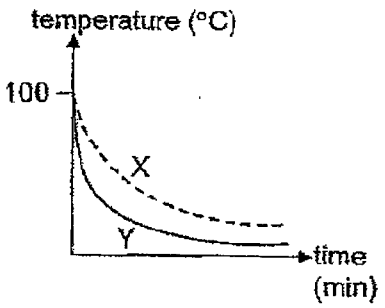
15. Keagen poured 100ml and 700ml of boiling water into identical beakers, X and Y, respectively as shown in the diagram.



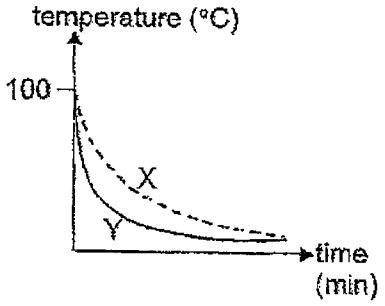
Keagen measured the temperature of water every minute and recorded it in a graph.

Which of the following graphs show the temperature change in the water in container X and Y?

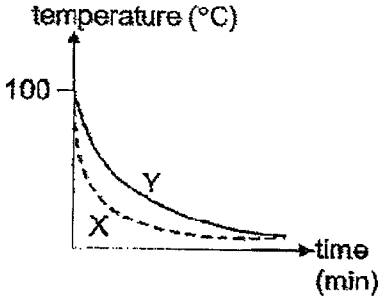
(1)



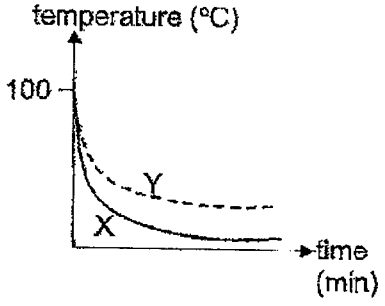
(2)



(3)

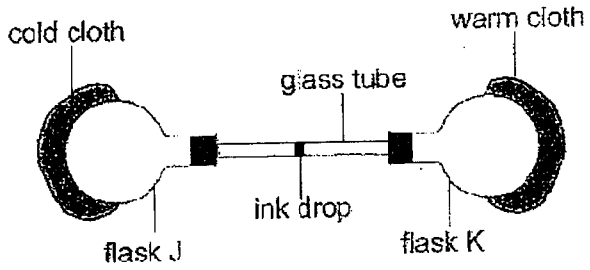


(4)



16. Two empty identical flasks, J and K, were connected with a glass tube containing an ink drop.

The flasks J and K were wrapped with a cold and warm cloth respectively as shown.



Which of the following correctly explains the movement of the ink drop after five minutes?

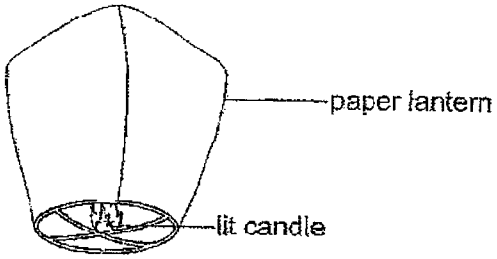
	Movement of ink drop	Explanation
(1)	Moved towards flask J	Air in flask J gained heat from the cold cloth and contracted
(2)	Moved towards flask J	Air in flask K gained heat from the warm cloth and expanded
(3)	Moved towards flask K	Air in flask K lost heat to the warm cloth and expanded
(4)	Moved towards flask K	Air in flask J lost heat to the cold cloth and contracted

17. Which of the following is/are renewable source(s) of energy?

A Wind
B Sunlight
C Tidal waves
D Natural gas

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

18. The diagram shows a sky lantern made of paper. When the candle is lit, the sky lantern will fly into the sky.



Which one of the following correctly shows the energy conversion when the candle is lit and the sky lantern rises into the sky?

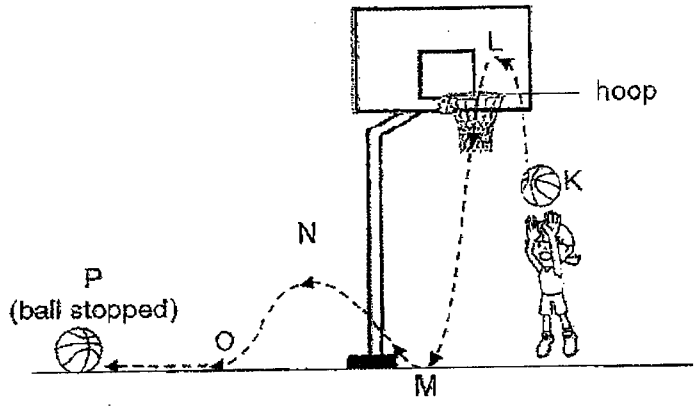
(1) Chemical potential energy → light + heat energy → kinetic energy

(2) Kinetic energy → gravitational potential energy → heat + light energy

(3) Light energy → heat energy → kinetic energy → gravitational potential energy

(4) Chemical potential energy → light + heat energy → kinetic + gravitational potential energy

19. Gemma aimed and shot a basketball into the hoop. The arrows indicate the direction in which the ball bounced before coming to a stop at P.



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

A The ball has no kinetic energy at O.

B The ball has no potential energy at K.

C The ball has the most potential energy at L.

D All the energy has been destroyed when the ball came to a stop at P.

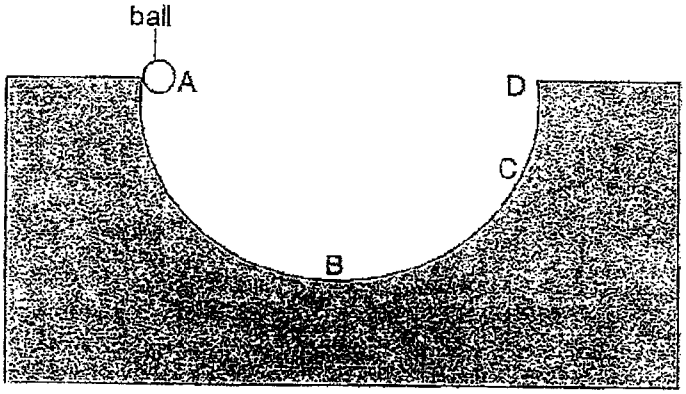
(1) C only

(2) A and B only

(3) A and C only

(4) B and D only

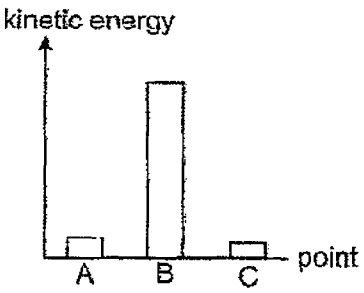
20. A ball was released from rest on a smooth ramp as shown in the diagram.



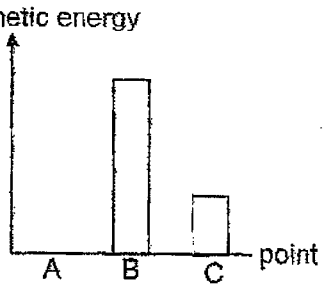
The ball rolled from point A to point D.

Which graph shows the changes in the amount of kinetic energy of the ball as it rolled from point A to C?

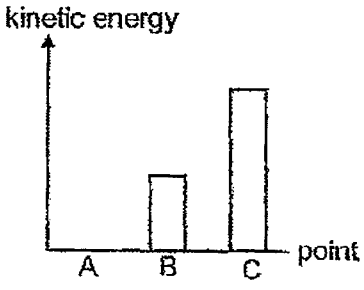
(1)



(2)



(3)



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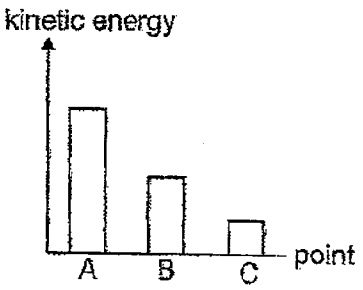

END OF PAPER

YEAR : 2025
LEVEL : PRIMARY 6
SCHOOL : RAFFLES GIRLS' PRIMARY SCHOOL
SUBJECT : SCIENCE
TERM : WEIGHTED ASSESSMENT 2

Q1	1	Q2	4	Q3	2	Q4	4	Q5	1
Q6	4	Q7	3	Q8	1	Q9	2	Q10	4
Q11	3	Q12	3	Q13	4	Q14	3	Q15	3
Q16	2	Q17	4	Q18	4	Q19	1	Q20	2

END