

METHODIST GIRLS' SCHOOL (PRIMARY)
CONTINUAL ASSESSMENT 1
PRIMARY FOUR
SCIENCE 2007

Name: _____

Marks: _____

Class: P 4

Date: _____

Parent's Signature: _____

Section A (30 marks)

Choose the most suitable answer and write its number in the brackets provided.

1. What do green plants need to make food?

- A: water
- B: oxygen
- C: sunlight
- D: carbon dioxide

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

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2. There are certain life processes in plants and animals. One of the life processes that removes carbon dioxide from the atmosphere is

- (1) circulation
- (2) respiration
- (3) transpiration
- (4) photosynthesis

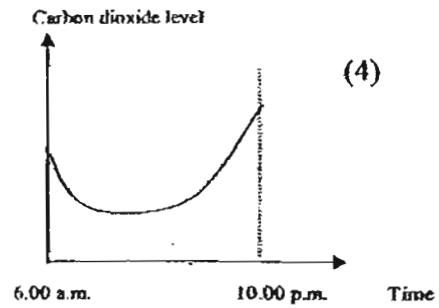
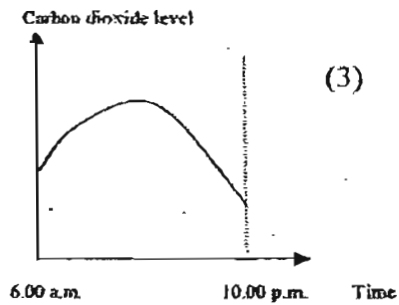
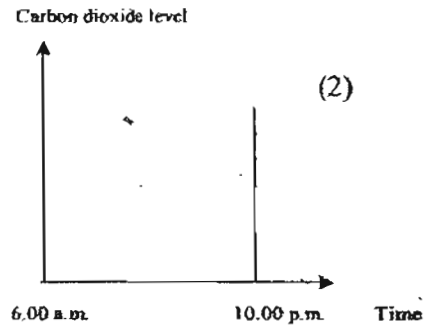
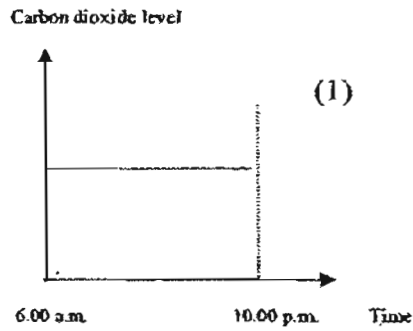
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3. Which one of the following gives the correct order in which carbon dioxide is transported in our body?

- (1) all parts of the body → heart → lungs → windpipe
- (2) windpipe → lungs → heart → all parts of the body
- (3) lungs → all parts of the body → windpipe → heart
- (4) windpipe → all parts of the body → lungs → heart

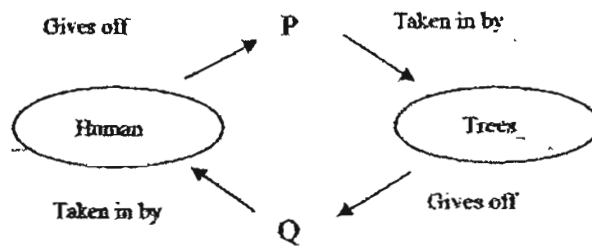
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4. Which of the following graphs correctly shows the carbon dioxide level in the air at a park from 6.00 a.m. to 10.00 p.m.?



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5. The diagram below shows the exchange of gases by 2 groups of organisms.

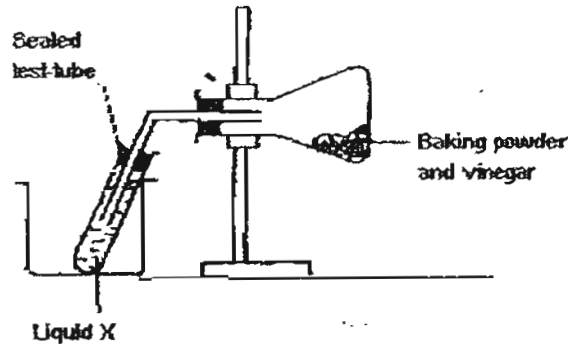


What do P and Q represent?

	P	Q
(1)	Water vapour	Oxygen
(2)	Carbon dioxide	Oxygen
(3)	Oxygen	Carbon dioxide
(4)	Carbon dioxide	Water vapour

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Sally wanted to find out the effect of vinegar on baking powder. She set up the experiment as shown in the diagram below.



6. She observed some changes taking place in Liquid X inside the test-tube. The clear Liquid X had turned chalky. What do you think was Liquid X?

- (1) alcohol
- (2) mercury
- (3) tap water
- (4) limewater

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7. What gas was produced to turn Liquid X from clear to chalky?

- (1) oxygen
- (2) nitrogen
- (3) water vapour
- (4) carbon dioxide

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8. Our human circulatory system is made up of _____.

- A: nose
- B: heart
- C: blood
- D: xylem
- E: blood vessels

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

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9. Arrange the following activities according to the breathing rate in descending order.

- A: Taking a nap
- B: Brisk-walking 100 metres in the park
- C: Watching a horror movie
- D: Climbing a flight of stairs from ground floor to 5th floor

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

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10. Our blood is made up of:

- A: red blood cells
- B: white blood cells
- C: plasma
- D: platelets

Which of the above **do not** transport any materials in the body?

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

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11. There are some similarities between the plant transport system and the human transport system. Which statement/s given below is/are **not** a similarity/similarities?

- A: Both systems transport gases, food and water
- B: Both systems have tubes to transport materials
- C: Both systems perform the function of transporting materials
- D: Both systems consist of different parts that work together to perform a function

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

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12. Below is a table showing the breathing methods of living things. Which is the *correct* classification?

Breathing Methods of Living Things				
	Stomata	Lungs	Gills	Skin
(1)	Fern	Shark	Crabs	Earthworm
(2)	Mushroom	Elephant	Sea bass	Garoupa
(3)	Fern	Dolphin	Mudskipper	Earthworm
(4)	Mushroom	Sea cow	Guppy	Mudskipper

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13. In the human respiratory system, there are differences between the air that is inhaled and the air that is exhaled. Which of the following is *incorrect*?

	Inhaled Air	Exhaled Air
(1)	More oxygen	Less oxygen
(2)	Less carbon dioxide	More carbon dioxide
(3)	More dust particles	Less dust particles
(4)	More water vapour	Less water vapour

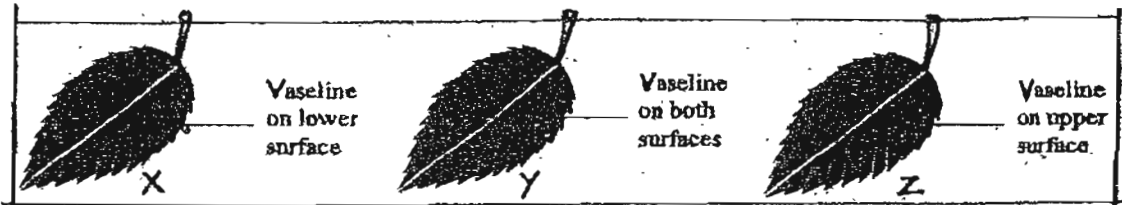
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14. We get a bruise when we get a hard knock. Why is this so?

- (1) Our bones were damaged.
- (2) Veins were cut into two.
- (3) Capillaries were damaged.
- (4) Blood could not reach the arteries around that spot.

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15. Three identical leaves X, Y and Z are hung in an airy place. Some vaseline is smeared on each of them as shown below. Next, the leaves are weighed individually.



It was observed that Leaf Y's weight remains the same and Leaf Z's weight is less than that of Leaf X. What are the likely predictions for the observations?

- A: Water is lost more rapidly from the lower surface than the upper surface of the leaf
- B: Water is lost more rapidly from the upper surface than the lower surface of the leaf
- C: Water is lost from both surfaces
- D: Water is not lost from Leaf Y

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

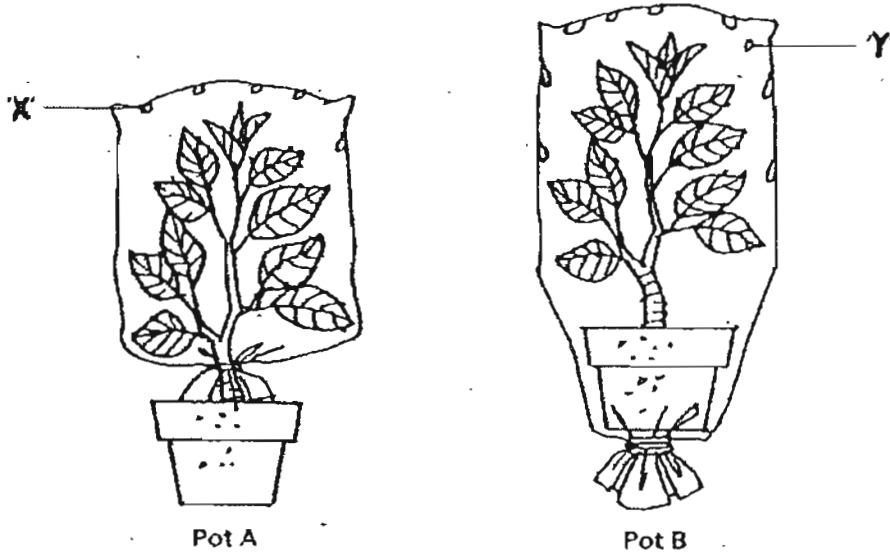
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End of Section A
Please proceed to Section B

Section B (20 marks)

Write the correct answers in the spaces provided. Marks will be deducted for keywords that have been mis-spelt.

16. Two pots of plants A and B were covered with plastic bags as shown in the diagrams below. Both pots were left in a sunny place. After some time, some changes were observed in both plastic bags.



- (a). What were 'X' and 'Y'? (1m)

'X' and 'Y' were _____.

- (b). Where did 'X' and 'Y' come from? (2m)

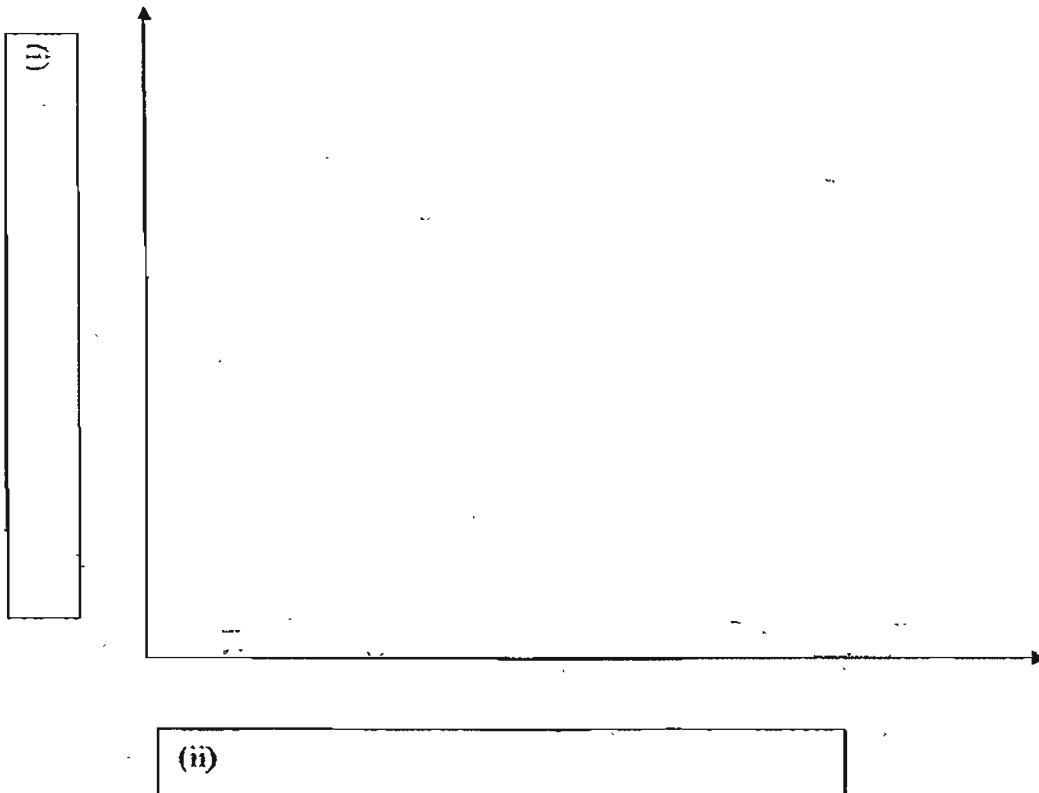
'X' came from the _____.

'Y' came from the _____.

17. The table shows the normal heart beat rates of 5 different animals, A, B, C, D and E.

Animal	Heart Beats/minute
A	60
B	20
C	120
D	80
E	70

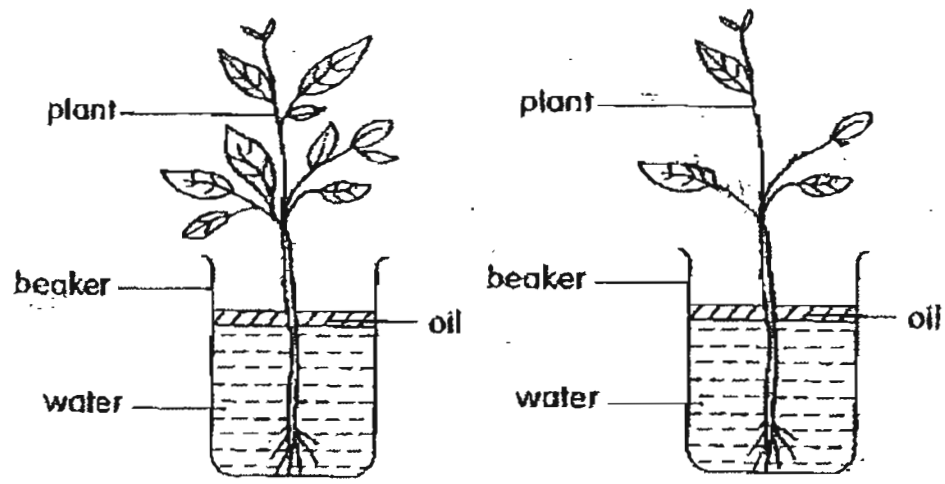
- (a). Use the information given in the table to draw a bar graph in the space below.
Label the two axes, (i) and (ii), in the boxes accordingly. (2m)



- (b). Which of the heartbeats above is most likely to be that of a baby? (1m)

- (c). Name one disease associated with the heart. (1m)

18. Leon set up an experiment as shown below. The 2 similar beakers were placed in the school field. He had also poured some oil into both beakers. After a day, Leon realized that the water level in both beakers had decreased.



- (a). What do you think is Leon trying to investigate? (1m)

- (b). Why did Leon pour oil into both beakers? (1m)

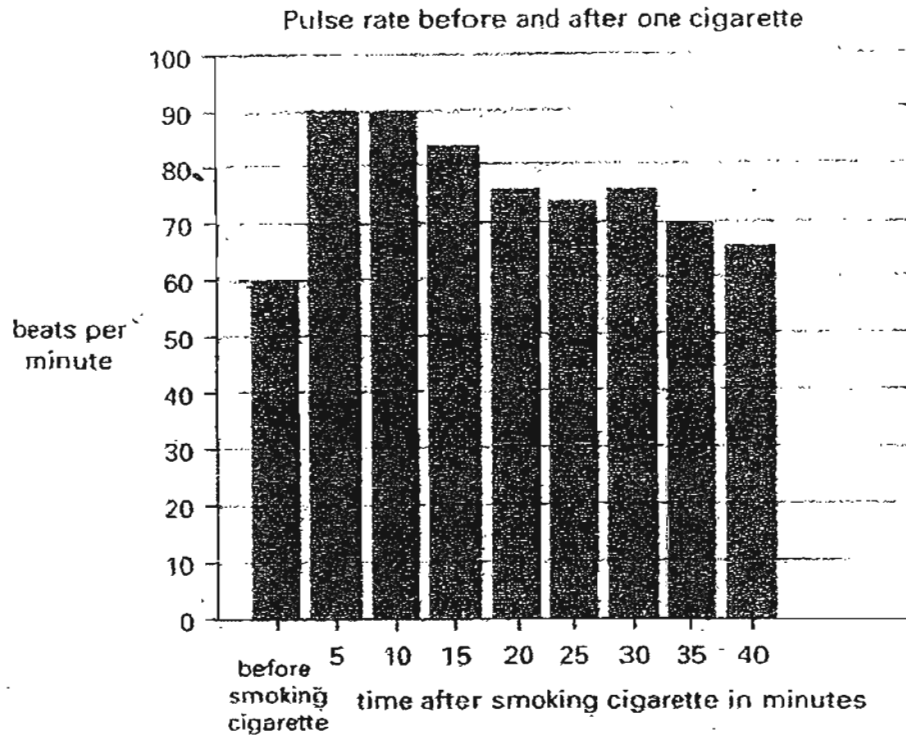
- (c). Name any 2 variables that Leon must keep constant so that this is a fair test. (1m)

19. Becky has some coffee powder. She kept half of it in an air-tight container and the other half in a plastic bag. After one week, Becky observed some changes.

(a). What do you think will Becky observe after a week? (1m)

(b). Explain your answer given in (a). (1m)

20. The graph shows the pulse rate before and after smoking a cigarette.



(a). What was the pulse rate before smoking a cigarette? (1m)

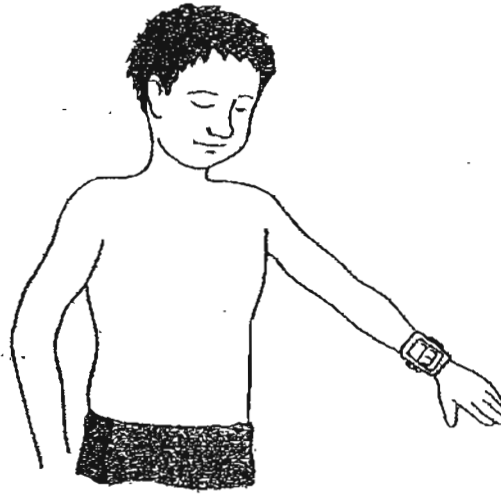
The pulse rate was _____ beats per minute.

(b). By how much did the pulse rate increase in the first five minutes after smoking a cigarette? (1m)

(c). Explain why the pulse rate increases after smoking. (1m)

Smoking causes less _____ to reach the body. So the heart has to pump _____ to make up for the difference.

21. On the diagram below, mark the position of the heart with the letter H. (½ m)

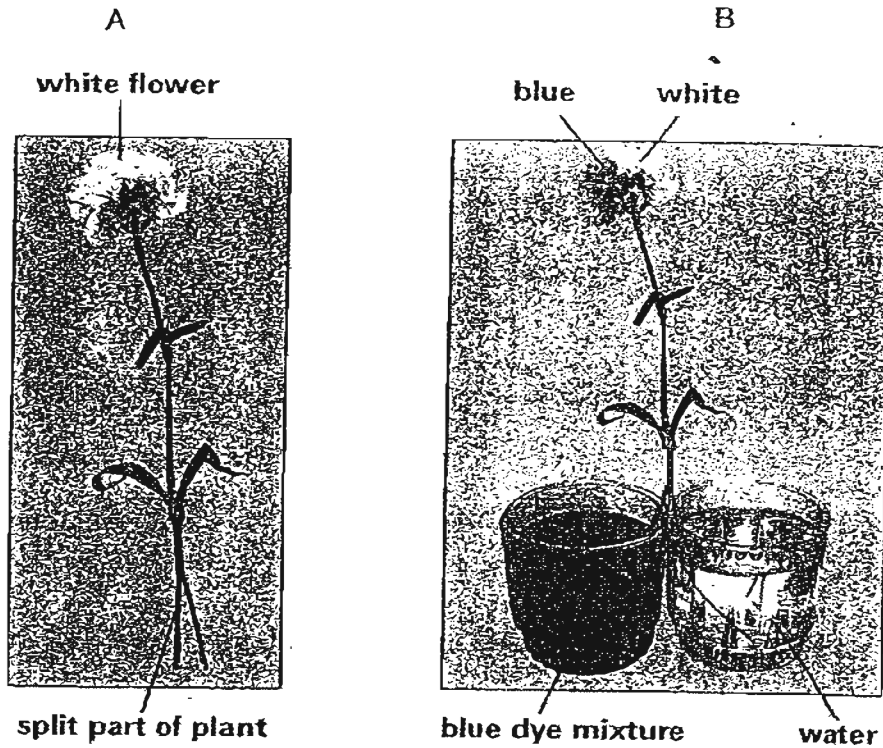


(a) Which part of the body protects the heart? (½ m)

(b) Name the blood vessels that take blood away from the heart. (1m)

(c) What is the job of the heart? (1m)

22. Helen set up an investigation as shown below. She splits part of the stem of a flower in half as shown in picture A. Then she put one half in water mixed with blue dye as shown in picture B.



After some time, half of the flower turns blue.

- (a) What part of the stem did the dye travel through to get to the flower? (1m)

- (b) Predict what will happen if Helen puts a new stalk of white flower into red dye. (1m)

End of Paper
Please check your work carefully



ANSWER SHEET

M G S PRIMARY SCHOOL - PRIMARY 4 SCIENCE 2007
CONTINUAL ASSESSMENT (1)

1. 4
2. 4
3. 1
4. 4
5. 2
6. 4
7. 4
8. 2
9. 3
10. 4
11. 4
12. 3
13. 4
14. 3
15. 4
16. 4
17) a) i) Heart Beats/minute
ii) Animal
b) 120 heart beats.
c) Heart attack.
18) a) I think Lee is trying to investigate whether the number leaves of a plant affect the water level used up by the plant.
b) To prevent evaporation of water.
c) 1) The type of plant.
2) The amount of water.
19) a) The coffee powder in the air tight container remained the same but the coffee powder in the plastic bag becomes mould.
b) Mould cannot grow in air tight container because there is no air and moisture. Spores floating in the air can land on the coffee powder and mould will grow in the presence of oxygen and moisture from the air in the plastic bag.
20) a) 60
b) It increased by 30 beats per minute.
c) oxygen, faster

21)a) Rib cage.

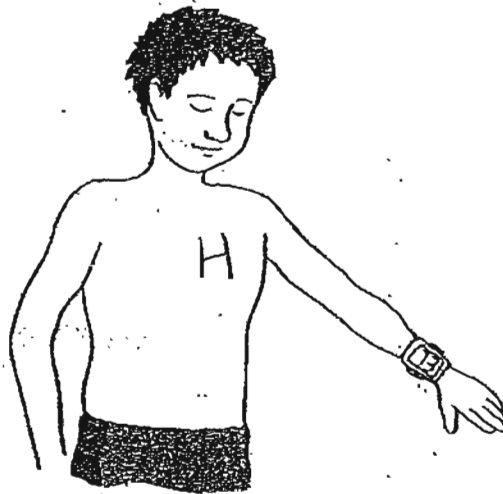
b) Arteries.

c) To pump to all parts of the body.

22)a) The xylem.

b) The roots stem and leaves of the flower will turn red.

21. On the diagram below, mark the position of the heart with the letter H. (½ m)



14)

