

METHODIST GIRLS' SCHOOL (PRIMARY)
SEMESTRAL ASSESSMENT 2 – 2006
PRIMARY 3
SCIENCE

BOOKLET A.

Name : _____ ()

Class : Primary 3. _____

Date : 9th October 2006

Section A : (30 x 2 marks)

For each question, four options are given. Choose the most suitable option and shade your answer in the Optical Answer Sheet (OAS) provided.

1. Which of the following characteristics do all mammals have?
- (1) They live on land.
 - (2) They have four legs.
 - (3) They have hair on their body.
 - (4) They give birth to their young.
2. Marina made some observations on 3 animals, a lion, a tiger and an eagle. She noticed that the animals have some similarities. Which of the following observations made by Marina are true?
- A : They live on land.
 - B : They are mammals.
 - C : They have four legs.
 - D : They feed on other animals.
- (1) A and B
 - (2) A and D
 - (3) B and C
 - (4) C and D
3. Four girls, Lola, Carrie, Ruthra and Rebecca, made a comparison between a mealworm and a sunflower plant. The girls made the statements below.

Lola	The mealworm can move but the sunflower plant cannot.
Carrie	The mealworm cannot photosynthesize but the sunflower plant can.
Ruthra	Both the mealworm and the sunflower plant need water to survive.
Rebecca	Both the mealworm and the sunflower plant give out carbon dioxide all the time.

Whose statement is incorrect?

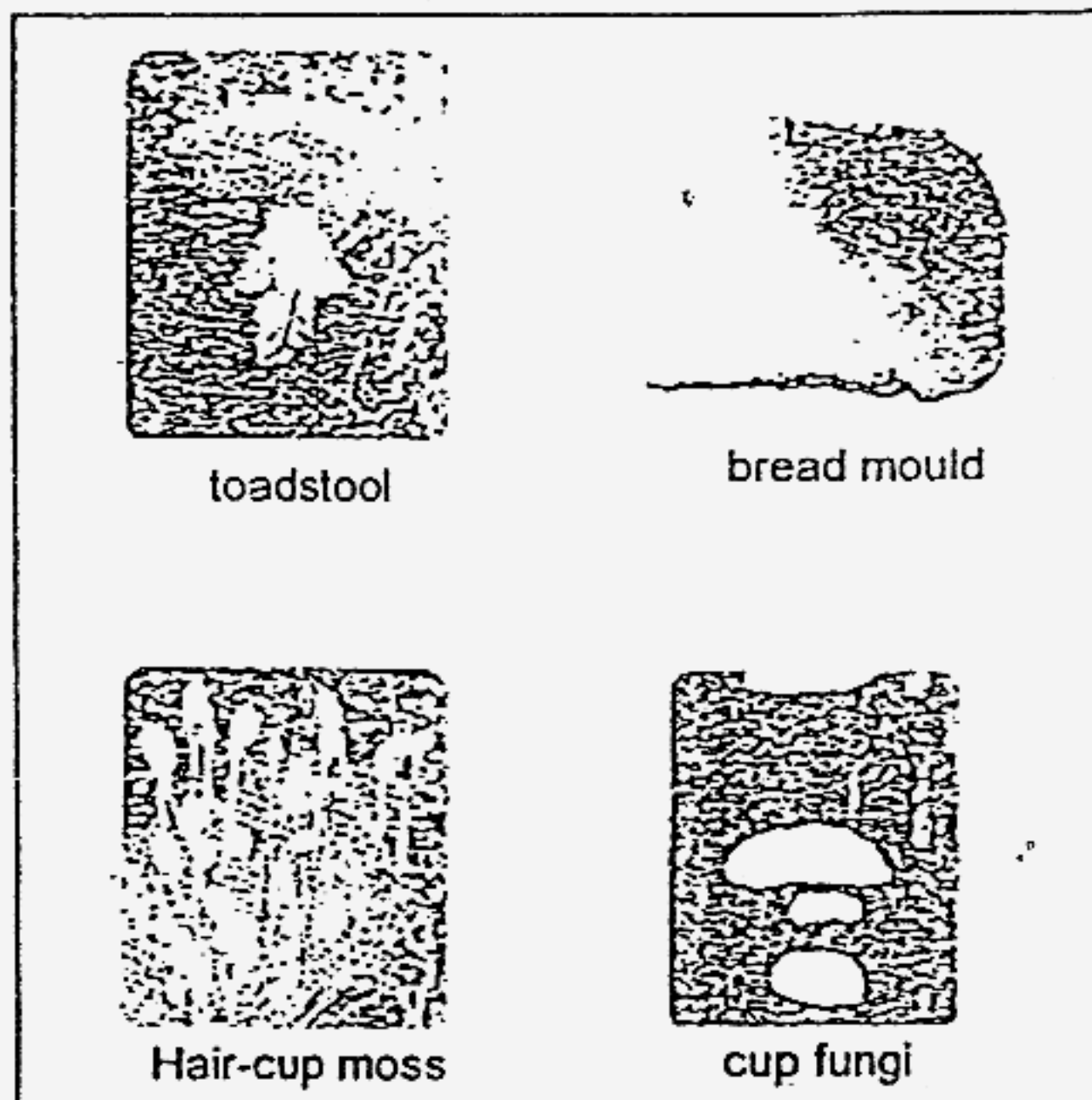
- (1) Lola
- (2) Carrie
- (3) Ruthra
- (4) Rebecca

4. Which of the following statements show/s that some micro-organisms is/are useful to man?

- A : Mould makes bread soft.
- B : Yeast is added to make bread fluffy.
- C : Yogurt drinks contain bacteria that help in digestion.

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

5. The living things shown below are known as fungi.



Which of the following statements about them are incorrect?

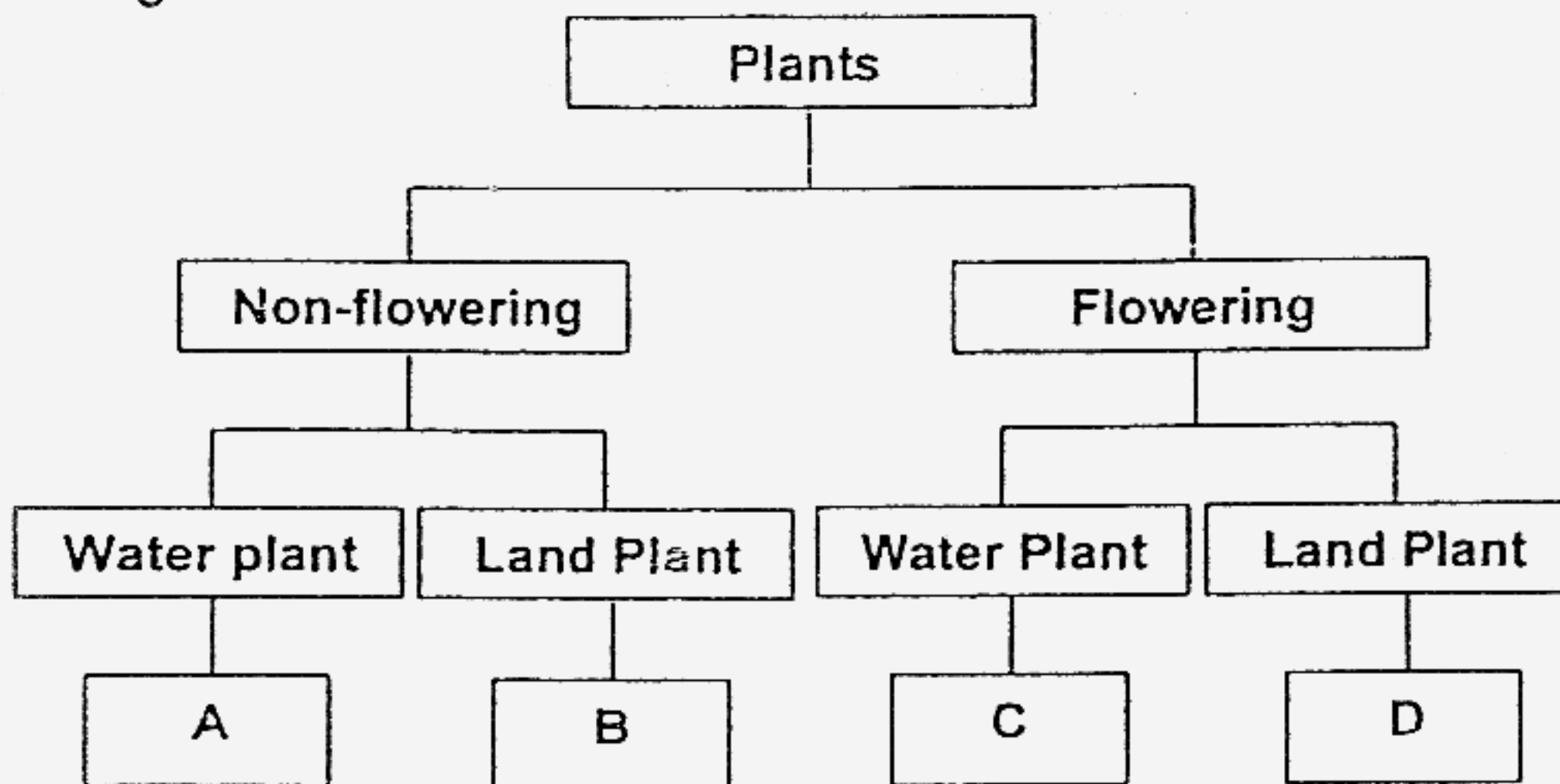
- A : The mould can make its own food.
- B : The toadstool is fixed in one position.
- C : The cup fungi feeds on dead plants.
- D : The hair-cup moss responds quickly to changes.

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

6. The table below gives information on two plants, S and T, based on two characteristics.

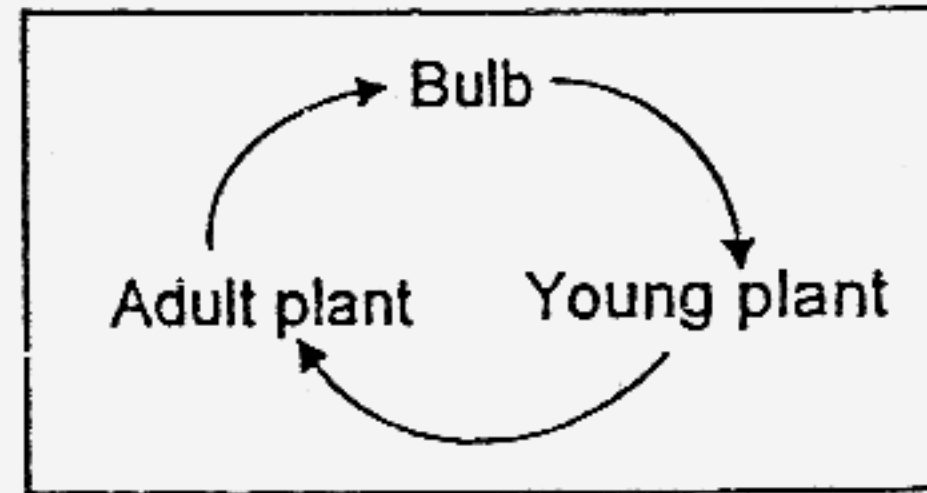
Plants	Bears fruit	Grows on land
S	Yes	No
T	No	No

From the information above, where do plants S and T belong in the following classification table?



	Plant S	Plant T
(1)	A	B
(2)	C	A
(3)	C	D
(4)	D	A

7. The diagram below shows the life cycle of a plant.



Which of the following plants have a life cycle similar to the one above?

- A : Chilli
 B : Daffodil
 C : Sunflower
 D : Water hyacinth

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

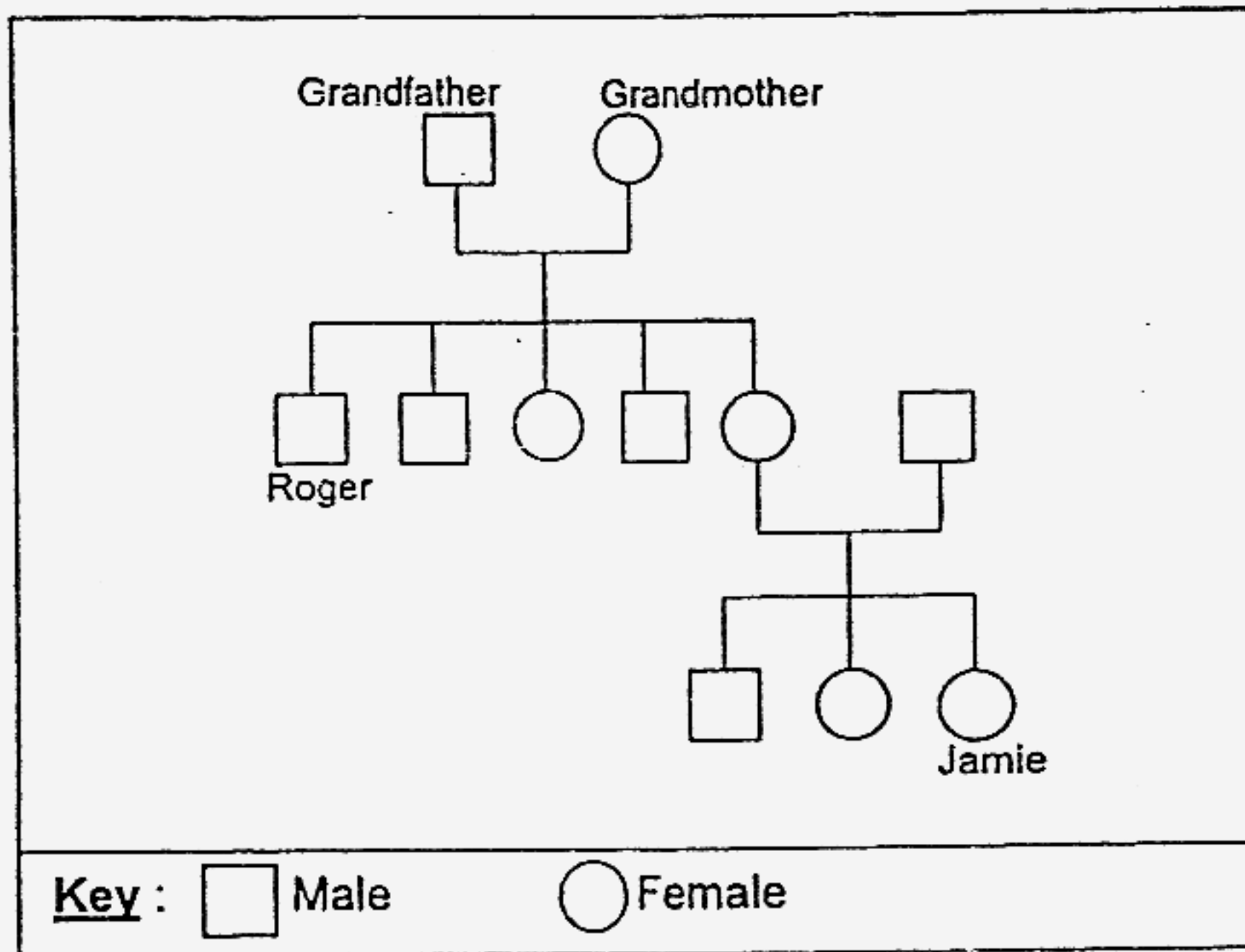
8. The table below shows a comparison between the life cycles of a mosquito and a housefly made by Adele, Beatrice, Charlotte and Deborah.

	Comparison	Mosquito	Housefly
Adele	Lays eggs in water.	No	Yes
Beatrice	Has four stages in its life cycle.	Yes	Yes
Charlotte	Young resembles the adult.	No	No
Deborah	Is considered a pest in the adult stage	Yes	No

Who have made the correct comparisons?

- (1) Deborah and Adele
 (2) Adele and Beatrice
 (3) Beatrice and Charlotte
 (4) Charlotte and Deborah

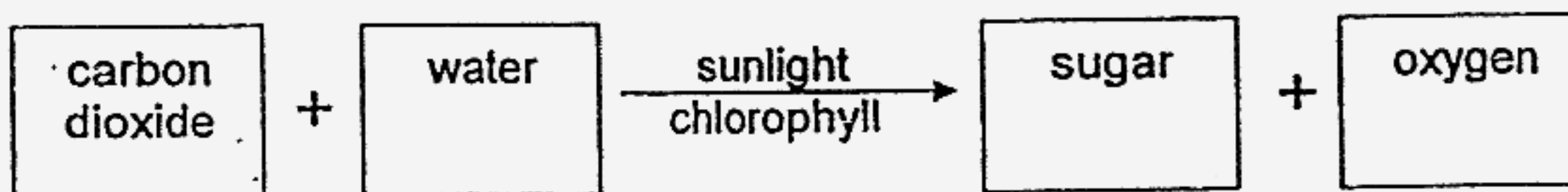
9. The diagram below shows Jamie's family tree.



How are Jamie and Roger related?
Roger is Jamie's _____.

- (1) aunt
- (2) uncle
- (3) father
- (4) brother

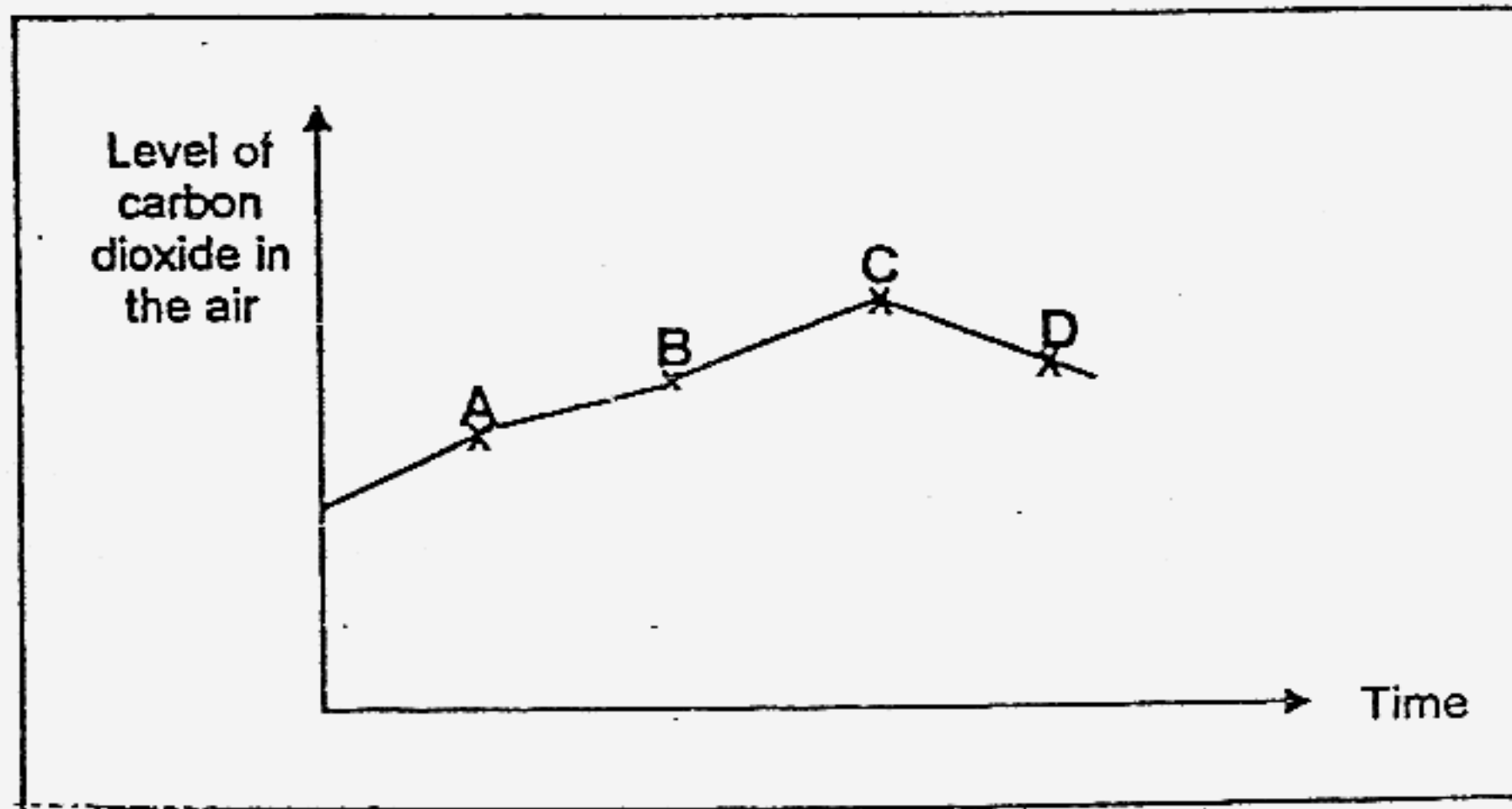
10. The diagram below shows a certain process.



What is the process known as?

- (1) Moulting
- (2) Fertilisation
- (3) Respiration
- (4) Photosynthesis

11. The graph below shows different levels of carbon dioxide in the air in a day at the Botanical Gardens.



Which point on the graph, A, B, C or D, shows the level of carbon dioxide in the air at night?

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

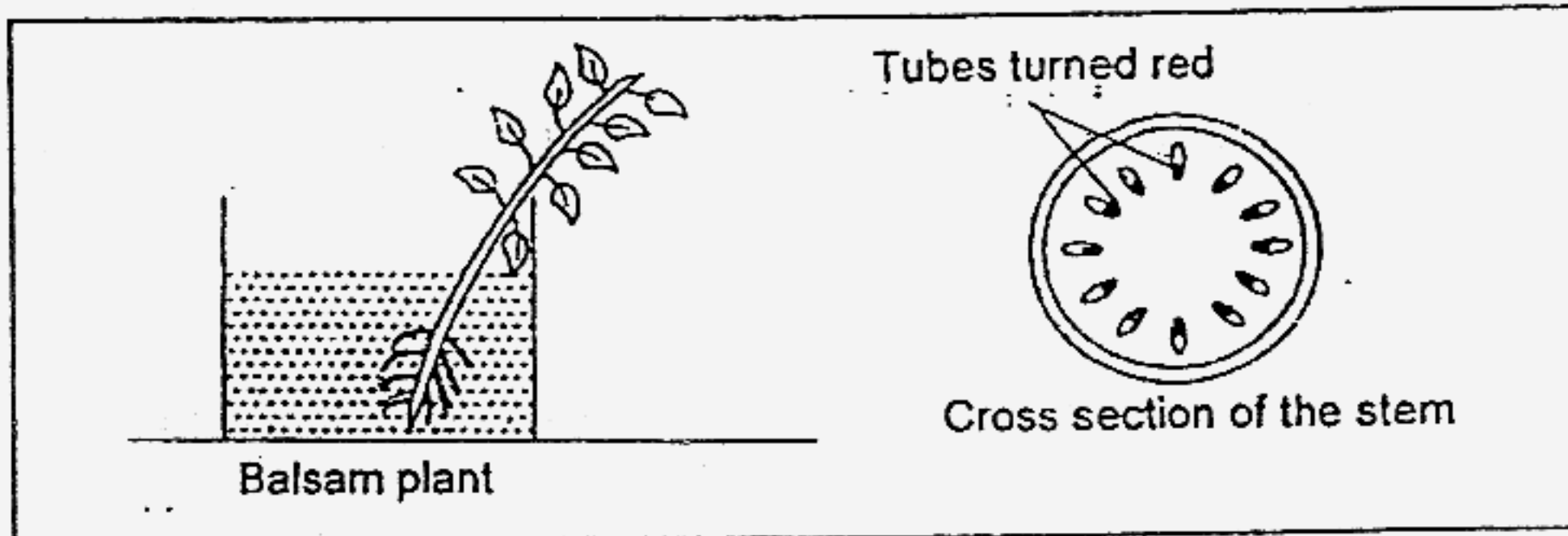
12. Three similar potted plants, A, B and C were placed in a garden. The table below shows the types of soil used and the amount of water given to each plant daily.

	Pot A	Pot B	Pot C
Type of soil	clay	garden soil	sand
Amount of water given	200 ml	200 ml	200 ml

What is the purpose of this experiment?

- (1) To find out if plants need sunlight to grow well.
- (2) To find out if plants need soil and water to grow.
- (3) To find out how much water is needed for plants to grow.
- (4) To find out how well the plants can grow in different types of soil.

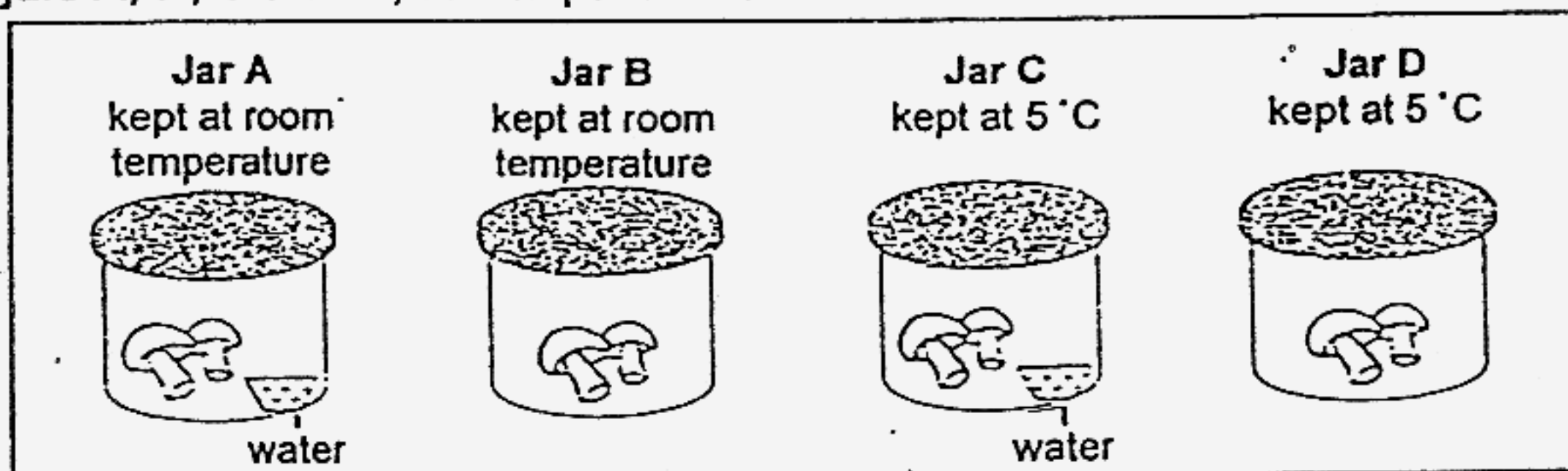
13. Natasha placed a balsam plant in a beaker of red water. After 3 days, she cut the stem of the plant and noticed that the tubes found in the stem had turned red.



From this experiment, what can Natasha conclude about the function of the tubes?

The function of the tubes is to _____.

- (1) store food for the plant
 - (2) absorb water and mineral salts for the plant
 - (3) contain the green pigment that is needed to make food
 - (4) transport water from the roots to the other parts of the plant
14. Jennifer conducted an experiment to find out the conditions needed to prevent mushroom from rotting. Two mushrooms were placed in each of the covered jars A, B, C and D, and kept in different conditions as shown below.



After one week, only the mushrooms in Jar D did not rot.

If the same type of mushrooms were shipped from India to Singapore, which one of the following conditions would allow the mushrooms to be kept as fresh as possible during shipment?

- (1) Dry at 5 °C
- (2) Moist at 5 °C
- (3) Dry at room temperature
- (4) Moist at room temperature

15. Jamie was given four cups of drinks. She was blindfolded and told to guess the names of the drinks. What senses would best help her to find out the answer?

- (1) sight and smell
- (2) smell and touch
- (3) touch and sight
- (4) taste and smell

16. Isabel has a pet cat. Whenever she strokes her cat, it will purr. The cat is responding to _____.

- (1) sight
- (2) smell
- (3) touch
- (4) hearing

17. Which of the following statements about saliva is/are true?

- A : Saliva helps to digest food.
- B : Saliva makes food easier to swallow.
- C : Saliva helps food to be absorbed in the stomach.

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

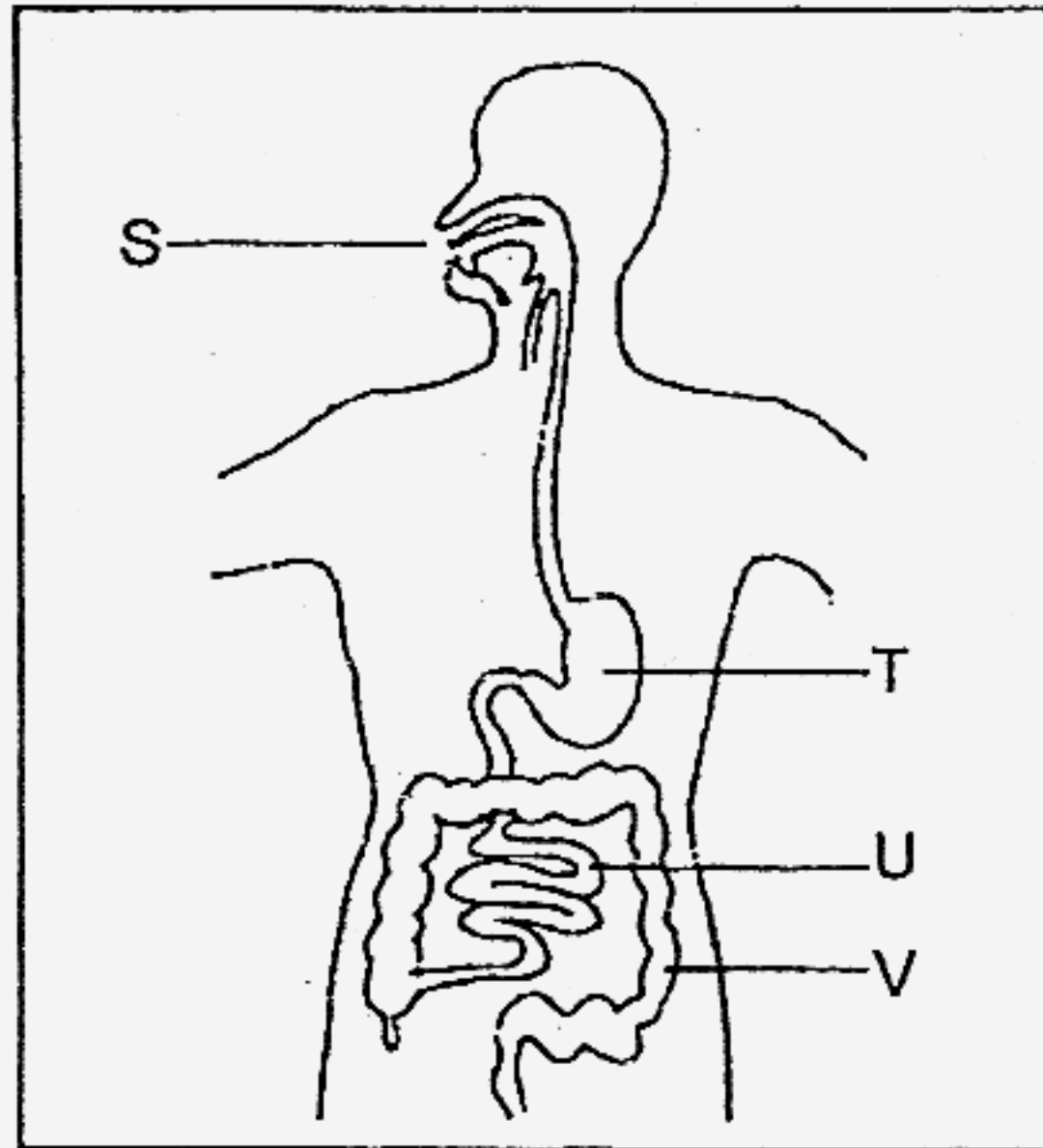
18. The flow chart below shows the route taken by food through the human body.



Which one of the following shows what A, B and C represent?

	A	B	C
(1)	windpipe	lungs	ribcage
(2)	gullet	windpipe	stomach
(3)	lungs	stomach	anus
(4)	gullet	stomach	anus

19. The diagram below shows a system found in the human body.



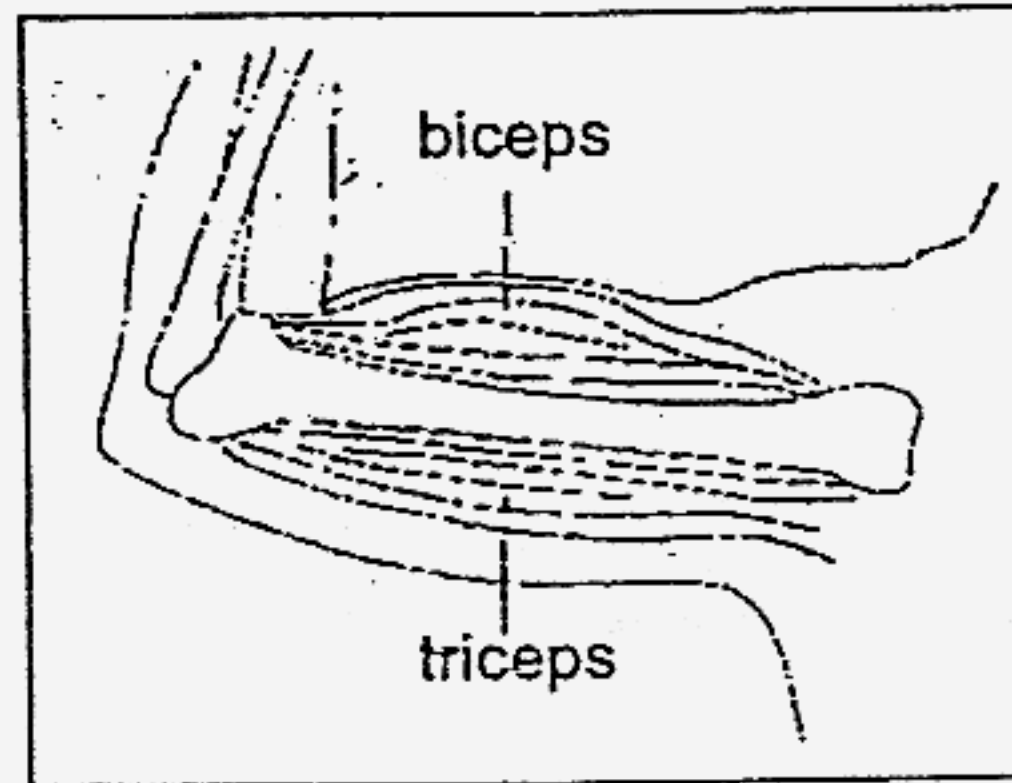
In which part, S, T, U or V, is food digested and passed into the blood?

- (1) S
- (2) T
- (3) U
- (4) V

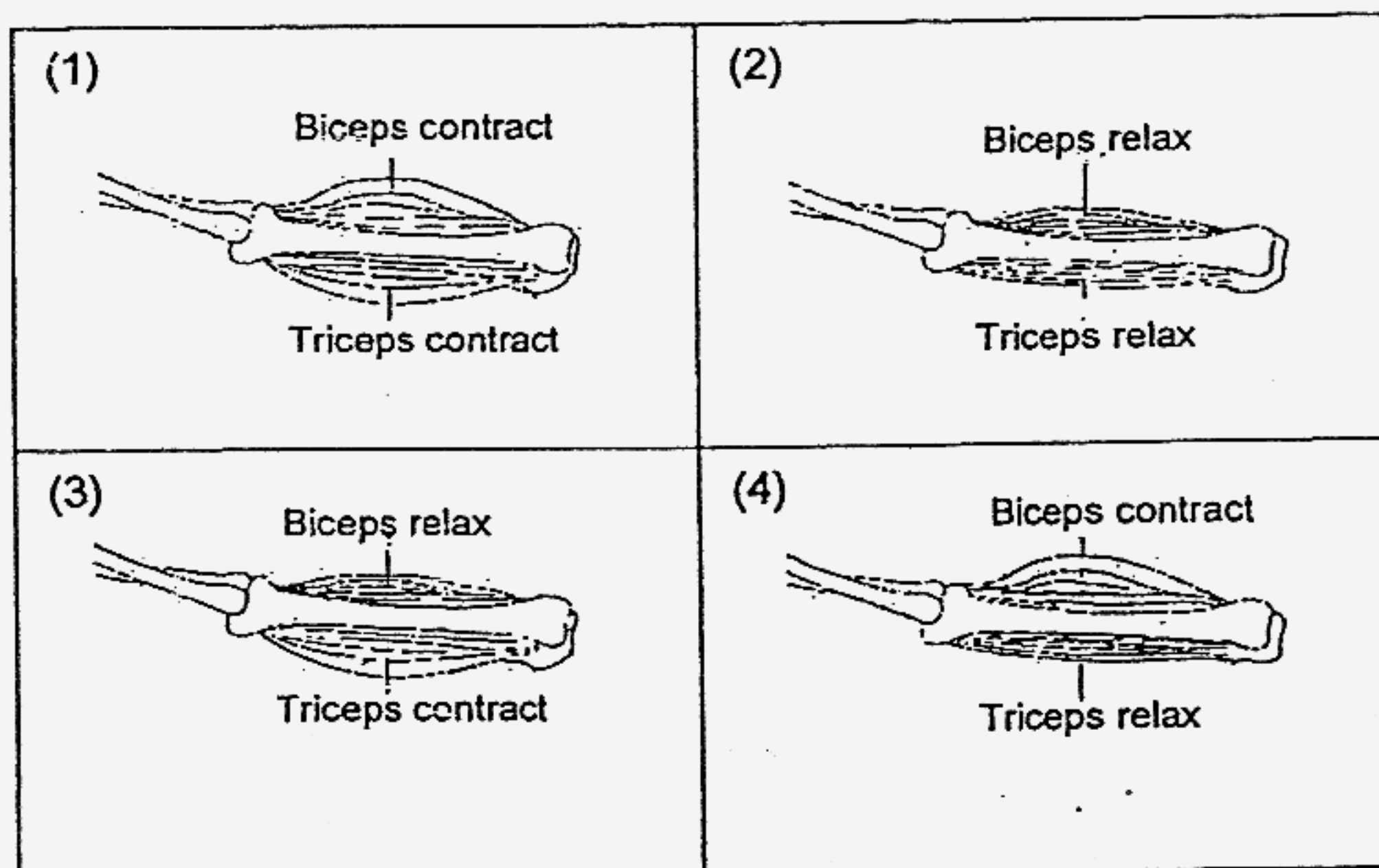
20. Which one of the following is true about muscles?

- (1) Muscles are part of the skeletal system.
- (2) Muscles are places where two or more bones meet.
- (3) Muscles are the nerves that send messages to the brain.
- (4) Muscles form a system that works with the skeletal system to enable movement.

21. The diagram below shows the shape of the two muscles of the upper arm, the triceps and the biceps, when the arm is bent.



Which one of the following shows what the two muscles look like when the arm is straightened?

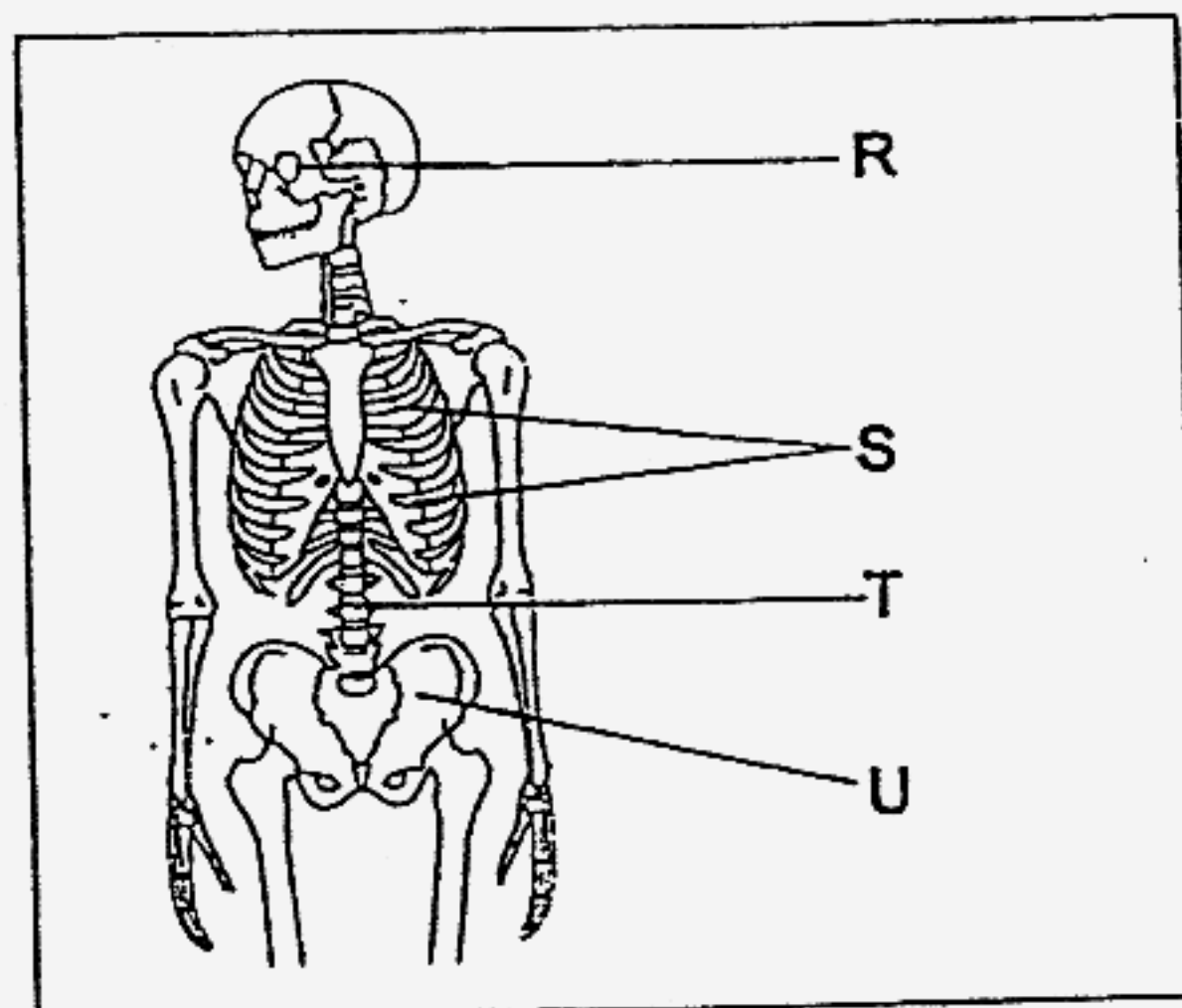


22. The table below shows some statements made by four girls about the importance of joints.

	Statements
Maya	Joints protect the bones.
Chloe	Joints support the body.
Odelia	Joints strengthen the bones.
Kristine	Joints enable movement.

Who has made the correct statement?

- (1) Maya
 - (2) Chloe
 - (3) Odelia
 - (4) Kristine
23. The diagram below shows the human skeleton with parts labelled as R, S, T and U.



Which one of the following statements about the parts labelled is true?

- (1) R protects our eyes.
- (2) S protects our stomach.
- (3) T protects our small intestine.
- (4) U protects our large intestine.

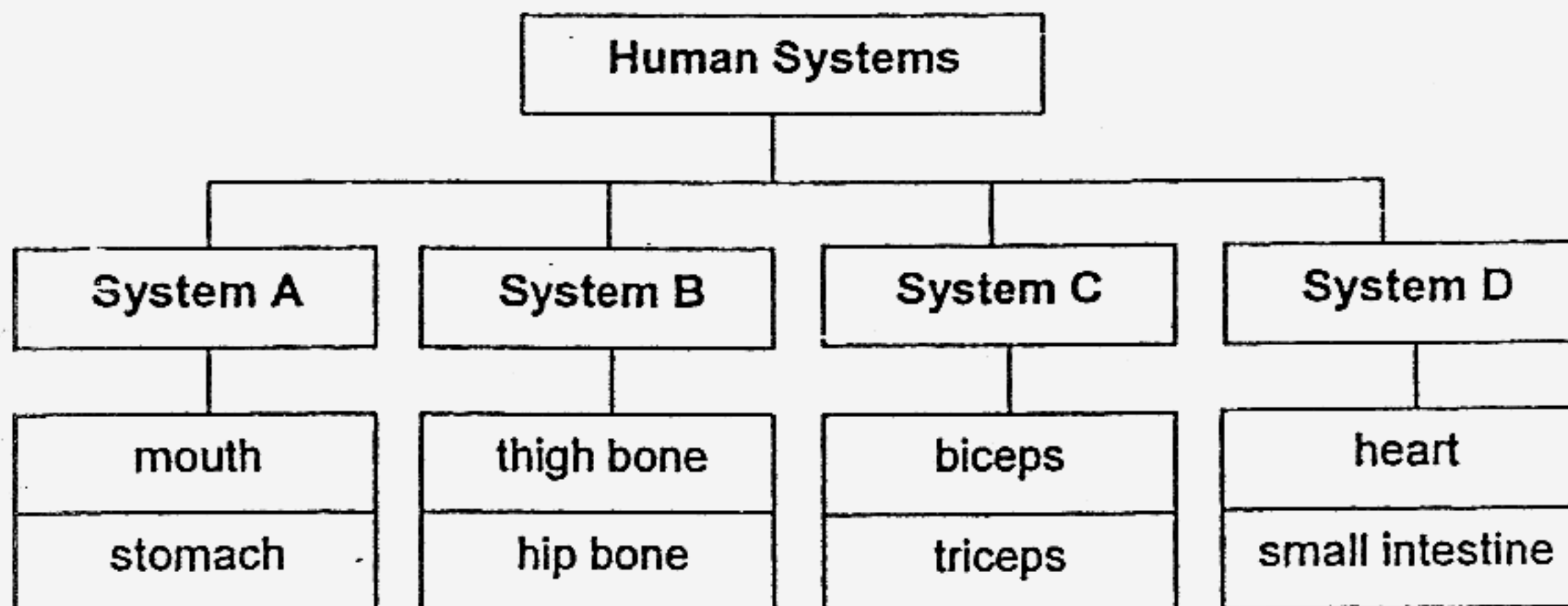
24. Which one of the following statements is not a function of the skeletal system?

- (1) It supports our body.
- (2) It gives shape to our body.
- (3) It protects some of our organs.
- (4) It removes the unwanted air from our body.

25. Which one of the following systems is also known as the transport system of the human body?

- (1) Skeletal System
- (2) Muscular System
- (3) Circulatory System
- (4) Respiratory System

26. Study the flow chart below.



Which one of the systems above has an organ that is wrongly grouped?

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

27. Which one of the following properties of plastic is the most Important in the making of a raincoat?

- (1) waterproof
- (2) not expensive
- (3) an elastic material
- (4) a man-made material

28. Lydia compared the hardness of four objects, P, Q, R and S, by scratching them with different rulers.

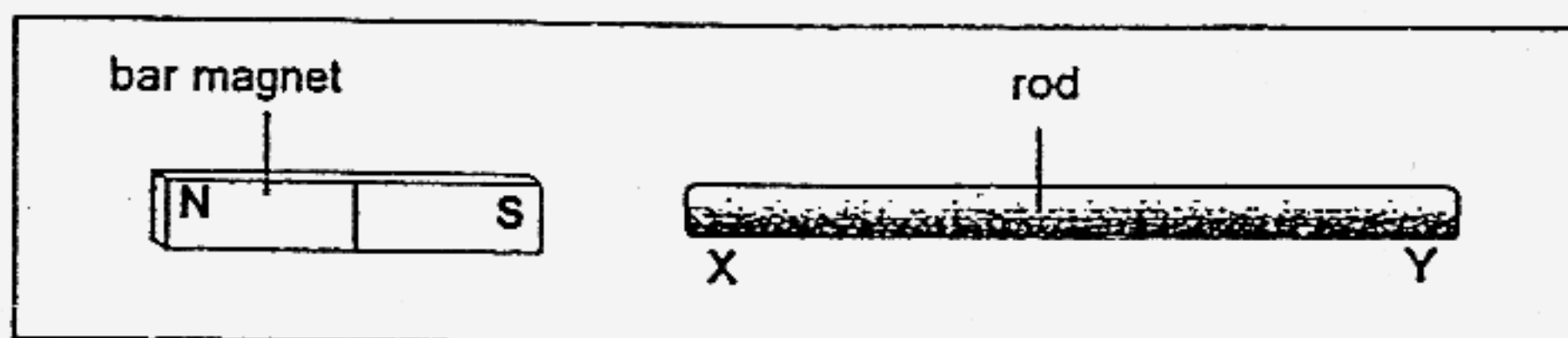
She then recorded her observations in the table below, using a tick (✓) to indicate the presence of scratch marks on the objects and using a cross (×) to indicate the absence of scratch marks on the objects.

Objects	Presence of scratch marks made by		
	Metal ruler	Wooden ruler	Plastic ruler
P	×	×	×
Q	✓	✓	✓
R	✓	×	×
S	✓	✓	×

Which one of the following shows the hardest and softest objects correctly?

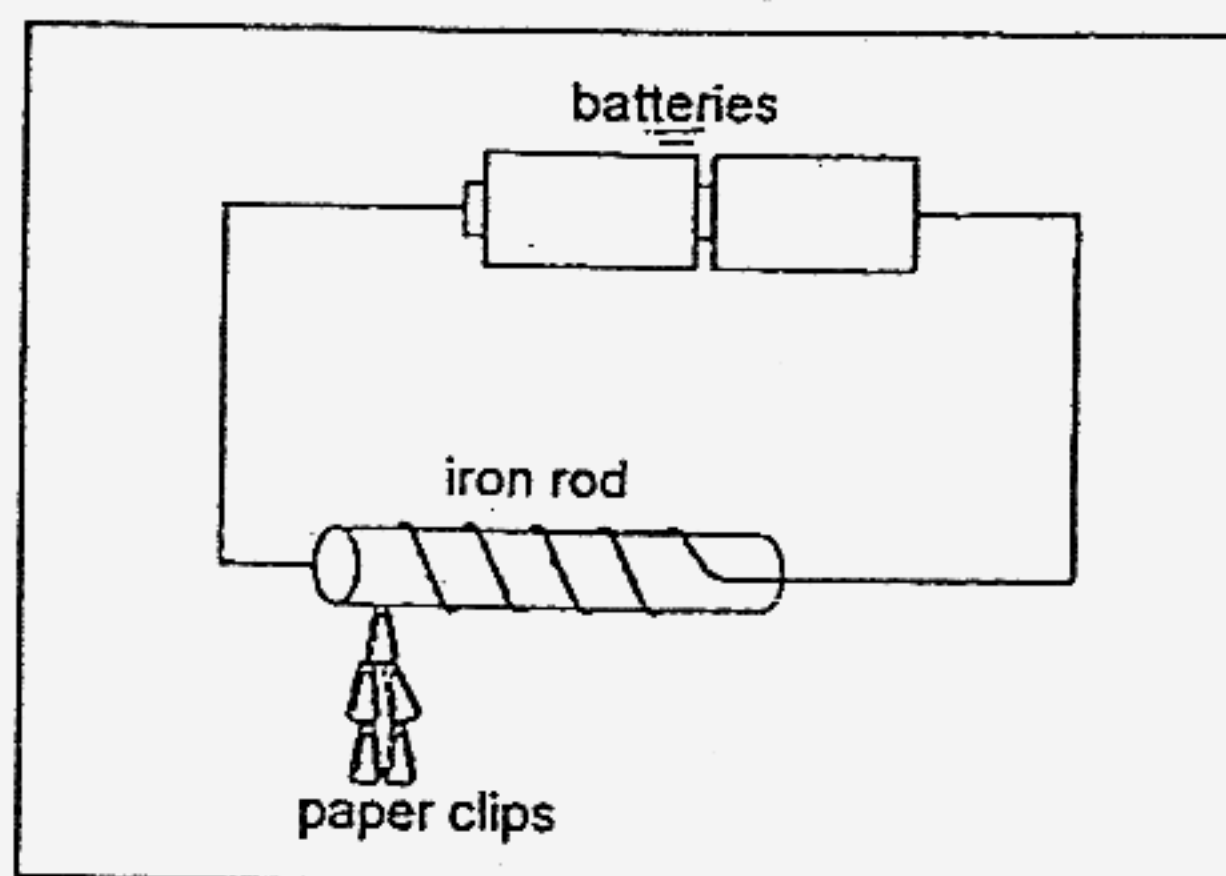
	Hardest Object	Softest Object
(1)	Q	P
(2)	S	R
(3)	P	Q
(4)	Q	S

29. When the rod was brought near the bar magnet, the bar magnet moved away from it.



What is Y most likely to be?

- 1) East-seeking pole
 - 2) West-seeking pole
 - 3) North-seeking pole
 - 4) South-seeking pole
30. The diagram below shows an electromagnet.



Which of the following can be done to make the electromagnet attract more paper clips?

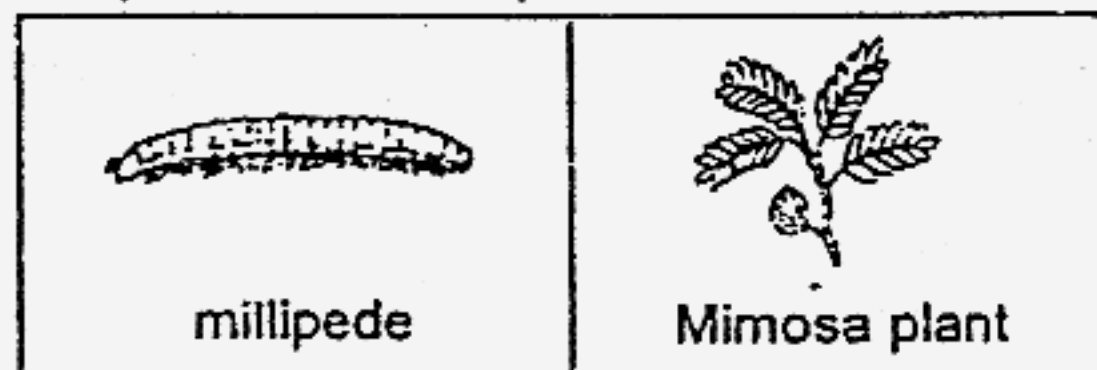
- A : Add one battery.
B : Remove one battery.
C : Increase the number of turns of wire around the iron rod.
D : Decrease the number of turns of wire around the iron rod.

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

Section B : (40 marks)

Write the answers in the blanks provided.

31. The diagram below shows a millipede and a mimosa plant.



(a) How do a millipede and a mimosa plant get their food? (1m)

(b) How do they respond to touch? (1m)

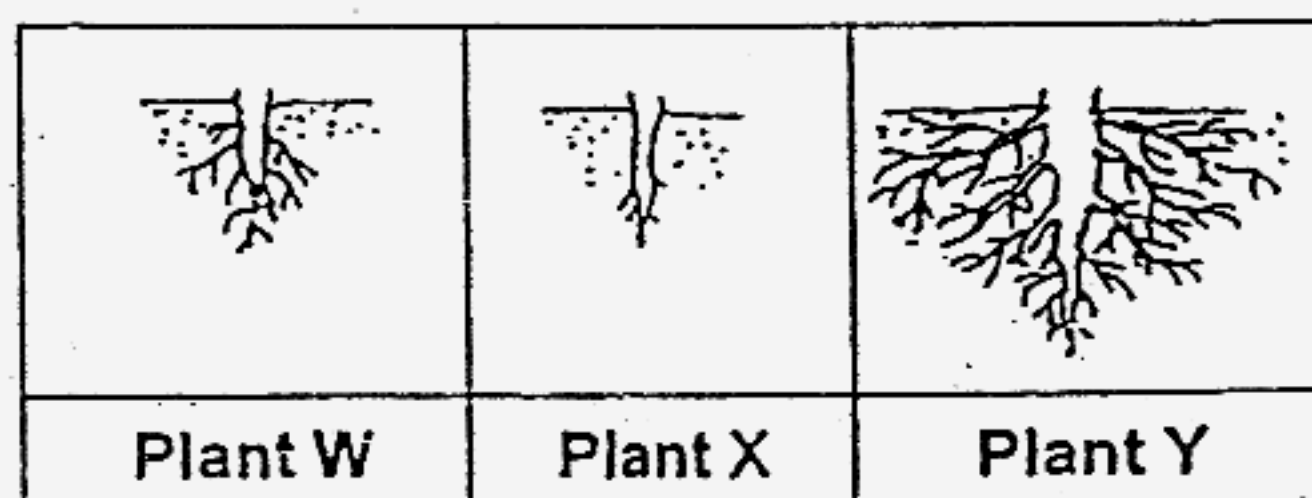
32. Animal X has the following characteristics:

Method of reproduction	☒ Lay eggs	No
	Gives birth to its young	Yes
Type of outer covering	Hair / Fur	Yes
	Feathers	No
	Scales	No
Number of legs/limbs	2	No
	4	Yes
	6	No

(a) Which group of animals does animal X belong to? (1m)

(b) Give an example of animal X. (1m)

33. The diagram below shows the roots of three different plants.



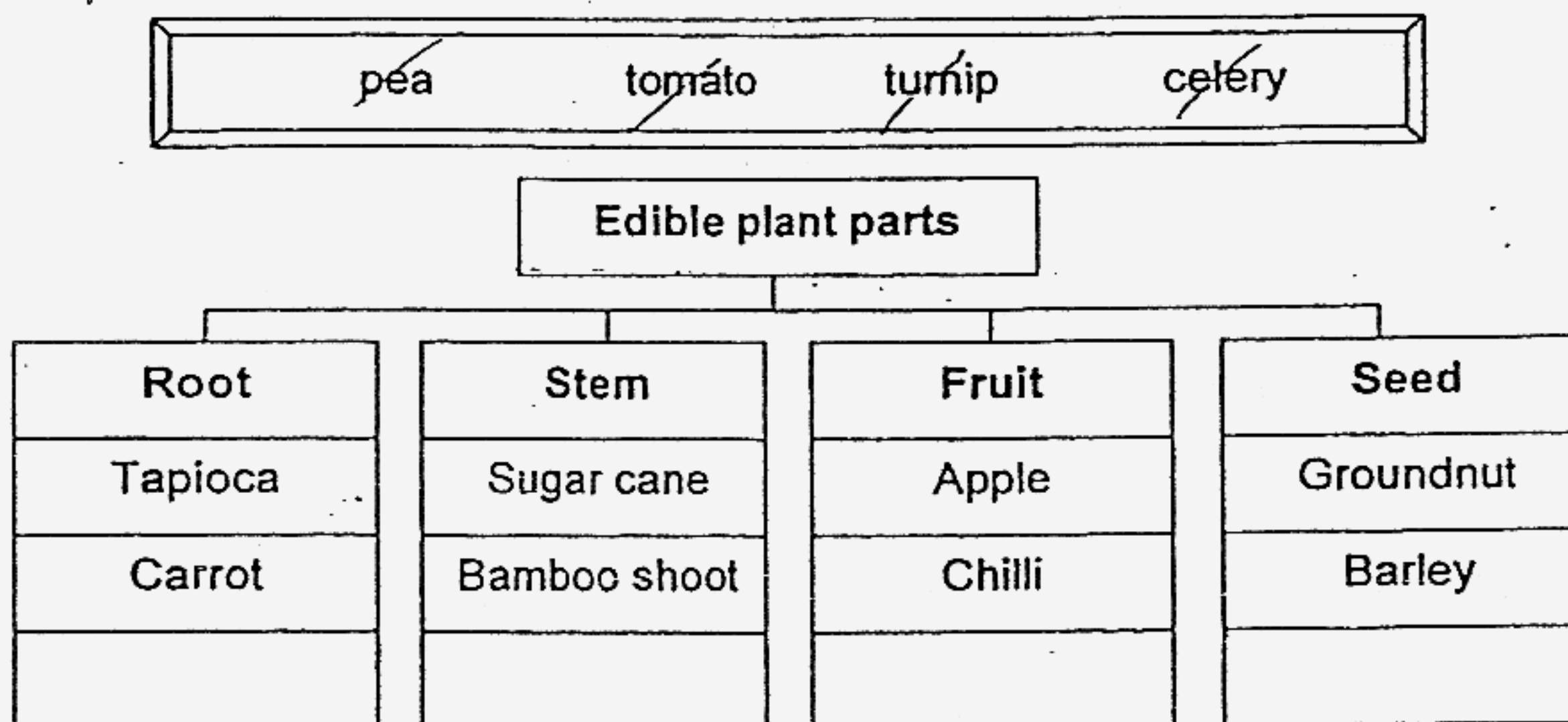
(a) Which plant has roots that hold it most firmly to the ground? (1m)

(b) Give a reason for your answer in (a). (1m)

(c) Give another function of roots. (1m)

34. The table below shows some plants that have been classified according to their edible parts.

Classify the plants given in the box below according to their edible plant parts. (2m)



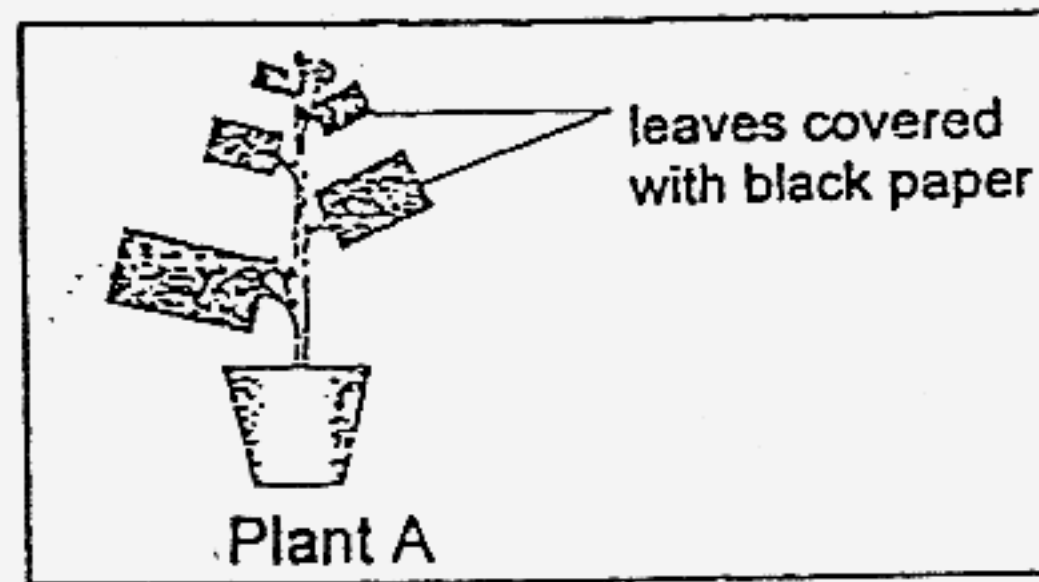
35. Grace observed the different stages of development of a butterfly over a period of time. She recorded her observations in the table below.

Date	Observation
2 nd February	Found an egg of a butterfly on a leaf.
7 th February	Egg turned into a caterpillar.
21 st February	Caterpillar turned into a pupa.
8 th March	Pupa turned into a butterfly.

Based on the given information, answer the following questions.

- (a) On which date did the young of the butterfly stopped eating and moving? (1m)
-
- (b) When did the larval stage begin? (1m)
-
- (c) At which stage of the life cycle of a butterfly is it a pest to farmers? (1m)
-

36. Look at the diagram below.

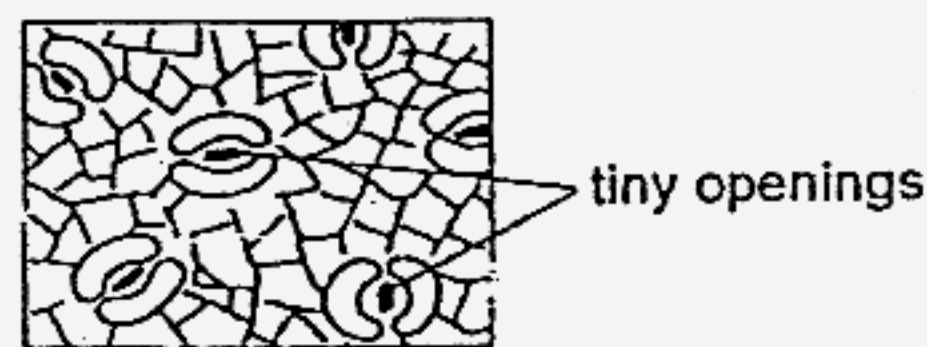


All the leaves of the Plant A were completely covered with black paper. The plant was left in the sun and given enough water.

(a) Will the plant survive after one month? (1m)

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

37. The diagram below shows the tiny openings found on a certain part of a plant.



(a) What are these tiny openings called? (1m)

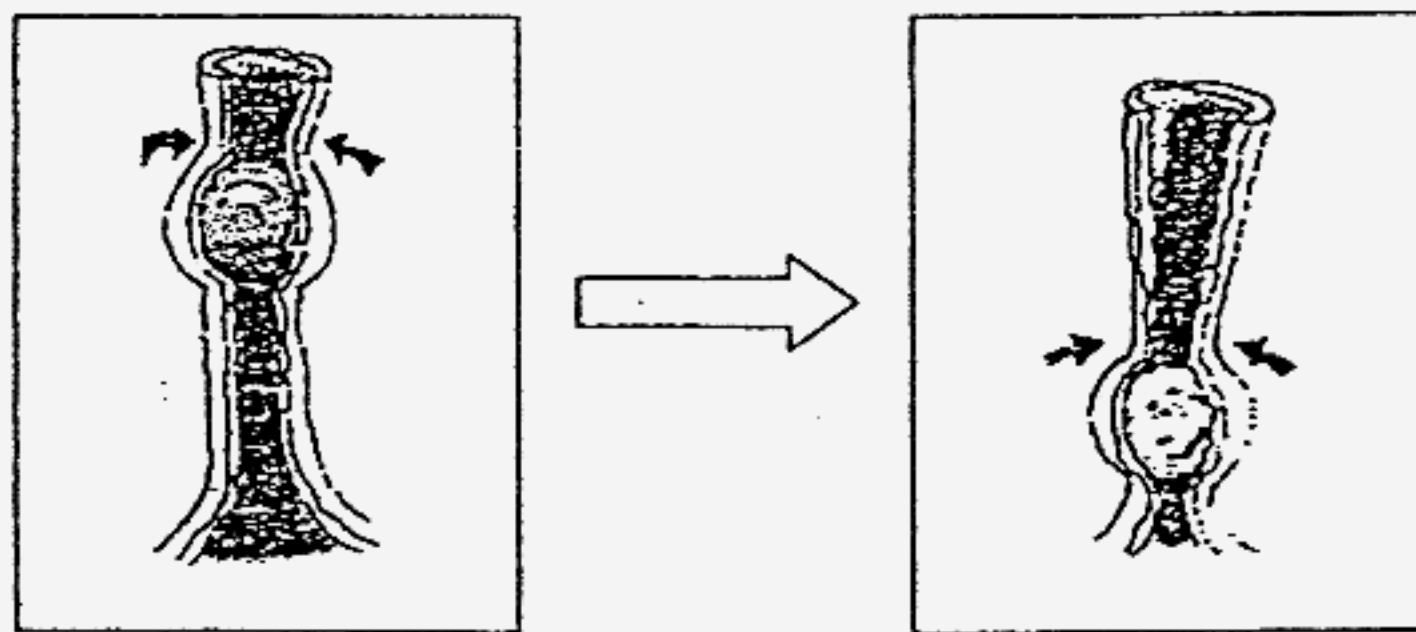
(b) Give one reason why the tiny openings are important to plants. (1m)

(c) On which part of the plant are these openings mainly found? (1m)

38. (a) What is the function of the digestive system? (1m)

(b) At which part of the digestive system is water absorbed from the undigested food? (1m)

39. The diagram below shows an organ in the human body.



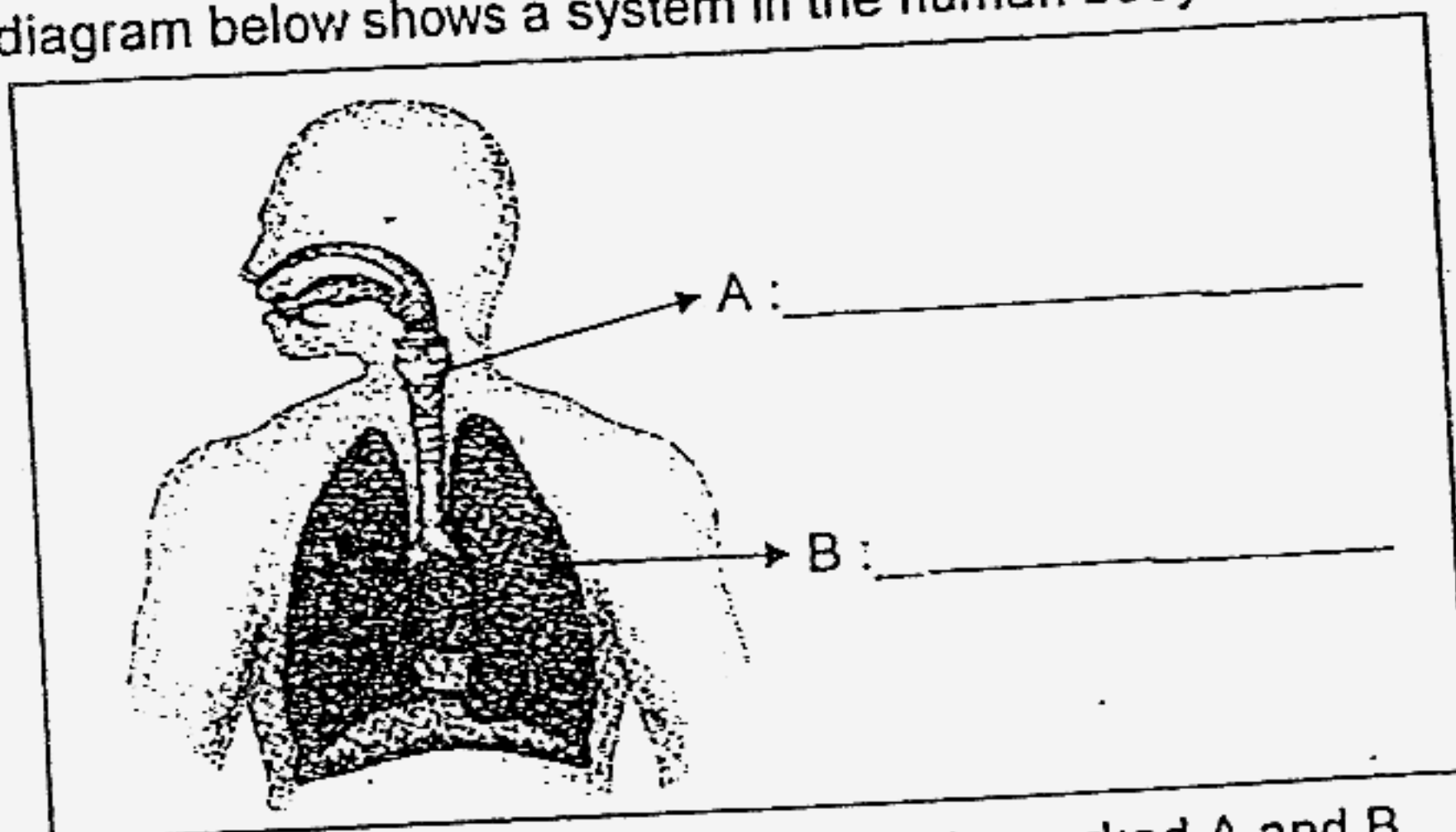
When you eat, the food will go down a tube as shown in the diagram above.

(a) Name the organ shown above. (1m)

(b) The movement of the _____ allows the food to go down the tube. (1m)

(c) Where will this food go to next? (1m)

40. The diagram below shows a system in the human body.



(a) In the diagram above, name the parts marked A and B. (2m)

(b) Name the system above. (1m)

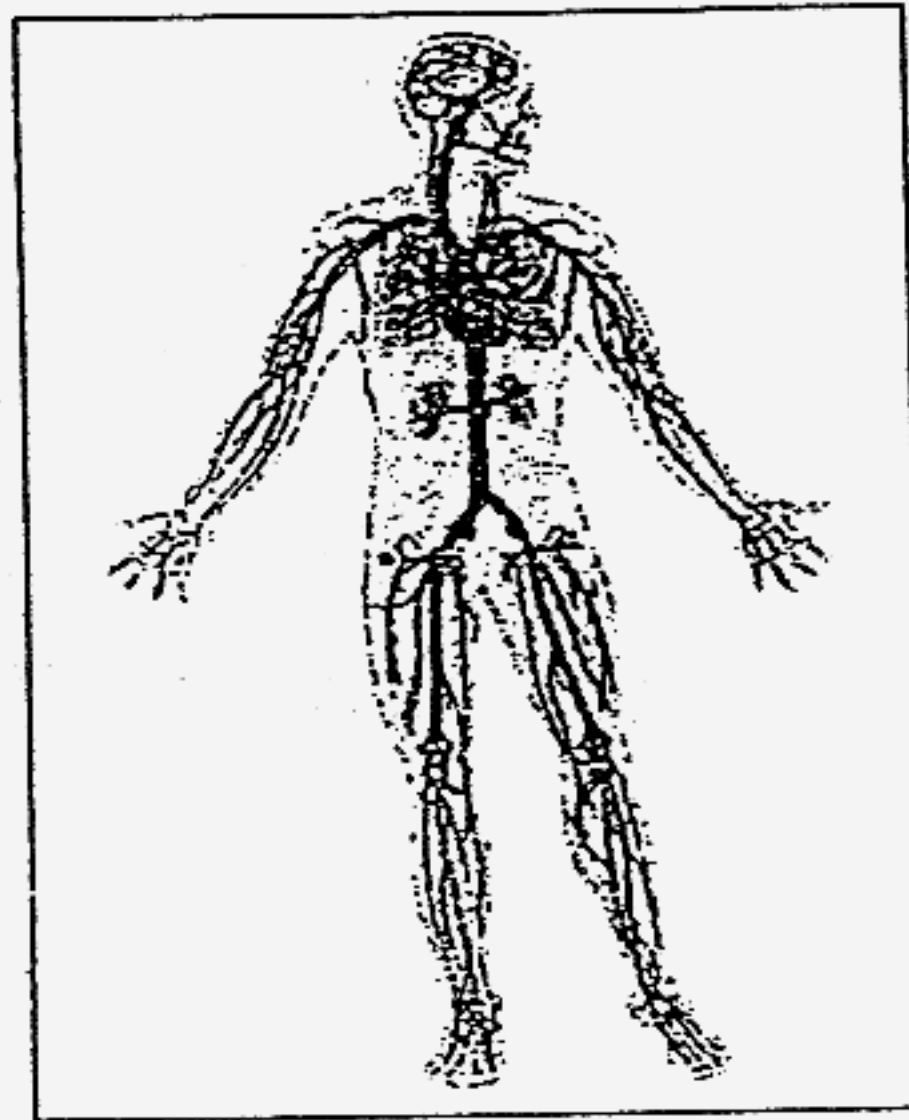
(c) The system above allows us to take in _____ from the air and give out _____ into the air. (1m)

41. Write 'True' or 'False' for each of these statements. (2m)

(a) Food that enters the stomach is fully digested. (_____)

(b) The gullet is also called the oesophagus. (_____)

42. The diagram below shows a human body system.



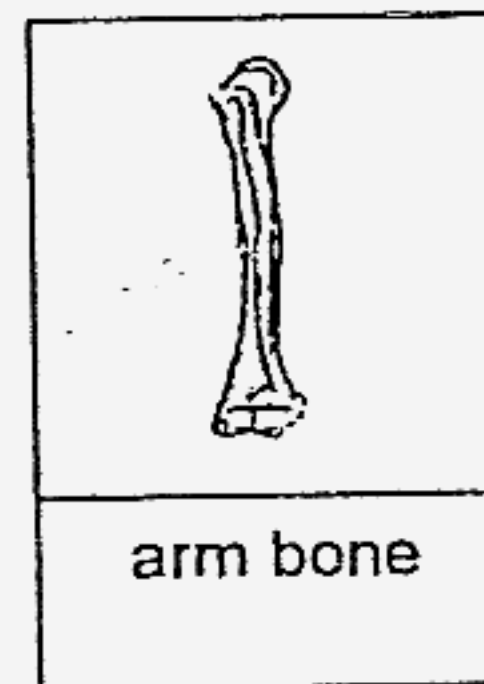
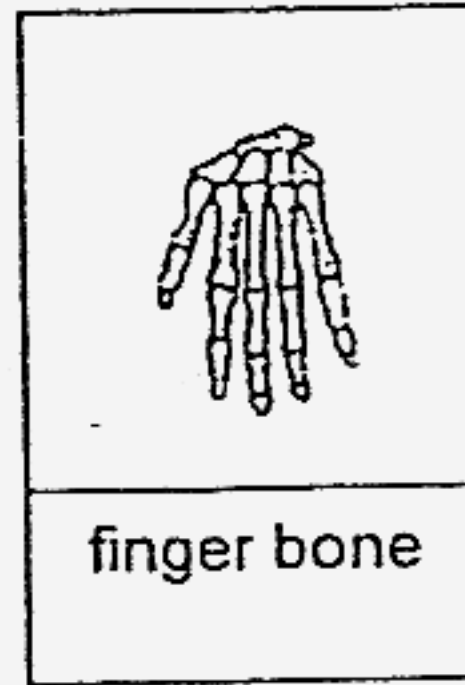
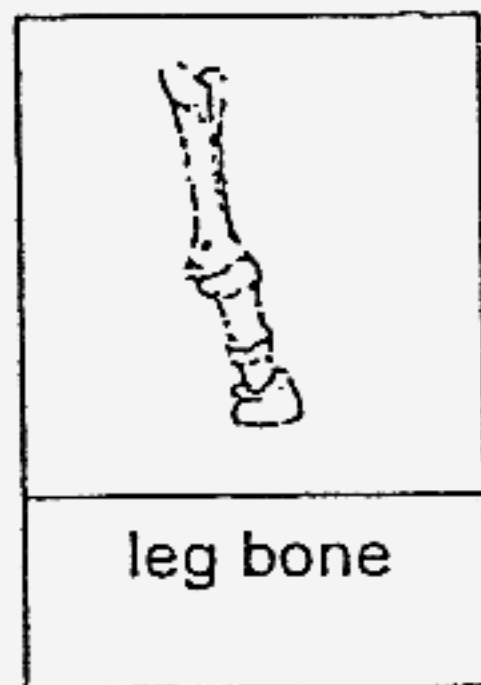
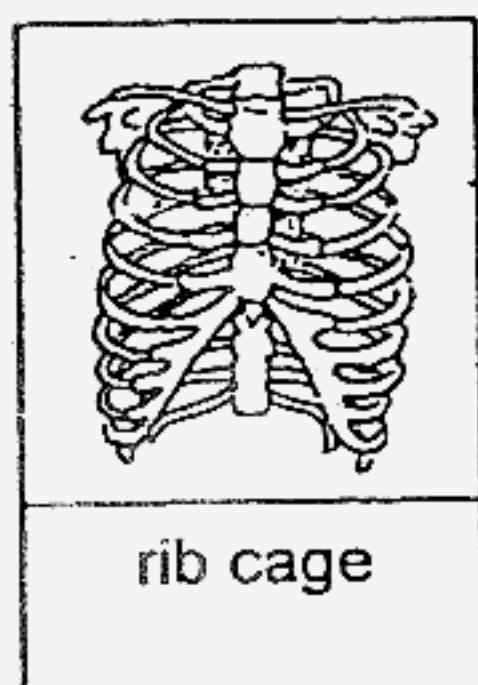
(a) Name the system shown above. (1m)

(b) What do you call the vessels that transport blood around the body? (1m)

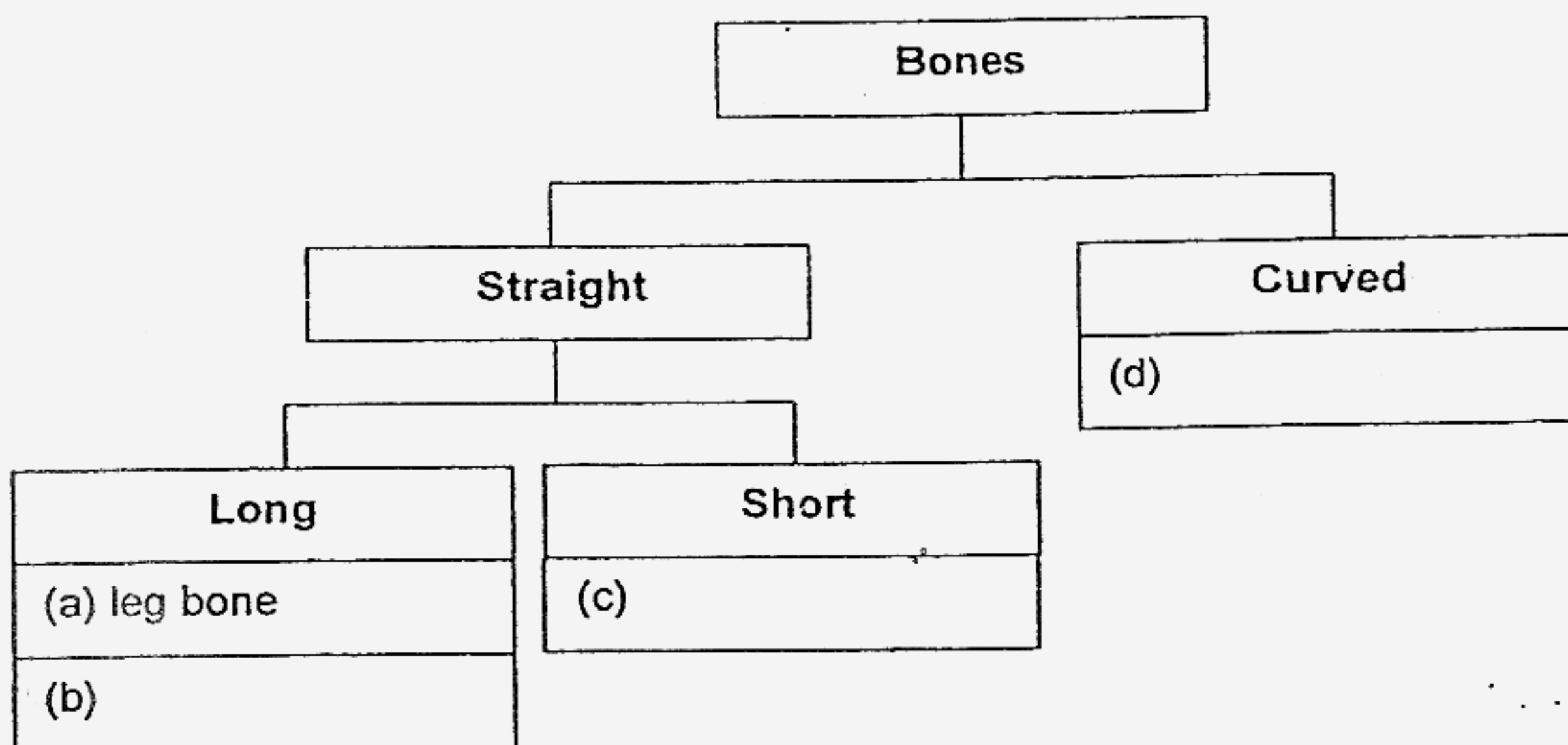
(c) Name two things that the blood transports around the body. (2m)

_____ and _____

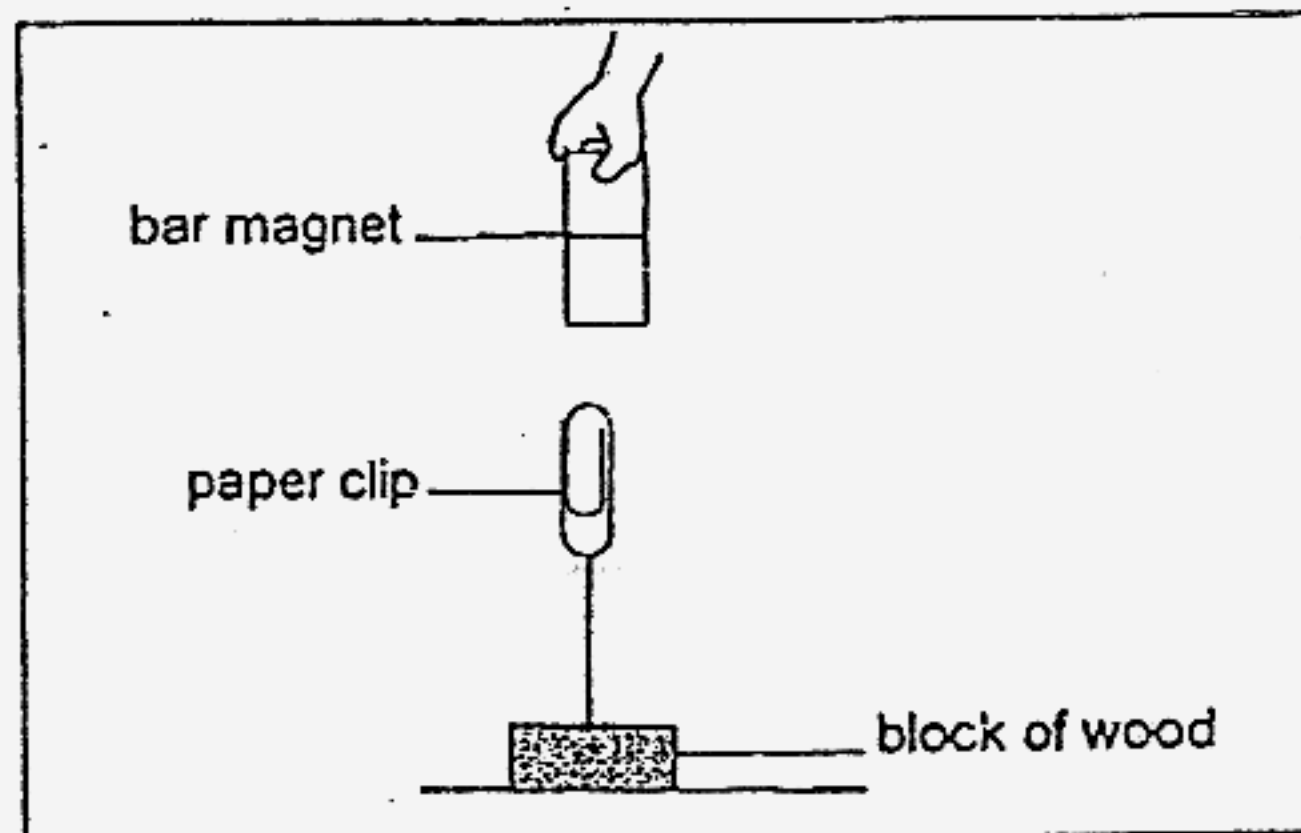
43. The diagram below shows some bones in our body.



Study the classification table below and classify the bones given above in the correct boxes. (The first box, (a), is done for you.) (3m)

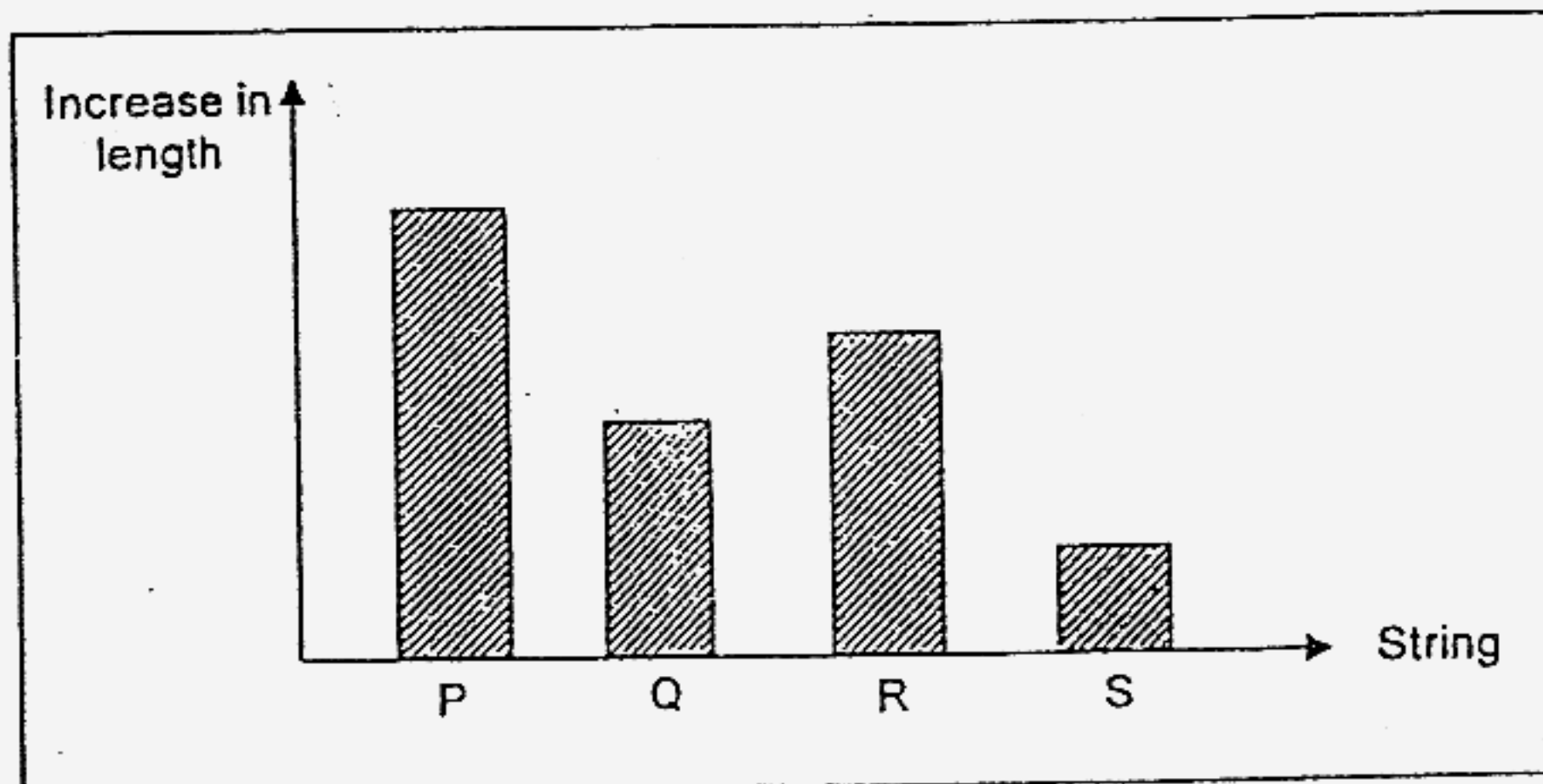


44. Mary tied a paper clip to a block of wood using a string. She then held a bar magnet above the paper clip. She noticed that the paper clip was pulled up as shown in the diagram below.



- (a) The diagram above shows that the paper clip is _____ (1m)
to the bar magnet.
- (b) Mary then placed an iron sheet between the magnet and the paper clip. (1m)
What happened to the paper clip?

45. Samantha learnt that the more elastic a string is, the more it can stretch. After that, she stretched four different types of string. Then she measured and recorded the increase in length of each string after it was stretched as shown in the bar graph below.



- (a) From the results in the bar graph above, which is the most elastic string? (1m)
- (b) For the above test to be a fair one, **write (Yes)** against the variable/s that should be kept the same and **(No)** against the variable/s that should be different in the table below. (2m)

Variables	Kept the same
Colour of the string	
Thickness of the string	
Length of string before stretched	

End of Paper
Please check through your work!

- | | | | | |
|-------|-------|-------|-------|-------|
| 1) 3 | 2) 2 | 3) 1 | 4) 4 | 5) 2 |
| 6) 2 | 7) 3 | 8) 3 | 9) 2 | 10) 4 |
| 11) 3 | 12) 4 | 13) 4 | 14) 1 | 15) 4 |
| 16) 3 | 17) 3 | 18) 4 | 19) 3 | 20) 4 |
| 21) 3 | 22) 4 | 23) 1 | 24) 4 | 25) 3 |
| 26) 4 | 27) 1 | 28) 3 | 29) 3 | 30) 3 |

- Q31a. Millipede get their food from decay matters.
Mimosa plant make their own food.
- b. The millipede will curl up while mimosa will close up.
- Q32a. Animal X belongs to mammals group.
- b. An example of X is tiger.
- Q33a. Plant Y holds the ground most firmly.
- b. The roots will spread evenly and deeper into the ground in order to hold firmly.
- c. They take in water and mineral salts from the soil for the plant.
- Q34
- | | | |
|-------|---|--------|
| Root | : | turnip |
| Stem | : | celery |
| Fruit | : | tomato |
| Seed | : | pea |
- Q35a. On 21st February, the young of butterfly stopped eating and moving.
- b. It's begun on 21st February.
- c. At caterpillar stage, it is a pest for farmers.
- Q36a. No, then plant will not survive after one month.
- b. The leaves of the plant need sunlight to make food, the plant were completely covered with black paper, without the sunlight eventually the plant will die.
- Q37a. Stomata
- b. They take in carbon dioxide and give out oxygen.
- c. Underside of the leaves

- Q38a. The digestive system in our body breaks down the food that we eat into simpler substances and allows them to absorb.
 b. At the large intestine.
- Q39a. The organ shown is gullet
 b. The movement of the muscles allows the food to go down the tube.
 c. It will go to the stomach.
- Q40a. Part A is windpipe, Part B is lungs
 b. It is the respiratory system.
- Q41a. A food that enters the stomach is fully digested. (False)
 b. The gullet is also called the esophagus (True)
- Q42a. The diagram shown is the circulatory system.
 b. It is called blood vessels.
 c. Digested and oxygen.
- Q43a. Leg bone
 b. Arm bone
 c. Finger bone
 d. Rib cage
- Q44a. The diagram above shows that the paper clip is attracted to the bar magnet.
 b. The paper clip will drop.
- Q45a. String P
 b. Colour of the string : No
 Thickness of the string : Yes
 Length of string before stretched : Yes