Section B

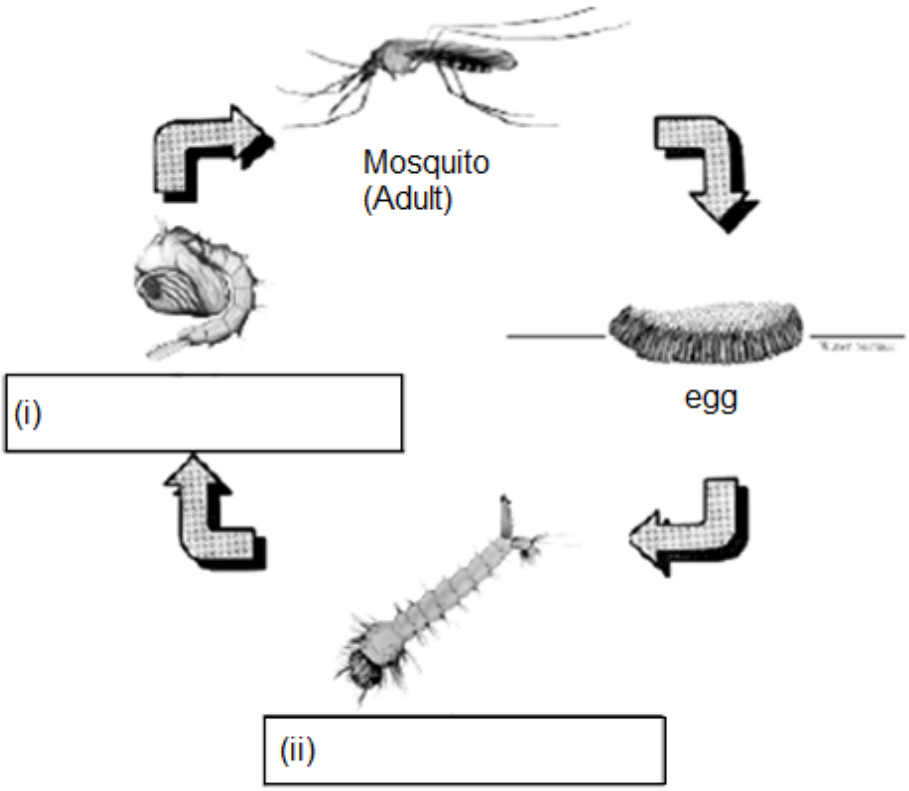
Structured Questions, 14 marks

Write your answers in the spaces provided.

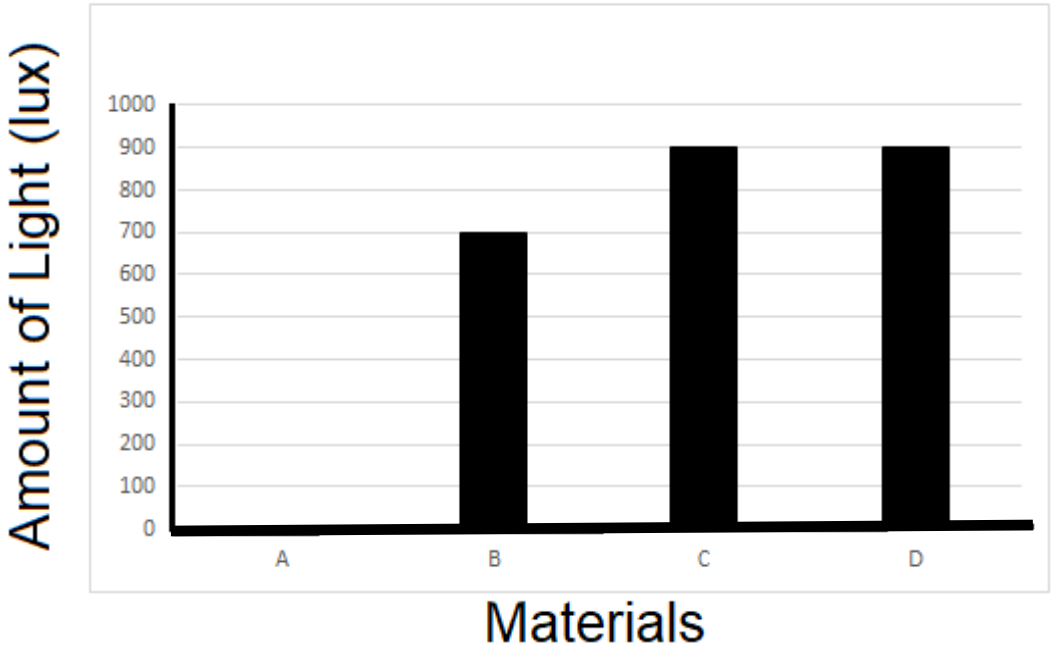
19. Match the seeds/fruits shown in the left column to the correct method of dispersal shown in the right column. **[K]** (3m)

Seeds/Fruits	Method of dispersal
 Angsana	By splitting of fruits
 Love grass	By wind
 Pea	By animals

20. The stages of the life cycle of a mosquito are shown below.
Fill in the boxes in the diagram to complete the life cycle of the mosquito. [K](2m)



21. Ken used a datalogger to find out the amount of light passing through **materials A, B, C** and **D**. He drew a bar graph as shown below. **[C]**



Based on the graph, group the materials **A, B, C and D** according to the classification below. (2m)

Allows almost all light to pass through	**Allows some light to pass through**	**Allows no light to pass through**

22. Fill in the blanks below with the helping words given in the box. You can only use each helping word or phrase **ONCE**. **[K]** (2m)

gas	solid	contraction
gains heat	loses heat	
	expansion	

(a) When water is heated, it (i) _____ and changes from

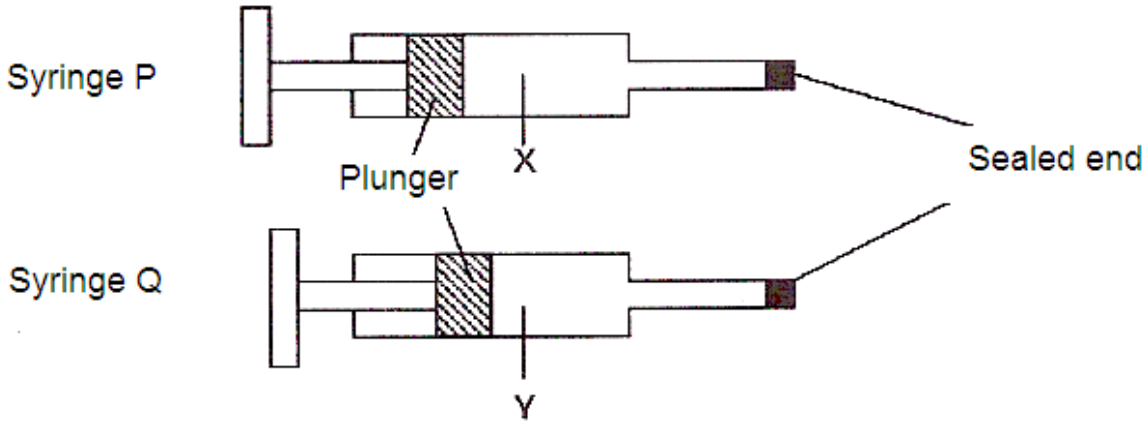
liquid to a (ii) _____.

(b) Heat gain causes (iii) _____ and heat loss causes

(iv) _____.

*23. Two syringes, P and Q, contain substances X and Y respectively. One end of each syringe is sealed. **[C]**

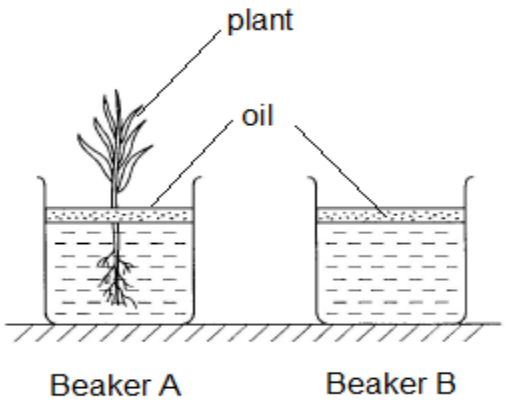
The plunger in syringe P could not be pushed in while the plunger in syringe Q could be pushed in slightly as shown in the diagram below.



Read the statements below. Write '**T**' in the box given for statements that are true and '**F**' in the box for statements that are false. (2m)

	X can be a liquid
	Y can be a solid
	This experiment shows that matter has mass
	This experiment shows that matter takes up space

*24. Two beakers of the same size are filled with the same volume of water as shown below. **[A]**



A layer of oil covers the surface of the water in the two beakers to prevent evaporation. A plant is put into Beaker A.

(a) What will happen to the water level in each beaker after 4 days?
Put a tick (✓) in the correct boxes. (2 m)

Beaker	Water Level		
	Increase	**Decrease**	**Remain the same**
A			
B			

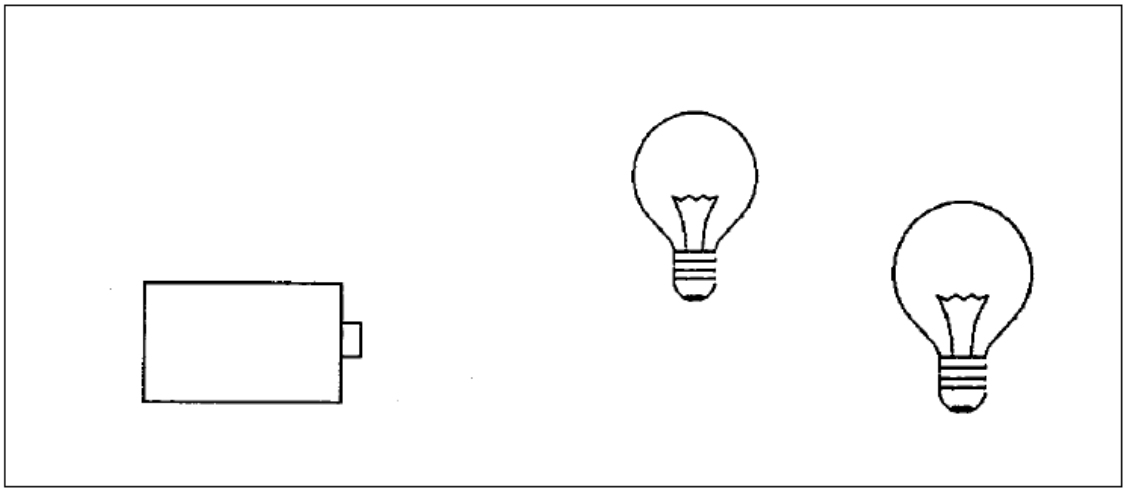
(b) What is the aim of the experiment?
Put a tick (✓) in the box next to the correct answer.
(1 m)

To show that plants absorb water	
To show that oil absorbs water	
To show that plants need water to survive	

Open-Ended Questions, 20 marks

Write your answers in the spaces provided.

*25. The diagram below shows 2 bulbs and a battery. **[A]**

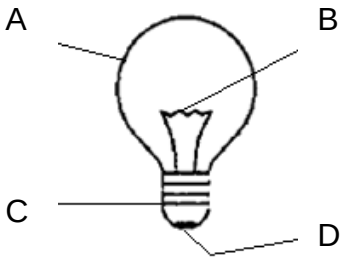


(a) Draw wires to complete the circuit to make the bulb light up. (2m)

(b) Suggest a way to make the bulbs glow brighter.

_____ (1m)

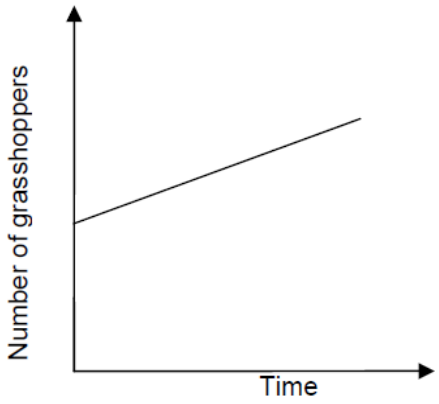
(c) The diagram below shows a picture of a bulb.



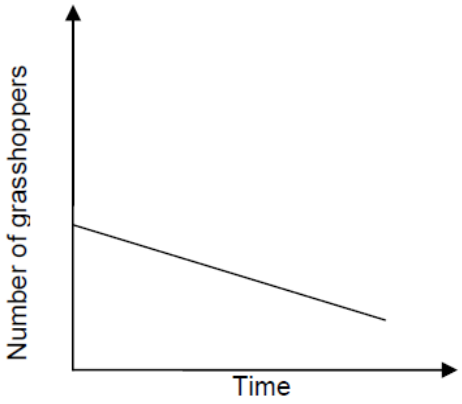
Which parts of the bulb is a conductor of electricity?

_____ (1m)

*26. The graphs below show the number of grasshoppers in Habitat A and B over time.
[A]



Habitat A



Habitat B

(a) Which habitat shows a decrease of grasshopper over time?

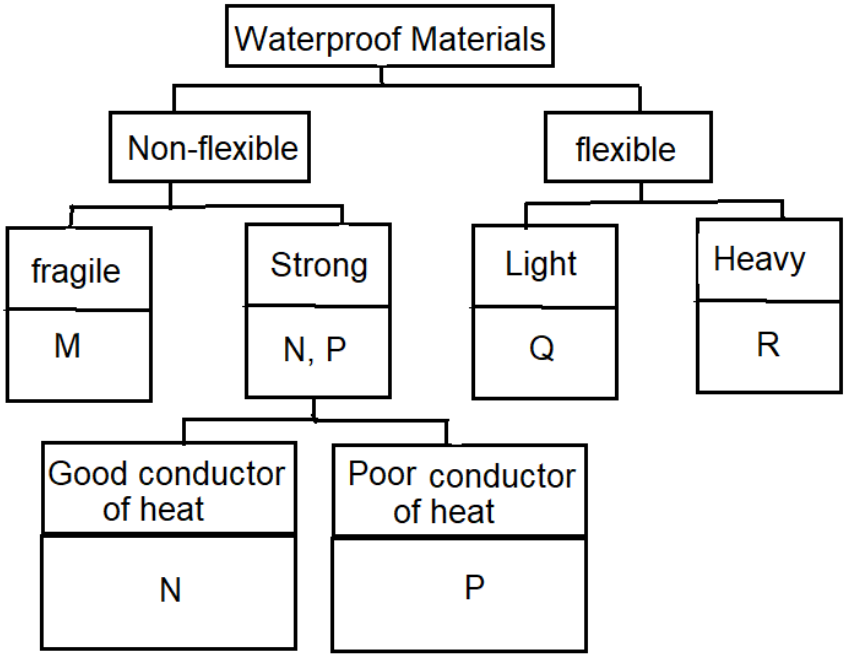
_____ (1m)

(b) Name 2 possible reasons for the decrease of grasshopper in the habitat.

(i) _____(1m)

(ii) _____(1m)

*27. The classification table below shows the properties of materials M, N, P, Q and R.**[C]**



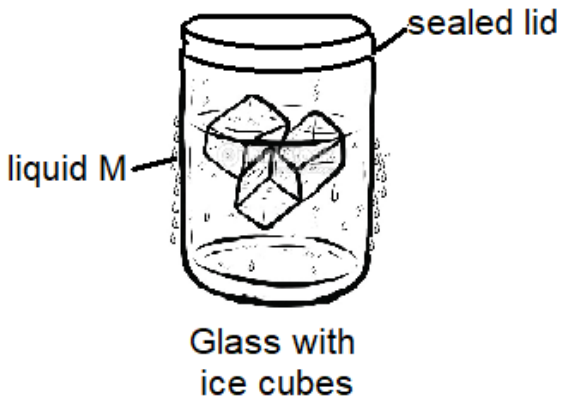
(a) Mr Yat needs a material that would be suitable to make the handle of a cooking pan. Which material would be suitable? Explain your answer. (2m)

_____

(b) Sally says that Material R will be suitable for making a raincoat. Do you agree? Explain your answer. (1m)

_____

*28. Nufail placed some ice cubes in a glass as shown below. He left the glass in the room for 2 hours. After some time, he noticed some **Liquid M** on the outer surface of the glass. **[A]**



(a) He thinks that **Liquid M** came from the melting ice. However, his teacher told him that is not true. Why does his teacher say so? (1m)

_____

_____

(b) What is liquid M? (1m)

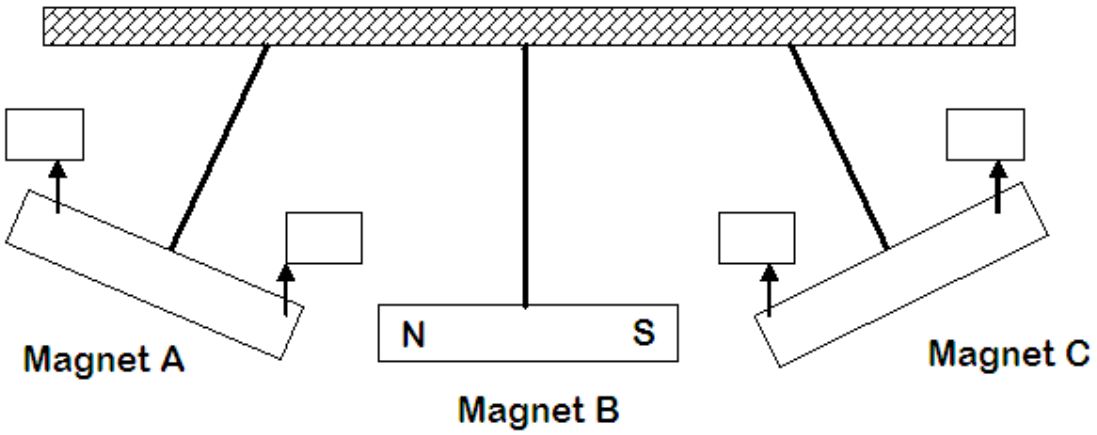
_____

(c) Explain how liquid M was formed. (2m)

_____

_____

*29. In the following diagram, 3 magnets A, B and C are suspended in the air. It shows the position of the magnets when they are hung. The poles of Magnet B are labelled. **[A]**



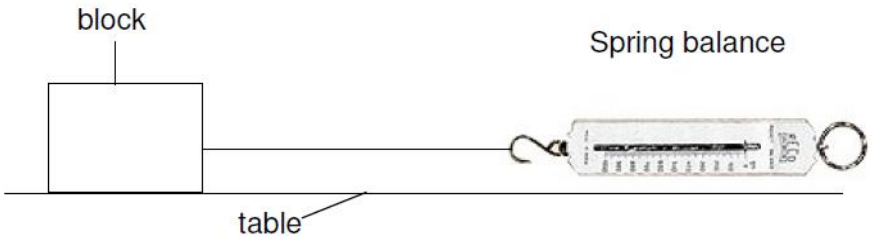
(a) **<u>Label</u>** the poles of Magnet A and C in the boxes found in the diagram, with the letters "N" and "S" respectively. (2m)

(b) What will happen to Magnets A and C if Magnet B is removed from the set-up? (1m)

_____

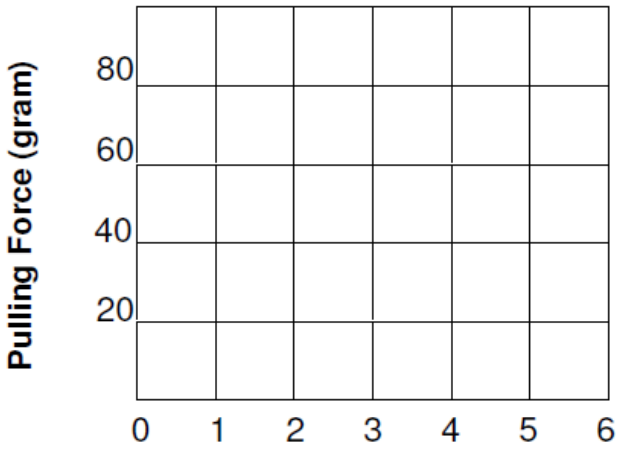
_____

*30. Bala wanted to find out how much force is needed to start pulling a block across the table. He increased the number of blocks each time and recorded his results in a table as shown. **[A]**



Number of Blocks	Pulling Force (gram)
1	20
2	40
3	60
4	80

(a) Draw a line graph to show the amount of force needed to pull each block. (1 m)



(b) State the relationship between the number of blocks and the pulling force. (1 m)

_____

(c) If Bala were to pour some oil on the table, what will be the amount of force needed to pull one block? (1 m)

_____

End of Booklet B