Name: _____ ( )

Class: Primary 5 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL

Primary 5
Termly Assessment

SCIENCE

BOOKLET A

27 February 2020

Total Time for Booklets A and B: 1 hour

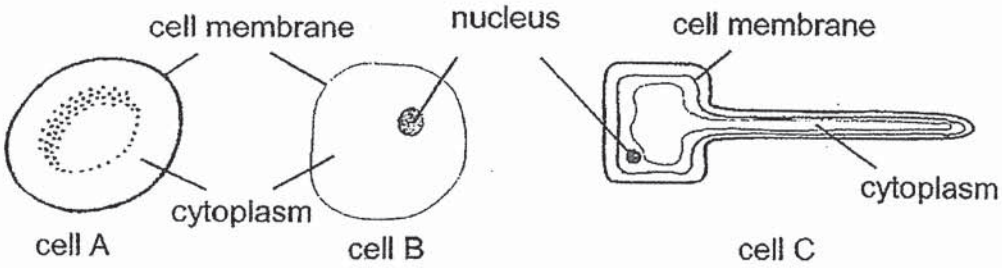
18 questions
36 marks

Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.

This booklet consists of 12 printed pages.

Section A (18 x 2 marks = 36 marks)
For each question from 1 to 18, 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 provided.

1. The diagram below shows three types of cells A, B and C.



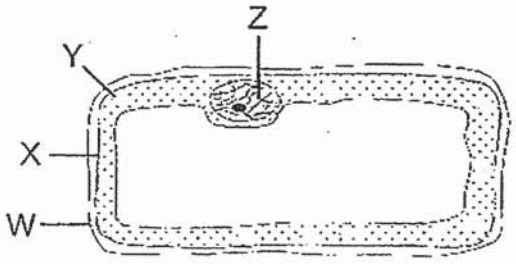
Four girls made the following statements about the cells.

Amy	Cell C is likely a plant cell.
Bella	Cell A is not an animal cell.
Cayla	Cell B is able to reproduce.
Dhalia	Cells A, B and C are all animal cells as they all have a cell membrane.

Whose statements is / are correct?

(1) Bella only
(2) Dhalia only
(3) Amy and Cayla only
(4) Amy, Bella and Cayla only

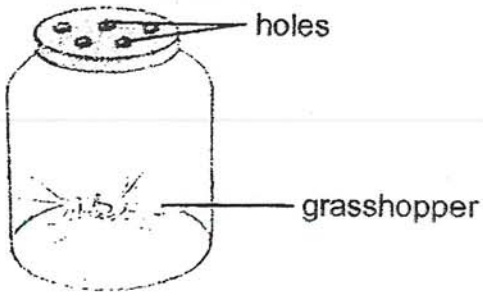
2. Study the diagram below.



Which one of the following correctly matches the cell part to its function?

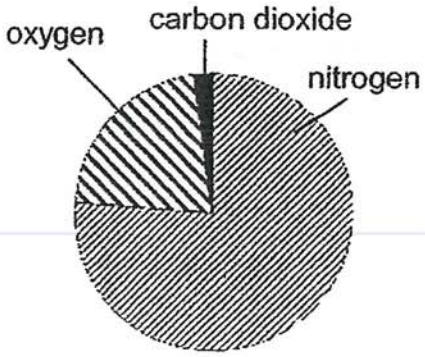
	Cell Part	Function
(1)	W	Controls all activities of the cell.
(2)	X	Prevents certain substances from entering the cell.
(3)	Y	Contains the other cell parts.
(4)	Z	Makes food for the cell.

3. A grasshopper was placed in a jar as shown below.

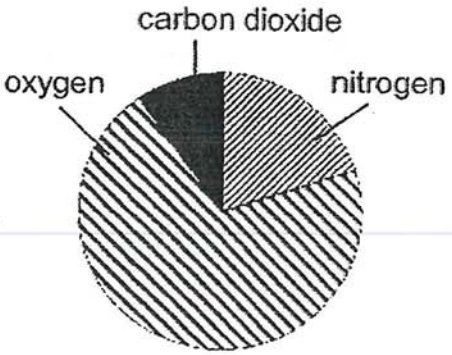


Which one of the following pie charts shows the possible composition of gases in the jar after a day?

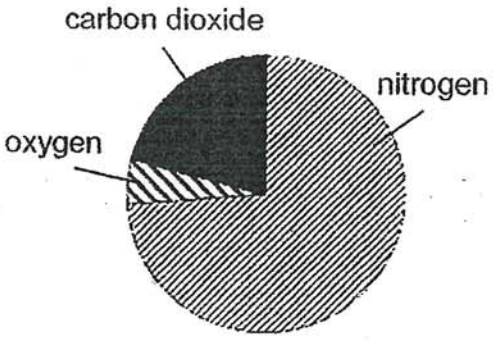
(1)



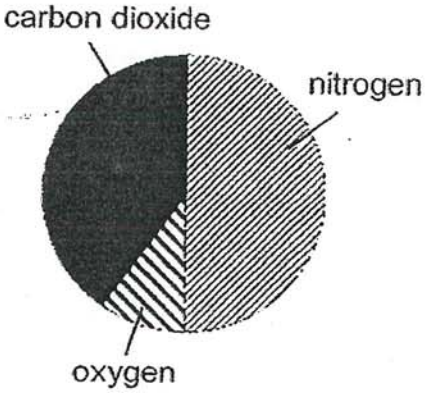
(2)



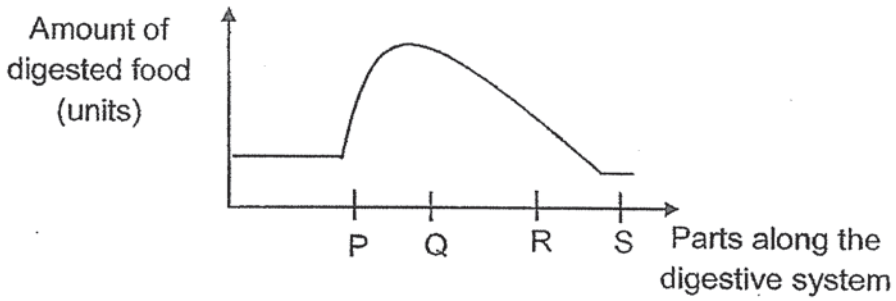
(3)



(4)



4. The graph below shows the amount of digested food in the blood vessels along the various parts of the digestive system.



At which part P, Q, R or S does the amount of digested food in the blood vessels corresponds to blood moving away from the stomach?

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

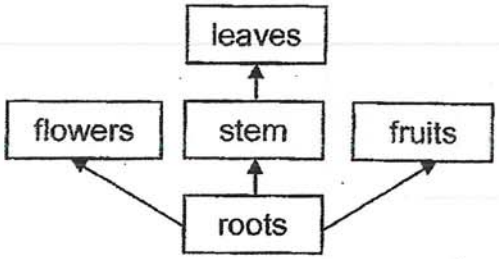
5. Which of the following statement(s) about the systems in the human body is / are **false**?

A The circulatory system transports energy around the body.
B The gullet allows air to be transported from the nose to the lungs.
C The skeletal system works together with the muscular system to allow movement.
D Digestive juices can only be found in the stomach, small intestines and large intestines.

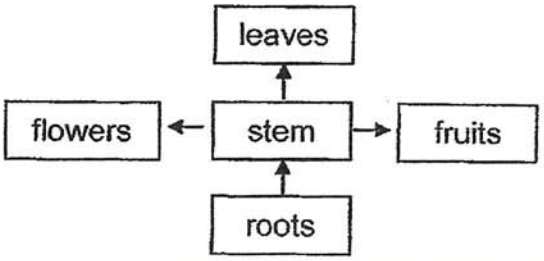
(1) A only
(2) C only
(3) A, B and D only
(4) B, C and D only

6. Which one of the following diagrams correctly shows the direction of the flow of food in plants?

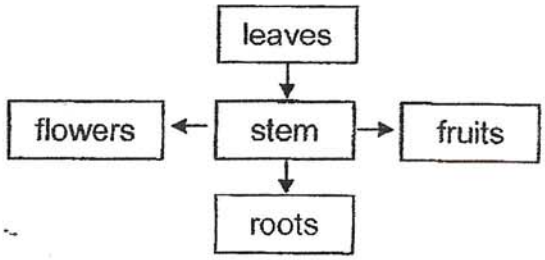
(1)



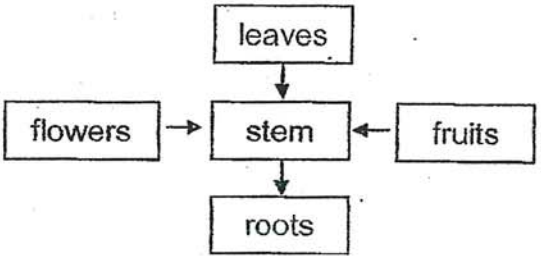
(2)



(3)

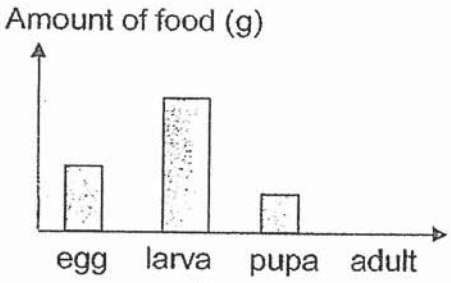


(4)

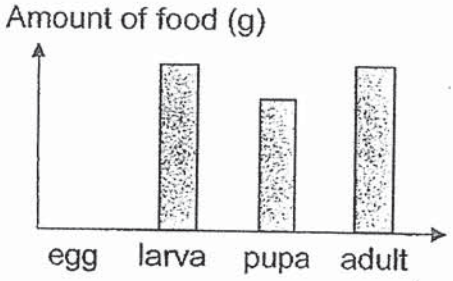


7. Which of the following graphs shows the possible amount of food eaten during the different stages in the life cycle of a butterfly?

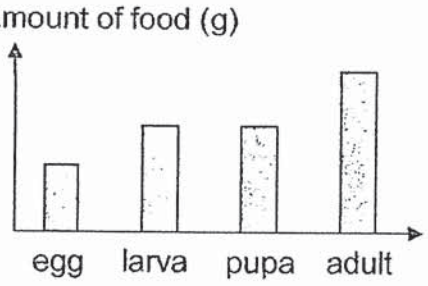
(1)



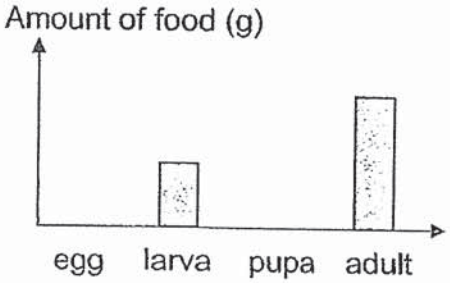
(2)



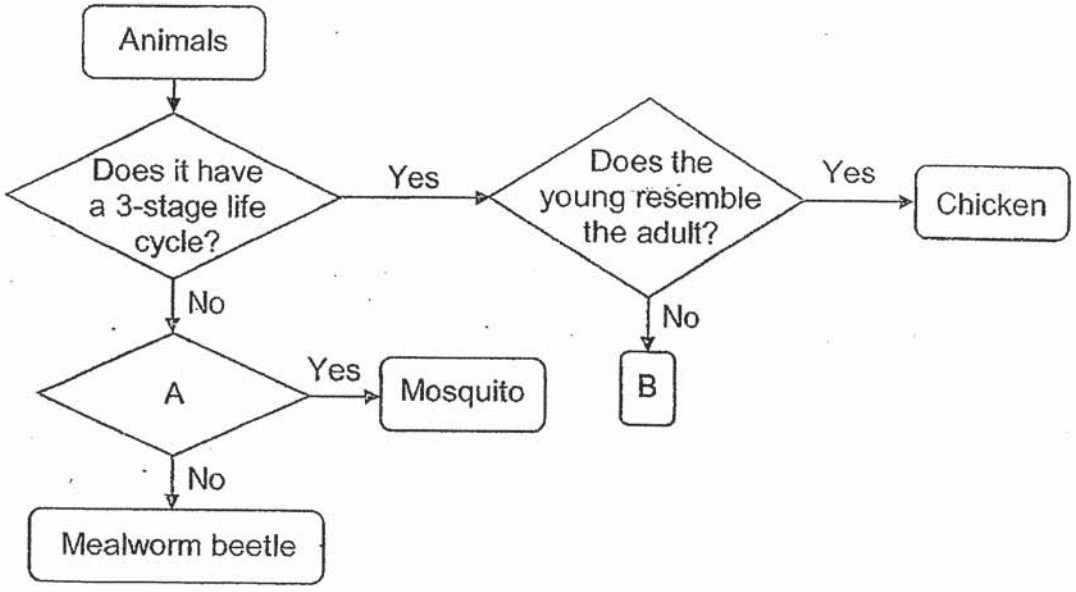
(3)



(4)



8. Study the flow chart below.



Which one of the following best represents A and B?

	A	B
(1)	Does it lay eggs?	Butterfly
(2)	Does it have wings?	Fish
(3)	Does the young resemble the adult?	Dragonfly
(4)	Does it spend part of its life cycle in water?	Frog

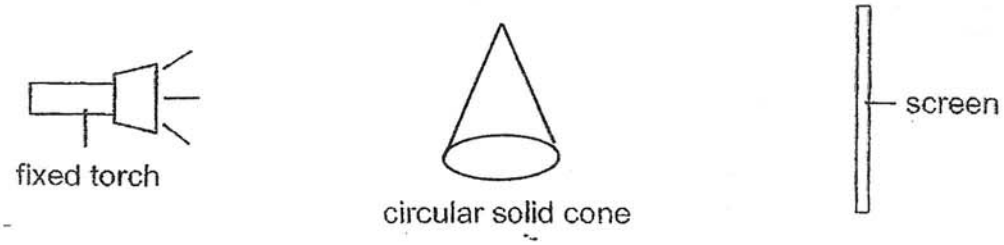
9. Ravi planted ten seeds in ten similar pots and watered them daily. He started recording the average number of days it took for the plants to reach the various stages as shown in the table below. He noted that the seeds took an average of 10 days to germinate.

Stage	Young plant	Plant with flowers	Plant with fruits
Average number of days to reach stage	10	150	190

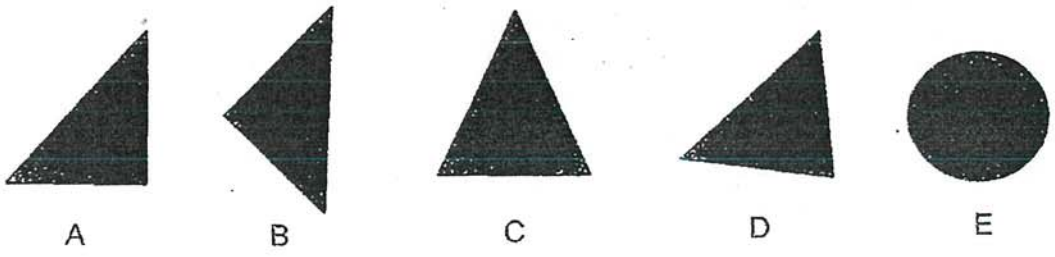
Based on his experiment, which one of the following is true?

(1) It took 50 days for the flowers to develop into fruits.
(2) The plants took 130 days to develop flowers after the seeds had germinated.
(3) The light given to the plants helped them to develop flowers and fruits faster.
(4) The seeds took 180 days to become plants with fruits after the seeds had germinated.

10. Study the set-up below.

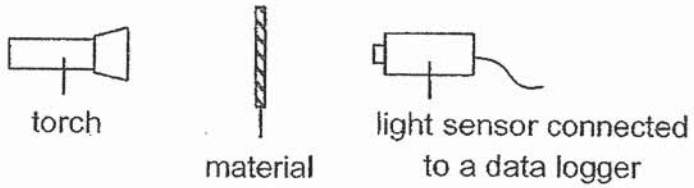


A shadow was cast on the screen when the torch was shone onto the circular solid cone. The cone was then rotated in various positions and different shadows were formed. Which of the following shadows are possible shadows of the cone?



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

11. Study the set-up below. Four different materials A, B, C and D were placed in front of the torch.



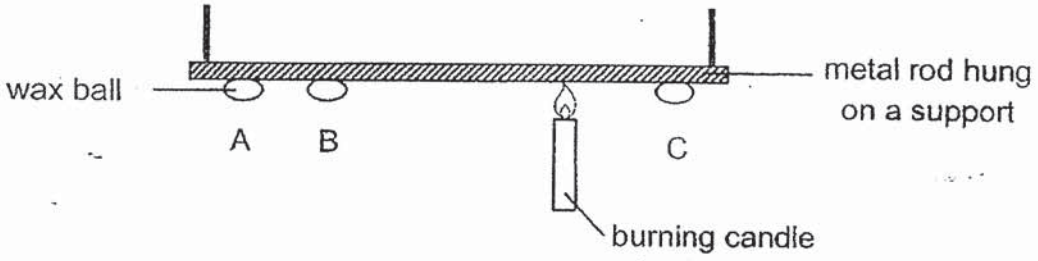
The table below shows the amount of light recorded by the data logger.

Material	A	B	C	D
Amount of light (units)	400	0	1500	6000

Which one of the materials A, B, C or D is the most suitable for making a curtain to help keep a room dark?

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

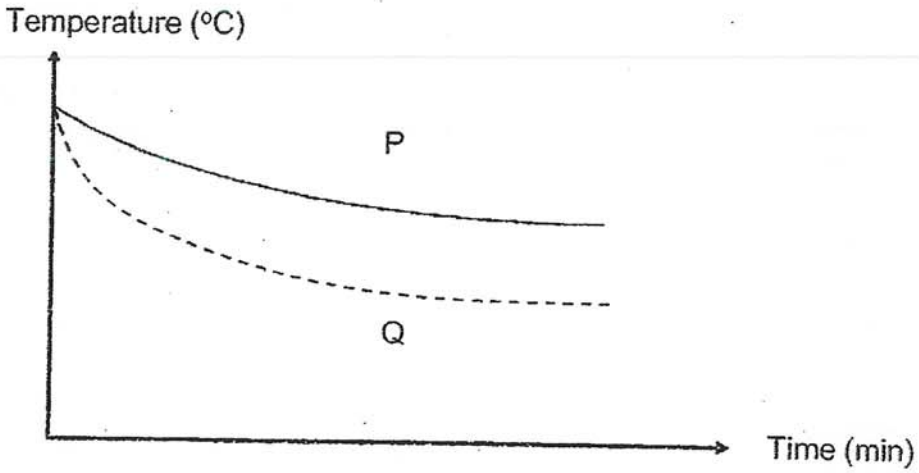
12. Ben conducted an experiment as shown below.



He noticed that the wax balls started to drop off the metal rod after some time. Which one of the following shows the correct order in which the wax balls dropped?

	First	**Second**	**Third**
(1)	A	B	C
(2)	A	C	B
(3)	C	B	A
(4)	B	C	A

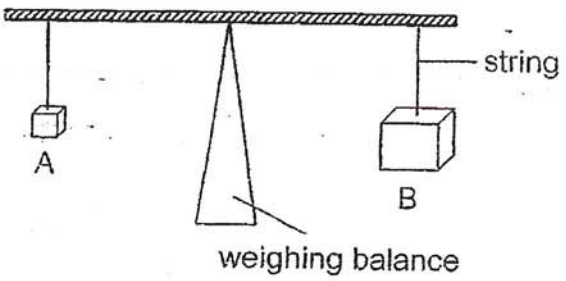
13. Two containers P and Q have the same volume but are made from different materials. Both P and Q are filled completely with hot water of the same temperature. The graph below shows the time taken for the water in containers P and Q to cool down.



Which one of the following shows the correct material that containers P and Q are made of?

	Container P	Container Q
(1)	Plastic	Metal
(2)	Glass	Wood
(3)	Metal	Plastic
(4)	Ceramic	Wood

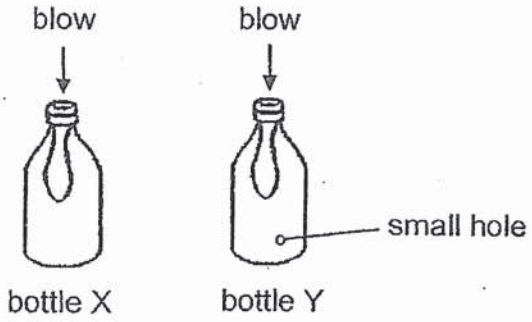
14. Limei carried out the following experiment on two objects A and B, made of different materials.



What can be concluded based on the experiment above?

(1) Object A is heavier than object B.
(2) Object B is heavier than object A.
(3) Objects with different volumes can have the same mass.
(4) Objects with different masses can have the same volume.

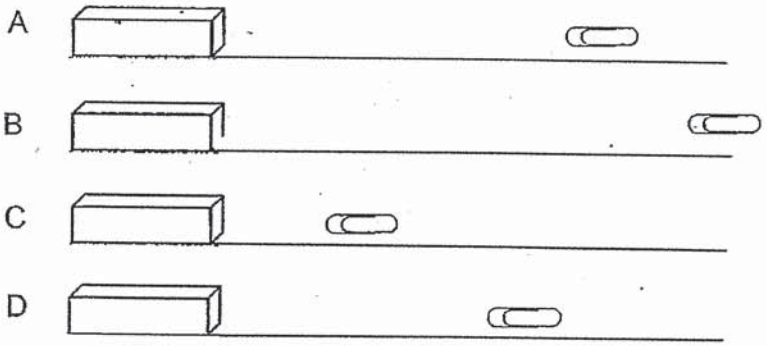
15. The diagram below shows two similar bottles X and Y, each with a balloon inserted.



Which one of the following shows the correct observation and its corresponding explanation when Mina blows into the balloons?

	Observation	Explanation
(1)	The balloon in bottle X will inflate more.	Air in bottle X can be compressed to allow more space for the balloon to inflate.
(2)	The balloon in bottle X will inflate more.	Air blown into the balloon in X cannot escape as there is no hole in the bottle.
(3)	The balloon in bottle Y will inflate more.	Air in bottle Y escapes through the small hole, allowing more space for the balloon to inflate.
(4)	The balloon in bottle Y will inflate more.	Air in the balloon in bottle Y escapes through the small hole, allowing more space for the balloon to inflate.

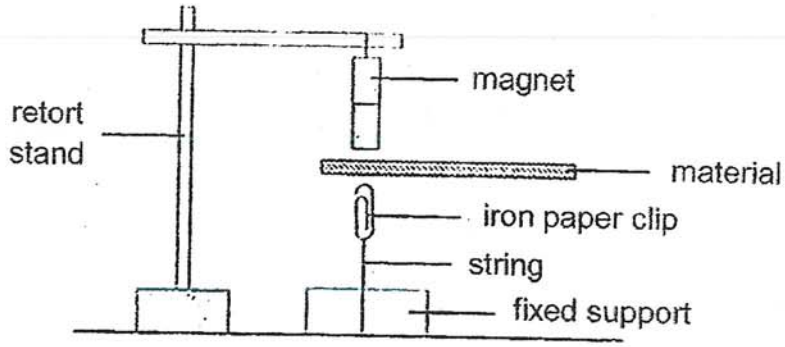
16. Henry set up an experiment to investigate the magnetic strength of four magnets A, B, C and D of similar size. The diagram below shows the distance at which each magnet is able to attract the paper clip.



Based on the diagram above, which one of the following shows the arrangement of the magnets in order of magnetic strength, from the greatest to the weakest?

	greatest magnetic strength ⟶ weakest magnetic strength			
(1)	B	D	A	C
(2)	C	A	D	B
(3)	C	D	A	B
(4)	B	A	D	C

17. Nathan wanted to find out if magnetism can pass through certain materials. He conducted an experiment by placing different materials between the magnet and an iron paper clip as shown below.



The table below shows the different set-ups that Nathan can use.

Set-up	Type of material used	Thickness of material (cm)
K	A	0.5
L	B	1
M	C	0.5
N	A	2

Which of the set-ups shown in the table above should he use to ensure that his experiment is a fair one?

(1) Set-ups K and M only
(2) Set-ups L and N only
(3) Set-ups K and L only
(4) Set-ups M and N only

18. Thiru wanted to investigate if the number of times a magnet was dropped from a certain height would affect the mass of iron filings it could attract.

Which one of the following correctly shows the variables that he should keep constant?

(1)

Variable	Kept constant
No. of times the magnet is dropped	✓
Type of magnet	✓
Mass of iron filings	✓
Height from which the magnet is dropped	✓

(2)

Variable	Kept constant
No. of times the magnet is dropped	
Type of magnet	✓
Mass of iron filings	✓
Height from which the magnet is dropped	✓

(3)

Variable	Kept constant
No. of times the magnet is dropped	
Type of magnet	✓
Mass of iron filings	
Height from which the magnet is dropped	✓

(4)

Variable	Kept constant
No. of times the magnet is dropped	✓
Type of magnet	✓
Mass of iron filings	
Height from which the magnet is dropped	✓

~End of Booklet A~~

Name : _____ ( )

Class : Primary 5 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL

Primary 5
Termly Assessment

SCIENCE

BOOKLET B

27 February 2020

Booklet A	36
Booklet B	14
Total	50

Total Time for Booklets A and B: 1 hour

5 questions
14 marks

Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.

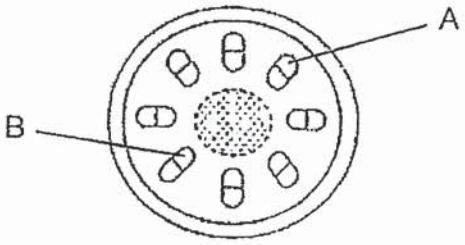
This paper consists of 6 printed pages.

_____

Parent's Signature/Date

Section B (14 marks)
For questions 19 to 23, write your answers in this booklet.
The number of marks available is shown in the brackets at the end of each question or part question.

19. The diagram below shows the cross-section of a plant stem.

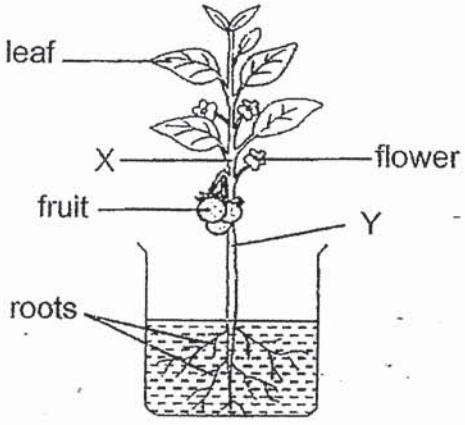


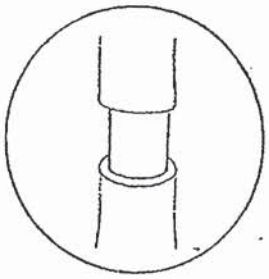
(a) Name the parts labelled A and B as shown in the diagram above. [1]

Part A: _____

Part B: _____

(b) Patrick placed a plant in a container of red-coloured water as shown in the diagram below. The outer ring of the stem was removed at position Y. After some time, he noticed that the size of the fruits increased.





outer ring of stem removed at position Y

If Patrick had removed the same amount of outer ring of the stem at position X instead of position Y, would he be able to make the same observation about the size of the fruits as before? Explain why. [1½]

_____

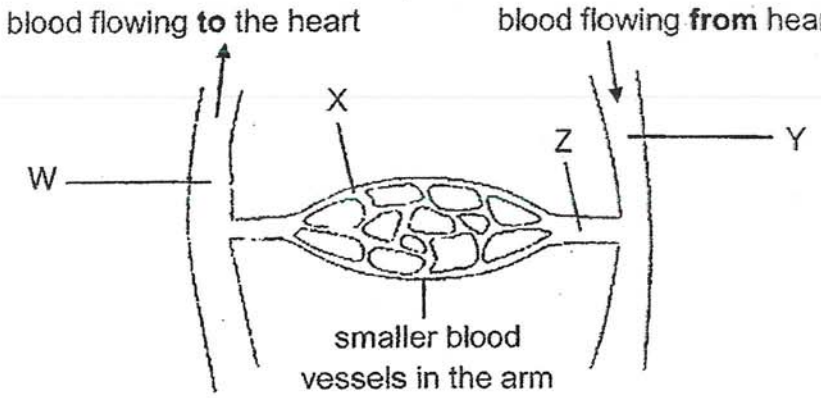
_____

_____

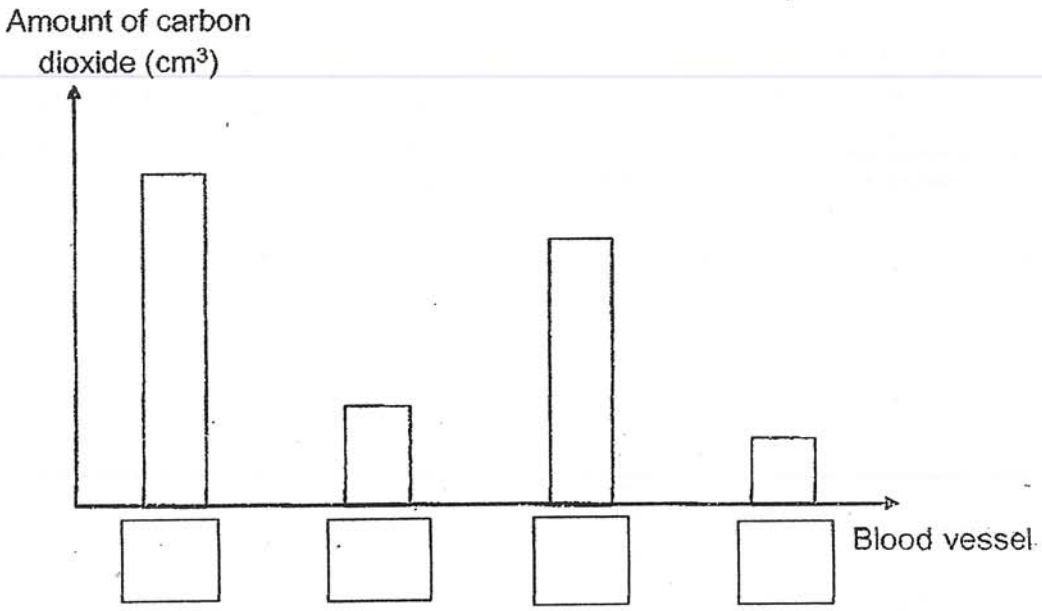
(c) What would Patrick observe about the leaves at the same time? [½]

_____

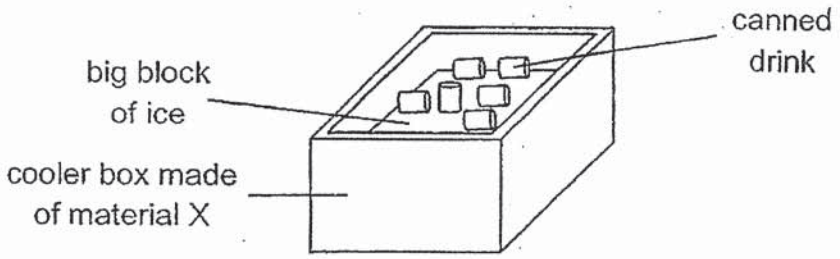
20. The diagram below shows the blood vessels in a human arm.



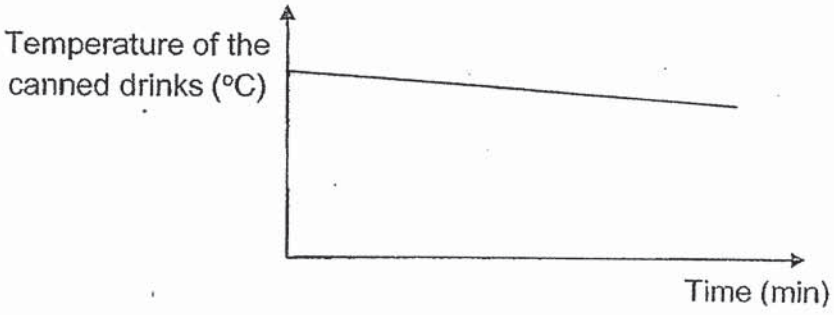
Blood samples W, X, Y and Z were taken from different blood vessels in the arm. Complete the graph below by labelling the bars with the blood samples W, X, Y or Z to show the correct amount of carbon dioxide in them. [2]



21. Ken placed some canned drinks on top of a big block of ice in a cooler box made from material X as shown in the diagram below.



The graph below shows how the average temperature of the canned drinks change over a period of time.



(a) **Draw** a line in the graph above to show how the temperature of the canned drinks would change if he had used crushed ice of the same volume instead of a big block of ice to cool his drinks. [1]

(b) Give a reason for your graph in (a). [1]

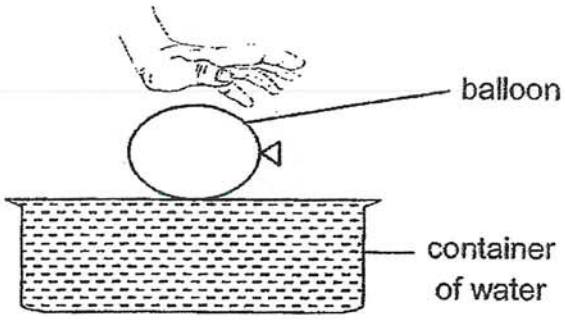
_____

_____

(c) State a property of material X that makes it suitable for making the cooler box to keep the canned drinks cold for a longer period of time. [1]

_____

22. Look at the diagram below.

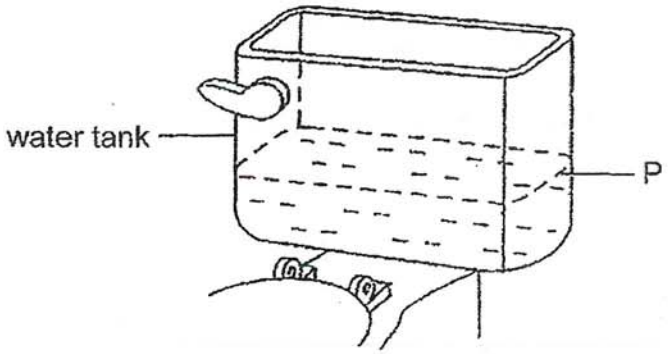


When the inflated balloon was gently pushed into the container, some water spilled out of the container.

(a) Which property of matter is demonstrated in the experiment above? [1]

_____

(b) The diagram below shows part of a water tank used to provide water for flushing a toilet.



After each flush, water enters to fill the tank until the water level reaches P. Would the amount of water needed to refill the tank to the level at P be **'lesser'**, **'greater'** or **'the same as before'** if a bag of stones is now placed in the water tank? Explain your answer. [2]

_____

_____

_____

_____

23. Kenny carried out an experiment with some metal rods and a bar magnet. He brought the bar magnet near each metal rod and observed what happened. The table below shows his observations.

Metals attracted to the magnet	Metals not attracted to the magnet
nickel steel iron	copper aluminium silver

(a) What is the aim of Kenny's experiment? [1]

_____

_____

_____

(b) State two variables that Kenny should keep constant for his experiment to be a fair one. [2]

Variable 1: _____

Variable 2: _____

~ End of Booklet B ~

ANSWER KEY

YEAR: 2020

LEVEL: PRIMARY 5

SCHOOL: CHIJ ST NICHOLAS GIRLS' SCHOOL

SUBJECT: SCIENCE

TERM: TERMLY ASSESSMENT

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

Q19. a) Part A: Food carrying tubes

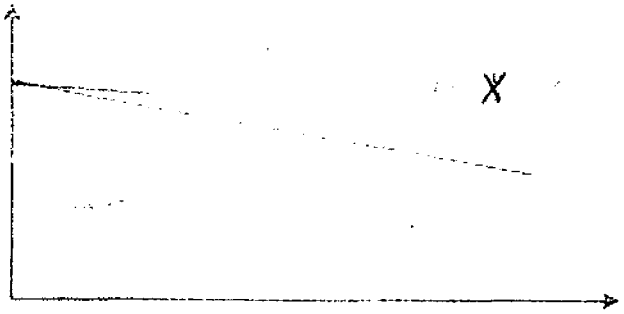
Part B: Water carrying tubes

b)No, with the food carrying tube removed at X, food will be transported to the fruits to be stored, thus the size of the fruits will be smaller.

c)He would observe that the leaves would become red at the same time.

Q20. W,Z,X,Y

Q21. a)



b)If he had used crashed ice instead of a big block of ice, there would be greater surface area of canned drinks in contact with crushed ice.

Q22. a)Matter has volume

b)Lesser, Stone is a solid so it has volume and occupies space, hence, lesser water is needed to fill up.

Q23. a)The aim is to find out which metal rods are magnetic or non-magnetic

b)Variable 1: Mass of metal rod

Variable 2: Size