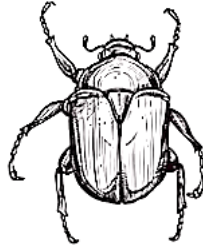


For each question from 1 to 18, three options are given. One of them is the correct answer. Make your choice (1, 2 or 3). Shade your answer on the Optical Answer Sheet. [36 marks]

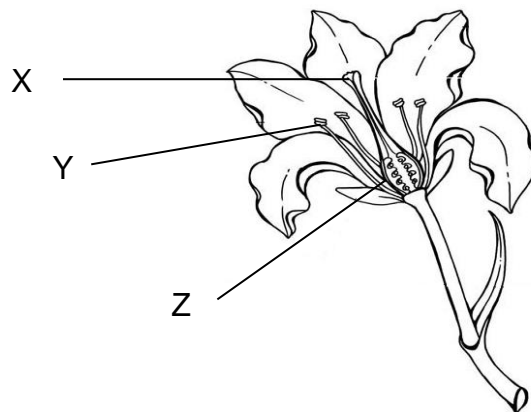
1. The picture below shows an insect.



Which characteristic shows that it is an insect?

- (1) It has six legs.
- (2) It has two feelers.
- (3) It has no wings.

2. The diagram below shows parts X, Y and Z of a flower.



At which part does fertilisation take place?

- (1) X
- (2) Y
- (3) Z

3. The table below shows the characteristics of living thing Q.

Characteristic	Living Thing Q
Makes its own food	No
Produces seeds	No

Based on the characteristics, what could living thing Q be?

(1)



(2)



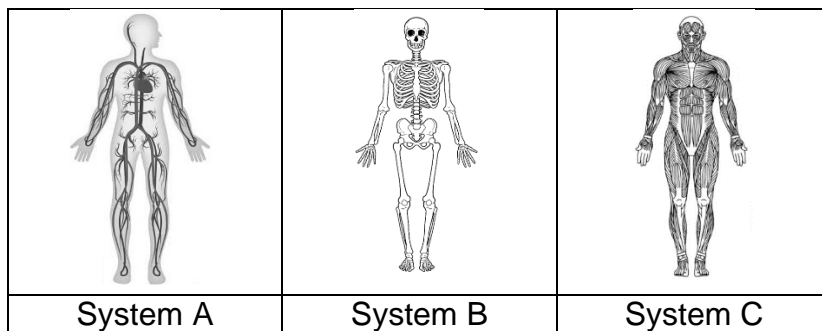
(3)



4. Which of the following is true?

	Absorbs water	Absorbs digested food
(1)	small intestine	large intestine
(2)	large intestine	small intestine
(3)	stomach	Mouth

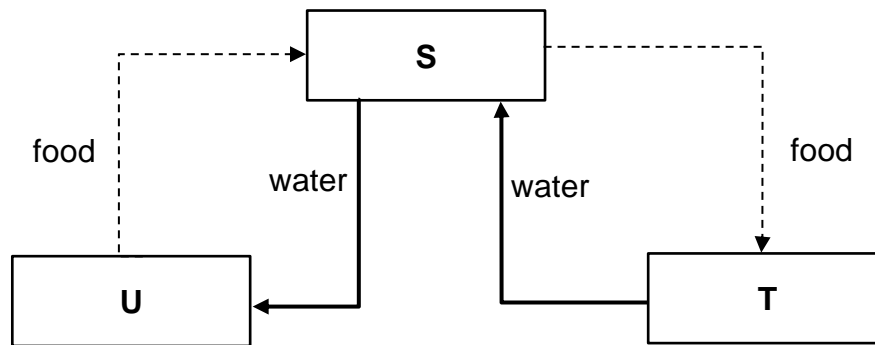
5. The diagram below shows the human body systems.



Which two systems are needed to work together to allow movement?

- (1) System A and System B
- (2) System B and System C
- (3) System A and System C

6. The diagram below shows the flow of substances, water and food in a plant.



Which of the following represent the correct plant parts?

	S	T	U
(1)	stem	Leaves	roots
(2)	leaves	Roots	stem
(3)	stem	Roots	leaves

7. Mohammed wanted to find out how floating plant X will affect the growth of water plant Y in water.



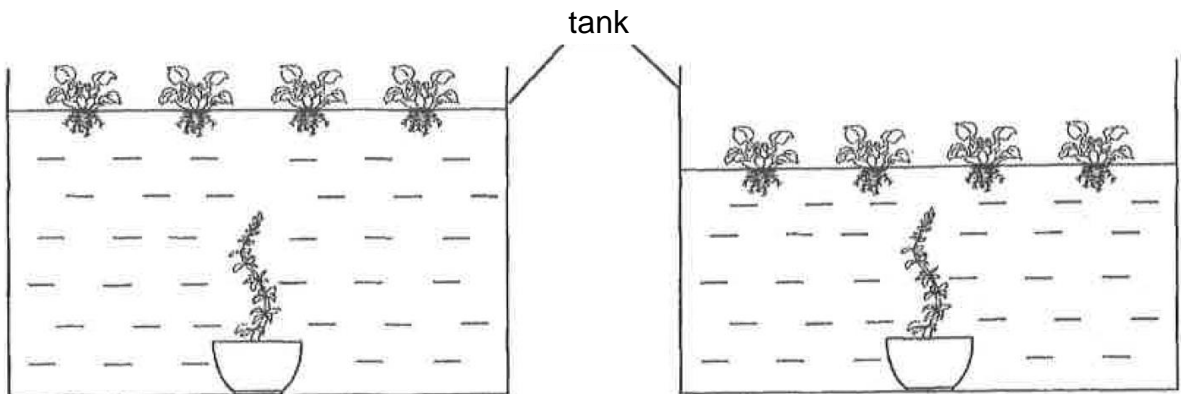
Plant X



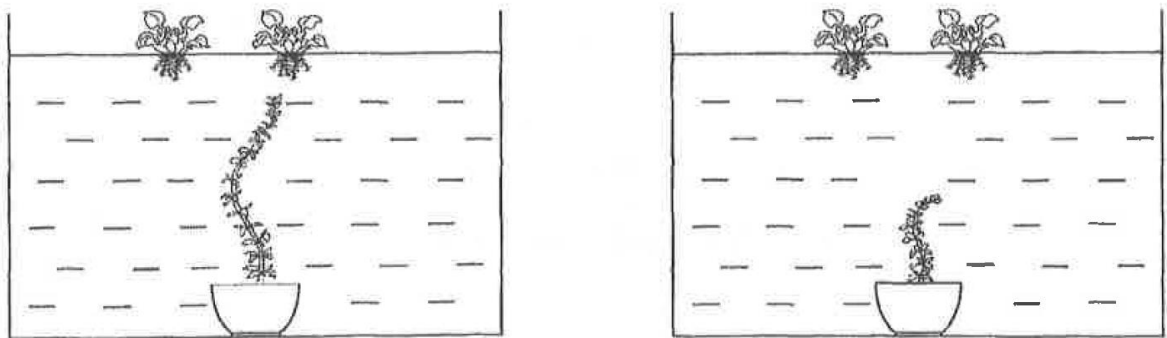
Plant Y

Which one of the following set-ups should he use for a fair test?

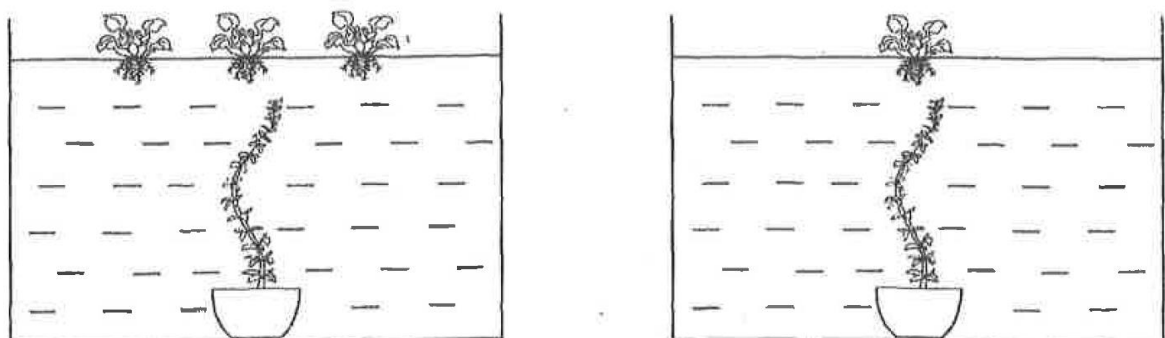
(1)



(2)



(3)

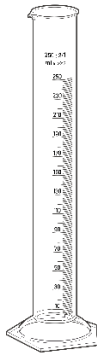


8. Randall wants to find out the volume of milk in the glass below.



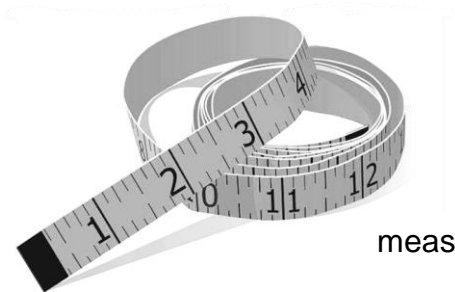
Which instrument should Mindy use?

(1)



measuring cylinder

(2)



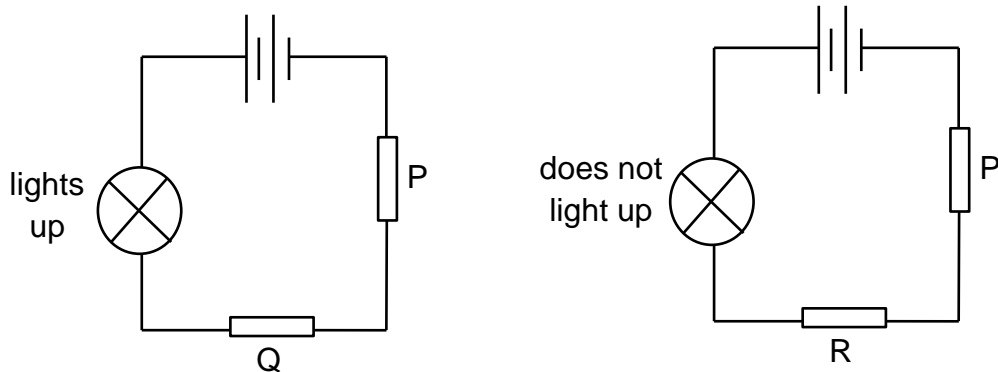
measuring tape

(3)



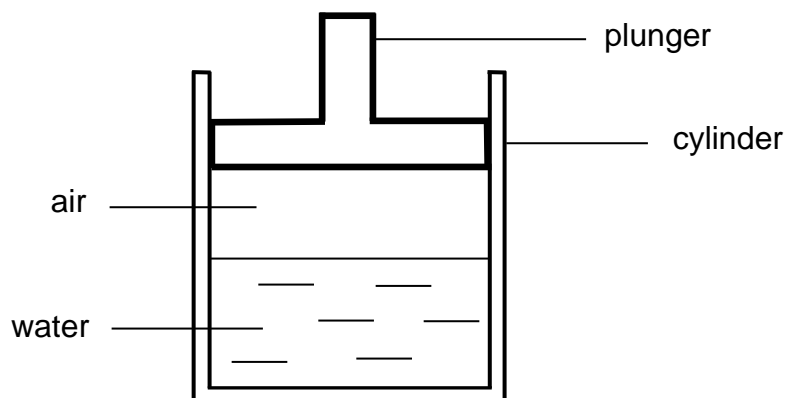
digital scale

9. Achmed sets up two circuits to find out if materials P, Q and R conduct electricity as shown below.



What can Achmed conclude about materials P, Q and R?

- (1) Only material P is an electrical conductor.
 - (2) Materials P and Q are electrical conductors.
 - (3) Only material R is an electrical conductor.
10. The diagram below shows a cylinder and a plunger. Sandra filled the cylinder with some water as shown.



Why is she able to push the plunger downwards without air or water escaping?

- (1) Air occupies space.
- (2) Air has no definite shape.
- (3) Air has no definite volume.

11. Which two objects will attract each other?

- (1)

N	S
---	---

Aluminium	
-----------	--
- (2)

N	S
---	---

S	N
---	---
- (3)

S	N
---	---

S	N
---	---

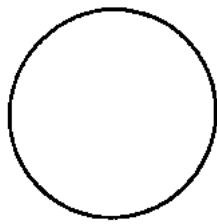
12. Jessica threw a snowball into the air.



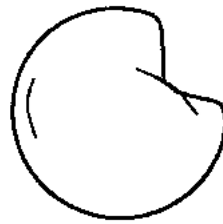
Which of the following is an effect of force on the snowball?

- (1) The snowball starts to move.
- (2) The snowball changes shape.
- (3) The snowball changes direction.

13. A plastic ball changed its shape after it was kicked hard.



before



after

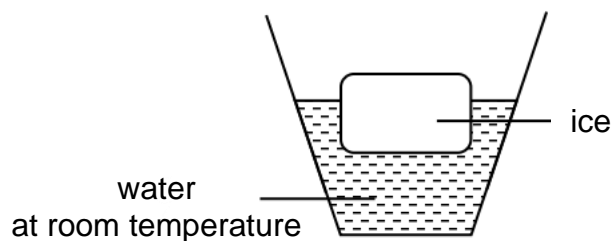
Which of the following is correct?

- (1) The mass of air in the ball has decreased.
- (2) The volume of air in the ball has decreased.
- (3) The mass of the plastic material has decreased.

14. Which one of the following does **not** help to conserve water?

- (1) Use a hose to wash the car instead of using a bucket.
- (2) Water house plants with water that was used to wash rice.
- (3) Use a mug to rinse your mouth instead of rinsing under a running tap.

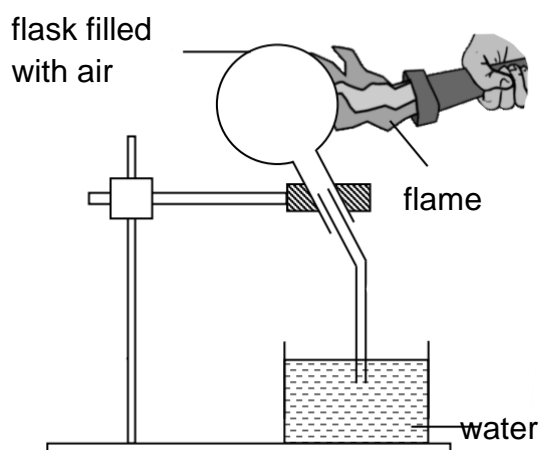
15. A glass containing a block of ice and some water was placed in a room. The room temperature was 25°C.



Which of the following statements is correct?

- (1) The ice transferred coldness to the water
- (2) The ice melts as it loses heat from the water.
- (3) Heat from the water is transferred to the ice causing it to melt

16. A flame was brought near to a flask filled with air.

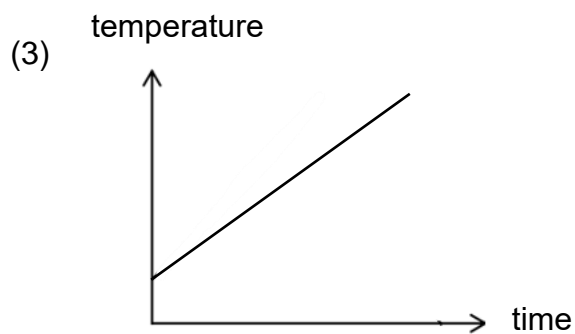
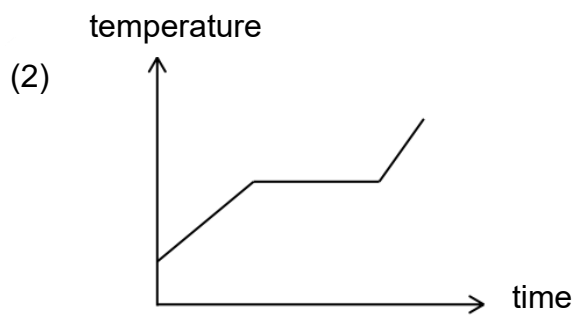
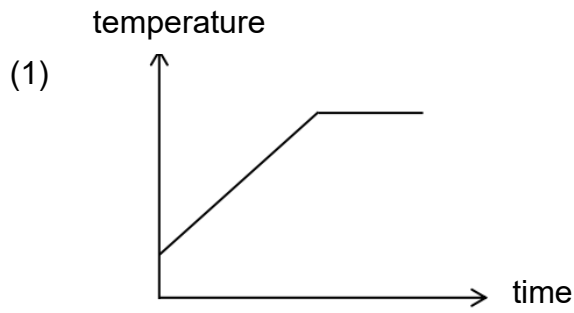


Bubbles were seen in the water after some time. Which of the following best explains this observation?

- (1) The flask gains heat and expands.
- (2) The air in the flask gains heat and expands.
- (3) The flame loses heat to the water and contracts.

17. Fareed wanted to boil some water. He heated a pot of water over the stove and waited for the water to boil. He continued to let the water to boil for a few minutes.

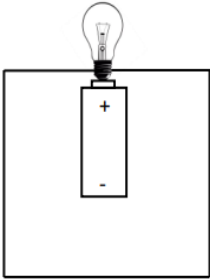
Which one of the following graphs shows the correct temperature reading of the pot of water used to finish cooking the soup?



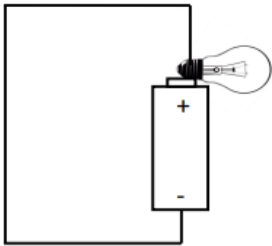
()

18. The diagrams below show three different circuits. In which of the circuits will the bulb light up?

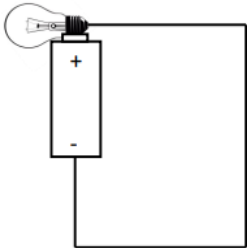
(1)



(2)



(3)



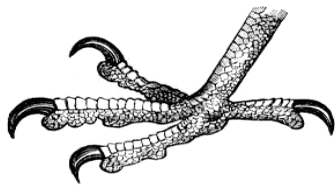
()

SOME USEFUL WORDS*

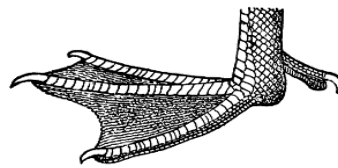
1	anus	44	light
2	attract / repel	45	liquid
3	battery	46	lung
4	blood (vessel)	47	magnet / magnetic material
5	boil / boiling	48	mammal
6	breathe	49	mass / weight
7	bulb	50	measuring cylinder
8	butterfly	51	melt / melting
9	carbon dioxide	52	metal
10	chicken	53	mouth
11	circulation	54	muscles
12	cockroach	55	mushroom
13	condense / condensation	56	nitrogen
14	conductor / insulator	57	(north / south / like) poles
15	contract / contraction	58	nose
16	(electric) current	59	oxygen
17	deforestation	60	plastic / rubber / wood
18	digestion	61	pollinate / pollination
19	earth	62	pollute / pollution
20	electricity / electrical circuit	63	predator
21	energy	64	prey
22	evaporate / evaporation	65	producer
23	expand / expansion	66	push / pull
24	fertilise / fertilisation	67	reflect
25	flexible	68	reproduce
26	float /sink	69	respiration
27	food (chain)	70	root
28	force	71	seed (dispersal)
29	freeze / freezing	72	shadow
30	friction	73	shape
31	frog	74	skeleton
32	fungi	75	solid
33	gas	76	space
34	germinate / germination	77	spore
35	global warming	78	spring balance
36	gravity	79	steam
37	gravitational force	80	steel
38	heart	81	stem
39	heat (gain / loss)	82	stomach
40	insect	83	switch
41	(large / small) intestine	84	temperature / thermometer
42	iron	85	volume
43	leaf	86	water (vapour)

****This list is not exhaustive. Candidates may be required to use words not found in the list.***

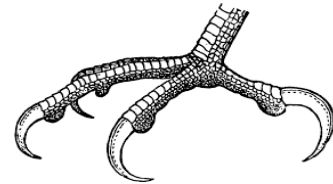
19 Birds have different types of feet to help them survive.



Foot A



Foot B

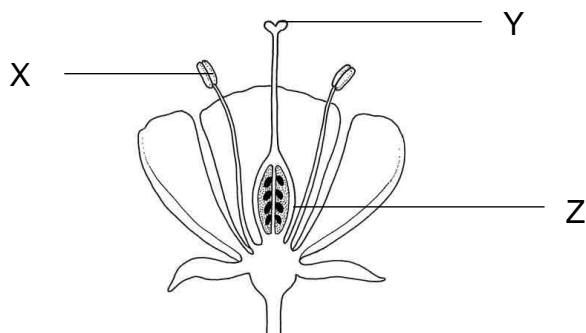


Foot C

Study the diagram and match feet A, B and C to the following characteristics. [2]

Characteristics	Feet
Scratch the soil for insects and worms	
Used for swimming in the water.	
Sharp and curved claws for grabbing its prey.	

20 The diagram below shows a cross section of a flower.



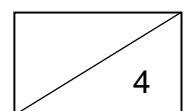
(a) Which part contains the female reproductive cell?
Tick (✓) the correct box. [1]

X

Y

Z

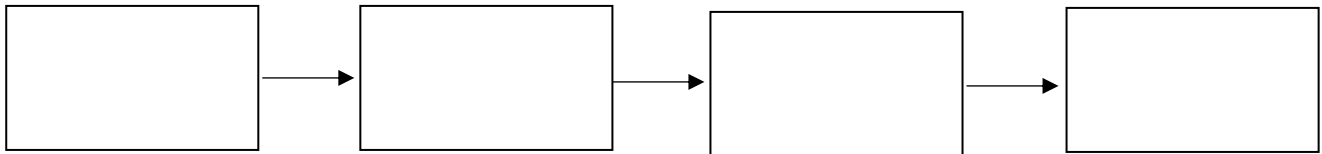
(b) Using an arrow (→), draw how pollination takes place on the diagram above. [1]



21 Construct a food chain using the organisms given below.

[2]

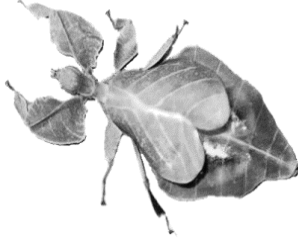


Rat	Plants	Snake	Eagle
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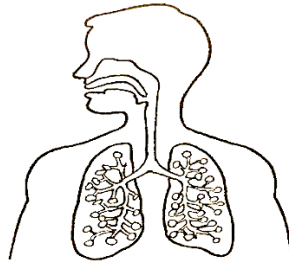
22 The diagrams and descriptions given below are adaptations of different organisms.

Tick (✓) the correct boxes to identify the type of adaptation in the boxes below.

[3]

	Diagram	Description	Type of adaptation	
			Structural	Behavioural
(a)		Shaped like a leaf to camouflage from predators.		
(b)		When a predator attacks, the herd can run off in different directions to confuse the predator and escape.		
(c)		A fennec fox has huge ears to lose heat to its surrounding to keep it cool.		

23 Study the diagram below.

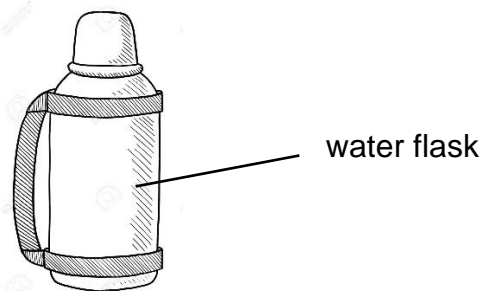


Fill in the blanks with a suitable word given in the box below.

(a) The diagram above shows the _____ system. [1]

(b) Air sacs found in the lungs allow exchange of _____
to take place. [1]

24 A water flask is made of material P.



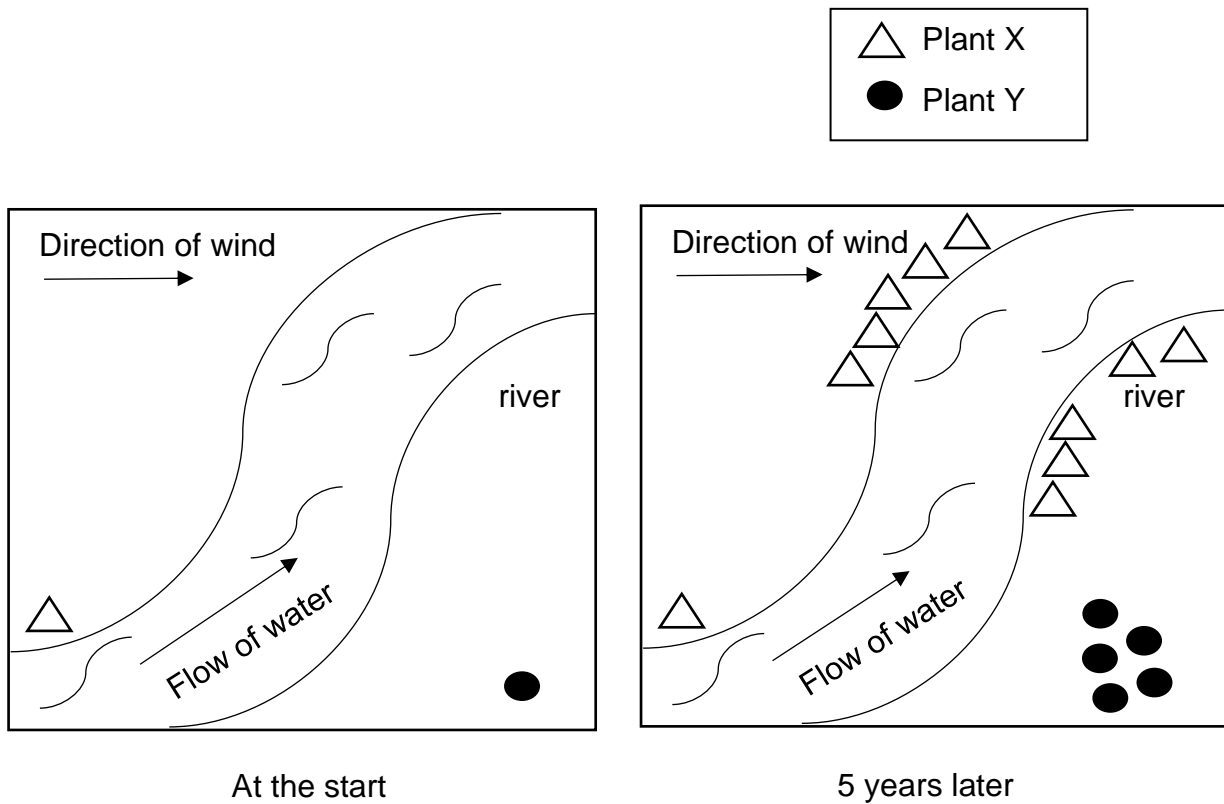
Hendra uses the water flask to keep his coffee hot.

(a) State the property of material P that helps keep the coffee hot. [1]

(b) Explain how material P helps to keep the coffee hot? [1]

(c) Hendra also uses the same flask to keep her iced water. Some ice turned into water. What is the temperature, in °C, of the ice-water mixture? [1]

25 The diagram below shows the population of two different types of plants, X and Y over 5 years.



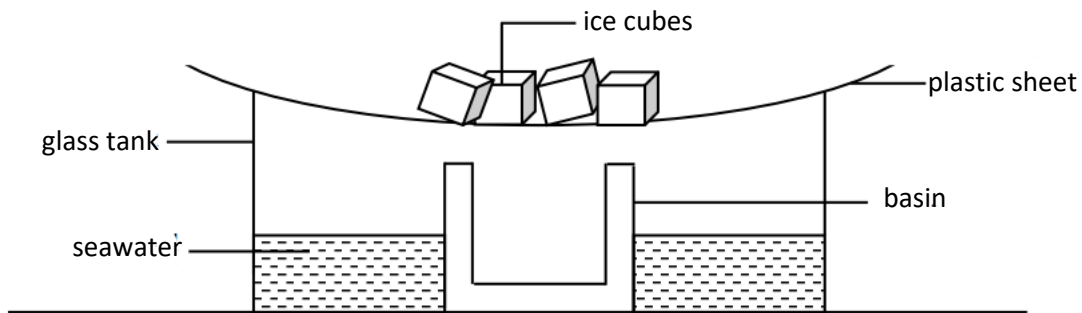
(a) State the method of dispersal for plants X and Y. [2]

(i) X: _____

(ii) Y: _____

(b) Name one characteristic of the fruit of plant X that enables it to be dispersed using the method mentioned in (a) (i). [1]

- 26 Kylie set up the experiment as shown in the diagram below and placed it under the hot sun.



- a) Explain how pure water is collected in the basin after some time. [2]

- b) Kylie set up the exact experiment but placed it in a shaded area instead.

Will the amount of water collected in the basin increase or decrease? [1]

27 Study the circuit given below.

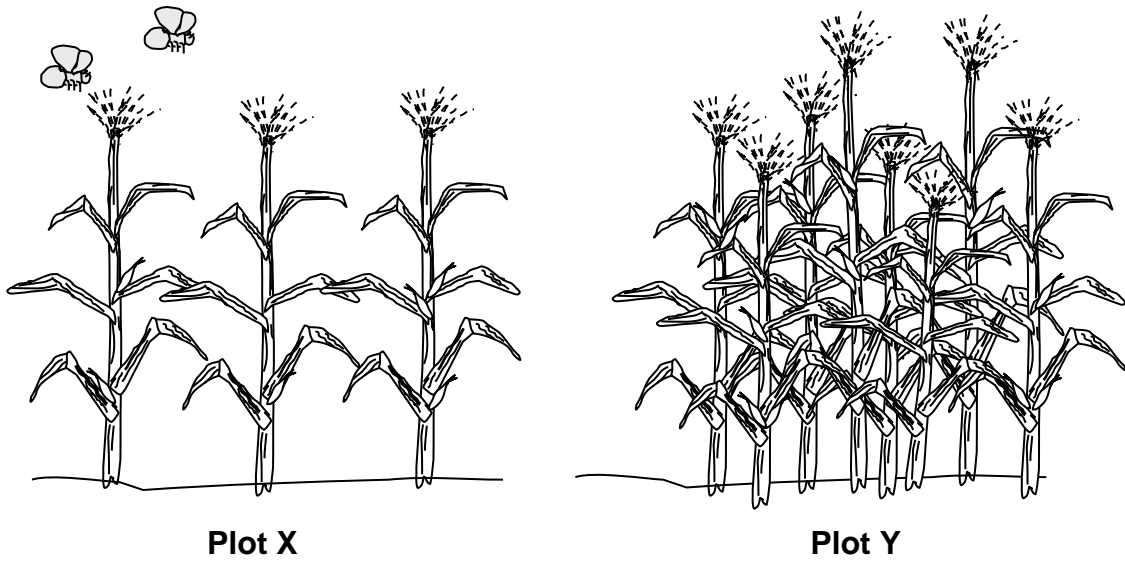


a) Construct a circuit diagram below to represent Circuit A given above. [2]

b) Explain why the bulb will light up only when the switch is closed? [1]

c) State a reason why the bulb may not light up even after the switch is closed, given that all the wires are connected properly. [1]

- 28 A farmer grew some plants in his farm. He noticed some bees flying from flower to flower in plot X and plot Y. After some time, the plants in both the plots grew fruits.



- (a) Name the process carried out by the bees. [1]

- (b) The farmer observed that the plants in plot Y were **not** healthy. Give 2 reasons for this. [2]

(i) _____

(ii) _____

29 Daud conducted an experiment to find out if the number of batteries connected to an electromagnet affects the strength of the electromagnet. He recorded the results in the table below.

Number of batteries	Number of pins attracted by the electromagnet
1	5
2	8
3	12
4	15

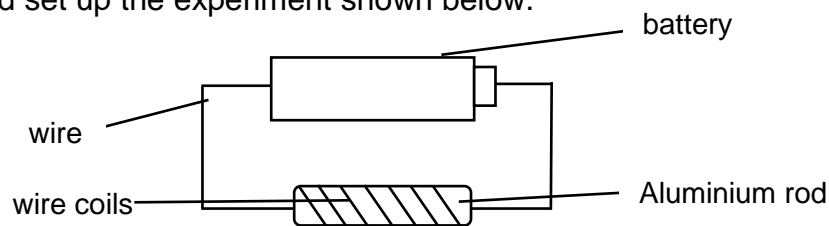
(a) Besides the wire and the iron nail used, state 2 other variables that she should keep the same to ensure a fair test. [1]

(i) _____

(ii) _____

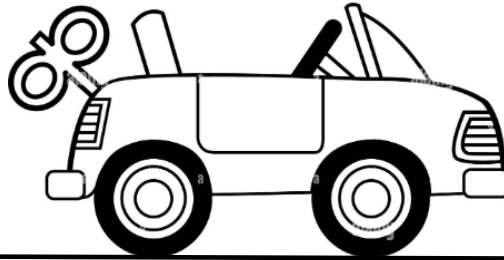
(b) From the results in the above table, what can Devi conclude from the experiment? [1]

Daud set up the experiment shown below.



(c) What happened when Devi put the aluminum rod into a box of iron pins? Explain your answer. [2]

30 A toy car was moving across two surfaces, X and Y.



(a) State the force that was acting between the wheels of car and the surfaces. [1]

Surface	Time taken (s)
X	10
Y	30

(b) Which surface, X or Y, was more difficult for the car to move on? Explain. [1]

(c) Suggest a way to make the toy car move easily across the surfaces. [1]

End of Booklet B