



南洋小學
NANYANG PRIMARY SCHOOL

PRIMARY THREE SCIENCE
SEMESTRAL ASSESSMENT 2

2007

BOOKLET A

Date : 26th October 2007

Duration : 1 h 45 min

Name : _____ ()

Class : Primary 3 ()

Marks Scored:

Booklet A:		60
Booklet B :		40
Total :		100

Parent's signature: _____

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
FOLLOW ALL INSTRUCTIONS CAREFULLY.

Booklet A consists of 16 printed pages including this cover page.

Section A (30 x 2 marks = 60 marks)

1. What characteristics do all mammals have?

- (1) They cannot fly.
- (2) They live on land.
- (3) They have hair on their body.
- (4) They give birth to their young alive.

2. Which one of the following does not make its own food?

- (1) hydrilla
- (2) mimosa
- (3) bread mould
- (4) bird's nest fern

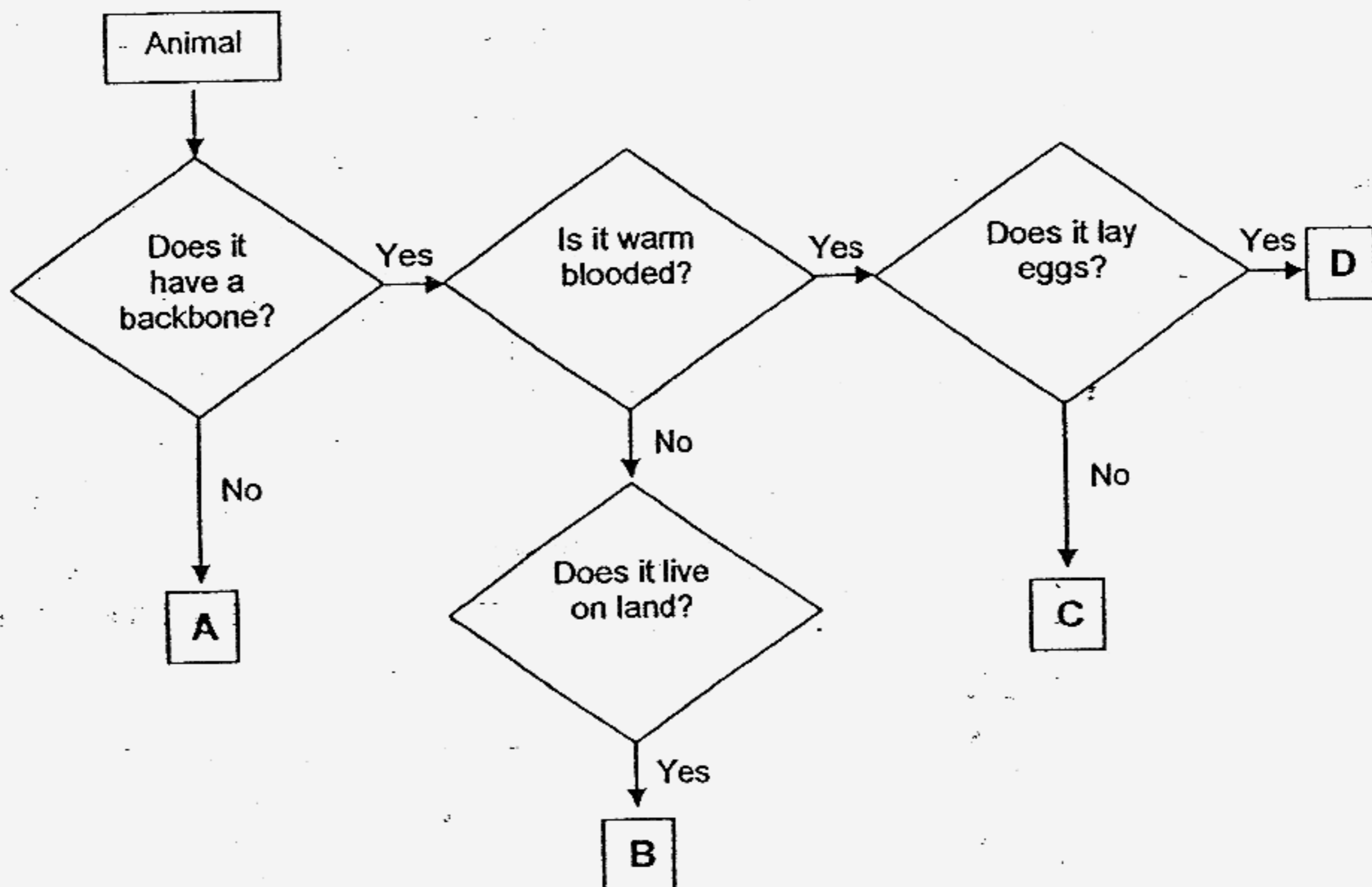
3. The table below shows how some fruits were grouped.

	One seed	More than one seed
Smooth Skin	A	C
Rough Skin	B	D

Which fruit would most likely be a rambutan?

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

4. Study the flow chart below.



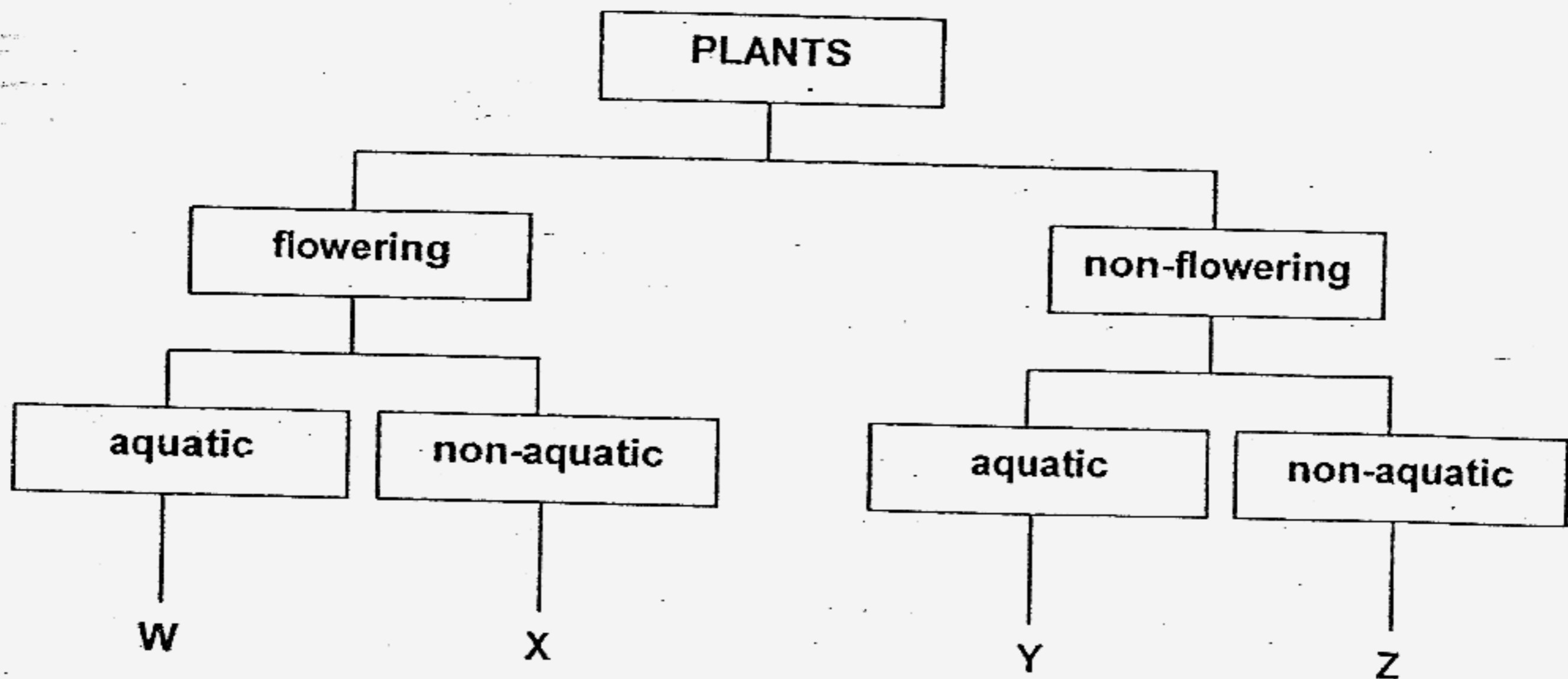
Which of the following can be represented by A, B, C and D?

	A	B	C	D
(1)	earthworm	turtle	platypus	ostrich
(2)	slug	lizard	dolphin	platypus
(3)	snake	frog	goldfish	pigeon
(4)	snake	dog	butterfly	toad

5. The following table shows some information on four plants A, B, C and D. A (✓) indicates that the plant has the characteristic.

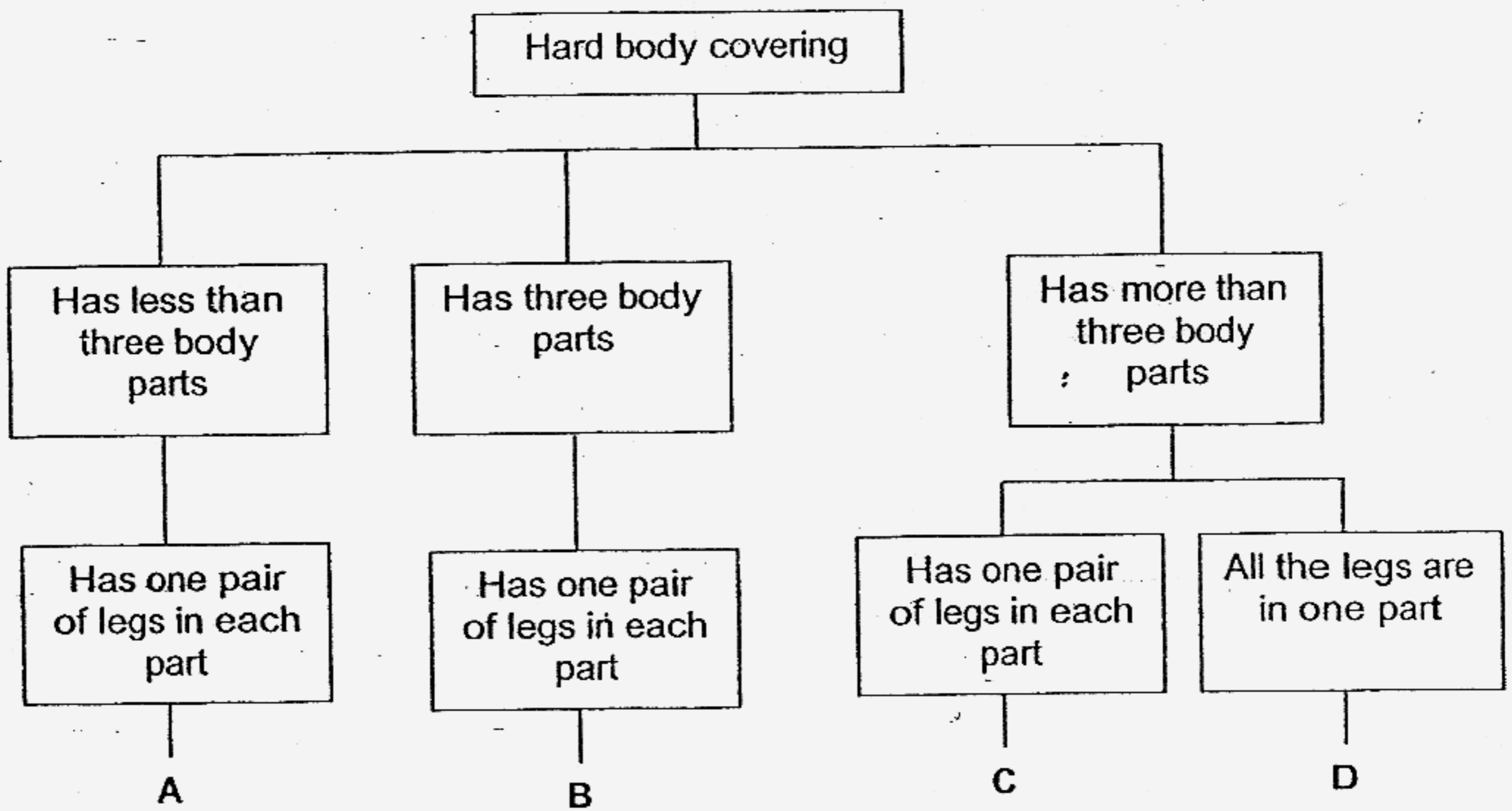
	A	B	C	D
Bears fruit	✓		✓	✓
Grows in water		✓	✓	

Based on information above, which letters, W, X, Y or Z best represent plants C and D?

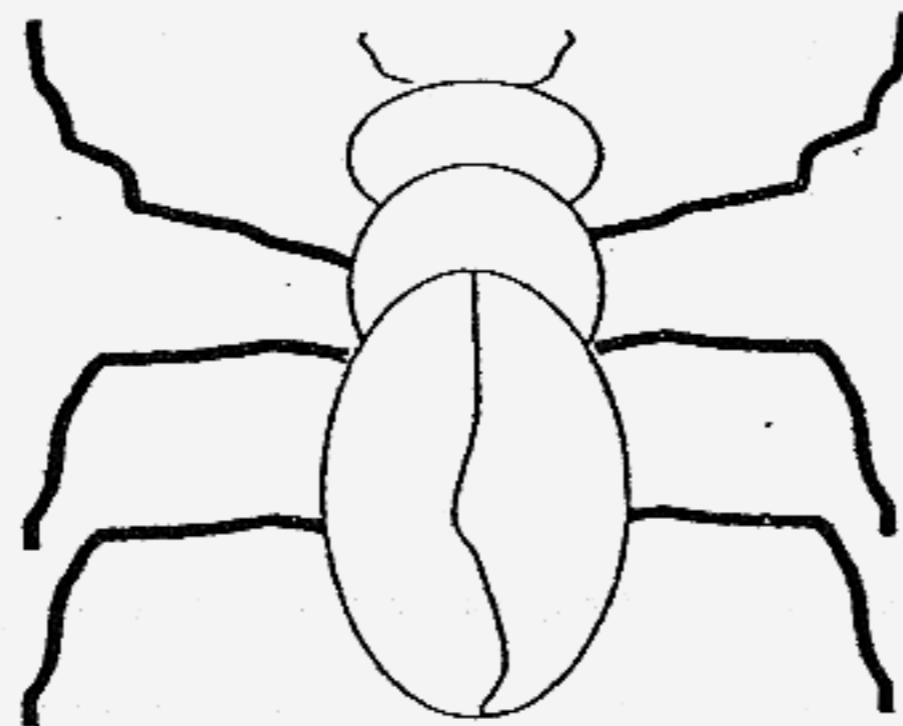


	Plant C	Plant D
(1)	W	X
(2)	X	Y
(3)	Y	Z
(4)	Z	W

6. Study the classification chart below.



Rebecca found the following animal and noticed that it has a hard body covering.



Which group A, B, C or D, does this animal belong to?

- (1) A
- (3) C

- (2) B
- (4) D

7. Denton caught some animals and told Wei Xiong that all the animals were insects. To find out if Denton is correct, Wei Xiong decided to carry out the following activities.

- A Find out whether they can fly.
- B Find out whether they are herbivores
- C Count the number of legs of each animal.
- D Count the number of body parts of each animal.

Which of Wei Xiong's activities will help him confirm whether the animals are insects?

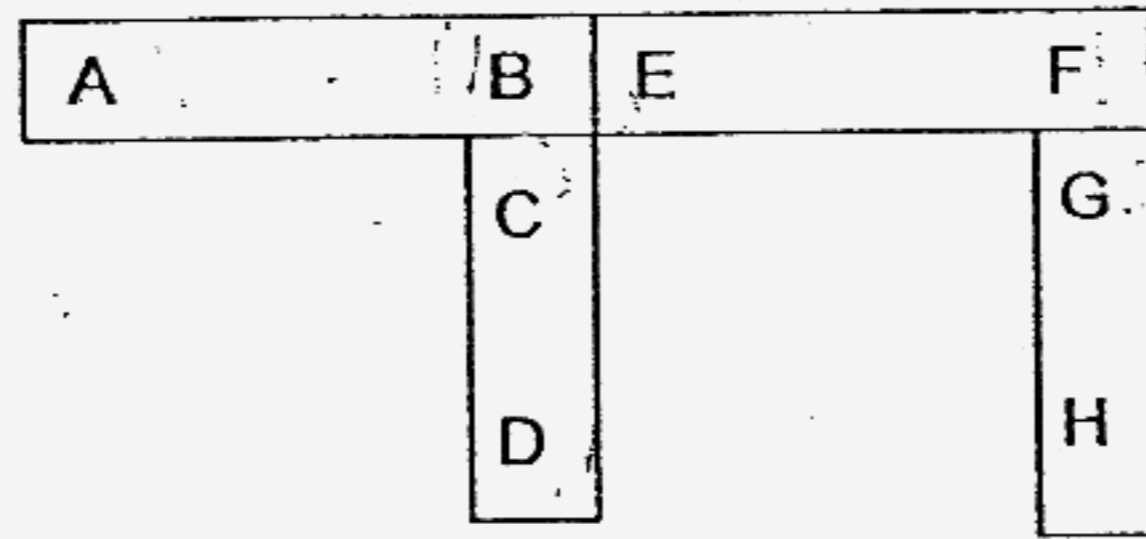
- (1) A and C only
- (2) B and D only
- (3) C and D only
- (4) A, B, C and D

8. Plants take in water from the roots. Where is the water transported to?

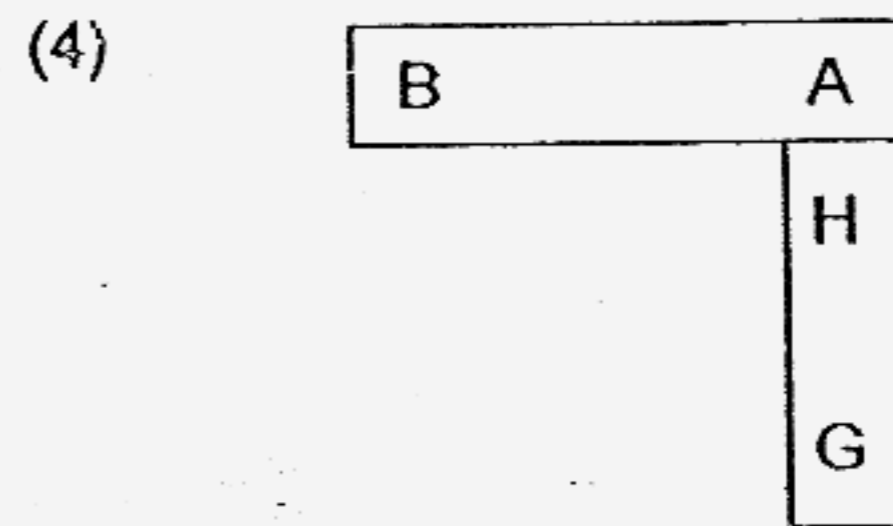
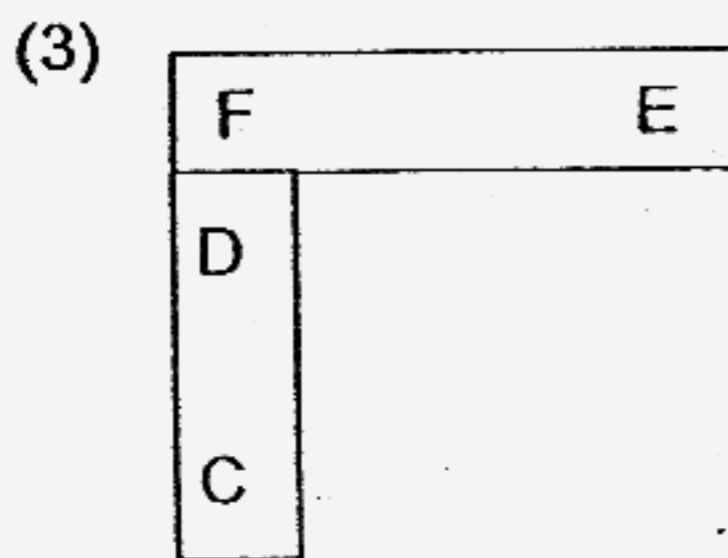
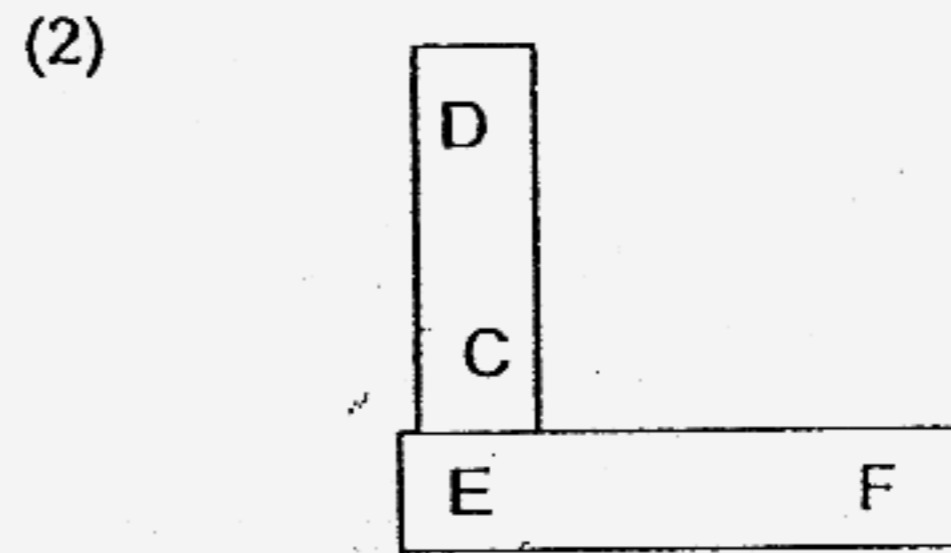
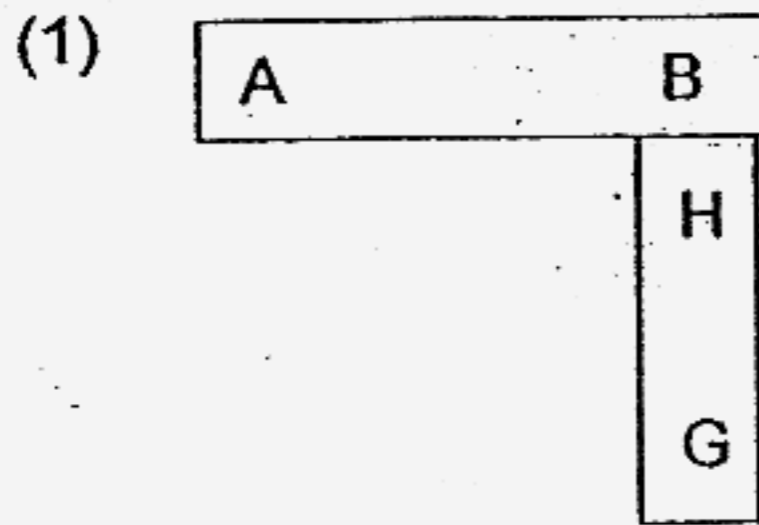
- A fruits
- B stems
- C leaves
- D flowers

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

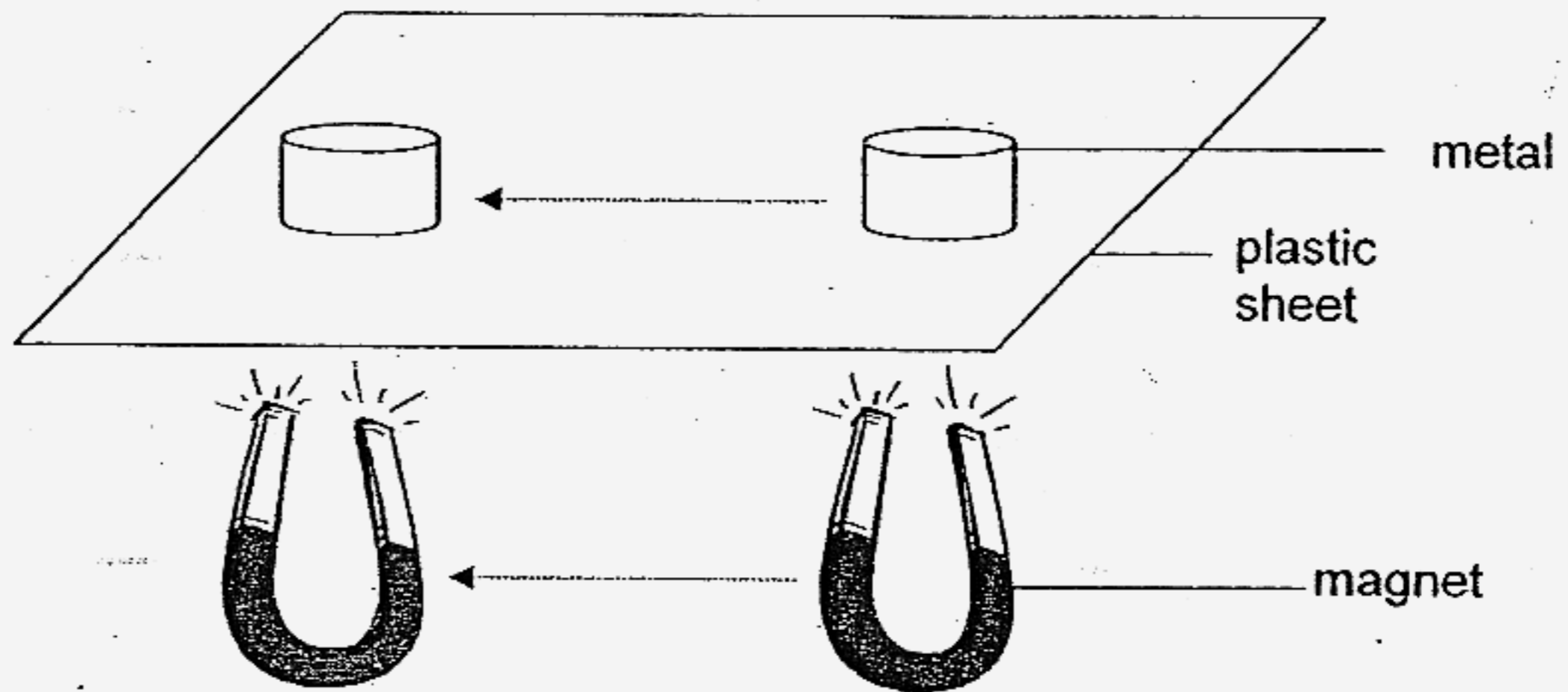
9. ^{Four} ~~Three~~ bar magnets with their ends marked A to F can be arranged in the manner as shown below.



Which of the following diagrams shows a possible arrangement of two of the magnets?

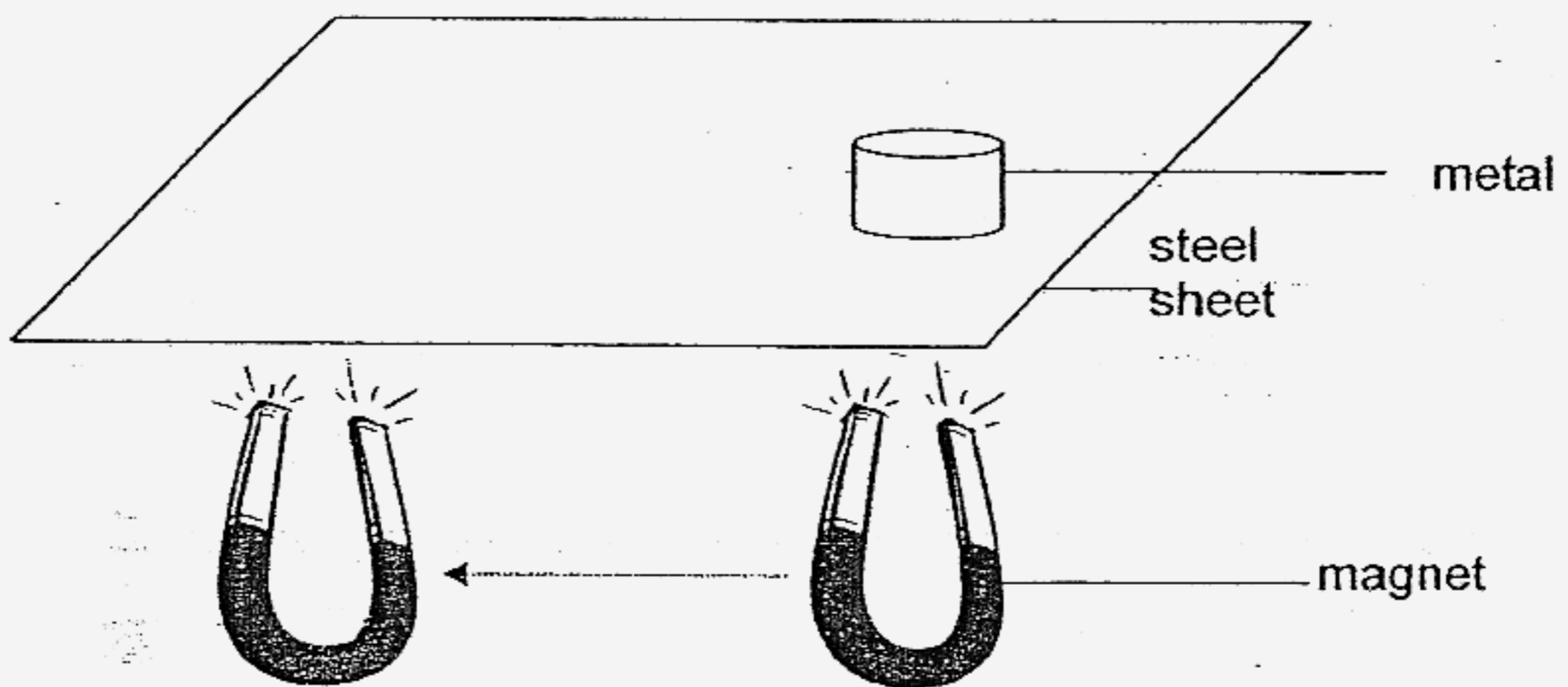


10. Muthu placed a piece of metal on a plastic sheet and held a magnet under the sheet as shown in the diagram below.



He noticed that when the magnet moved, the metal piece moved in the same direction.

Later, Muthu replaced the plastic sheet with a steel sheet of the same thickness and repeated the experiment and noticed that the metal piece did not move.



Which one of the following could be the possible explanation for the metal piece not moving?

- (1) Steel is a non-magnetic material.
- (2) The steel sheet will repel the piece of metal.
- (3) Magnetism cannot pass through the steel sheet.
- (4) The steel sheet had become a temporary magnet.

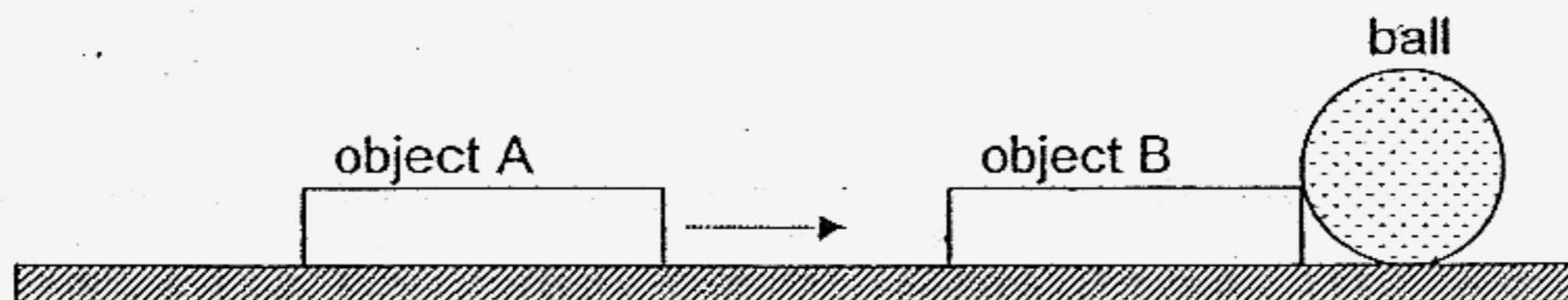
11. Ting Ting wanted to test the strength of four magnets A, B, C and D. She placed each magnet near a pile of pins and recorded her observation.

Magnet	Number of pins attracted	Distance between magnet and pin (cm)
A	10	2
B	9	3
C	12	1
D	7	3

Which one of the following statement is most likely to be correct?

- (1) Magnet D is the weakest.
- (2) Magnet A is stronger than magnet B
- (3) Magnet C is stronger than magnet A
- (4) Magnet B is stronger than magnet D

12. In the diagram below, when object A was placed near to object B, the ball was pushed off the table by object B.



What can object A and B be?

- | | A | B |
|-----|--------|---------|
| (1) | Steel | Plastic |
| (2) | Nickle | Magnet |
| (3) | Iron | Steel |
| (4) | Magnet | Magnet |

13. Grace wanted to compare the hardness of 4 table tops A, B, C and D. She scratched each of them ten times with an iron rod and recorded the number scratches found on each table top after that. Her observations are recorded in the table below.

Table Top	Number of scratches
A	3
B	6
C	5
D	4

Arrange the 4 table tops from the hardest to the softest.

	hardest	→	softest
(1)	A,	B,	C, D
(2)	A,	D,	C, B
(3)	B,	C,	D, A
(4)	B,	D,	A, C

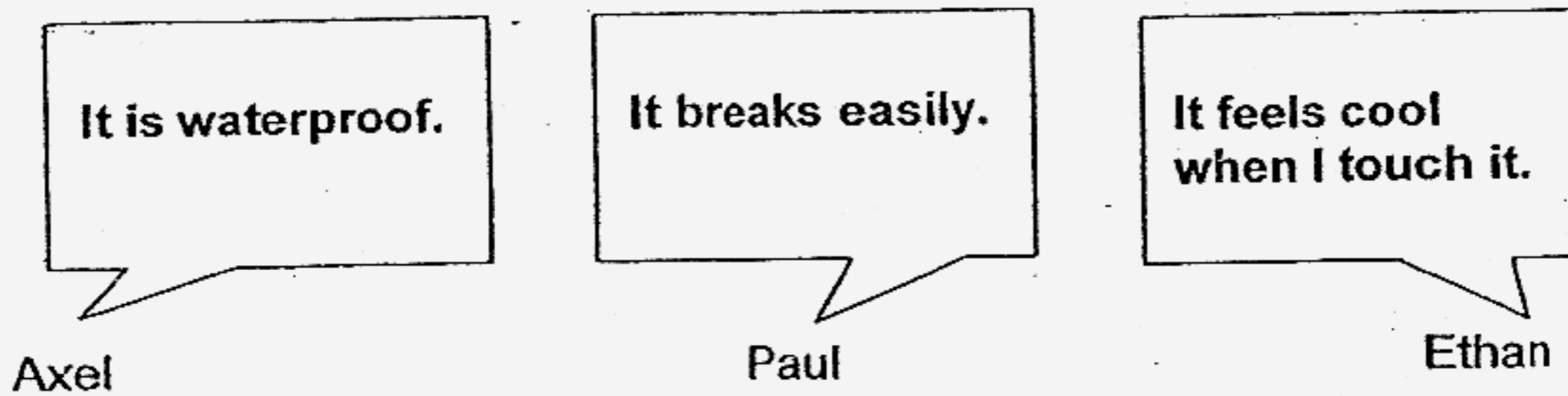
14. Sara selected four materials, A, B, C and D, to make some products. She recorded her choice and the corresponding reasons in the table below.

Material	Reason for the use of the material
A	It is a good conductor of heat.
B	It is durable and not flammable.
C	It is light and not waterproof.
D	It is flexible and can be sewn together easily

Which material(s) A, B, C or D could be metal?

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

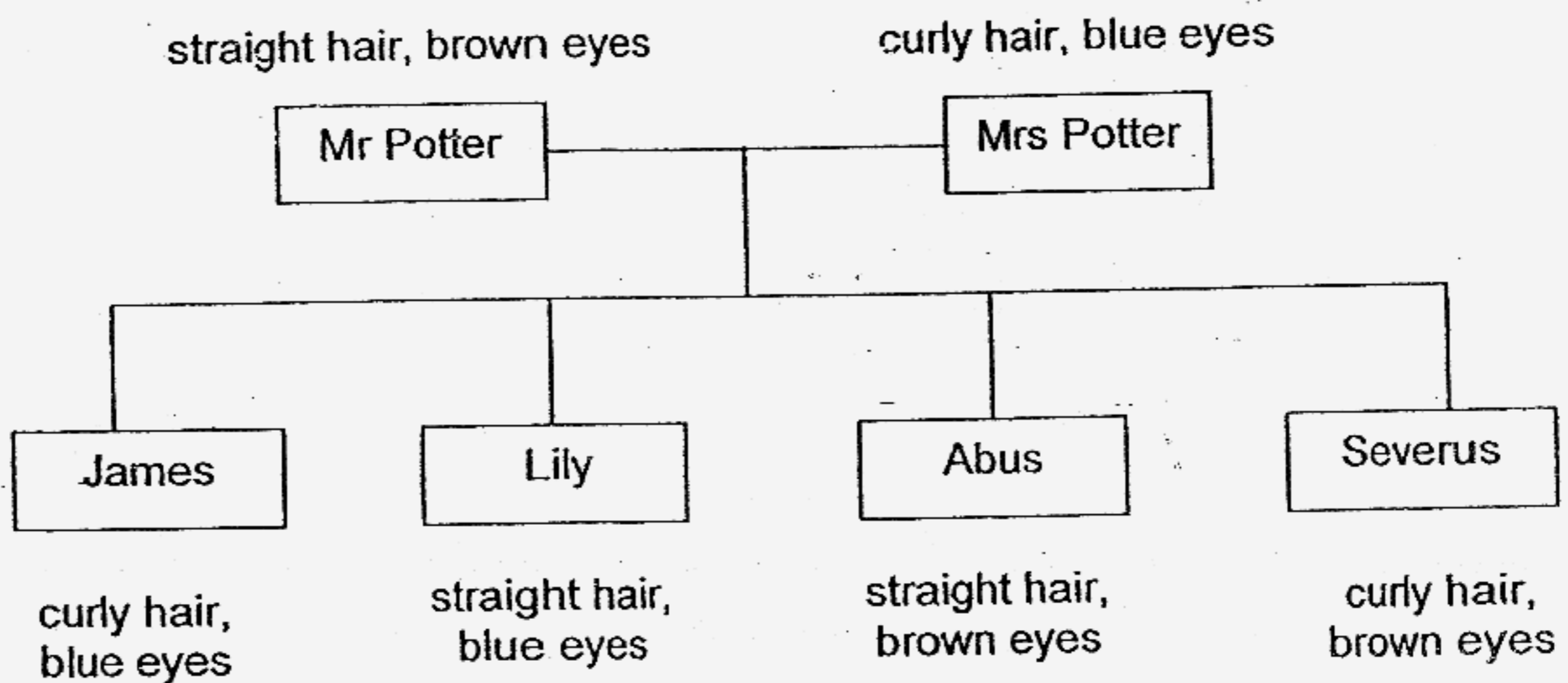
15. Three boys are talking about an object which they have just found.



Which one of the following is the object most likely to be?

- (1) coin
- (2) handkerchief
- (3) tree branch
- (4) porcelain plate

16. The family tree below shows what traits each child possesses from Mr and Mrs Potter.



Which child most resembles Mrs Potter?

- (1) James
- (2) Lily
- (3) Abus
- (4) Severus

17. Harry observed a fruit very carefully and made the following observations:

- It is cold.
- It is green
- It has hairy skin
- It has a strong smell.

How many sense organs did he use when he made the above observations?

- (1) 1
- (2) 2
- (3) 3
- (4) 4

18. Shobana caught an animal and she thinks that it is the nymph of a cockroach. Which of the following observations can help her confirm that it is indeed the nymph of a cockroach?

- A: It has 6 legs
- B: It has two body parts.
- C: It does not have wings.
- D: It looks like the adult cockroach.

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

19. Which of the following systems can be found in plants?

- A: Skeletal system
- B: Digestive system
- C: Muscular system
- D: Transport system ✓

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

20. Billy, Joshua and Marcus were trapped in a lift for 20 minutes. There was no fresh air entering the lift. Which of the following shows the change in amount of gases in the lift after 20 minutes?

	Oxygen	Carbon Dioxide
(1)	increase	increase
(2)	increase	decrease
(3)	decrease	increase
(4)	decrease	decrease

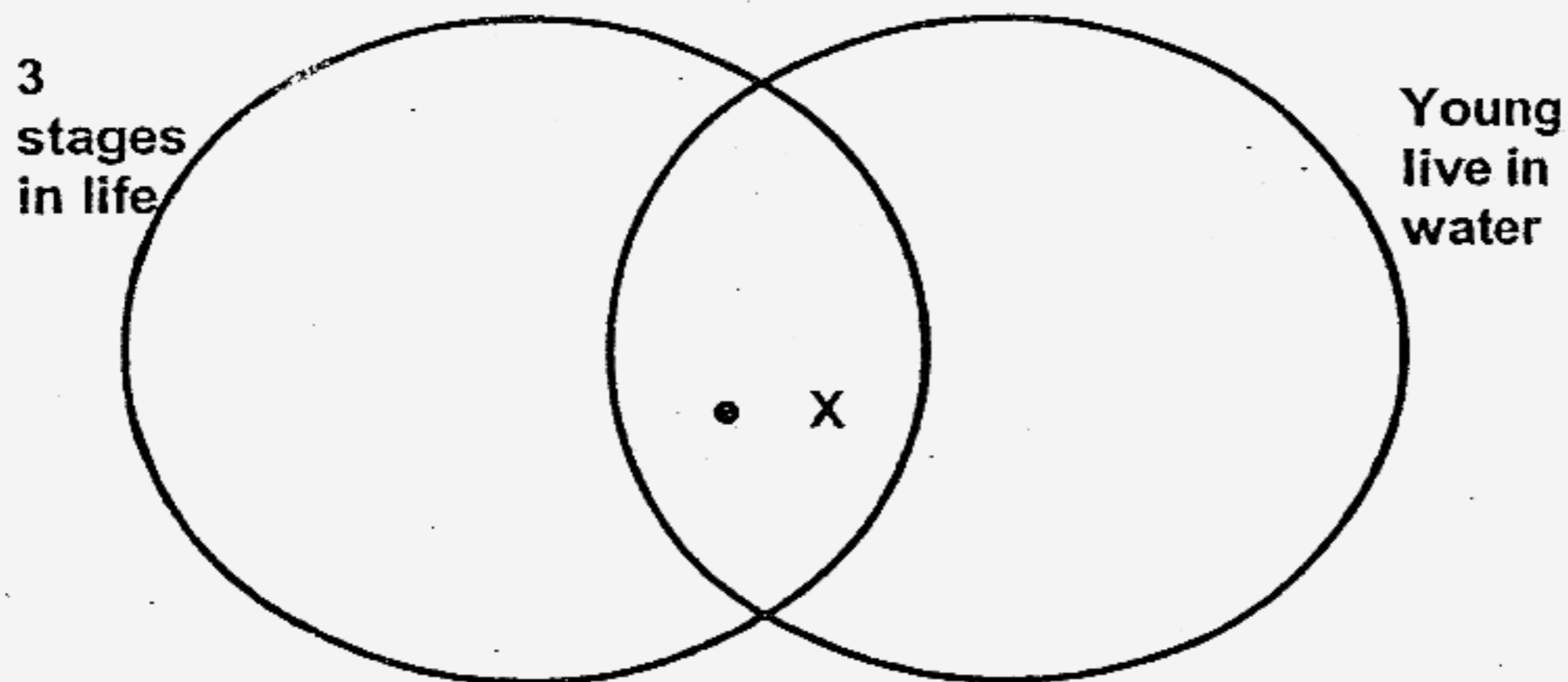
21. The table below shows the characteristics of Edwin's parents.

Parent	Description
Mother	<ul style="list-style-type: none">● tall● slim● smiles readily● has curly, brown hair
Father	<ul style="list-style-type: none">● short● stocky● likes to sing● has straight, blond hair

Based on the above information, what characteristics would Edwin most likely have?

- (1) Edwin has white teeth.
(2) Edwin can play football well.
(3) Edwin has straight and brown hair.
(4) Edwin is overweight and he likes to eat food.
22. Andy was eating some French fries when he started to choke. Which one of the following is the most likely reason why he choked?
- (1) The food enters his gullet.
(2) The food enters his windpipe.
(3) The food was too big for his stomach.
(4) The food cannot be digested anymore.

23. Study the Venn diagram carefully.



Which one of the following animals can 'X' be?

- (1) chicken
- (2) butterfly
- (3) dragonfly
- (4) grasshopper

24. Which of the following statement(s) is/are true about our digestive system?

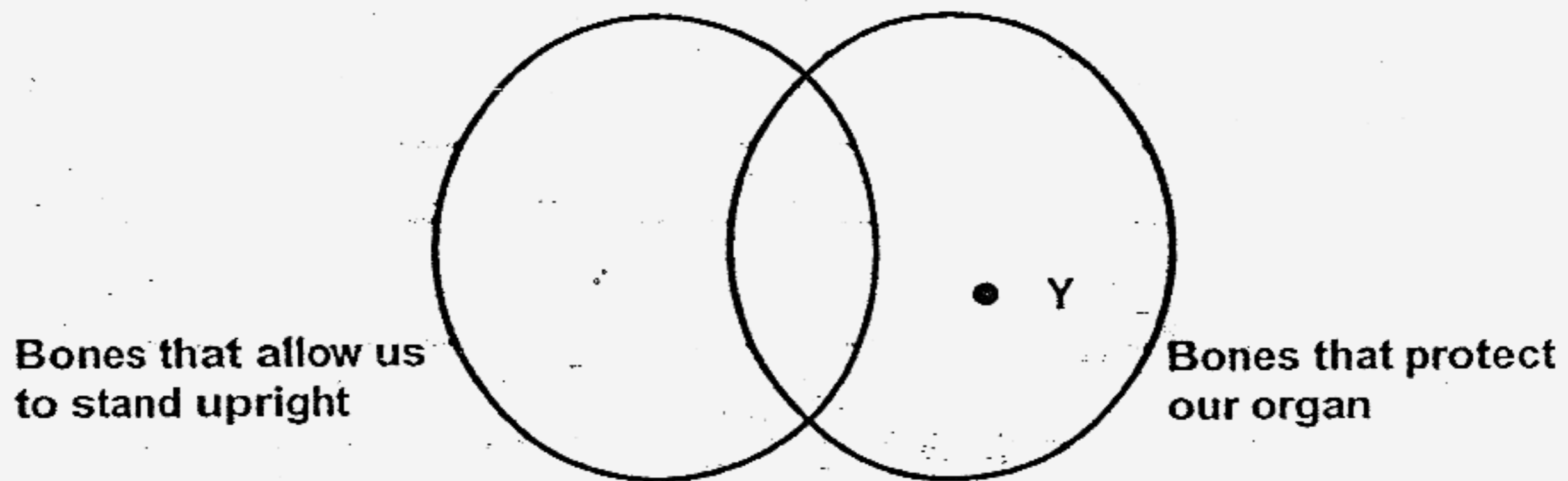
- A: The tongue is part of our digestive system.
- B: Our digestive system only breaks down food into smaller pieces
- C: Digestive juices are produced only in some parts of our digestive system.

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

25. The human body consists of many parts. Which one of these parts does not support the body?

- (1) biceps
- (2) ribcage
- (3) backbone
- (4) thigh bone

26. Study the Venn diagram below.



Which of the following could 'Y' be?

- (1) skull
- (2) knee cap
- (3) backbone
- (4) shoulder joints

27. Which of the following organs have muscles?

- A: heart
- B: gullet
- C: tongue
- D: stomach

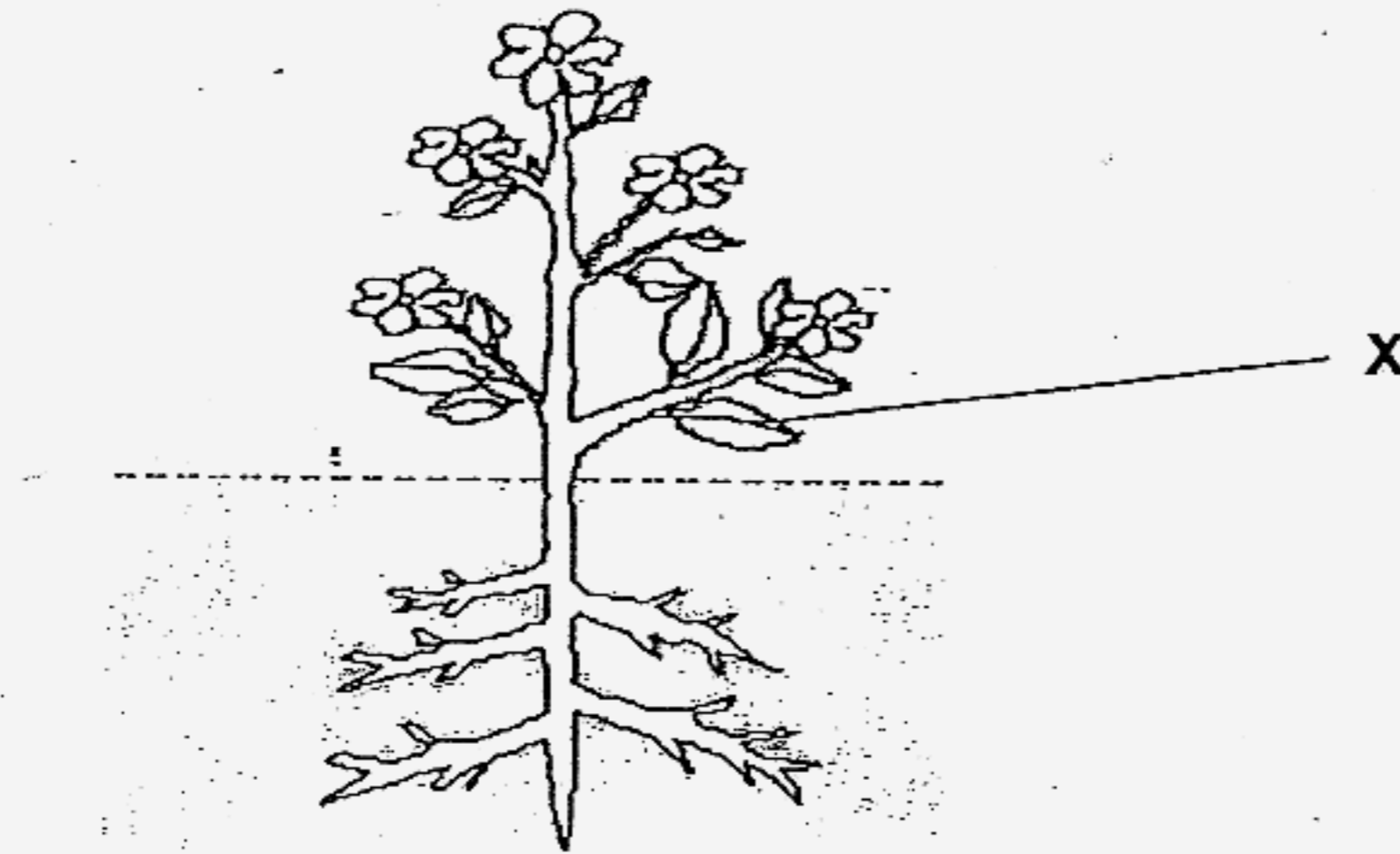
- (1) A and D only
- (2) A, B and D only
- (3) B, C and D only
- (4) A, B, C and D

28. Which of the following are functions of the roots of a plant?

- A: Make food for the plant
- B: Transport sugar to the stem
- C: Hold the plant firmly to the soil
- D: Take in water and mineral salts from the soil

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

29. The diagram below shows a flowering plant, What is the function of the part marked 'X'?



- (1) It supports the plant
- (2) It grows into flowers
- (3) It makes food in the presence of sunlight
- (4) It takes in moisture from the air

30. What does a seed need to germinate?

- A: air
- B: water
- C: warmth
- D: fertiliser

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



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PRIMARY THREE SCIENCE

SEMESTRAL ASSESSMENT 2

2007

BOOKLET B

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Booklet A:	60
Booklet B :	40
Total :	100

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Booklet B consists of 16 printed pages including this cover page.

Section B (40 marks)

Write your answers to questions 31 to 46 in the spaces provided.
Marks will be deducted for misspelt key words.

31. Anne placed the following objects into a basin of water one at a time.

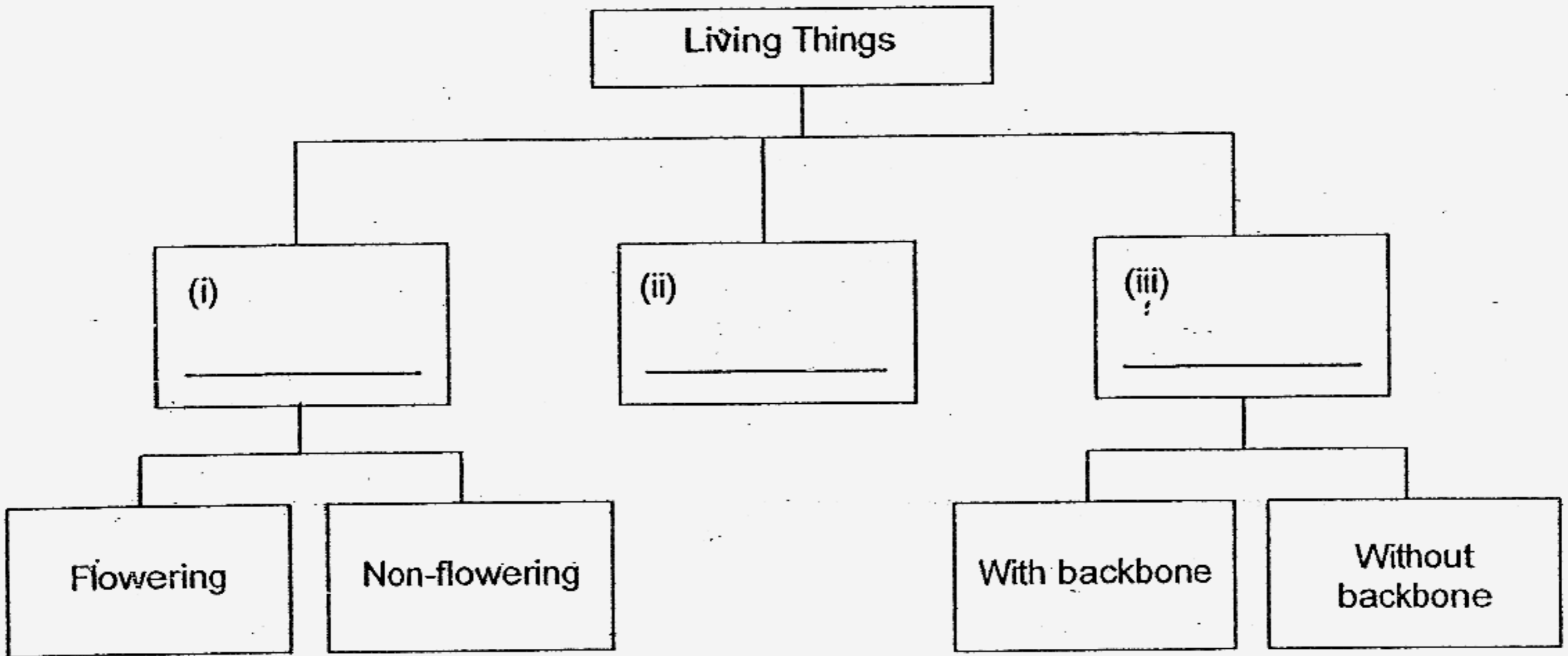
marble	drinking straw	coin
ice-cream stick	steel plate	plastic food wrap

She made some observations and recorded her results in the table below.

- (a) Based only on what she had observed, give suitable headings for the classification table. (1 mark)
- (b) Fill in the table with the correct objects according to her classification. (3 marks)

(a)	Group 1: _____	Group 2: _____
(b)	• _____	• _____
	• _____	• _____
	• _____	• _____

32. Study the classification chart below.



- (a) Write "Fungi" in the correct box (i), (ii) or (iii) in the classification chart above. (1 mark)
- (b) State the difference between how the tomato plant reproduces and how the mushroom reproduces. (1 mark)

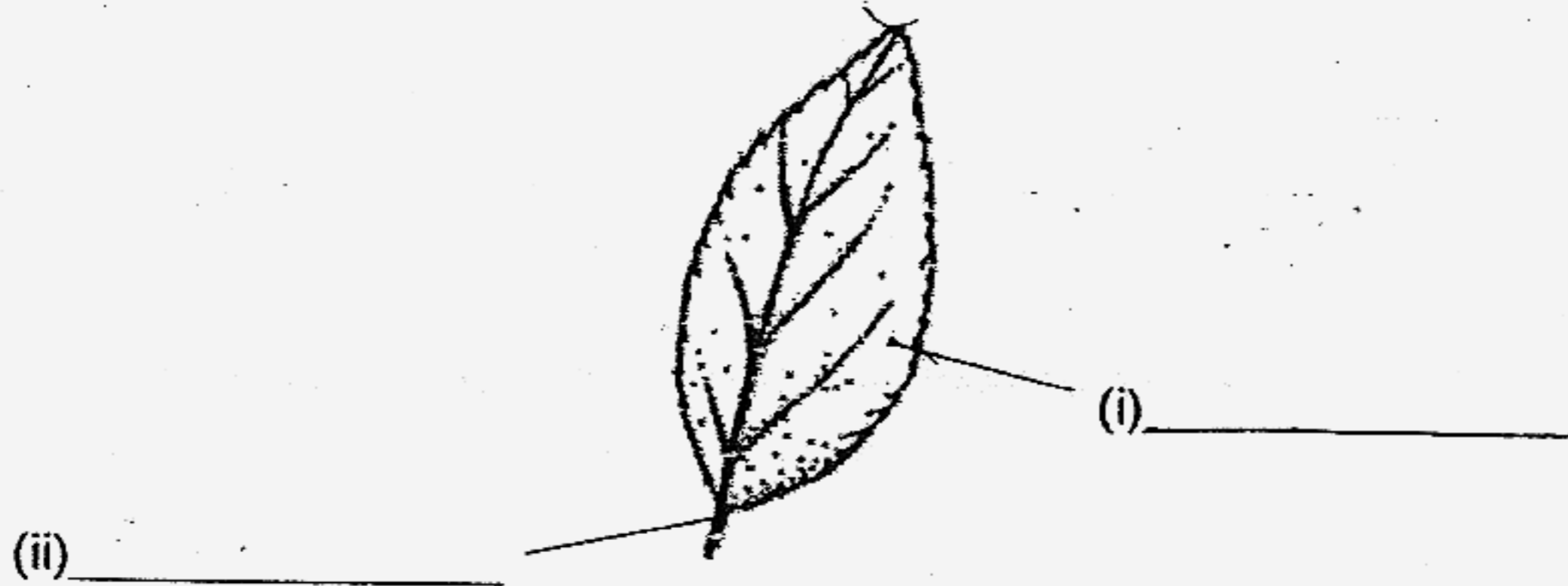
33. Kiah Wee conducted an experiment to find out how a seed grows into a seedling. He placed the seedling in a room and recorded the mass of the seed leaf and the shoot during the experiment.

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
X	1 g	0.9 g	0.6 g	0.5 g	0.3 g	0.1 g
Y	0 g	0.1 g	0.2 g	0.3 g	0.4 g	0.5 g

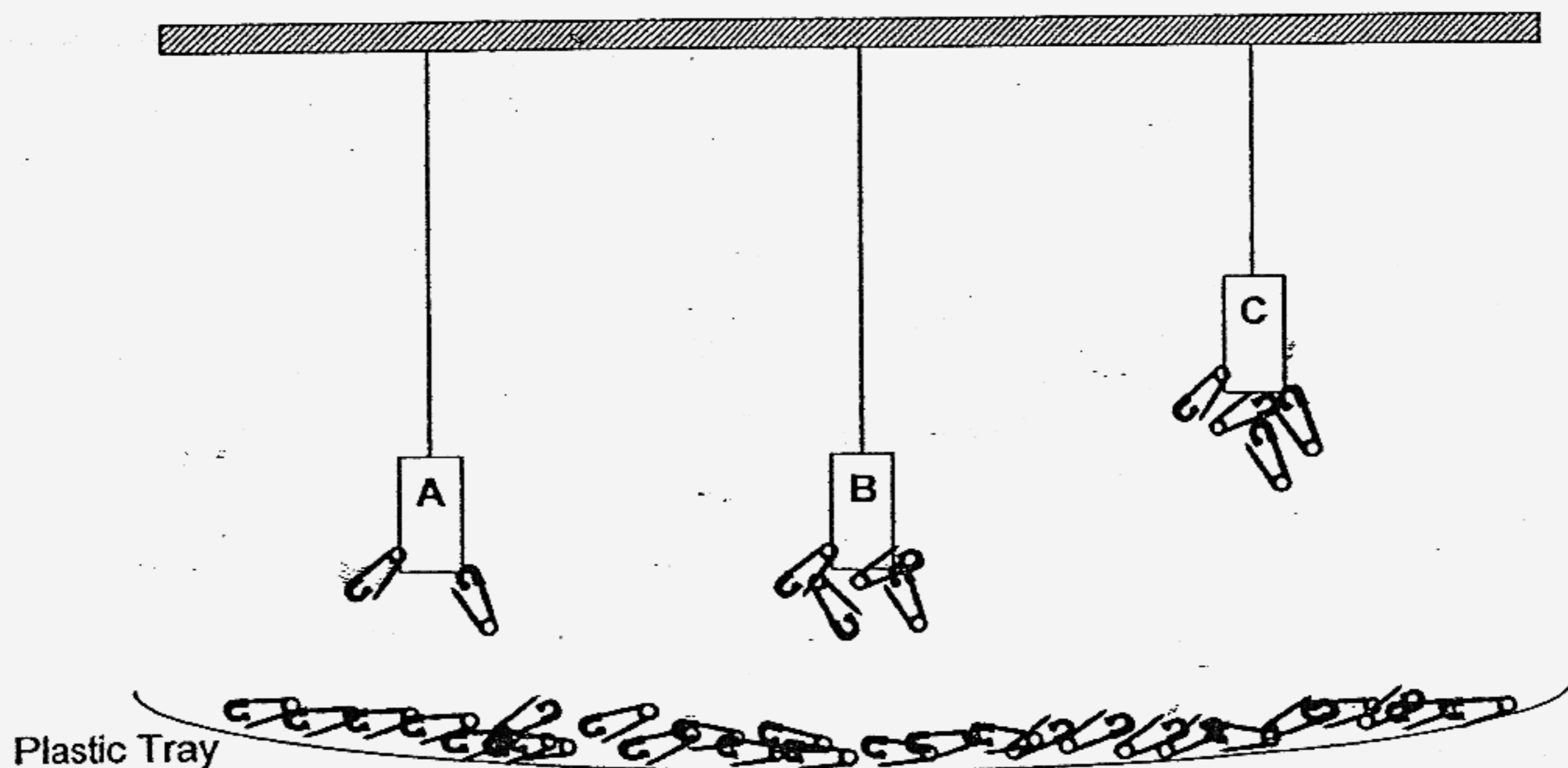
- (a) Is "X" or "Y" most likely to be the shoot? (1 mark)

- (b) Explain your answer in part (a). (1 mark)

- (c) The diagram below shows a leaf. Label the parts of the leaf by filling in the blanks. (1 mark)



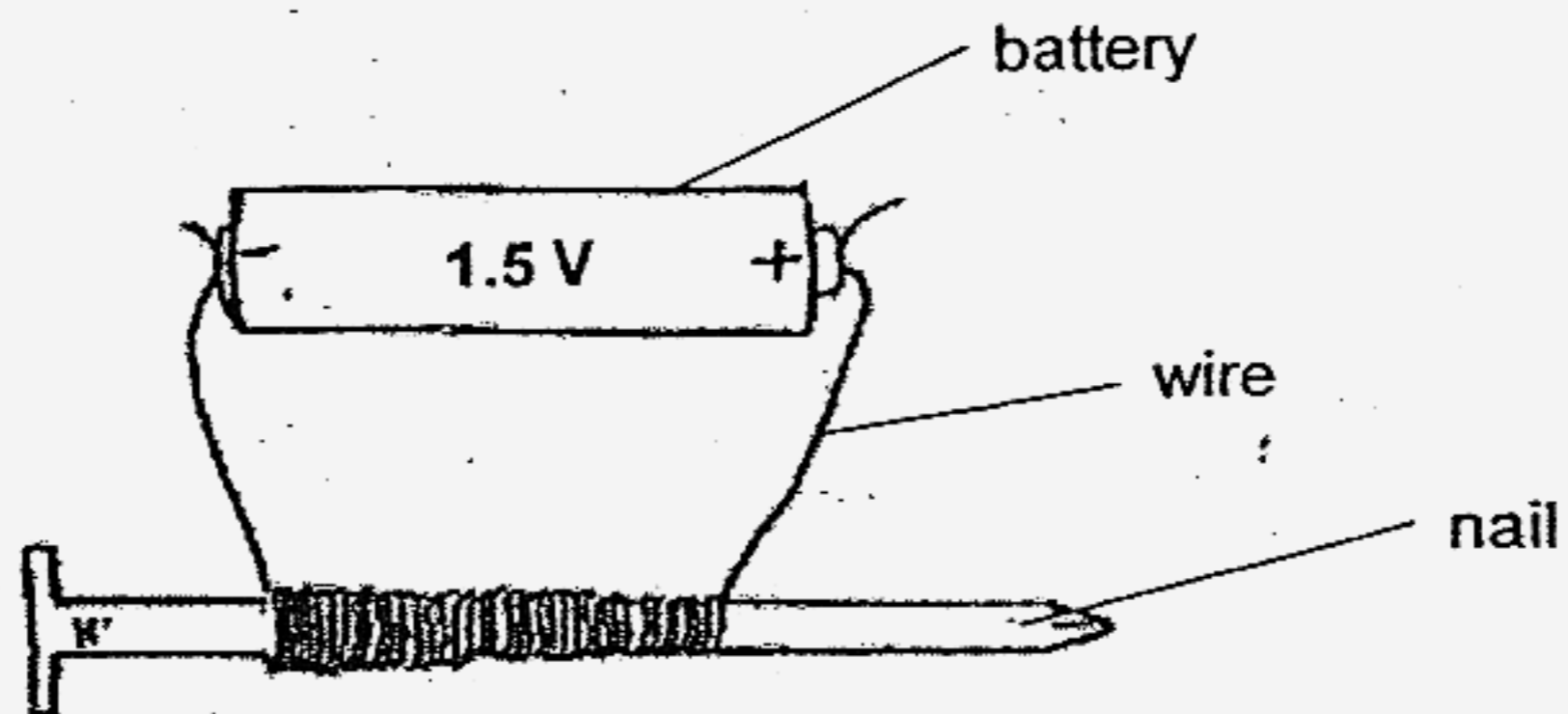
34. Megan conducted an experiment by hanging magnets A, B, and C above a plastic tray of safety pins. She spread the safety pins evenly throughout the tray. The diagram below shows what she had observed for her experiment.



Based on the experiment, put a (✓) in the columns below to indicate whether the conclusion that can be made by Megan is true or false. (2 marks)

	Conclusion	True	False
(a)	Magnet C is stronger than magnet A.		
(b)	Magnet B is the stronger than magnet A.		
(c)	Magnet C is stronger than magnet B.		
(d)	Magnet C and magnet B is of the same strength.		

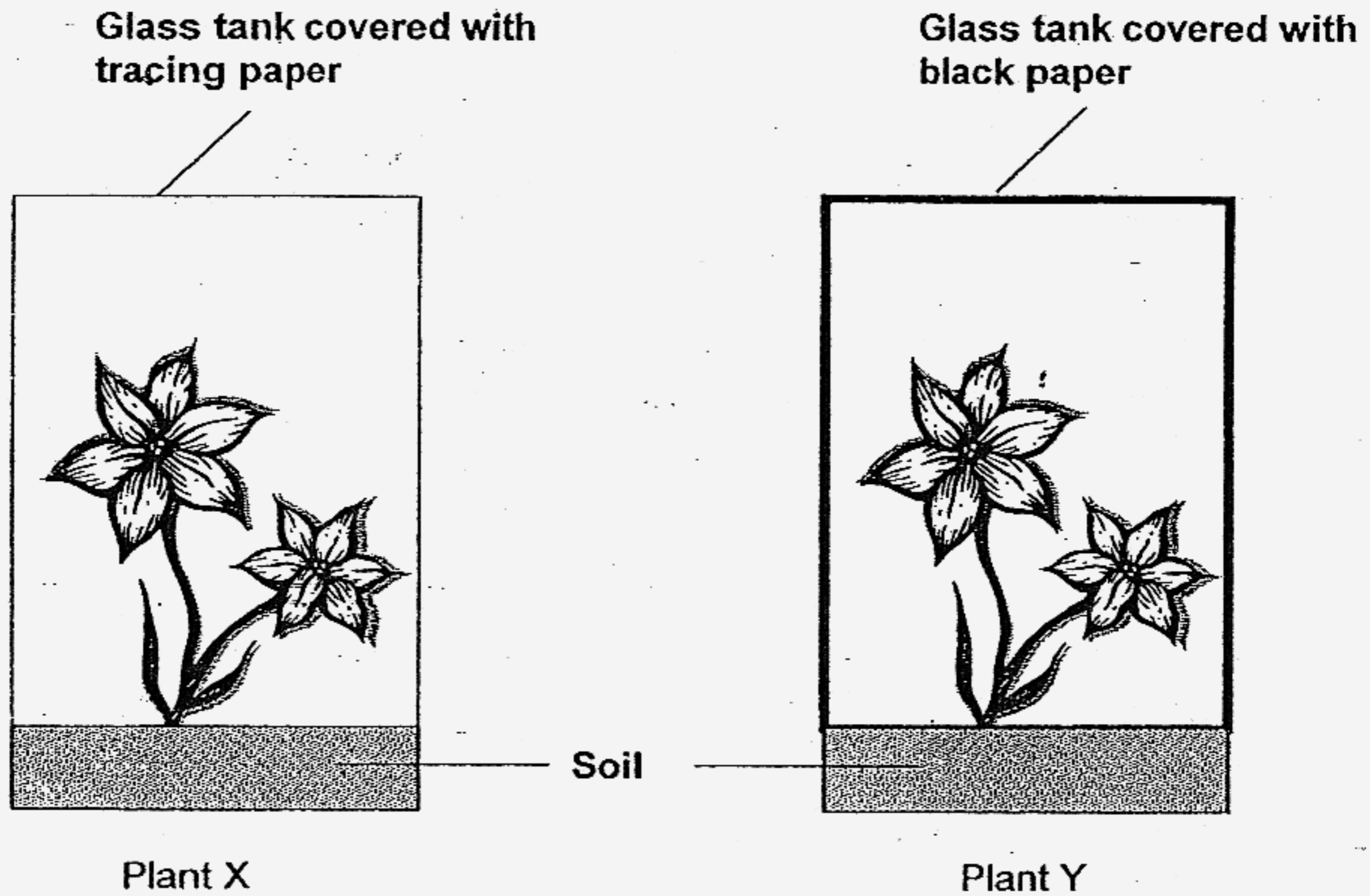
35. Shuyu made an electromagnet using a battery, a piece of wire and an iron nail as show below



- (a) Without adding any item to the set-up, suggest how you can make the electromagnet stronger. (1 mark)

- (b) Name another material that can be used to replace the iron nail to make an electromagnet. (1 mark)

36. Asfalinda measured the height of the two plants and placed them into two different-glass tanks as shown below. The plants were watered and placed next to each other on a table near a window for three days.



She measured the height of the plants after three days. It was found that one of the plants had grown more compared to the other.

- (a) Which plant, X or Y, will most likely grow more after three days? (1 mark)

- (b) Explain your choice in (a). (1 mark)

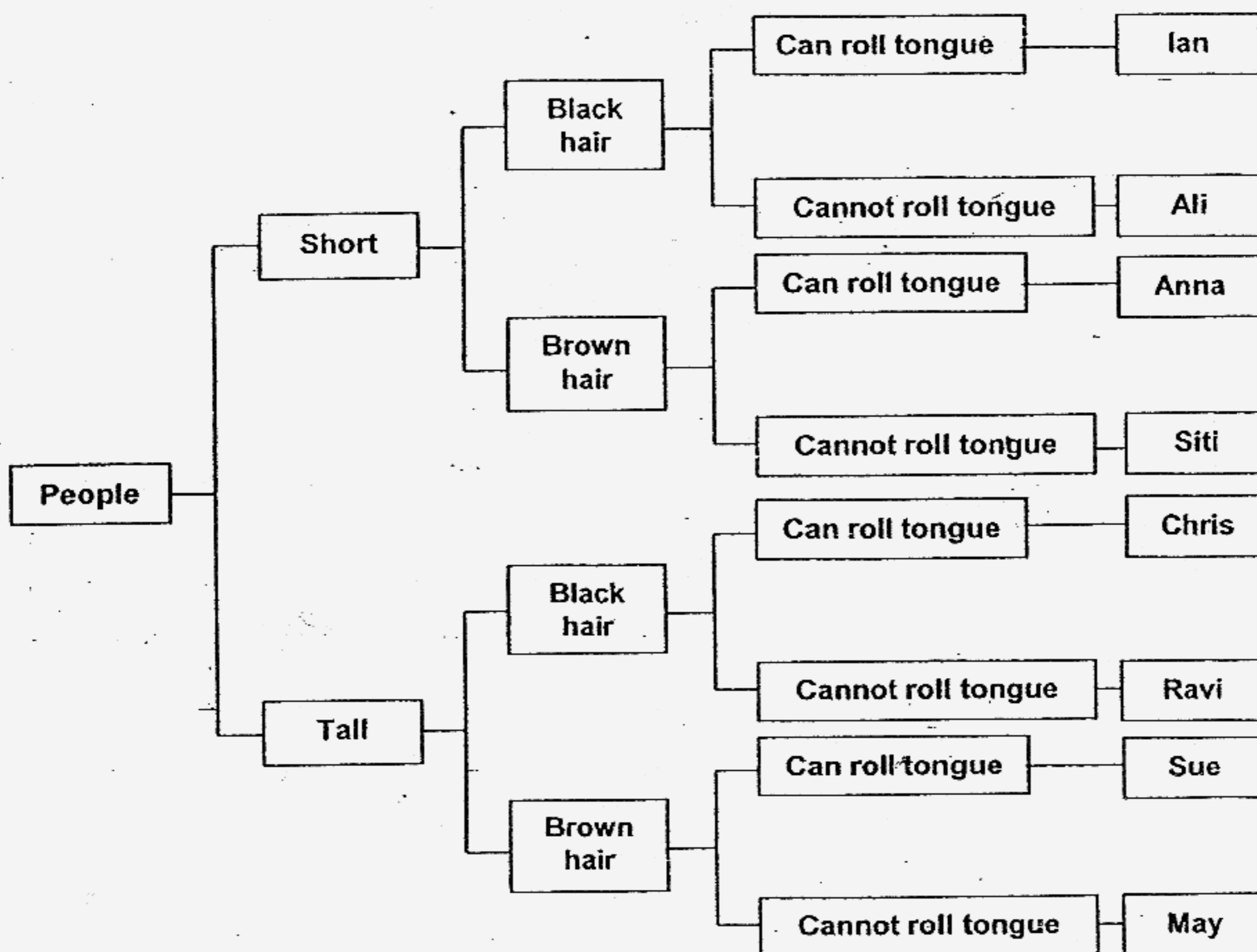
37. Amelia made a study of the number of mushrooms found on fallen tree trunks under different conditions.

Conditions	Number of mushroom
Bright and dry	6
Bright and moist	14
Shady and dry	12
Shady and moist	18

Based only on the information above, put a (✓) in the columns below to indicate whether the conclusions by Amelia is true, false or not possible to tell. (2 marks)

	Conclusion	True	False	Not possible to tell
(a)	Mushrooms grow best in moist and shady places.			
(b)	Mushrooms can only grow under moist condition.			
(c)	Mushrooms reproduce by spores.			
(d)	Mushrooms will grow better in shady places as compared to bright places.			

38. Study the classification table below.

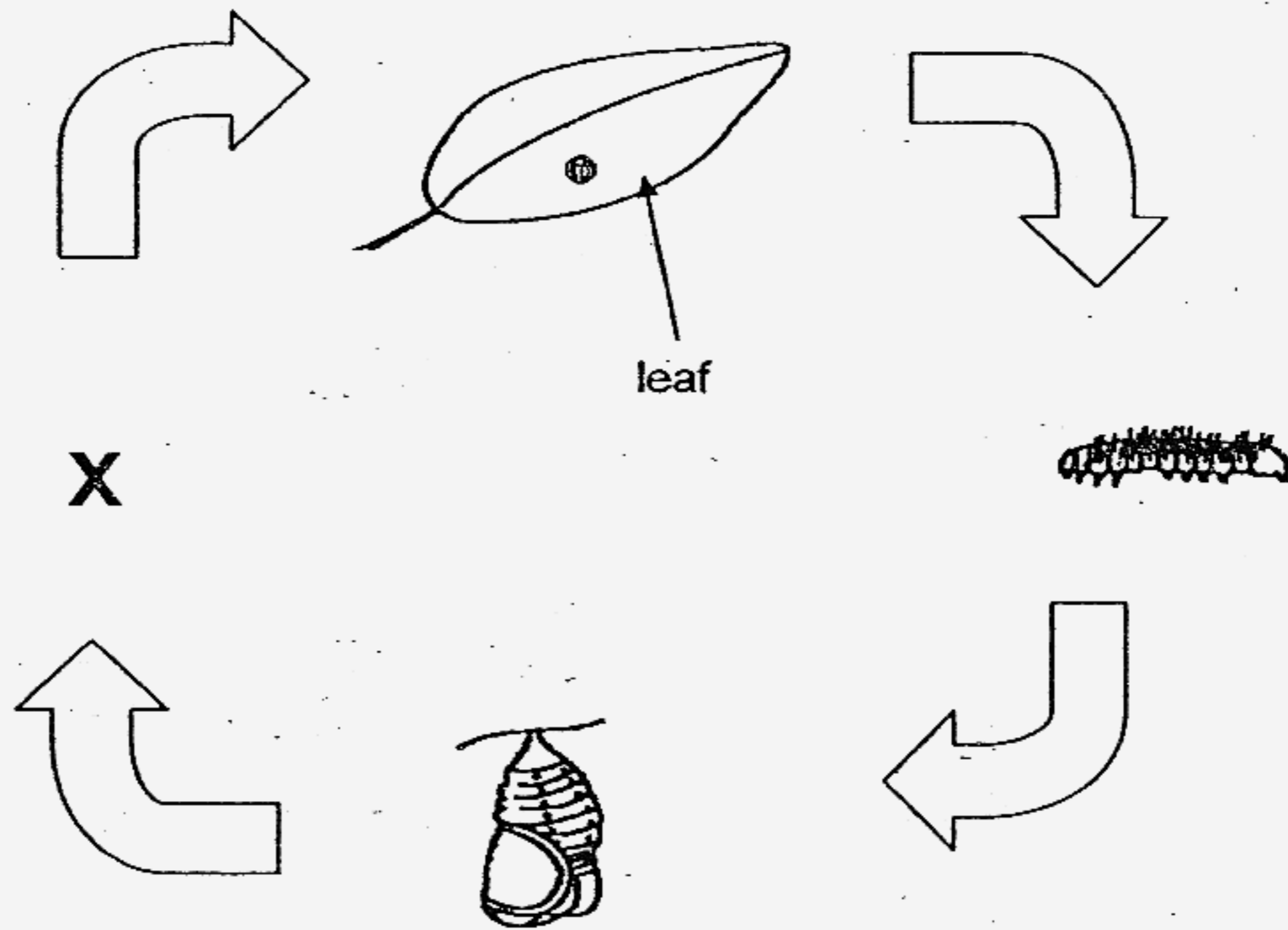


(a) In the table below, fill in the blanks with the names of people that fit the description. (1 mark)

	Name	Description
(i)		A short boy with black hair and cannot roll his tongue.
(ii)		A tall girl with brown hair and cannot roll her tongue.

(b) Using the information in the above classification table, is it possible to tell whether a boy could roll his tongue by looking at his hair colour? Explain your answer. (1 mark)

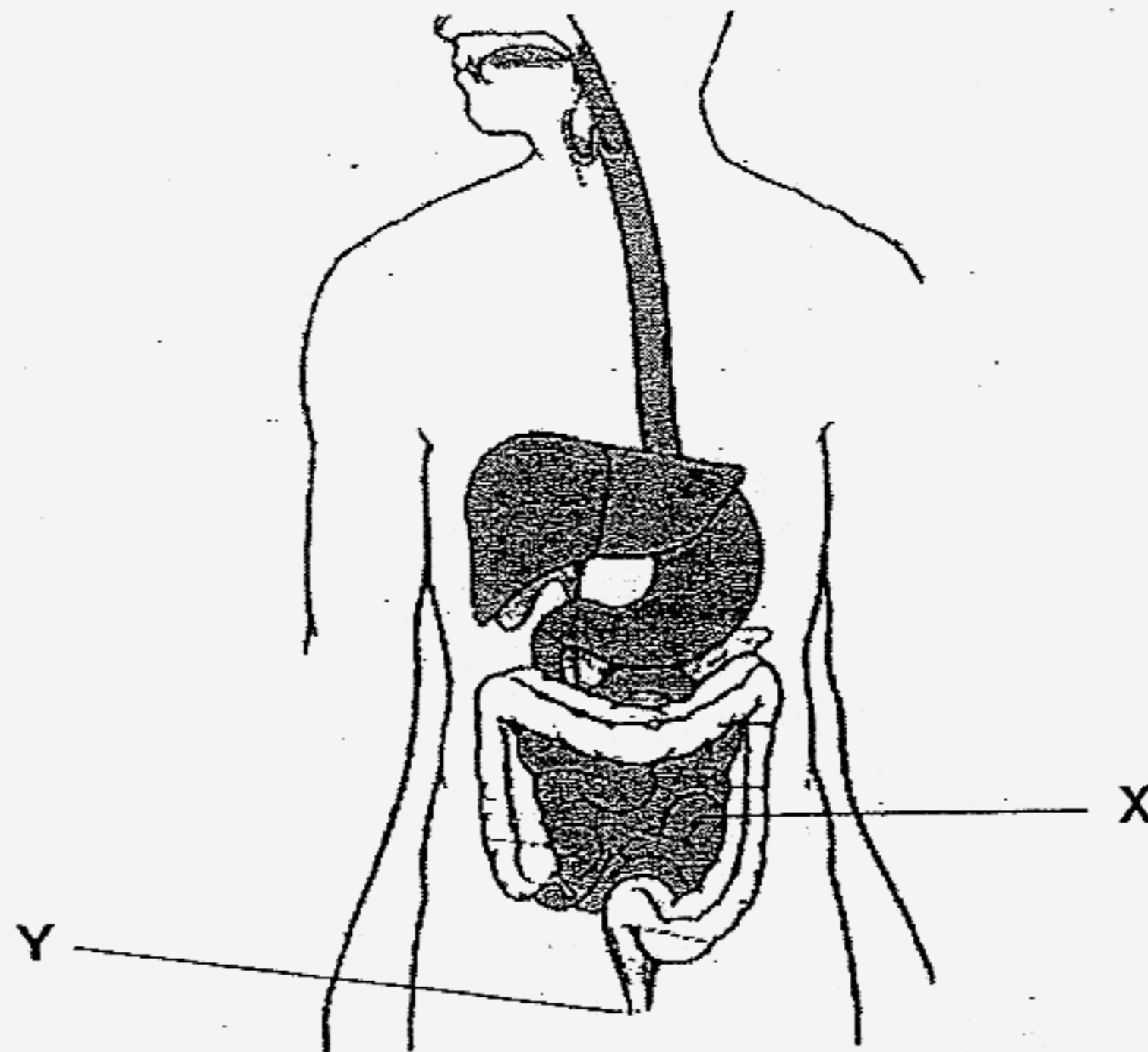
39. Calista studied the life cycle of an insect and drew a diagram to represent it as below.



- (a) Name the stage marked X. (1 mark)

- (b) Calista compared the above life cycle to that of a cockroach. State one difference between the two life cycles. (1 mark)

40. The diagram below shows the parts of the human digestive system.



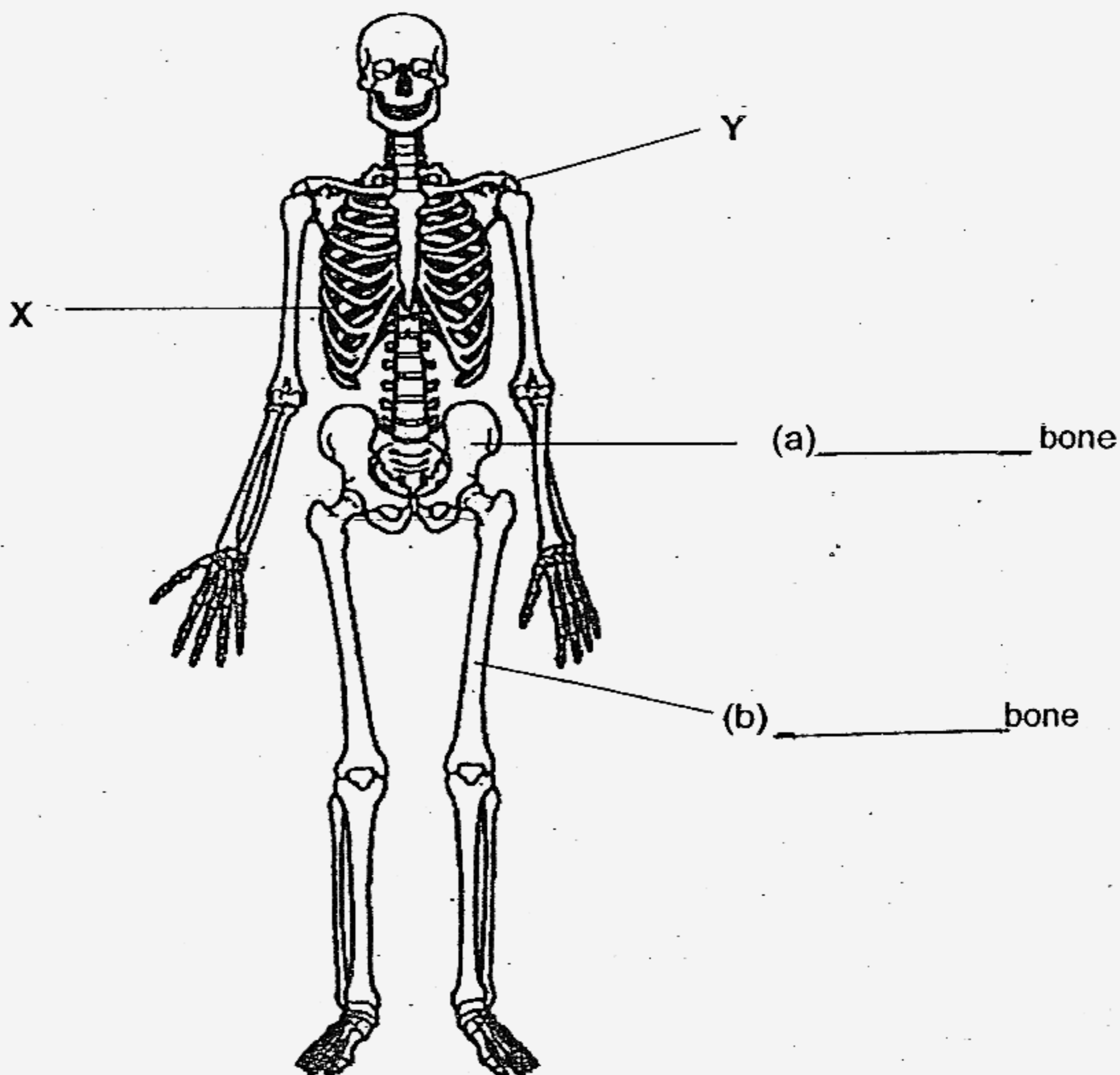
(a) Name the two parts of the digestive system indicated above. (2 marks)

(i) X: _____

(ii) Y: _____

(b) Name the organ in the digestive system where water will be absorbed from the undigested food. (1 mark)

41. Study the human skeleton shown below. Fill in the blanks with the parts of the human skeleton. (1 mark)



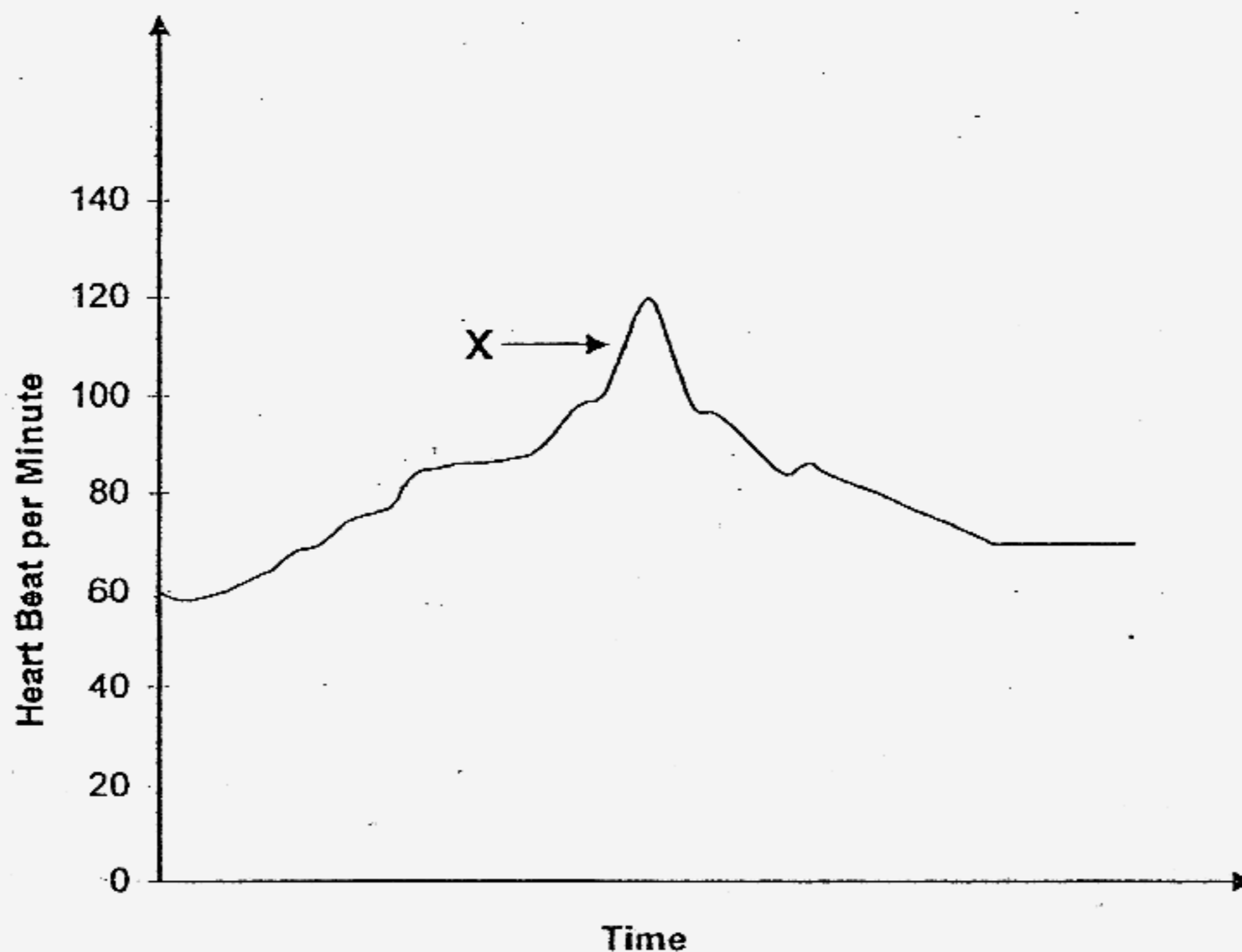
- (c) Name two organs which part X protects. (2 marks)

i. _____

ii. _____

- (d) Name the type of joint found at part Y. (1 mark)

42. On the average, Ethan's heart beats about 70 beats per minute. He was asked to carry a bag weighing 1 kg and perform the following tasks (not in order): running, sitting and walking. His heartbeats were recorded in the chart below.



- (a) What would Ethan most likely be doing at point X? (1 mark)
-

- (b) The maximum heartbeats per minute recorded in the above experiment was 120. If Ethan had done the activities carrying a bag weighing 5 kg instead, would you expect the maximum beats per minute to most likely be higher or lower than 120 beats per minute? (1 mark)
-

- (c) When we breathe, which gas in the air is taken in by the body for respiration? (1 mark)
-

43. Kenneth ate a bowl of noodles in the canteen. Later he told his friend, Lucas, that the noodles were hot and delicious. Lucas replied that he had seen Larry eating noodles at the canteen too.

From the description above, name three senses which Kenneth and Lucas had made use of. (3 marks)

(i) _____

(ii) _____

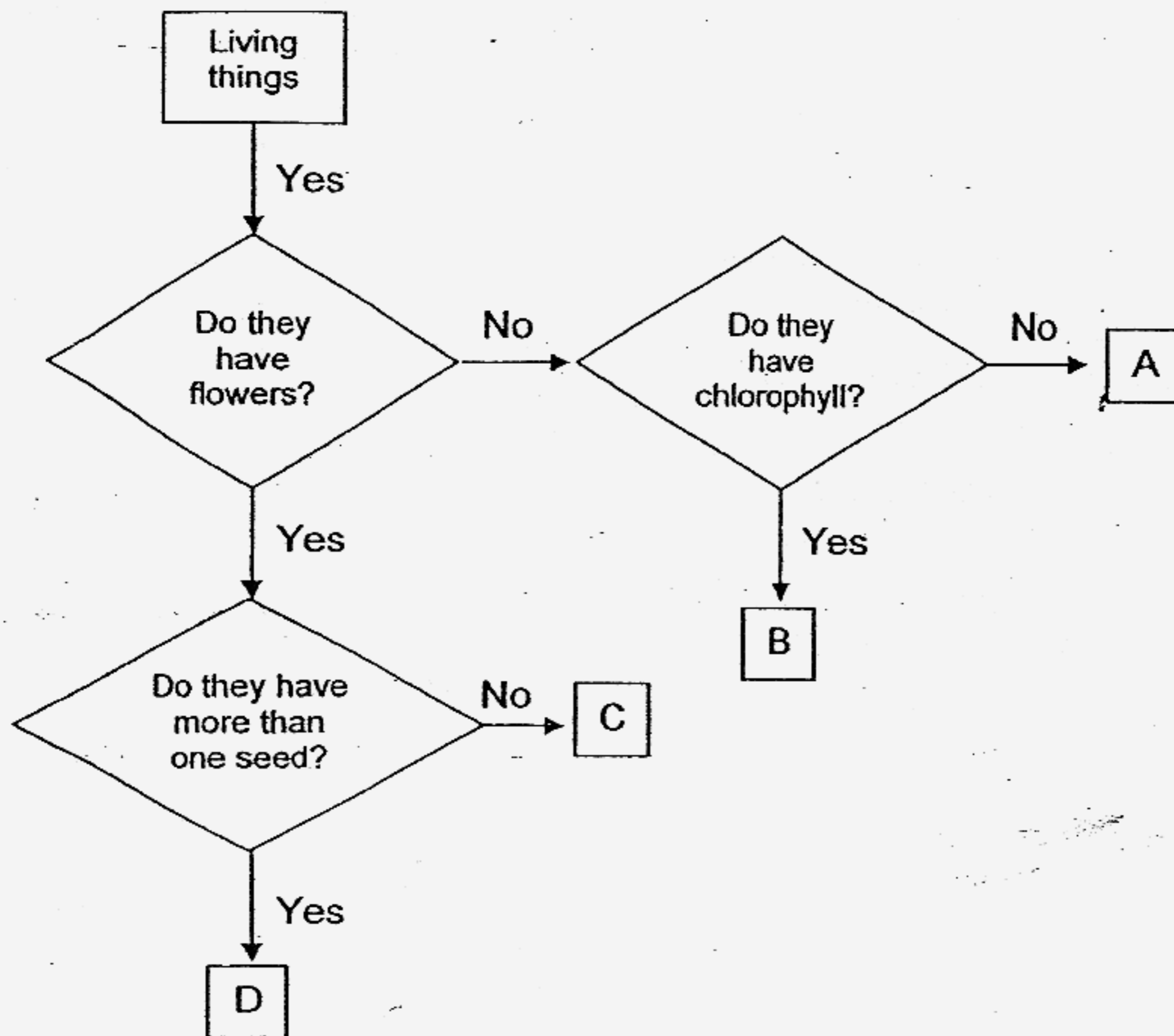
(iii) _____

44. The table below consists of systems of the human body. Fill in the blanks below with the letters that represents correct human body systems. (2 marks)

A) Digestive System	B) Respiratory System
C) Skeletal System	D) Circulatory System
E) Muscular System	

	FUNCTIONS	SYSTEMS
(a)	It contracts and relaxes to make movement possible.	
(b)	Carries food, water, oxygen and waste to and from various parts of the body.	
(c)	Supports our body and gives it shape	
(d)	Breaks down food into simpler substances for the body to absorb.	

45. Study the flow chart as shown below.



(a) State a similarity between A and B. (1 mark)

(b) State a difference between plant C and plant D. (1 mark)

(c) Which letter best represents 'staghorn fern'? (1 mark)

46. Muthu made the following statements about the human heart and lungs. Put a (✓) in the columns for statements that are true and a (x) for statement(s) that are false. (2 marks)

	Statements	True	False
(a)	The lungs help the body to produce oxygen		
(b)	The lungs remove carbon dioxide from the body.		
(c)	The lungs are organs of the circulatory system.		
(d)	The heart carries oxygen and circulates it in our body.		

Setters: Ms Asfalinda Asmawi, Mr Yap Heng Yeow

Nanyang Primary School
Primary 3 Science SA2 Exam(2007)

Answer Keys

SECTION A : (60 MARKS)

Qn no.	Ans
1	3
2	3
3	2
4	2
5	1
6	2
7	3
8	4
9	4
10	3

Qn no.	Ans
11	4
12	4
13	2
14	2
15	4
16	1
17	3
18	4
19	2
20	3

Qn no.	Ans
21	3
22	2
23	3
24	4
25	1
26	1
27	4
28	4
29	3
30	1

SECTION B (40 MARKS)

31a. Group 1 : Sink
marble

Group 2 : Float
ice-cream stick

31b. coin, drinking straw, steel plate, plastic food wrap

32a. Fungi

32b. A tomato plant reproduce from seeds while the mushroom reproduce from spores

33a. Y

33b. (i) The seedling gets its food so the seeds leaf "X" decreases in mass while the shoot "Y" grows and increase its mass.

33c(i). leaf blade

(ii). leaf stalk

34a. T

34b. T

34c. T

34d. F

35a. Coil more wires around the nail.

35b. The material is a metal rod made out of nickel.

- 36a. It is plant X.
 36b. Sunlight can pass through tracing paper but not the black paper.
- 37a. T
 37b. F
 37c. Not
 37d. T
- 38a. (i) Ali
 (ii) May
 38b. No. The cause of the people who can't roll tongue is passed down by the genes of the parent.
- 39a. adult stage.
 39b. The above life cycle has four stages while the cockroach life cycle only has three.
- 40a. (i) Small intestine.
 (ii) anus
 40b. The organ is large intestine.
- 41a. a) hip b) thigh c) heart ii) lungs
 41b. The joint is the ball and socket joint.
- 42a. Ethan most likely would be running.
 42b. It would be most likely to be higher.
 42c. We take in oxygen.
43. (i) Sight
 (ii) Taste
 (iii) smell
- 44a. E
 44b. D
 44c. C
 44d. A
- 45a. A and B both do not have flowers.
 45b. Plant C has one seed while plant D has more than one seed.
 45c. Letter B is best to represent stag horn fern.
- 46a. F
 46b. T
 46c. F
 46d. F