

Test: Primary 5 Science (Term 1) - St Nicholas

Points: 31 points

Name: _____

Score: _____

Date: _____

Signature: _____

Select multiple choice answers with a cross or tick:

Only select one answer

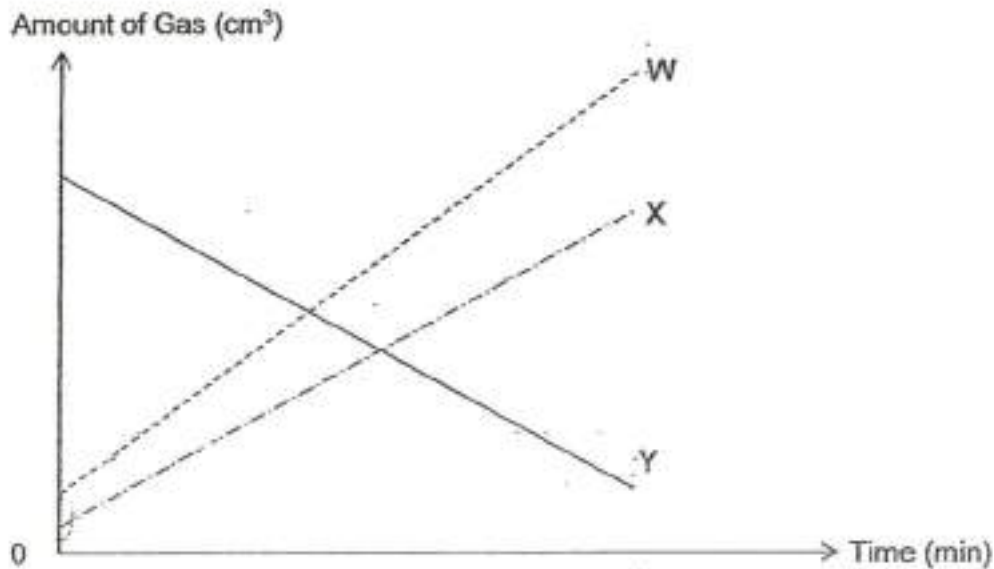
Can select multiple answers

Question 1 of 32

Primary 5 Science (Term 1) 2 pts

Section a (15 x 2 marks = 30 Marks)

The graph below shows the changes in the composition of air in a lift in which 10 people are trapped.



Based on the graph above, which one of the following best represents W, X and Y respectively?

	W	X	Y
(1)	oxygen	water vapour	carbon dioxide
(2)	nitrogen	carbon dioxide	oxygen
(3)	carbon dioxide	nitrogen	water vapour
(4)	carbon dioxide	water vapour	oxygen

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

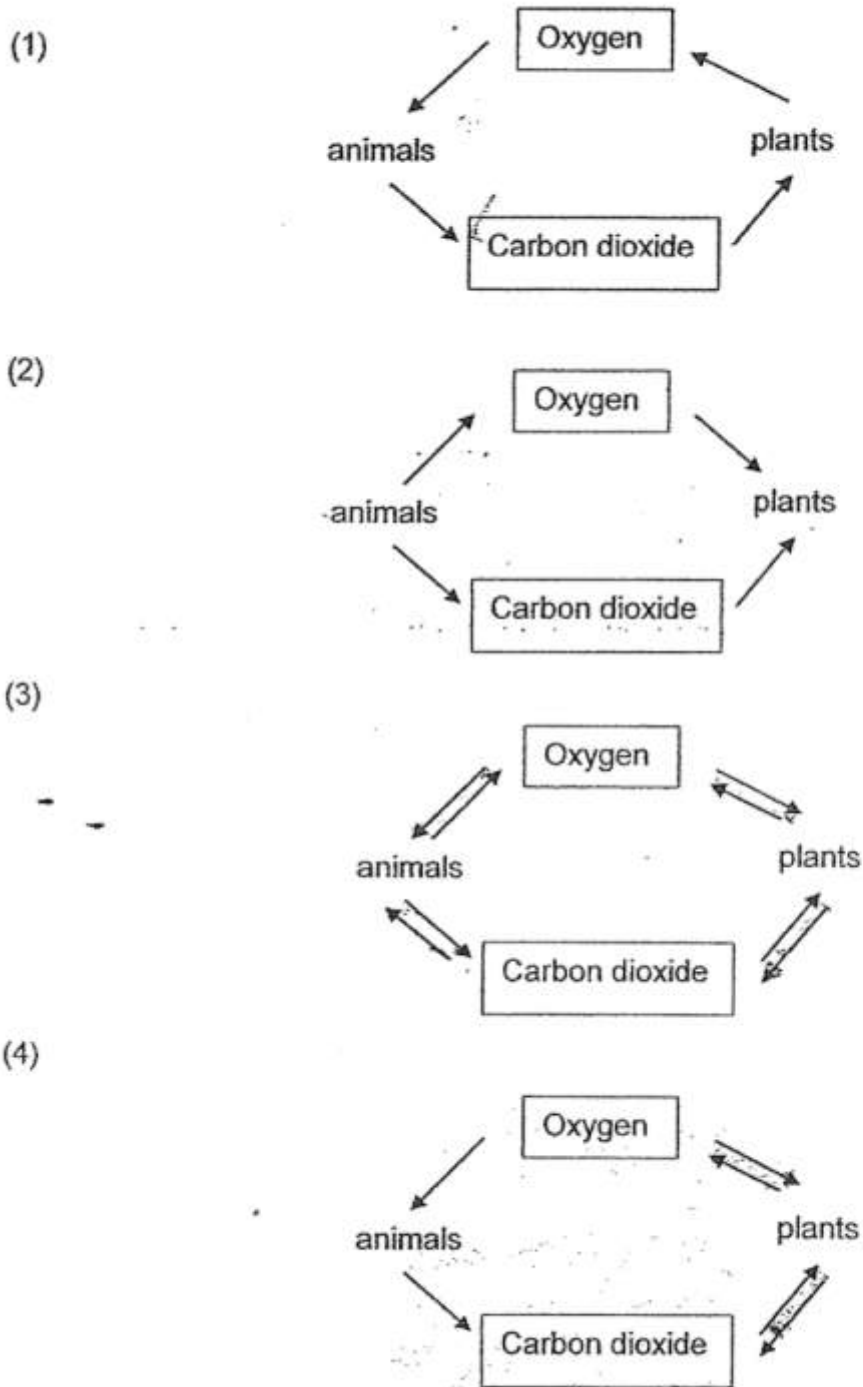
Question 2 of 32

Primary 5 Science (Term 1) 2 pts

Which is the correct route taken by blood travelling from a leg to an arm in the human body?

- A) leg -> heart -> lungs -> arm
- B) leg -> lungs -> heart -> arm
- C) leg -> lungs -> heart -> lungs -> arm
- D) leg -> heart -> lungs -> heart -> arm

Which one of the following diagrams shows the exchange of gases between living organisms and the surroundings during the day?



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

Which of the following statements are functions of the blood?

A It keeps te heart pumping

B It carries nutrients and waste materials

C It excrete waste materials from the body

D It carries oxygen and carbon dioxide in the body

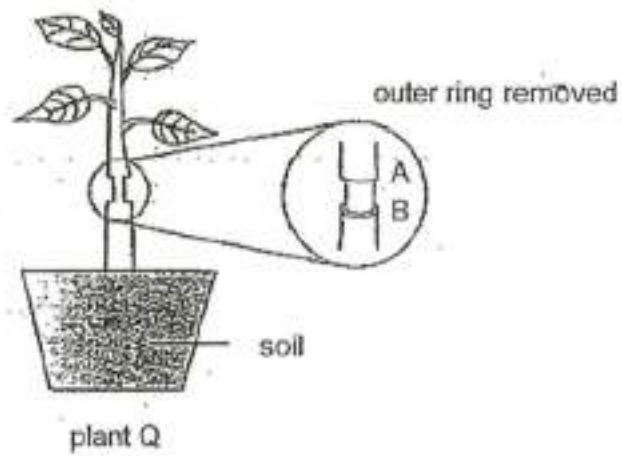
A) A and B only

B) B and C only

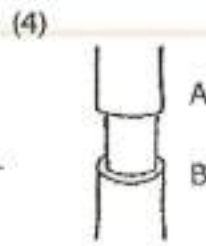
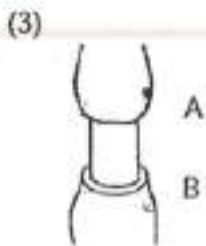
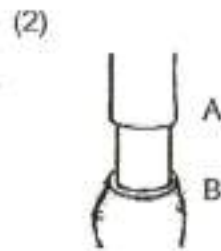
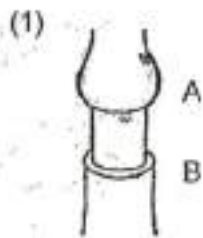
C) B and D only

D) B, C and d only

Mrs Lee removed an outer ring from the stem of plant Q as shown below. The food-carrying tubes were removed while the water-carrying tubes remained in the stem.

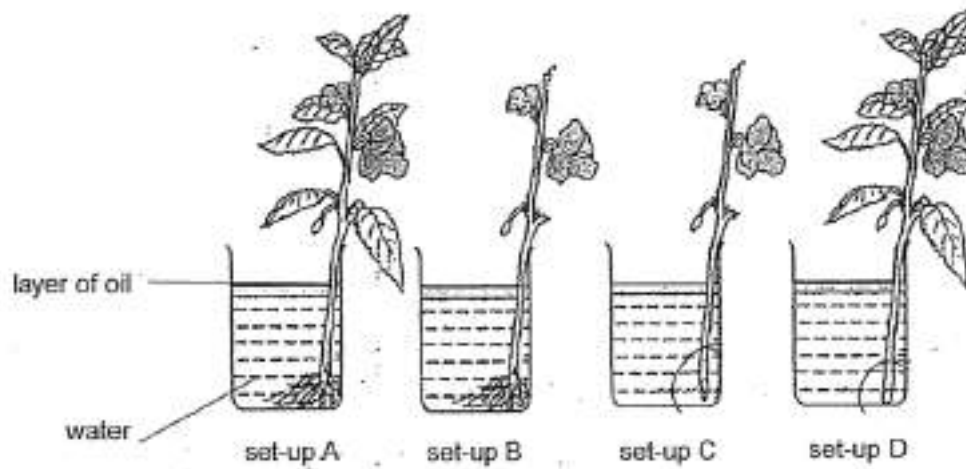


Which one of the following diagrams represents the appearance of the stem after a few days?



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

Study the set-ups below. David wants to find out how the number of leaves affects the absorption of water by the plant.

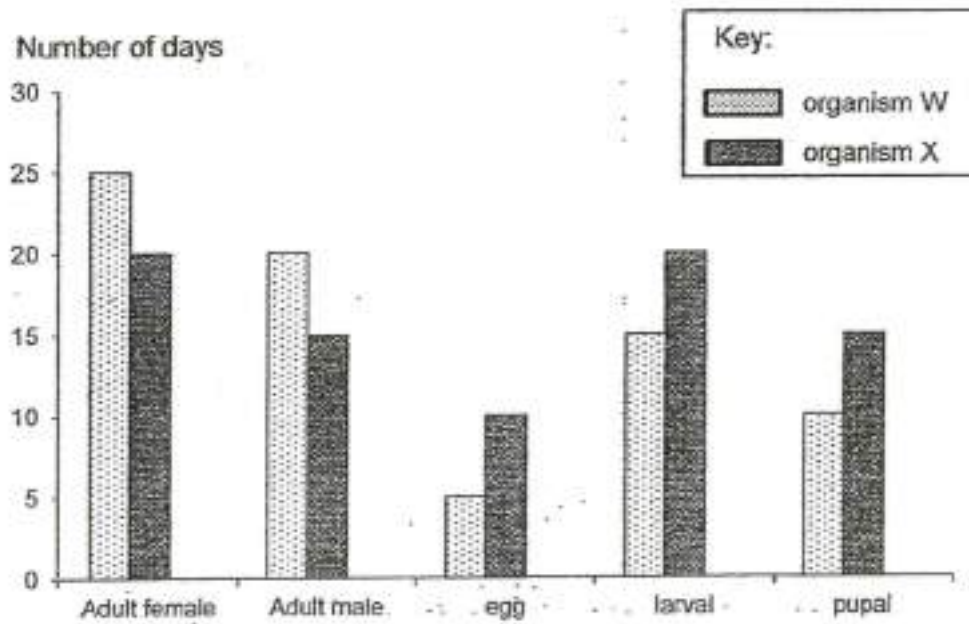


After a week, he recorded the volume of water in each pot. However, David's father pointed out that he had made a mistake with one of the volumes of water recorded. Which of his observations is incorrect?

	Set-up	Volume of water on Day 1 (ml)	Volume of water after week 1 (ml)
(1)	A	500	250
(2)	B	500	350
(3)	C	500	500
(4)	D	500	300

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

The graph below shows the number of days for each stage of the life cycle of organisms W and X.



Which of the following shows the stages that organisms W and X would be on the 20th day after the eggs have been hatched?

	Organism W	Organism X
(1)	adult	larval
(2)	larval	pupal
(3)	pupal	larval
(4)	adult	adult

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

Organism F	Organism G
3-stage life cycle	4-stage life cycle
Its young resembles the parent	Its young does not resemble the parent

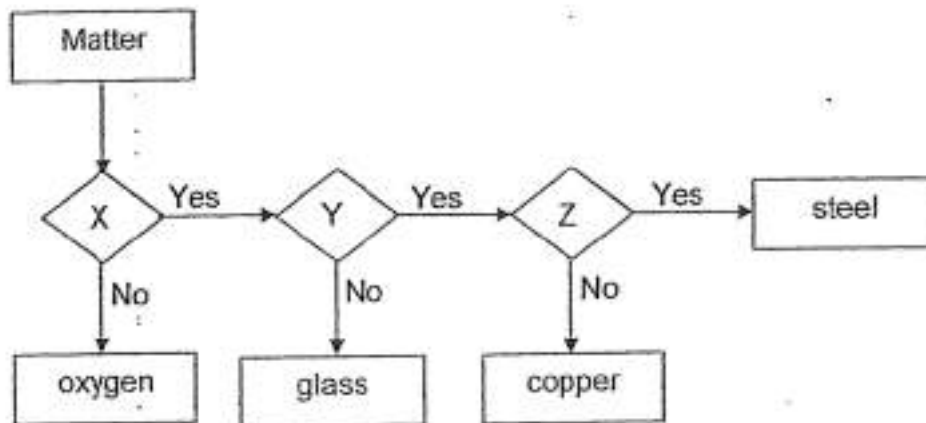
What could organisms F and G be?

	Organism F	Organism G
(1)	cockroach	dragonfly
(2)	goldfish	grasshopper
(3)	rabbit	beetle
(4)	housefly	frog

6

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

Study the flow chart below.



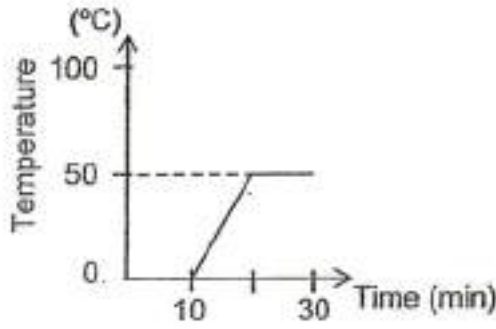
Which one of the following sets of questions can X, Y and Z represent?

	X	Y	Z
(1)	Does it conduct electricity?	Is it magnetic?	Is it a solid?
(2)	Is it a solid?	Does it conduct electricity?	Is it magnetic?
(3)	Does it occupy space?	Does it conduct electricity?	Is it a metal?
(4)	Does it have a definite shape?	Is it a solid?	Does it conduct electricity?

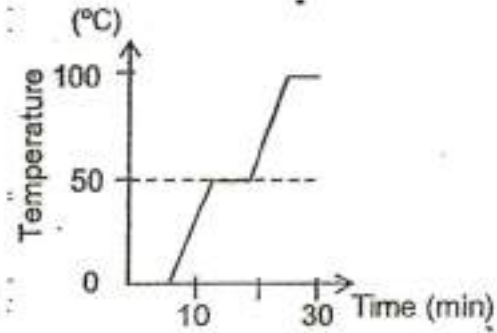
- A) 1
- B) 2
- C) 3
- D) 4

A beaker of ice cubes was left in a classroom for 30 minutes. Which one of the graphs below correctly shows the change in the temperature of the ice cubes?

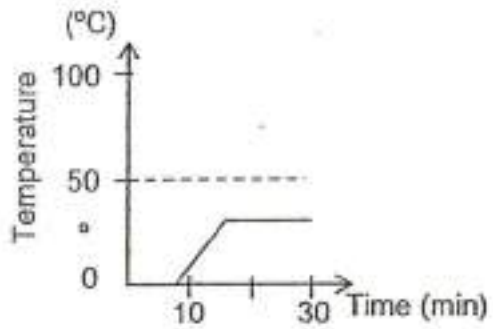
(1)



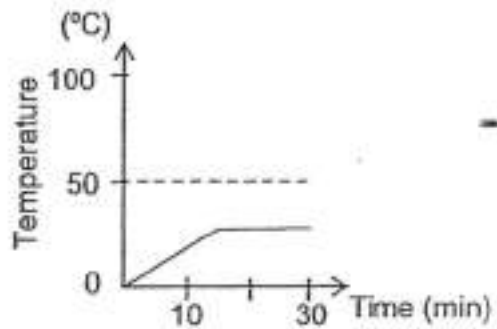
(2)



(3)






(4)



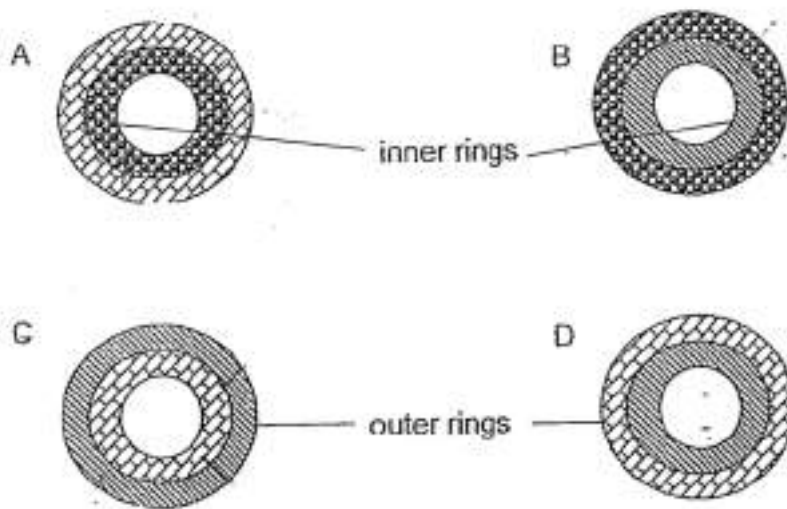
- A) 1
- B) 2
- C) 3
- D) 4

The table below shows the lengths of metals P, Q and R when heated to 100 °C.

Key	Metal	Length of metal at room temperature (mm)	Length of metal at 100 °C (mm)
	P	100	111
	Q	100	102
	R	100	106

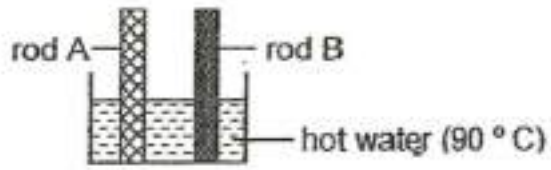
Metals P, Q and R were used to make rings as shown below. The rings were immersed in cold water at 10 °C for 10 minutes.

Which of the inner rings could be easily removed at the end of 10 minutes?



- A) A only
- B) A and C only
- C) B and D only
- D) C and D only

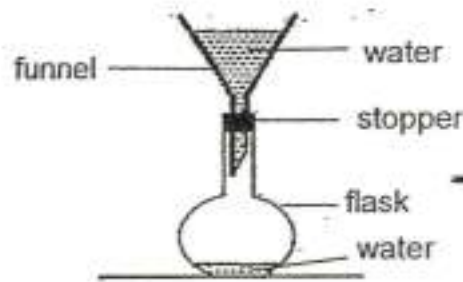
Bala conducted an experiment by placing two rods A and B of similar lengths and sizes but made of different materials into a beaker of hot water as shown below.



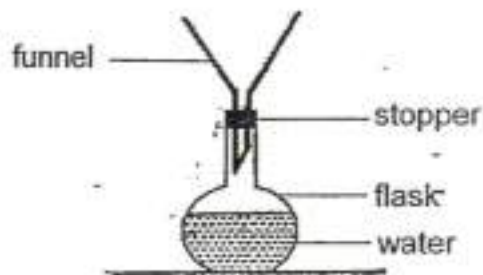
Which one of the following helped Bala to arrive at the conclusion that rod B is a better conductor of heat than rod A after 10 minutes?

-
- A) Rod A felt cooler than rod B
 - B) Rod A expanded more than rod B
 - C) Rod B had a lower temperature than rod A
 - D) The mass of rod B increased more than the mass of rod A

Mr Tan set up the experiment shown in the diagram below. When he poured some water into the funnel, a few droplets of water flowed into the flask while the rest of the water remained in the funnel.



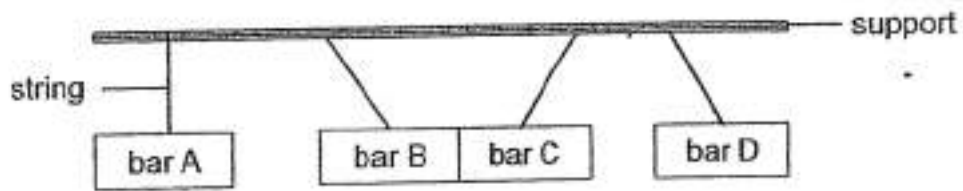
John then set up a similar experiment. When he poured the same amount of water into the funnel, all the water flowed into the flask as shown below.



Which one of the following could have caused the result obtained by John to be different from that by Mr Tan?

- A) John poured the water in too quickly
- B) John had fixed the stopper loosely
- C) The water that John used was cold
- D) John did the experiment on a cooler day

Aminah stroked each of the four metal bars A, B, C and D with a magnet for 30 times. She then hung them next to one another from a support. It was observed that only one of the bars remained stationary while the rest either swung away from or towards one another as shown below.



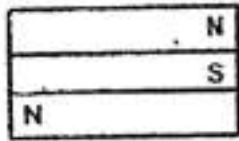
Based on the above observations, which one of the following shows the most likely materials that bars A, B, C and D are made of?

	bar A	bar B	bar C	bar D
(1)	steel	copper	iron	iron
(2)	iron	iron	steel	aluminium
(3)	aluminium	steel	copper	iron
(4)	copper	steel	iron	steel

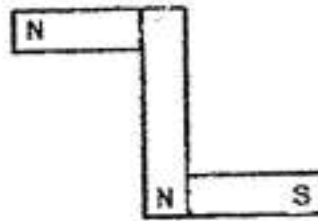
- A) 1
 B) 2
 C) 3
 D) 4

The diagram below shows the arrangements of some magnets.

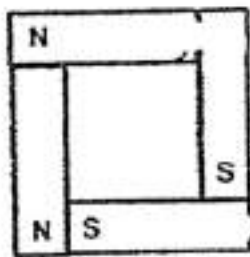
A



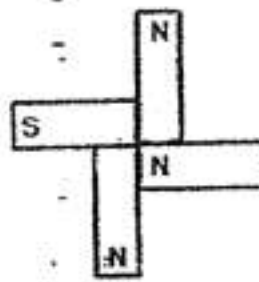
B



C



D



Which of the above arrangements is/are not possible?

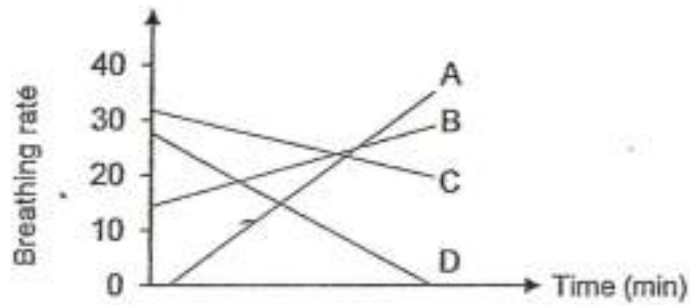
- A) C only
- B) A and B only
- C) C and D only
- D) B and D only

Question 16 of 32

Primary 5 Science (Term 1) 0 pts

For each question, write your answers in the space provided.
(20 Marks)

The diagram below shows how the breathing rate of an average healthy adult changes during different activities.



Which graph A, B, C or D best describes how the breathing rate changes as a person does the following activities? Explain your answer. [

Runs very fast for 3 minutes

Question 17 of 32

Primary 5 Science (Term 1) 0 pts

Rests after a brisk walk

Question 18 of 32

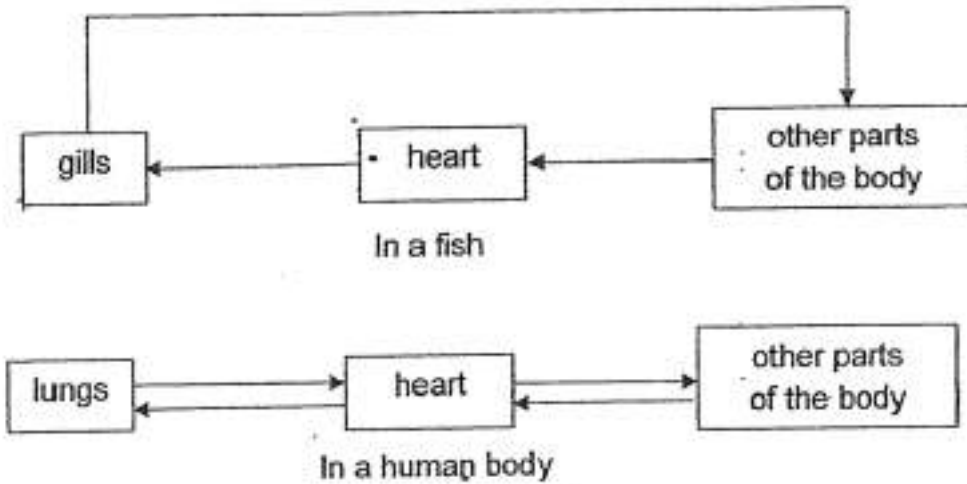
Primary 5 Science (Term 1) 0 pts

Name an activity during which the breathing rate of a person remains at the normal rate.

Question 19 of 32

Primary 5 Science (Term 1) 0 pts

The diagrams below show the flow of blood in the circulatory systems of a fish and a human.



State one difference between the blood flow in the circulatory systems of a fish and in a human.

Question 20 of 32

Primary 5 Science (Term 1) 0 pts

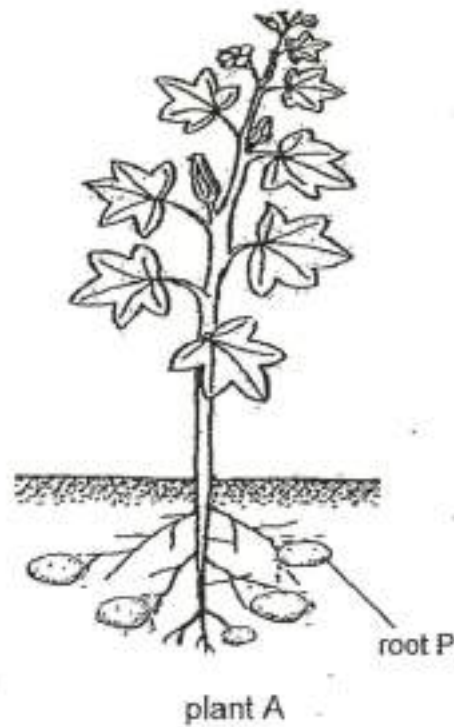
Both the lungs and gills are surrounded by many blood vessels. Explain why

Question 21 of 32

Primary 5 Science (Term 1) 0 pts

State the function of the heart in the circulatory system of a human

The diagram below shows plant A with an edible underground root P.

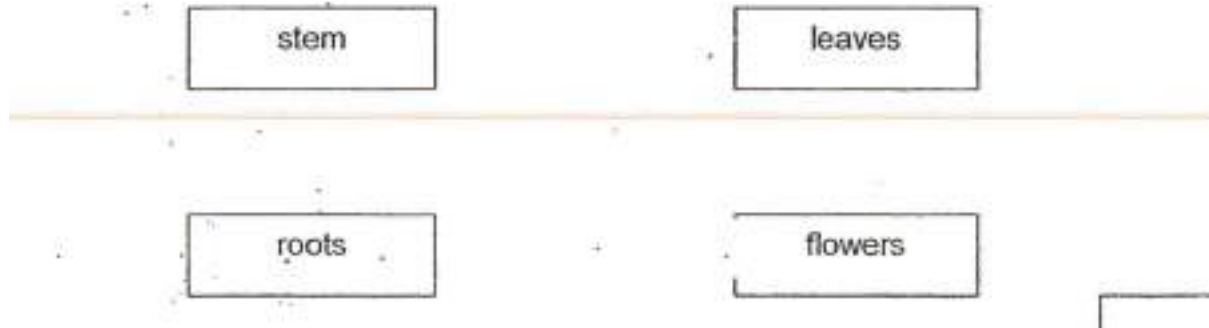


P stores food made by the leaves of plant A. Describe how the food made by the leaves gets stored in P.

Question 23 of 32

Primary 5 Science (Term 1) 0 pts

Four parts of a plant are shown below. Draw arrows (→) in the diagram below to show how water is transported in a plant.

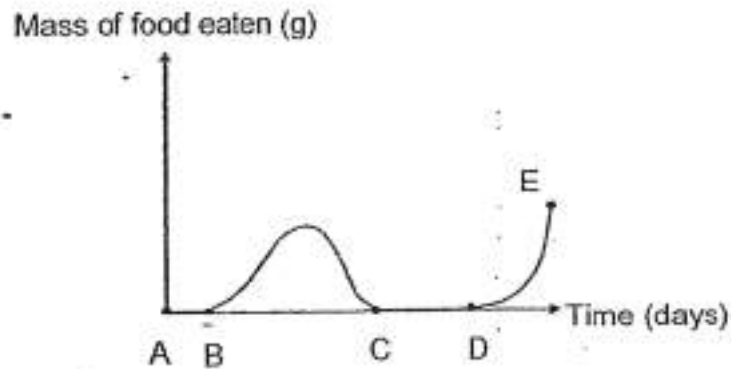


Please type "done" to proceed to the next question

Question 24 of 32

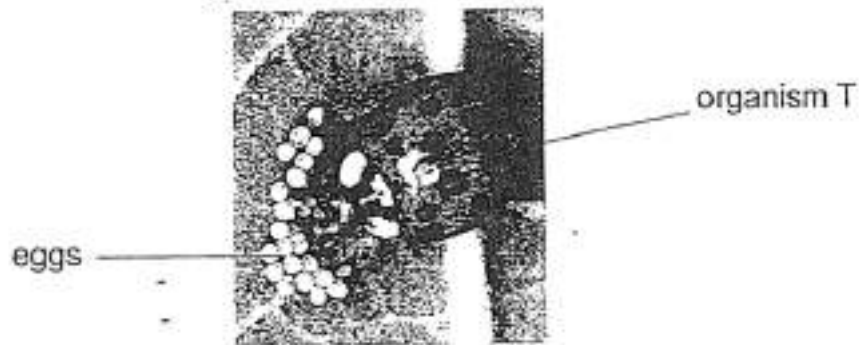
Primary 5 Science (Term 1) 0 pts

The graph below shows the amount of food eaten by an organism T at different stages of its life cycle.

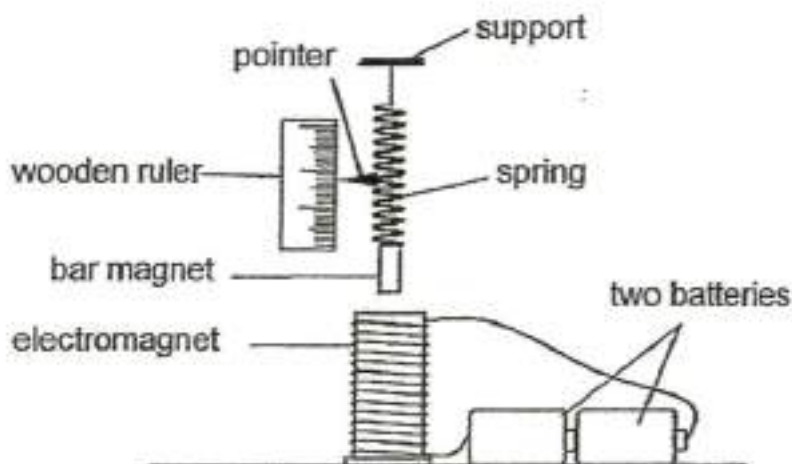


Name stage C to D of the life cycle of the organism T. Suggest a reason why there is no change in the mass of the food eaten.

Explain why it is beneficial for organism T to lay many eggs at one time as shown below.



In the set-up below, the bar magnet is repelled by the electromagnet. A pointer attached to the spring moves when the circuit is closed.



(a) How will the pointer move when only one battery is used? [1]

- A) upwards
- B) downwards
- C) towards the ruler
- D) away from the ruler

Question 27 of 32

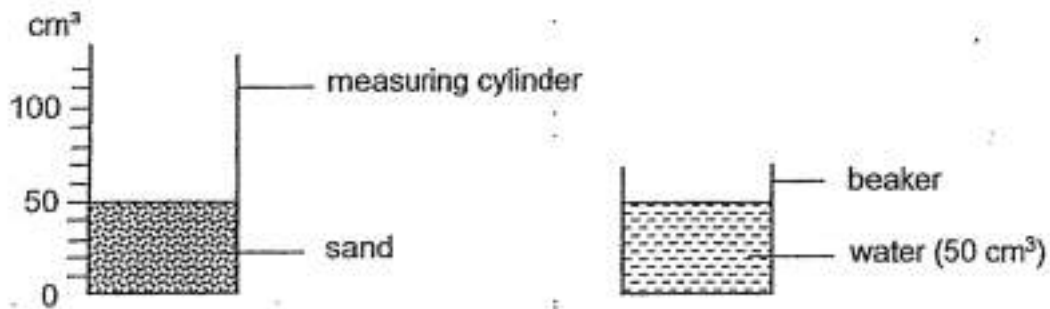
Primary 5 Science (Term 1) 0 pts

Explain your answer in (a) above

Question 28 of 32

Primary 5 Science (Term 1) 0 pts

James filled a measuring cylinder with 50 cm^3 of sand. He poured 50 cm^3 of water into the same cylinder.



- (a) Draw a line in the diagram below to show the water level when the beaker of water is poured into the measuring cylinder with sand. [1]

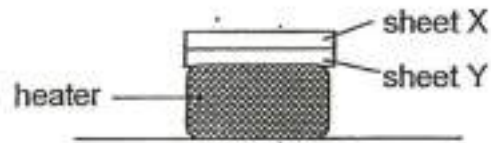
Please type "done" to proceed to the next question

Question 29 of 32

Primary 5 Science (Term 1) 0 pts

Explain your answer in (a) above.

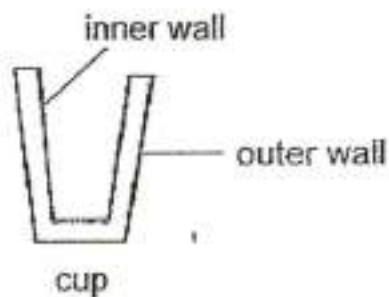
Lily had two similar sheets X and Y made of the same material. She placed the sheets on a heater as shown below.



At the start, sheets X and Y were of the same length. After a while, sheet Y became longer than sheet X.

- (a) Give a reason why sheet Y became longer than sheet X. [1]

Lily had a glass cup with thick walls as shown.



- (i) When she poured some hot tea into the cup, the outer wall felt cooler than the inner wall. Give a reason for this.

When Lily filled the cup with boiling water, the cup cracked. Explain why.