RAFFLES GIRLS' PRIMARY SCHOOL

END-OF-YEAR
Practice Paper 2

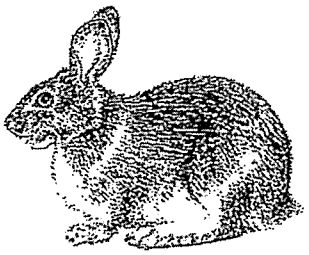
Section A	50
Section B	40
Your score **out of 90**	
Parent's signature	

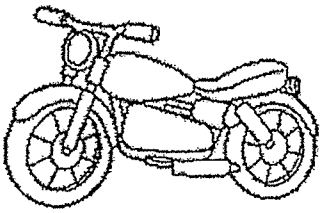
Name : _____ **Index No.:** _____ **Class: P4**____

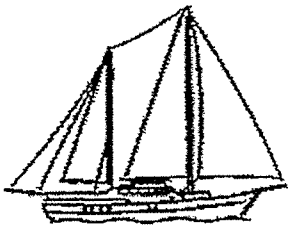
SECTION A (25 x 2 marks)

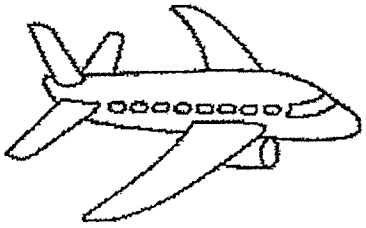
For each question from 1 to 28, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet (OAS) provided.

1. Which of the following is a living thing?

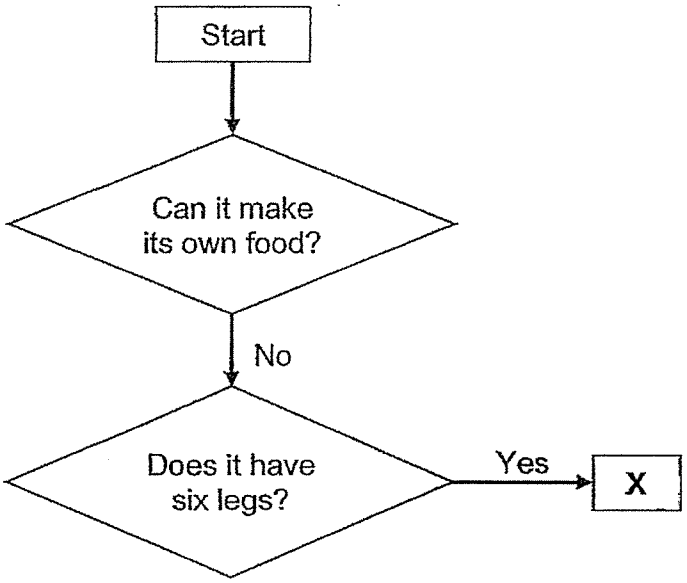
(1) 

(2) 

(3) 

(4) 

2. Study the diagram shown.



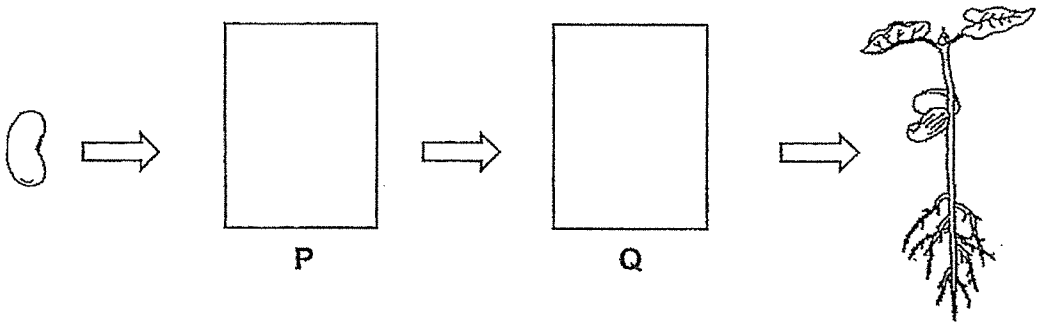
What could X be?

(1) Bird
(2) Plant
(3) Insect
(4) Mammal

3. Which of the following animals has pupa as a stage in its life cycle?

(1) Frog
(2) Beetle
(3) Cockroach
(4) Grasshopper

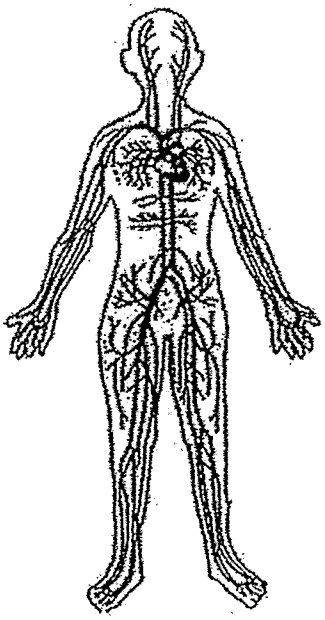
4. The diagram shows the growth of a young plant with two missing stages P and Q.



Which of the following rows shows the correct stages for P and Q?

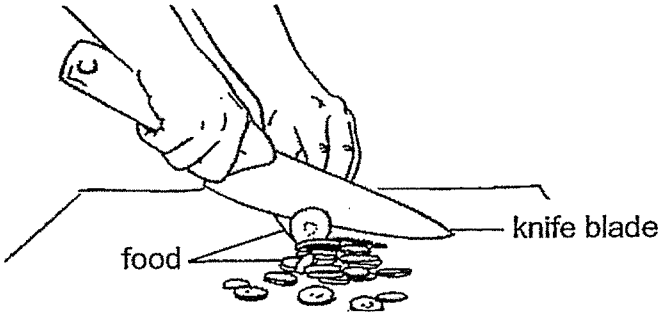
	P	Q
(1)		
(2)		
(3)		
(4)		

5. Which organ system is shown in the diagram?



(1) Skeletal system
(2) Digestive system
(3) Circulatory system
(4) Respiratory system

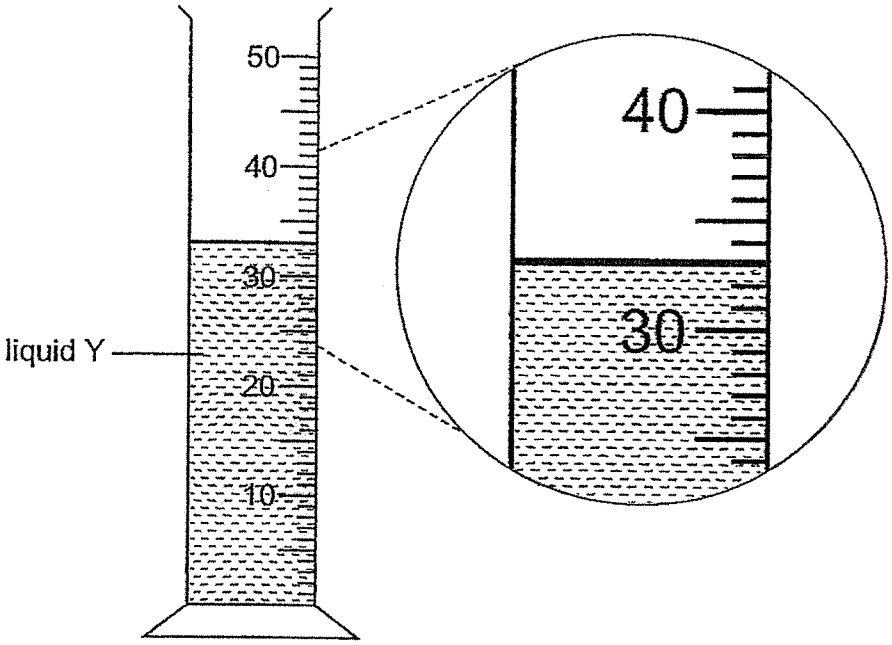
6. The diagram shows a knife which is used to cut food.



Metal is used to make the knife blade because metal _____.

(1) can reflect light
(2) does not break easily
(3) can bend without breaking
(4) does not allow light to pass through

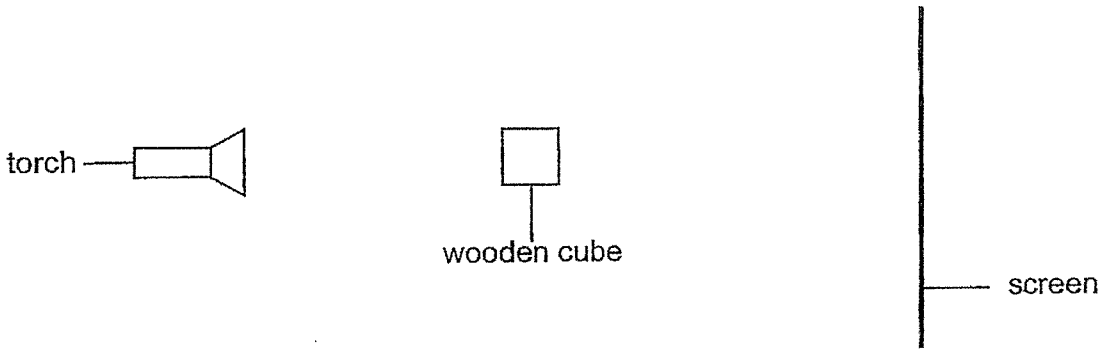
7. The diagram shows a measuring cylinder containing liquid Y.



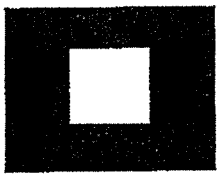
What is the volume of liquid Y?

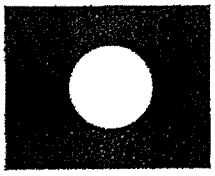
(1) 30cm^3
(2) 33cm^3
(3) 36cm^3
(4) 47cm^3

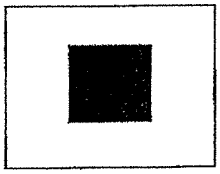
8. The set-up shows light shining on a wooden cube.

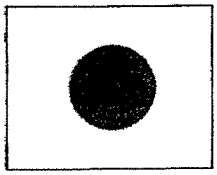


Which of the following diagrams would likely be seen on the screen?

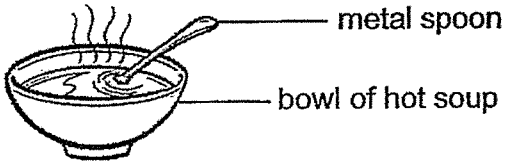
(1) 

(2) 

(3) 

(4) 

9. Charles placed a metal spoon in a bowl of hot soup.



The metal spoon becomes warmer after a while.

Which of the following statements explains this?

(1) The bowl loses heat to the hot soup.
(2) The metal spoon loses heat to the bowl.
(3) The hot soup gains heat from the metal spoon.
(4) The metal spoon gains heat from the hot soup.

10. Which of the following objects can be attracted by a magnet?

(1) Iron rod
(2) Glass rod
(3) Plastic rod
(4) Wooden rod

11. A student conducted an experiment on four similar seeds, A, B, C and D, to find out the conditions required for seed germination.

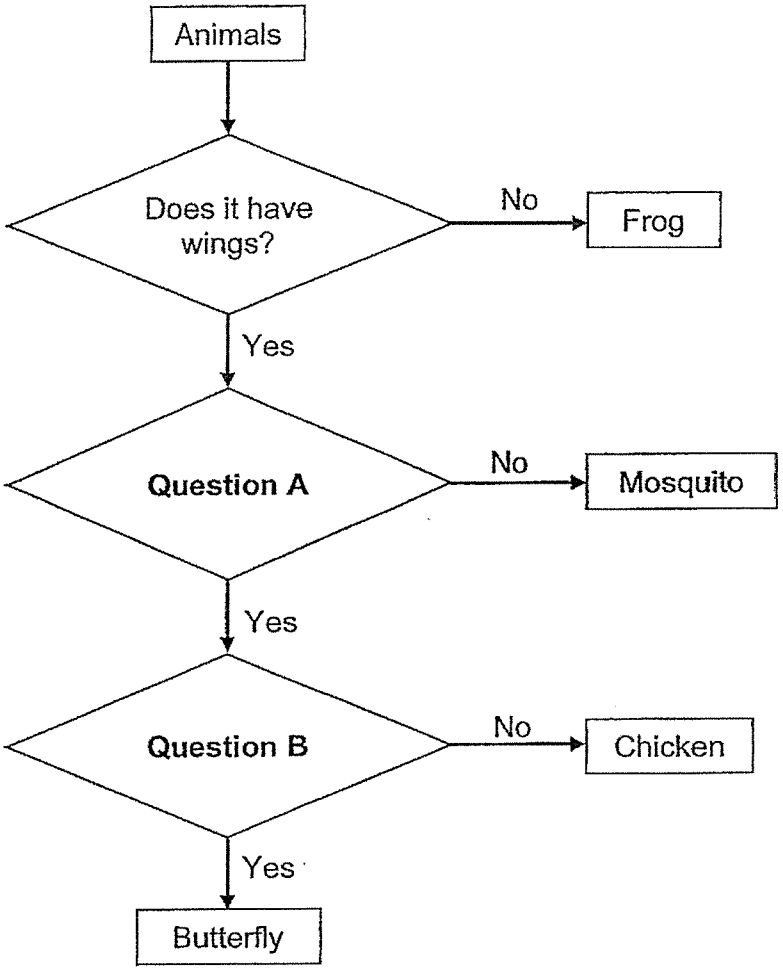
A tick (✓) in a box shows the conditions the seed was exposed to.

Seed \ Condition	Air	Warmth	Water	Light
A	✓	✓		✓
B	✓	✓	✓	
C		✓	✓	✓
D	✓		✓	

Based on the information above, which of the following seed(s) germinated?

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

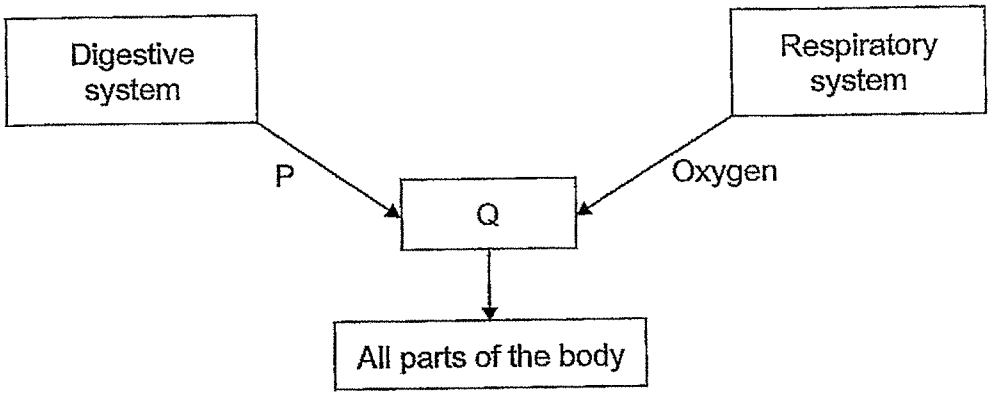
12. Study the flowchart.



Which of the following most likely represent questions A and B?

	Question A	Question B
(1)	Does it lay eggs?	Does the young resemble its adult?
(2)	Does the young live on land?	Does it have a four-stage life cycle?
(3)	Does the young resemble its adult?	Does it have a three-stage life cycle?
(4)	Does it have a three-stage life cycle?	Does it lay eggs?

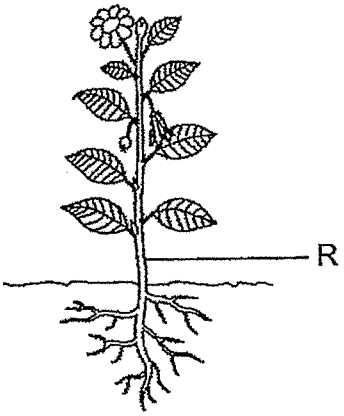
13. The diagram shows different systems working together in a human body.



Which of the following identifies P and Q correctly?

	P	Q
(1)	Digested food	Muscular system
(2)	Digested food	Circulatory system
(3)	Undigested food	Muscular system
(4)	Undigested food	Circulatory system

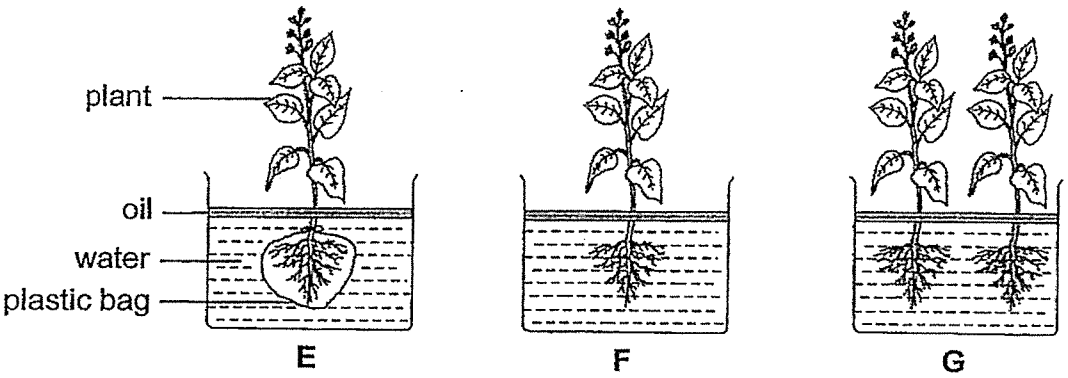
14. The diagram shows a plant.



Which of the following statements is **not** a function of part R?

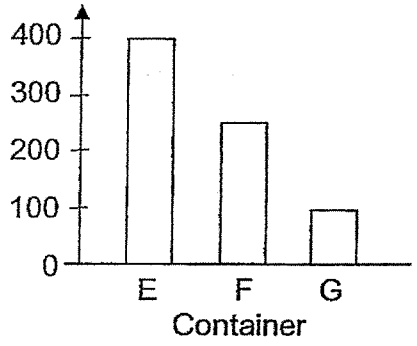
(1) It holds the plant upright.
(2) It takes in water for the plant.
(3) It transports food to other plant parts.
(4) It transports water to other plant parts.

15. Sally placed similar plants into identical containers, E, F and G, as shown in the diagram. The containers had the same amount of water at the start of the experiment and were placed at the same location. She measured the amount of water left in the containers after one week.

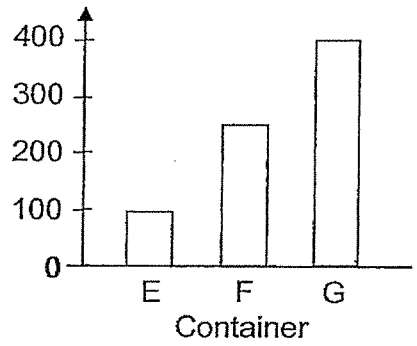


Which of the following graphs shows the amount of water left in each container at the end of one week?

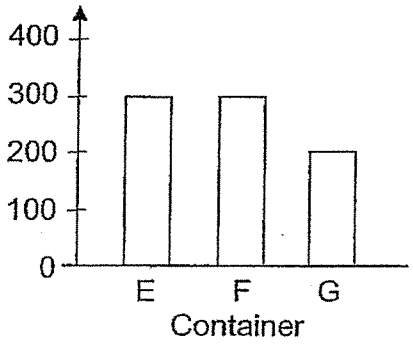
(1)



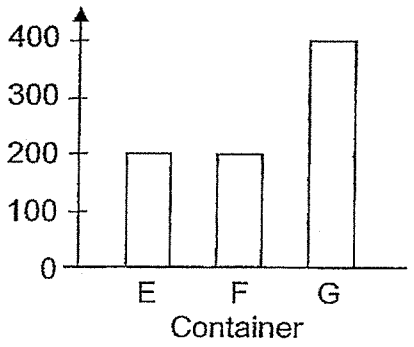
(2)



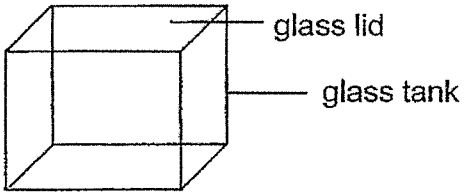
(3)



(4)



16. The diagram shows a glass tank which has a capacity of 1000cm^3.

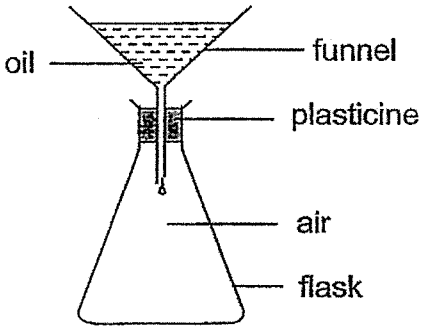


The tank is used to contain either air or water at each time.

Which of the following shows the correct volume of air or water that can be put into the tank?

	Volume of air (cm^3)	Volume of water (cm^3)
(1)	900	1100
(2)	900	1200
(3)	1200	1200
(4)	1200	900

17. Meera tried to pour some oil into a flask using a funnel. She held the funnel in place with some plasticine. The oil dripped very slowly into the flask.



What should she do to make the oil flow more quickly into the flask?

(1) Heat the base of the flask to expand the air inside it.

(2) Tap the flask at the side to push the oil into the flask.

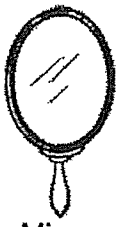
(3) Tilt the flask slightly to let the oil flow into the flask more easily.

(4) Make a hole through the plasticine to let the air from inside the flask escape.

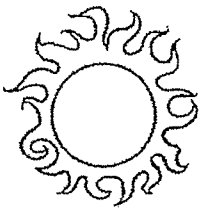
18. Which of the following contains **only** sources of light?

(1)

Fire



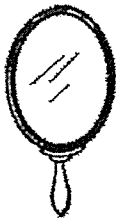
Mirror



Sun

(2)

Fire



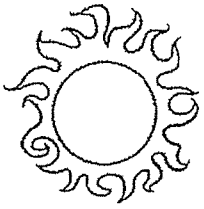
Mirror

Moon

(3)

Candle flame

Fire

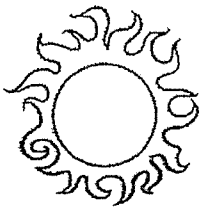


Sun

(4)

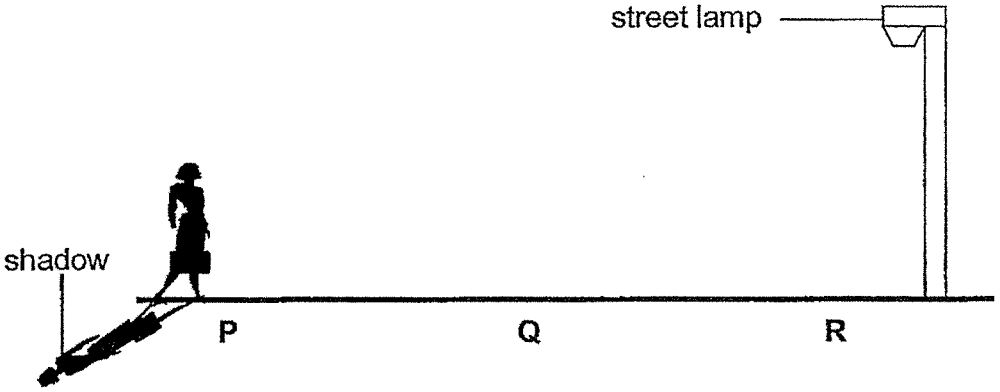
Candle flame

Moon



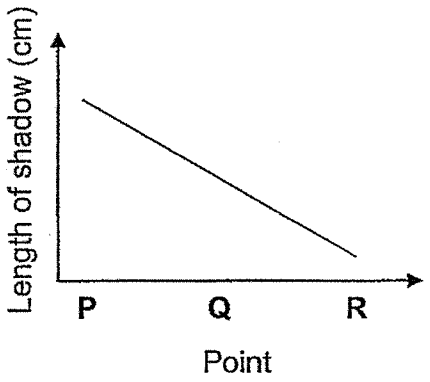
Sun

19. Ms Soh was walking home along a street lit with a street lamp. The length of her shadow changed as she walked towards the street lamp.

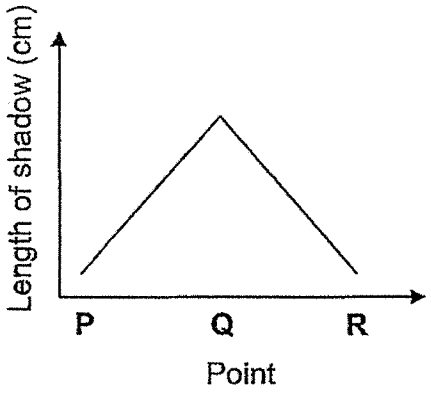


Which of the following graphs shows the changes in the length of her shadow as Ms Soh walked from Point P to Point R?

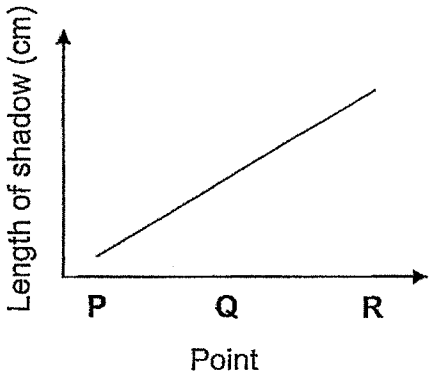
(1)



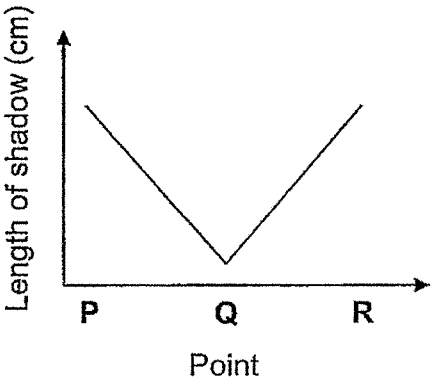
(2)



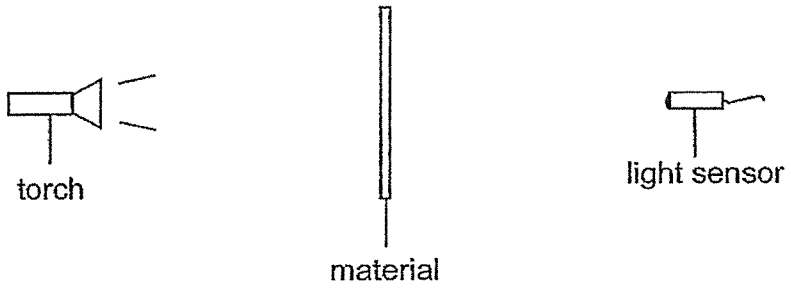
(3)



(4)



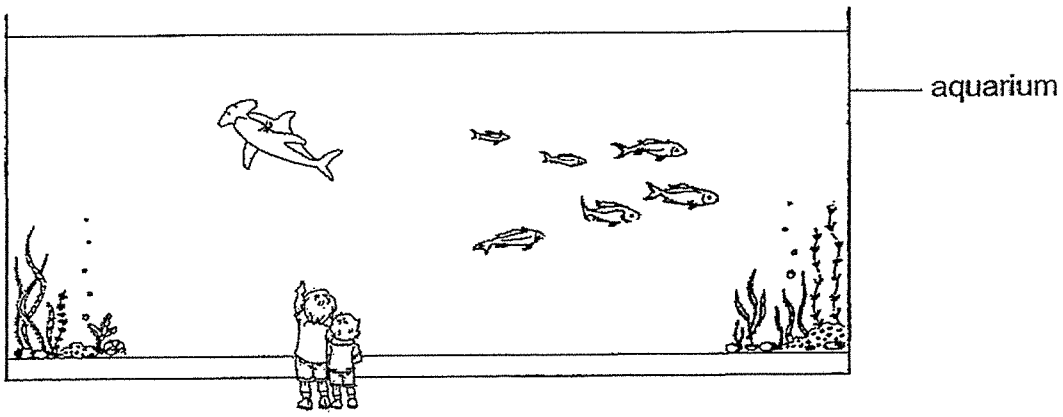
20. The diagram shows an experimental set-up used to find out the amount of light that could pass through each material, A, B, C and D, using a light sensor. The materials were of identical size and thickness.



The results were recorded in the table.

Material	Amount of light detected by light sensor (lux)
A	100
B	850
C	80
D	1540

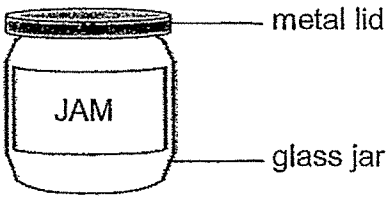
Mr Tan wanted to make an aquarium that allows people to see the animals in it clearly as shown in the diagram below.



Which material is the most suitable to make the aquarium?

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

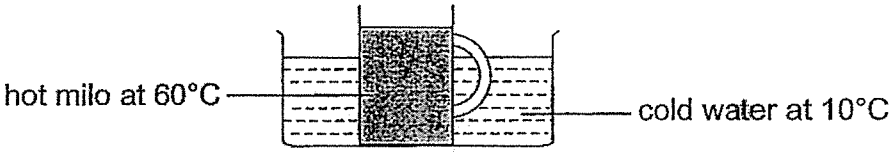
21. Adi wants to open a jar of jam as shown. He is unable to open the jar as the metal lid is too tight.



What should he do to open the jar most quickly?

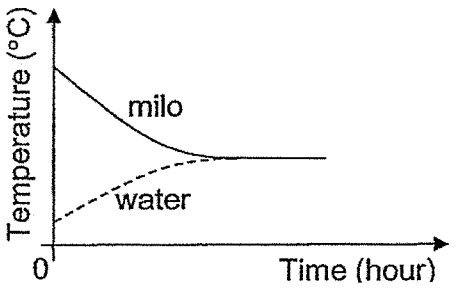
(1) Put the metal lid in cold water.
(2) Put the metal lid in warm water.
(3) Put both the metal lid and glass jar in cold water.
(4) Put the metal lid in warm water and wrap the glass jar with cold towel.

22. Ravi placed a mug of hot milo at 60°C in a container of cold water at 10°C.

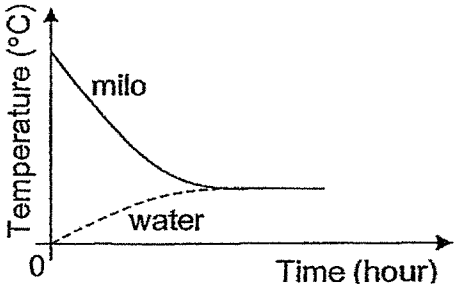


Which of the following graphs shows the changes in the temperature of milo and water over three hours?

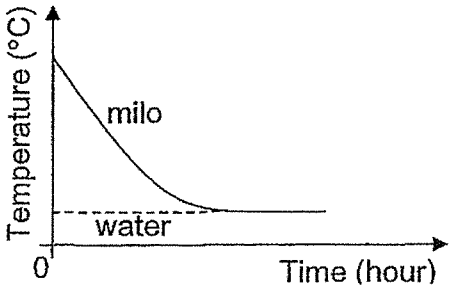
(1)



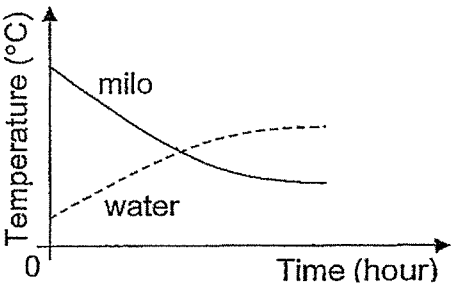
(2)



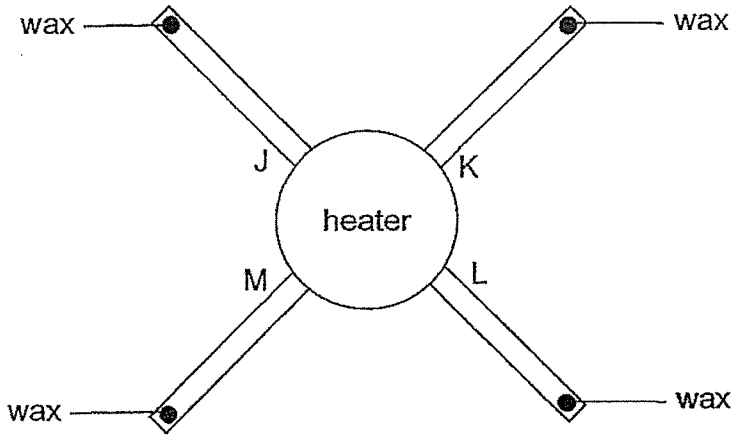
(3)



(4)



23. Wei Wei conducted an experiment to find out the heat conductivity of four rods made of different materials, J, K, L and M. Each rod, which had a piece of identical wax placed at its end, was attached to the heater as shown. The rods were of the same size.



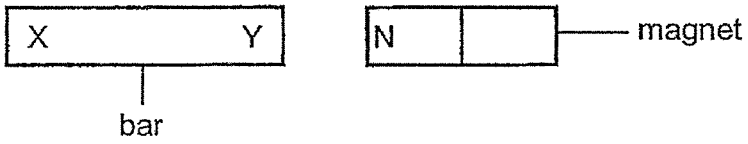
The table shows the time taken for the wax on each material to melt completely.

Material	J	K	L	M
Time taken to melt the wax completely (minutes)	1	3	5	4

Which of the following materials is best used to make into a lunch box to keep the cooked food warm?

(1) J
(2) K
(3) L
(4) M

24. Betty placed the north pole of a magnet near the ends, X and Y, of four different bars, T, U, V and W, as shown in the diagram.



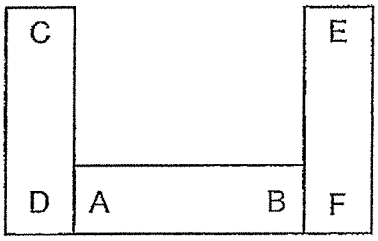
She recorded her observations in a table.

Bar	Interaction between the north pole of magnet and the ends of bar	
	End X	**End Y**
T	Attracted	Attracted
U	Attracted	Repelled
V	No interaction	No interaction
W	Repelled	Attracted

Which of the following are magnets?

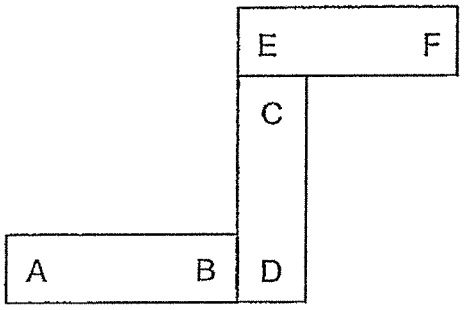
(1) T and U only
(2) T and V only
(3) U and V only
(4) U and W only

25. Jacob arranged three magnets as shown in the diagram.

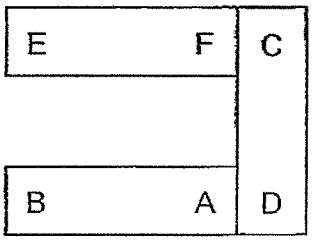


Which of the following is another possible arrangement for the three magnets?

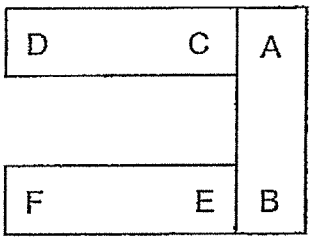
(1)



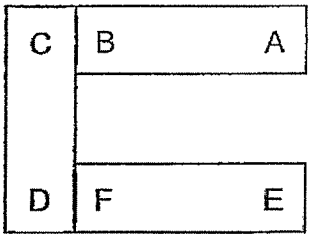
(2)



(3)



(4)

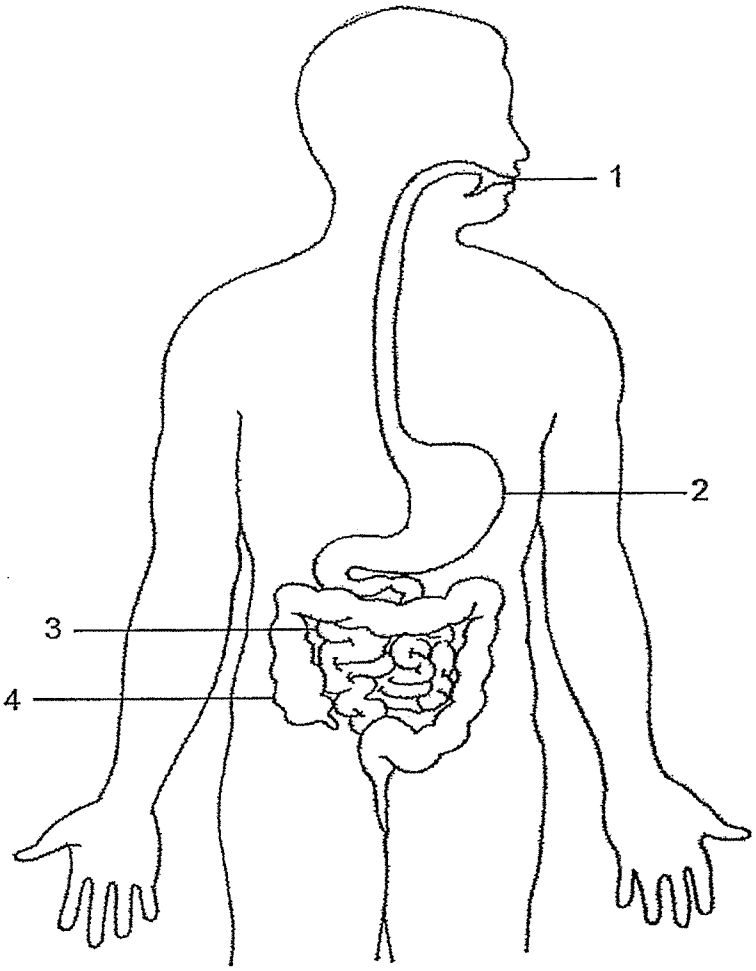


Name: _____ Index No: _____ Class: P4 _____

40

Section B

26. The diagram shows the human digestive system.



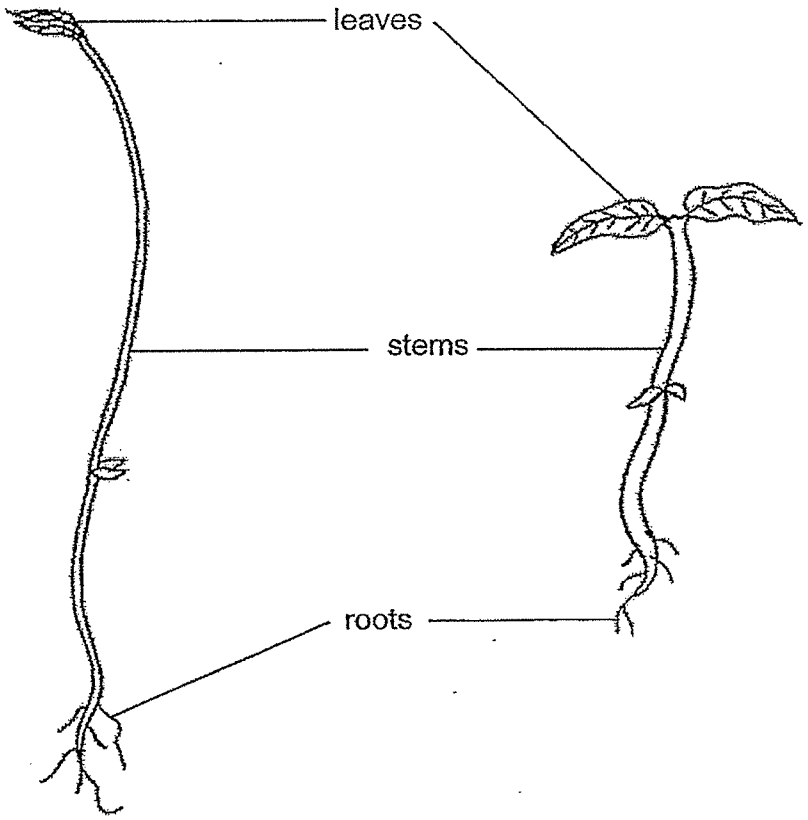
Identify the part (1, 2, 3 or 4) where

(a) digested food is absorbed into the blood : _____ . [1]

(b) there is no digestion : _____ . [1]

Score	2

27. The diagram shows two plants.



(a) What is one difference between the stem of plant A and the stem of plant B?

The stem of plant A is _____ than the stem of plant B. [1]

(b) The roots help both plants to absorb _____ and mineral salts. [1]

Continue on page 21

Score	/2

Continued from page 20

(c) A group of pupils carried out an experiment with four pots of tomato seeds. The pots were placed near the window and watered daily with different amount of water.

After two weeks, the pupils measured the height of the seedlings and recorded the results in the table shown.

Pot	Amount of water given per day (ml)	Average height of seedlings (cm)
P	20	10
Q	40	(i) _____
R	60	20
S	80	25

(i) Complete the table by filling in the blank. [1]

(ii) What is the relationship between the amount of water given per day and the average height of the seedlings? [1]

_____

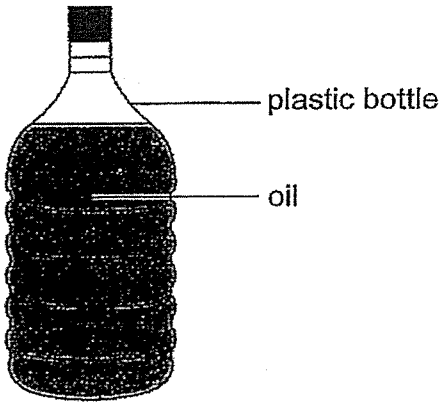
_____

(iii) Put a tick (✓) in the box to show the variable(s) that should be kept constant. [1]

Variables	Tick (✓)
Amount of water given to the plants daily	
Number of seeds in each pot	
Height of the seedlings	

Score	3

28. The diagram shows a bottle of cooking oil.

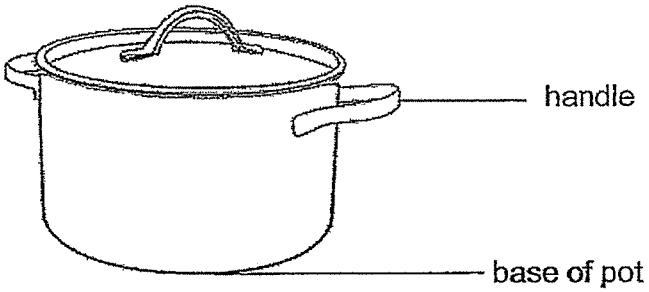


Complete the sentences to state if the parts are solid, liquid or gas.

(a) The plastic bottle is a _____ . [1]

(b) Oil is a _____ . [1]

29. The diagram shows a cooking pot.



(a) The handle is made of plastic because it is a _____ conductor of heat. [1]

(b) The base of the pot is made of metal because it is a _____ conductor of heat. [1]

Score	/ 4

30. Tom places a magnet near an iron rod.

The iron rod moves towards the magnet.

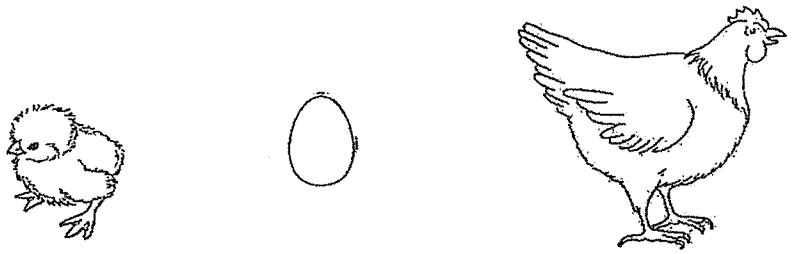
(a) The magnet _____ the iron rod. [1]

Choose the correct word from the box to answer the question.

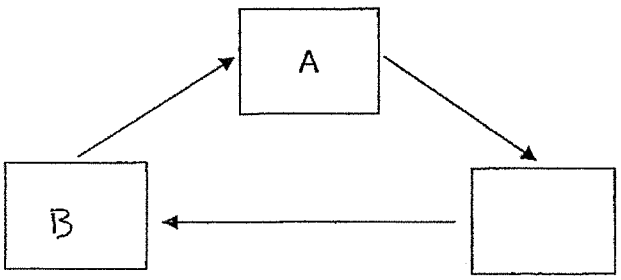
magnetic	strong	waperproof

(b) Tom's observation shows that iron is a _____ material. [1]

31. The diagram shows the stages in the life cycle of a chicken.



(a) Arrange the stages of the life cycle of the chicken in the correct order by filling in the boxes with the letters B or C. [1]



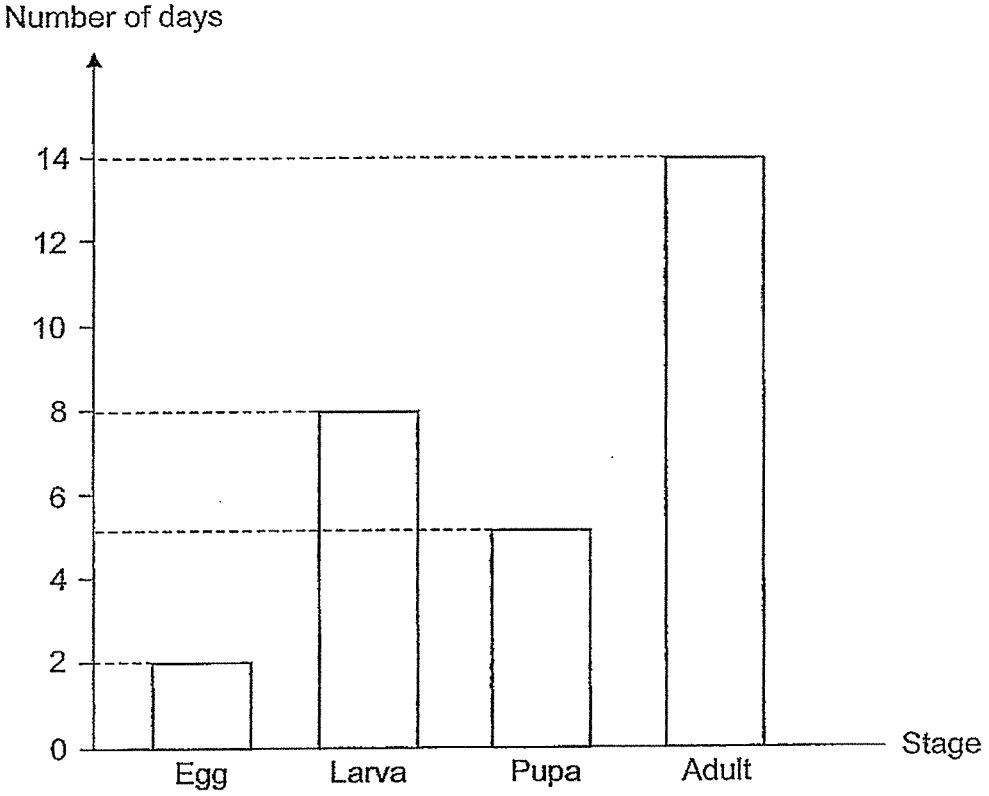
Score	3

Continue on page 23

Continued from page 22

(b) There are four stages in the life cycle of a mosquito.

The graph shows the number of days in each stage of the life cycle of a mosquito.



(i) After hatching, how many days does the mosquito take to reach the adult stage? [1]

(ii) Name a stage of the mosquito's life cycle that can be most easily gotten rid of. Give a reason for your answer. [2]

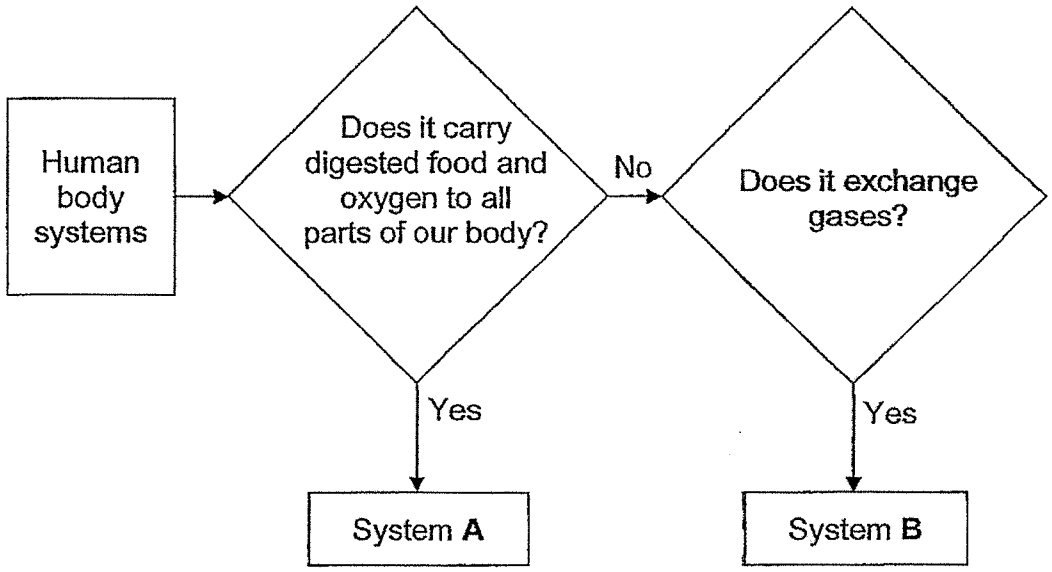
Score	
	3

32. Ali was playing football in the school field.

(a) Which two main body systems work together to allow Ali to move and kick a ball? [1]

_____

The flowchart shows the characteristics of some human body systems.



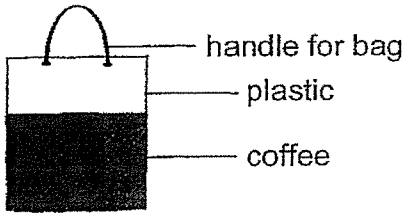
(b) From the chart above, identify systems A and B. [2]

System A : _____

System B : _____

Score 3

33. Larry used a plastic bag to contain coffee.

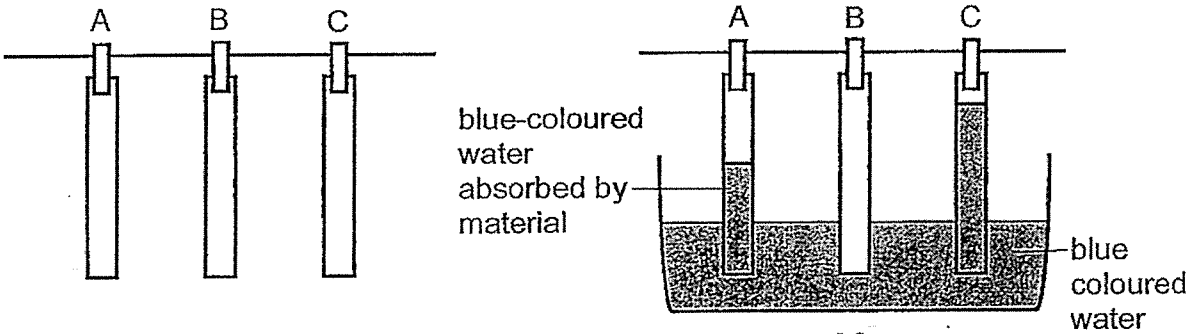


Plastic bag for coffee

(a) State the main property of plastic that is taken into consideration to make into a bag to hold 200ml of coffee. [1]

_____

Larry then cut three strips, A, B and C, of different materials to the same size. He placed the strips into a container of blue-coloured water at the same distance as shown.



Before **After**

After ten minutes, he observed that part of materials A and C turned blue.

(b) Based on the information above, which material, A, B or C, could be plastic? Give a reason for your answer. [1]

_____

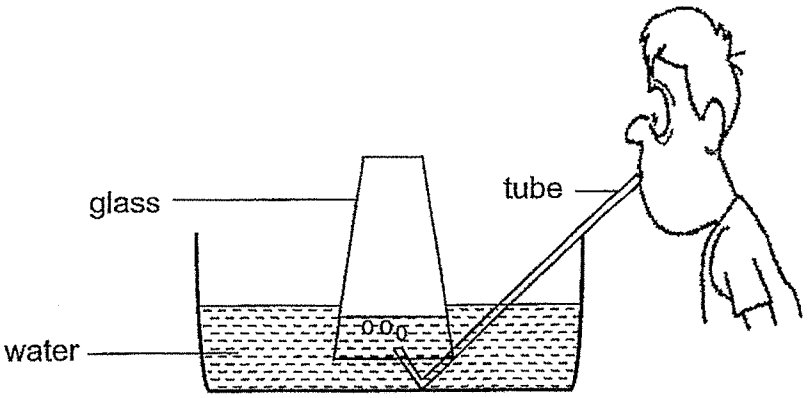
_____

(c) Based on the information above, which material, A, B or C, is most suitable to be used to make into a towel? Explain your answer. [2]

_____

Score	/4

34. John blew air into the tube for fifteen seconds continuously as shown in the diagram.



(a) What would happen to the water level in the glass after fifteen seconds? [1]

_____

_____

(b) Explain your answer in (a). [1]

_____

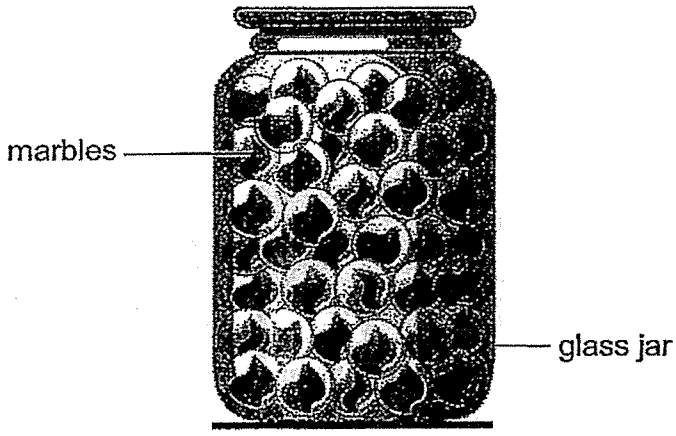
_____

Continue on page 27

Score	/ 2

Continued from page 26

Then John filled a jar with marbles to the brim as shown.



John observed that when he tried to force more marbles into the jar, he was not able to do so.

(c) State a property of matter that is shown in his observation. [1]

_____

_____

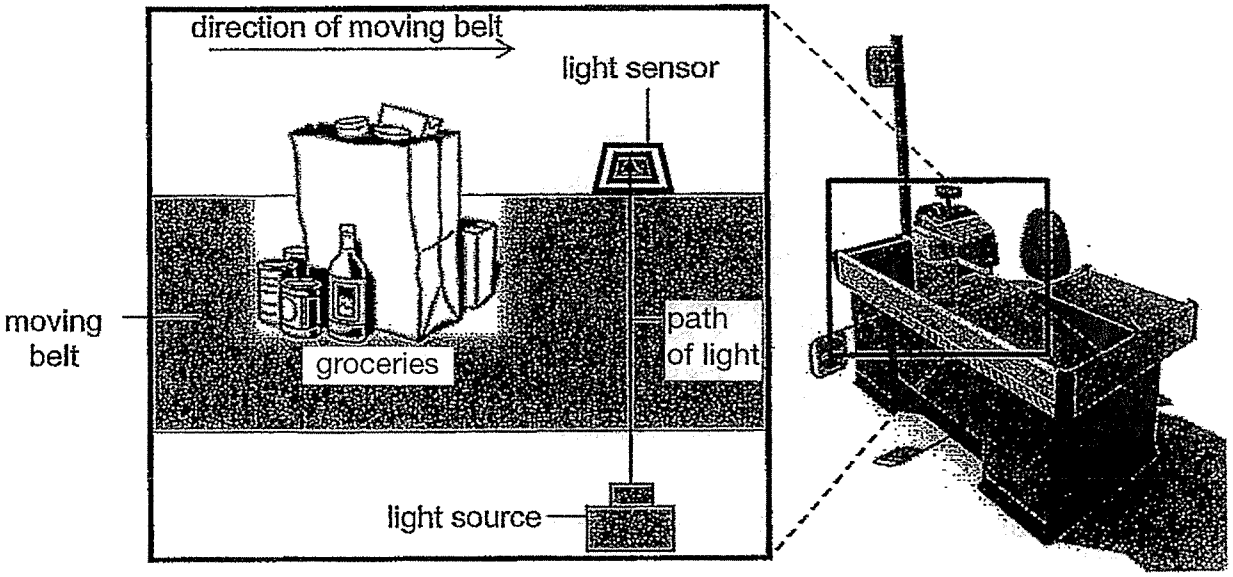
(d) John poured water into the jar of marbles. Was the water able to go into the jar of marbles? Give a reason for your answer. [1]

_____

_____

Score	/ 2

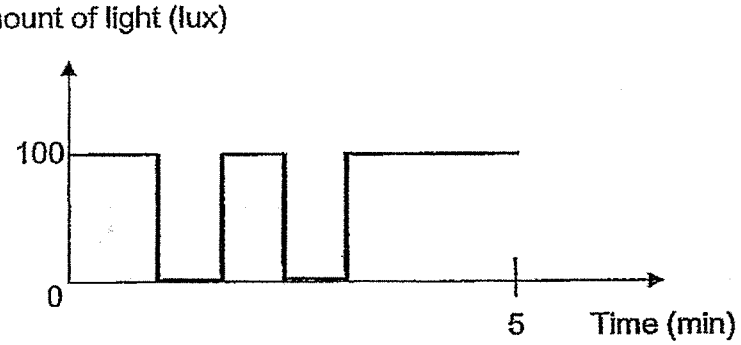
35. The diagram shows a cashier checkout machine which uses a moving belt and a light sensor.



Magnified view

When the groceries reach the path of light, the moving belt will stop.

The amount of light detected by the light sensor is shown in the graph.



(a) Based on the graph, how many times did the belt stop moving within five minutes? [1]

_____

Score	/ 1

Continue on page 29

Continued from page 28

(b) Objects made of clear glass cannot be detected easily by the light sensor. Give a reason. [1]

_____

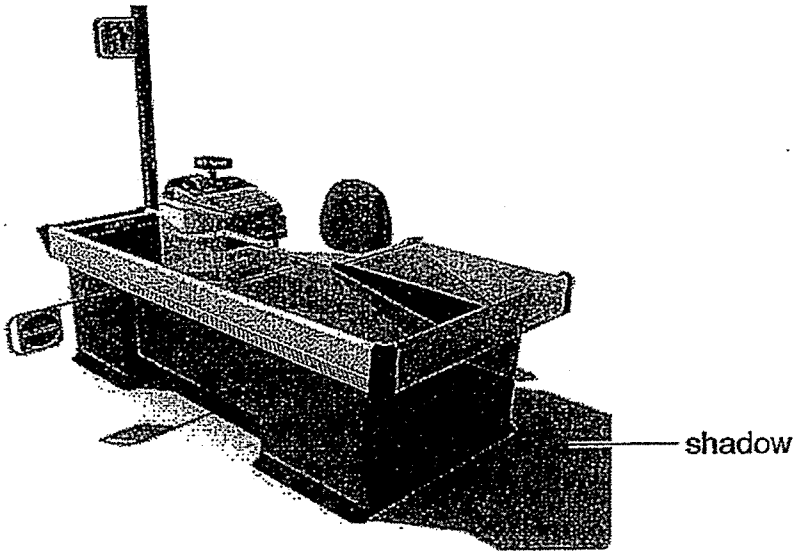
_____

(c) State one property of light that allows the checkout machine to work. [1]

_____

_____

A shadow was seen on the floor near the checkout machine.



(d) Explain how this shadow was formed. [1]

_____

_____

Score	/ 3

36. Peter conducted an experiment to find out how the materials of bowls affect the time taken for the water in them to cool down. Peter poured 200ml of hot water into each of the three bowls, A, B and C. He measured the temperature of the water in the three bowls every two minutes and recorded it in the table.

	Temperature of water (°C)		
Time (min)	**Bowl A**	**Bowl B**	**Bowl C**
0	80	80	80
2	79	74	78
4	78	68	74
6	78	61	72
8	76	55	69
10	74	49	66

(a) Arrange bowls, A, B and C, according to how well they conduct heat. [1]

Poorest heat conductor → **Best heat conductor**

(b) Which bowl, A, B or C, is the most suitable for storing frozen ice-cream? Explain your answer. [2]

_____

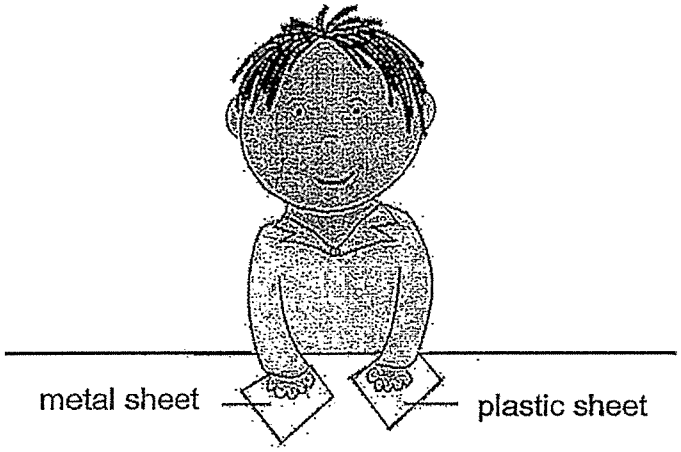
_____

Continue on page 31

Score 3

Continued from page 30

Peter found a metal sheet and a plastic sheet on a table at a room temperature of 30°C. Both sheets are of identical size and shape. Peter then put one hand on the sheet of metal and his other hand on the sheet of plastic as shown.

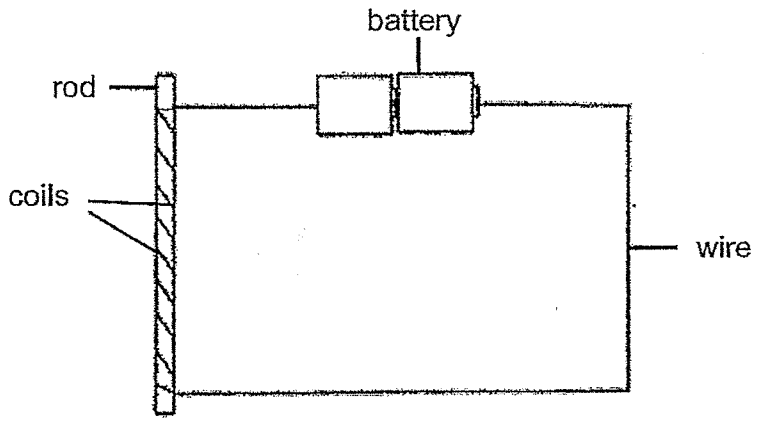


(c) Based on the information, write 'T' if the statement is true and 'F' if the statement is false. [1]

Statement	T or F
Peter felt that the metal sheet was cooler than plastic sheet.	
Peter's hand lost heat to the plastic sheet as quickly as he lost heat to the metal sheet.	

Score	
	1

37. Bella set up an experiment as shown. She wanted to investigate how the material of the rods affect the number of paper clips attracted. She used four rods of identical size, D, E, F and G. The rods were made of different materials.



Bella repeated the experiment by replacing the rod in the set-up and recorded the number of paper clips attracted in the table below for each experiment.

Rod	Number of turns of wire coil on the rod	Number of paper clips attracted
D	9	6
E	15	6
F	9	6
G	9	0

(a) Her teacher told Bella that her experiment was not a fair test. Using the results in the table above, explain why. [2]

_____

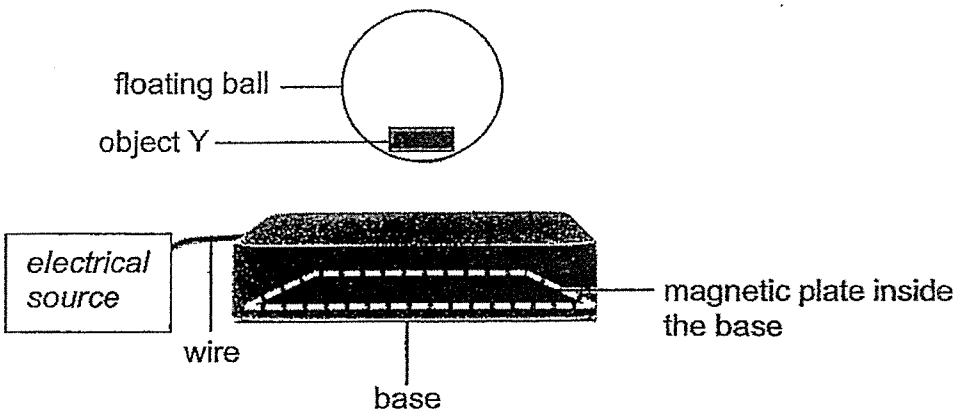
_____

Score 2

Continue on page 33

Continued from page 32

Bella has a toy as shown in the diagram.



This toy consists of a floating ball and a magnetic base plate. The lower half of the floating ball was made with object Y inside the ball. The ball will float when the electrical source is switched on.

(b) Identify object Y. [1]

_____

(c) How does the object you have identified in (b) allow the ball to float above the base plate? [1]

_____

_____

End of paper

Score 2

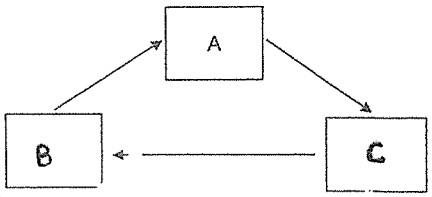
ANSWER KEY

YEAR : 2024
LEVEL : PRIMARY 4
SCHOOL : RGPS
SUBJECT : SCIENCE
TERM : END OF YEAR (P2)

BOOKLET A

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

BOOKLET B

Q26	a) 3 b) 4
Q27	a) Longer b) Water c) i. 15 ii. as the amount of the water given per day increases, so the average height of the seedlings also increased. iii. number of seeds in each pot.
Q28	a) solid b) liquid
Q29	a) poor b) good
Q30	a) Attracted b) Magnetic
Q31	a)  b) i. 13 days ii. the pupa stage. The mosquitos in the pupa stage do not move or eat anything, hence , we can get rid of them easily.
Q32	a) muscular and skeletal system. b) System A : Circulatory system System B : Respiratory system
Q33	a) Waterproof b) It is made of plastic, as plastic is waterproof.

	c) Material C. It is the most absorbent, hence , it is most suitable to make into a towel to absorb most water from the wet body.
Q34	a) The water level in the glass decrease. b) The air blown in from his breath occupied space in the glass and thus pushed the water out of the glass. c) Solids have a definite volume and shape. d) Yes. Water took up the space between the marbles that was previously occupied by air.
Q35	a) 2 b) The glass allows most light to pass through it. c) Light travels in a straight line. d) A shadow is formed when the light from the above in the super market is blocked by the machine.
Q36	a) A | C | B b) Bowl A. The temperature of water in bowl A decreased the slowest as it is the poorest conductor of heat as it will conduct heat from the surrounding air to the frozen ice-cream the slowest. c) T F
Q37	a) There should only be one changed variable which is the material of rod. This is to ensure that any changes in the number of paper clips attracted to the rod is only due to the type of material on the rod. b) Object Y is a magnet. c) The like-poles of the magnet on the lower half of the floating ball and the magnetic plate are facing each other.