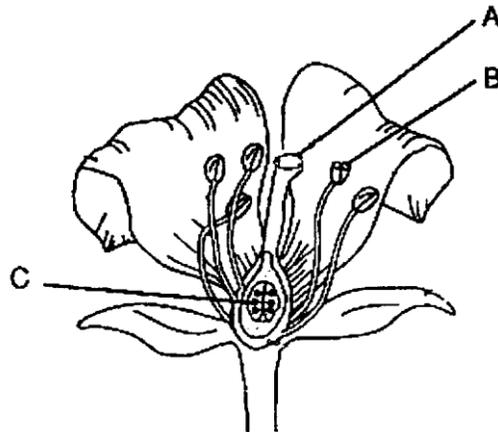


**PSLE SCIENCE (FOUNDATION)**  
**BOOKLET A (36 MARKS)**

**Section A: (18 x 2 marks)**

For each question, three options are given. One of them is the correct answer. Write your choice (1, 2 or 3) in the brackets provided.

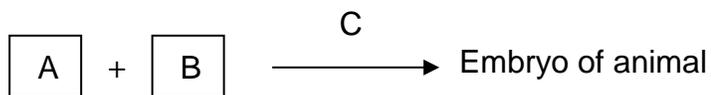
1. Study the diagram of the flower below. Which sequence shows the correct path taken by the male sex cells in order to fertilise the egg/ovule?



- (1) C → B → A  
 (2) B → A → C  
 (3) A → B → C

(     )

2. Study the diagram below.



What do the letters, A, B and C, represent?

|     | <b>A</b> | <b>B</b> | <b>C</b>      |
|-----|----------|----------|---------------|
| (1) | egg      | yolk     | reproduction  |
| (2) | sperm    | egg      | fertilisation |
| (3) | sperm    | pollen   | fertilisation |

(     )

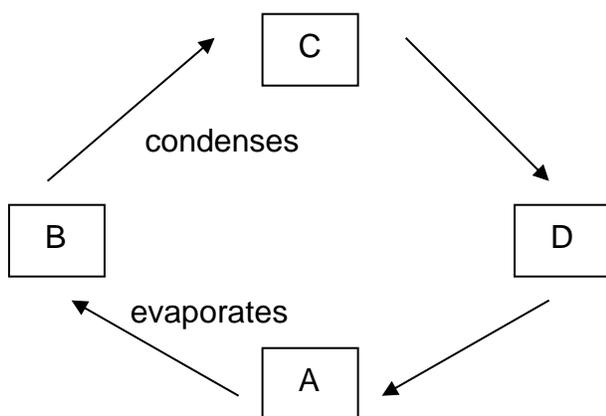
3. When liquid water boils to become steam in an open container, there is a change of \_\_\_\_\_.

- A: state
- B: shape
- C: volume

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

( )

4. Study the diagram shown below.



Which one of the following can be correctly placed in the boxes?

|     | <b>A</b> | <b>B</b>     | <b>C</b>     | <b>D</b> |
|-----|----------|--------------|--------------|----------|
| (1) | water    | clouds       | water vapour | rain     |
| (2) | water    | water vapour | clouds       | rain     |
| (3) | water    | rain         | water vapour | clouds   |

( )

5. Which of the following represents the correct path of blood flow in our body?

- (1) other parts of the body → heart → lungs → other parts of the body
- (2) heart → lungs → other parts of the body → lungs → heart
- (3) lungs → heart → other parts of the body → heart → lungs

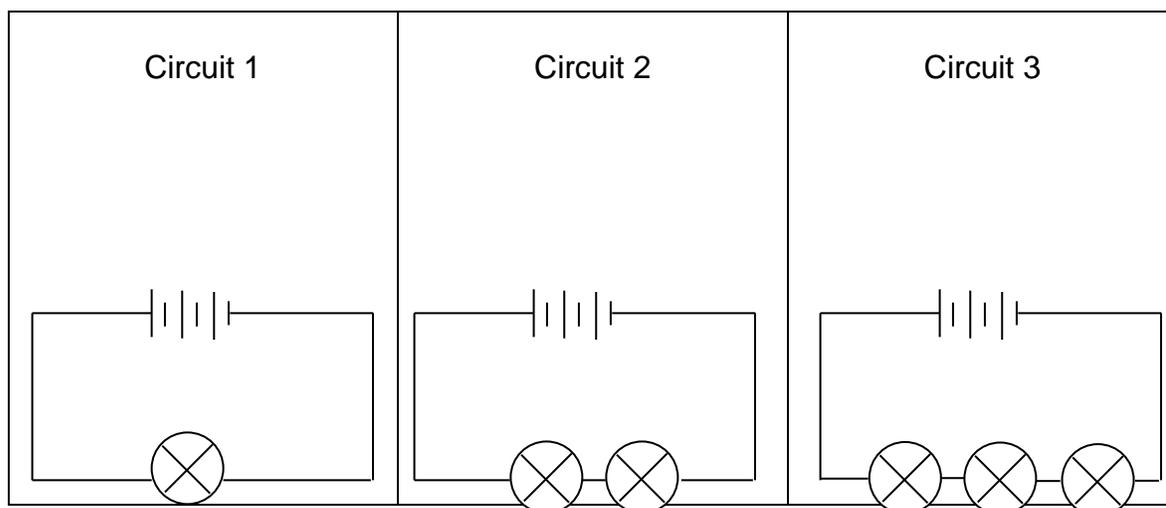
( )

6. Which one of the following materials is a good conductor of electricity?

- (1) silver
- (2) paper
- (3) styrofoam

( )

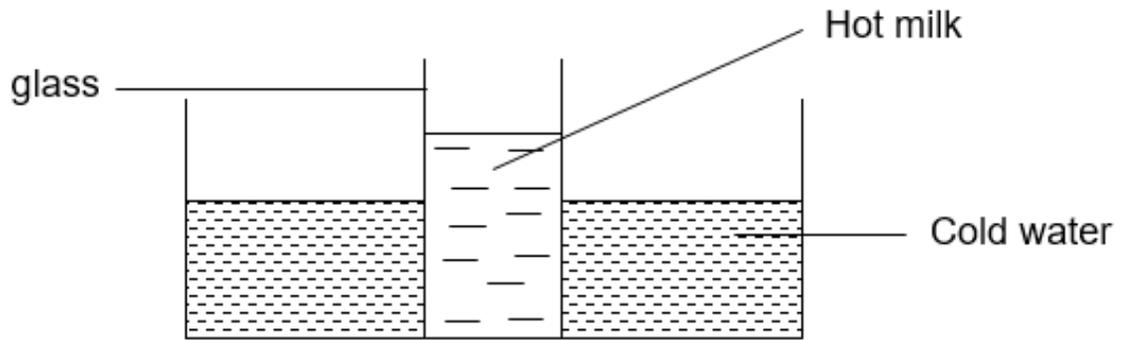
7. Study the circuit diagrams below. Which one of the following circuits will enable the bulb to light up the brightest?



- (1) Circuit 1
- (2) Circuit 2
- (3) Circuit 3

( )

8. A glass of hot milk is placed in a basin of cold water as shown in the diagram below.

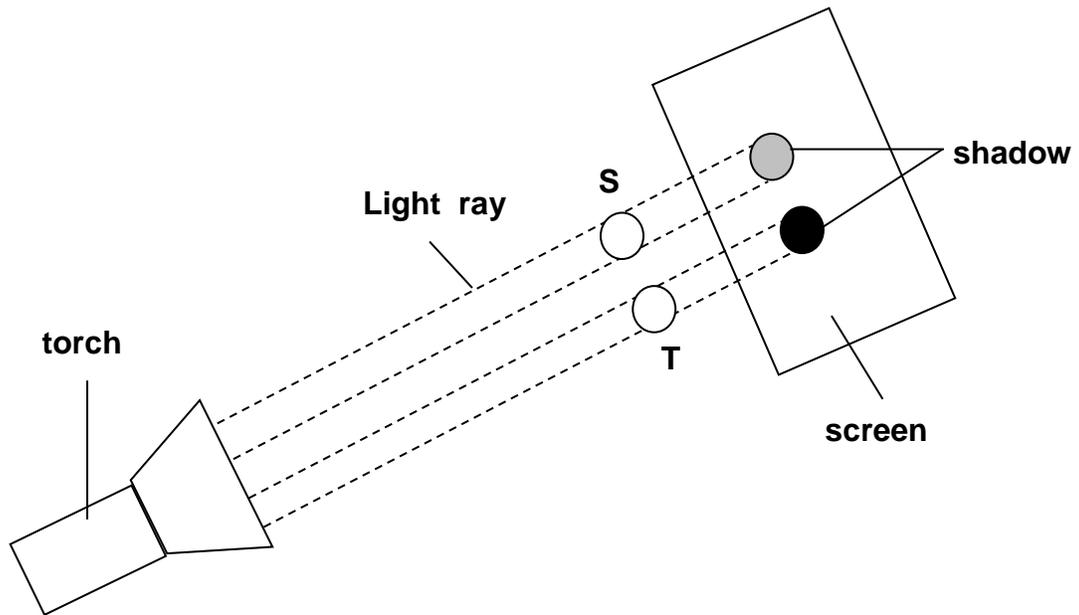


Which one of the following correctly shows the items in the above setup that had gained or lost heat after 5 minutes?

| Items           |             |             |
|-----------------|-------------|-------------|
| Glass           | Hot milk    | Cold water  |
| (1) lost heat   | lost heat   | gained heat |
| (2) gained heat | gained heat | lost heat   |
| (3) gained heat | lost heat   | gained heat |

( )

9. A torch was shone onto two objects, S and T, as shown in the diagram below.

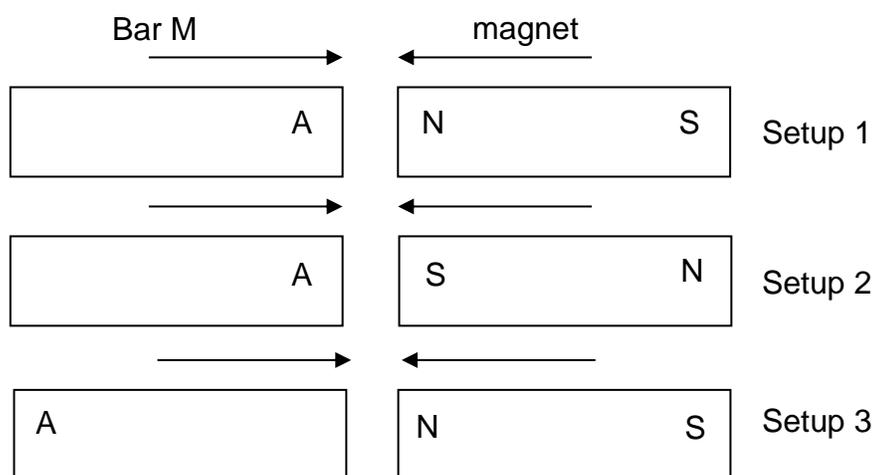


The shadow formed by Object S seemed much lighter than the one formed by Object T. Which of the following materials are S and T most likely to be made of?

|     | <b>S</b>       | <b>T</b>      |
|-----|----------------|---------------|
| (1) | cloth          | tracing paper |
| (2) | tracing paper  | wood          |
| (3) | aluminium foil | clay          |

( )

10. An experiment was set up to find out the identity of Bar M. One end of Bar M was labelled A. When Bar M was placed near the magnet, it was pulled towards the magnet in all the three setups as shown.



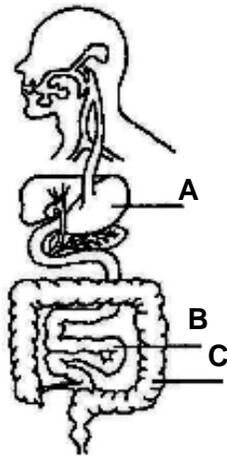
What is/are the possible conclusion(s) for the experiment?

- A: Bar M is a magnet.
- B: A is the north pole of Bar M.
- C: Bar M is made of magnetic material.

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

( )

11. The diagram below shows the human digestive system.



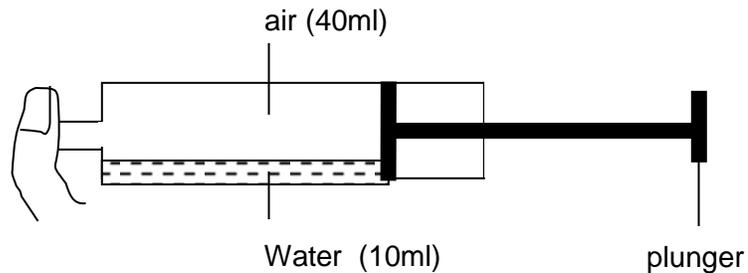
Which part shows where food is digested and passed into the blood vessels?

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

( )

12. Study the diagram below.

Linda covered a syringe with her finger and pushed the plunger in. At first, the plunger moved in. After a while, she found that the plunger could not be pushed in any further.

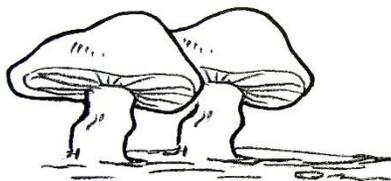


Which of the following correctly shows what happened to the volume of the air and water in the syringe as she pushed the plunger in?

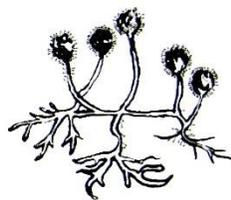
|     | Volume of air    | Volume of water  |
|-----|------------------|------------------|
| (1) | Decreases        | Remains the same |
| (2) | Decreases        | Decreases        |
| (3) | Remains the same | Remains the same |

( )

13. How are the two living things shown below similar?



mushrooms



mould

- A: Both are fungi.
- B: Both reproduce from spores.
- C: Both cannot make their own food.

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

( )

14. Three objects made of different materials were used to scratch one another. The observations were recorded in the table below.

| Object used | Presence of scratch marks on |          |          |
|-------------|------------------------------|----------|----------|
|             | Object X                     | Object Y | Object Z |
| X           | -                            | Yes      | Yes      |
| Y           | No                           | -        | No       |
| Z           | No                           | Yes      | -        |

Which of the following shows the correct order of materials from the softest to the hardest?

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

( )

15. Birds have adaptations for flight. Which one of the following is correctly matched to its function?

|     | <b>Adaptation</b> | <b>Function</b>                |
|-----|-------------------|--------------------------------|
| (1) | Feathers          | To lift the bird into the air. |
| (2) | Hollow bones      | To reduce body weight.         |
| (3) | Streamlined body  | To help it balance in the air. |

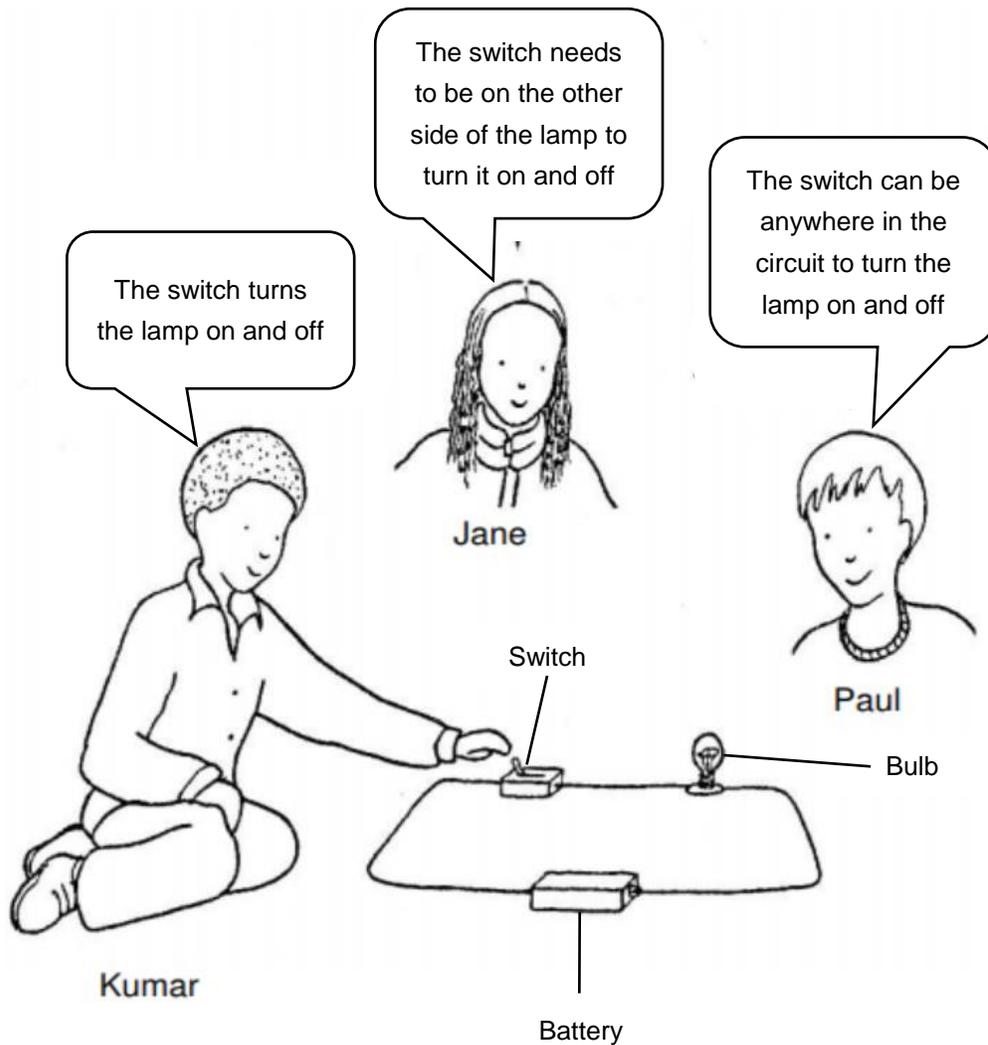
( )

16. Which one of the following shows correctly the food chain in a garden community?

- (1) Plant → Grasshopper → Frog → Snake
- (2) Plant → Frog → Grasshopper → Snake
- (3) Snake → Frog → Grasshopper → Plant

( )

17. Kumar, Jane and Paul formed a circuit and recorded their observations as shown Below.

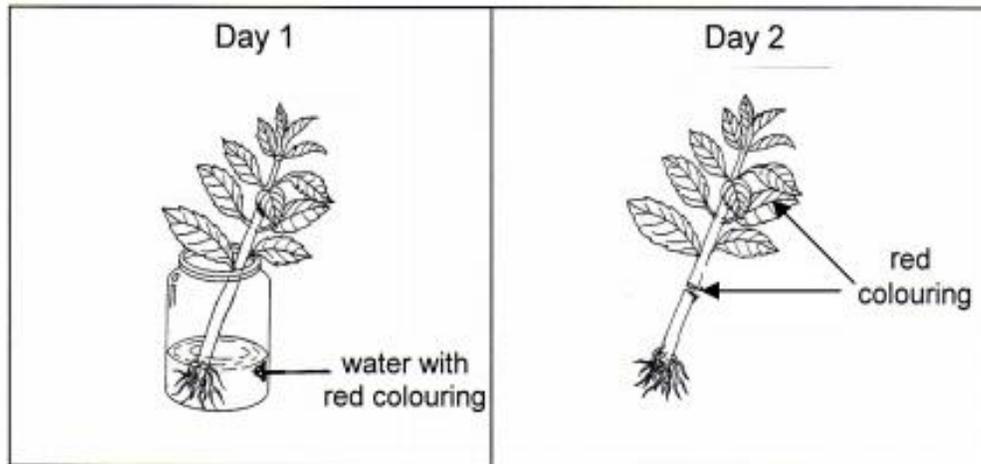


Who made a correct statement?

- (1) Jane only
- (2) Paul only
- (3) Paul and Kumar

( )

18. Ken set up an experiment as shown below.



The following day, the stem was cut across. Red colouring could be seen in the roots, stem and leaves.

This experiment shows that \_\_\_\_\_.

- A: roots take in water
- B: leaves carry water to every part of the plant
- C: the stem carries water to every part of the plant

(1) A and B

(2) A and C

(3) B and C

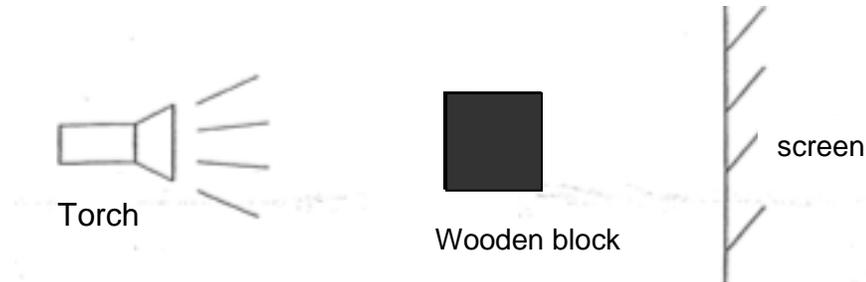
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**PSLE SCIENCE (FOUNDATION)**  
**BOOKLET B (34 MARKS)**

**Part 1: Structured (14 marks)**

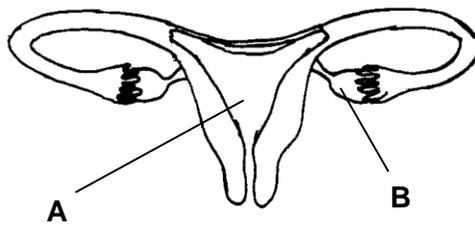
For each question from 19 to 24, fill in the blanks with suitable words or phrases.

19. A shadow is cast on the screen when a wooden block is placed between a light source and a white screen as shown in the diagram below.



In order for a bigger shadow to be cast, you should move the light source \_\_\_\_\_  
to the wooden block or move the screen \_\_\_\_\_ from the wooden block. (2m)

20. The diagram below shows the female reproductive system.



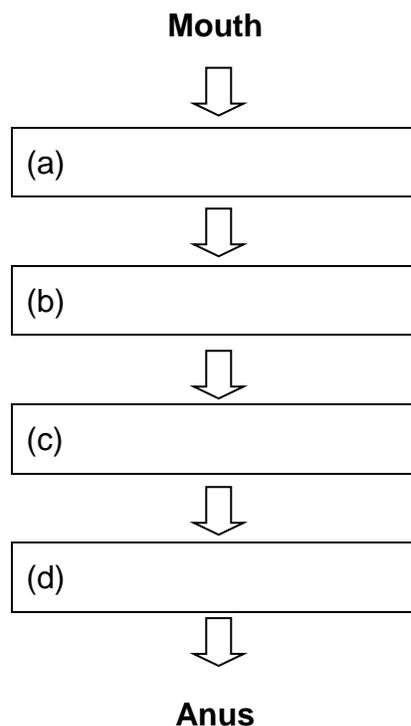
Label parts A and B. (2m)

| Part | Name |
|------|------|
| A    |      |
| B    |      |

21. Indicate "True" or "False" for each of the following statements. (2m)

|     | <b>Statements</b>   | <b>Write "True" or "False"</b> |
|-----|---|--------------------------------|
| (a) | Water returns from the sky to the Earth only as rain.   |                                |
| (b) | The water cycle ensures a continuous supply of freshwater.  |                                |
| (c) | In the water cycle, the temperature of the air must be 100°C for water to change to water vapour. |                                |
| (d) | When seawater evaporates, the salt and water both rise to the sky.                                |                                |

22. Complete the flowchart to show the path taken by the food we eat. (2m)



23. Four containers, A, B, C and D, contained 30 ml of water each. The containers were placed in the Sun.

The table below shows the time taken for the water to dry up in each of the containers.

| <b>Container</b>                     | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> |
|--------------------------------------|----------|----------|----------|----------|
| Time taken for water to dry up (min) | 20       | 13       | 50       | 34       |

- (a) In which container is the rate of evaporation the fastest? (1m)

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- (b) In which container is the rate of evaporation the slowest? (1m)

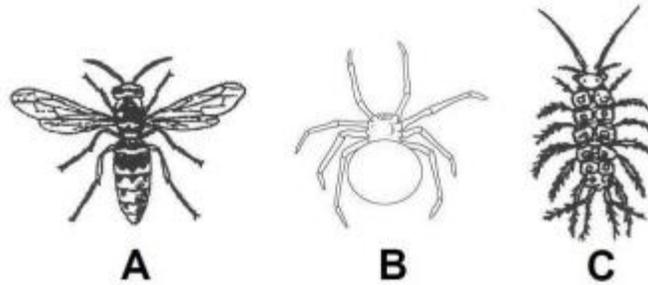
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- (c) State two factors that would increase the rate of evaporation. (1m)

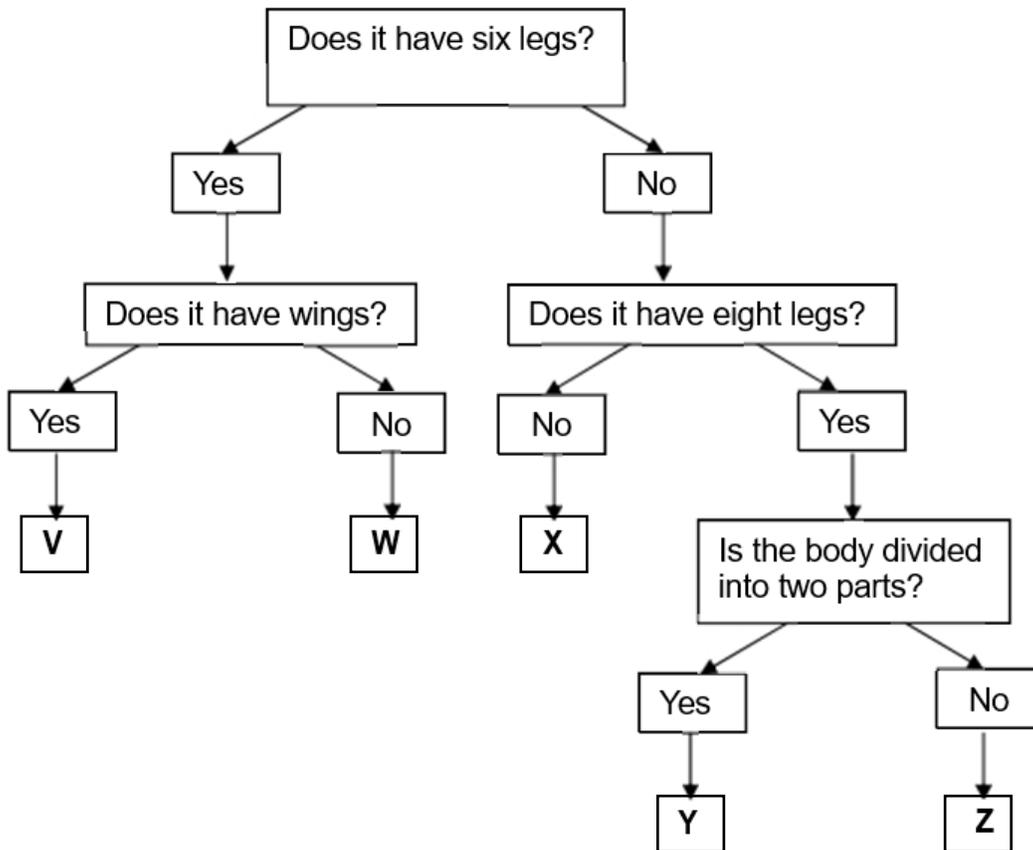
(i) \_\_\_\_\_

(ii) \_\_\_\_\_

24. Below are three organisms A, B and C.



Use the flowchart below to identify the boxes where the above organisms should be placed. (3m)



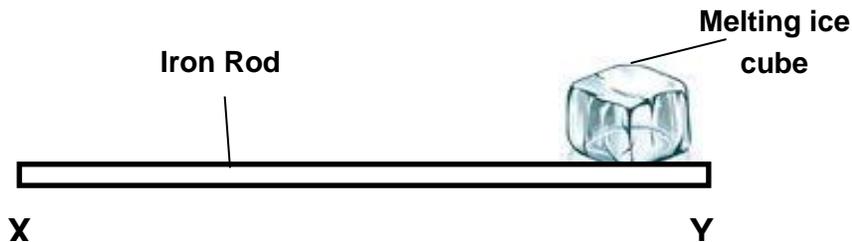
| Organism | Box |
|----------|-----|
| A        |     |
| B        |     |
| C        |     |

**Part 2: Open-Ended (20 marks)**

For each question from 25 to 30, write your answers in the spaces provided.

The number of marks available is shown in the brackets ( ) at the end of each question or part-question.

25. The diagram below shows an iron rod. Its ends are labelled X and Y. An ice cube is placed at Y.



- (a) X became cool after some time because \_\_\_\_\_

\_\_\_\_\_

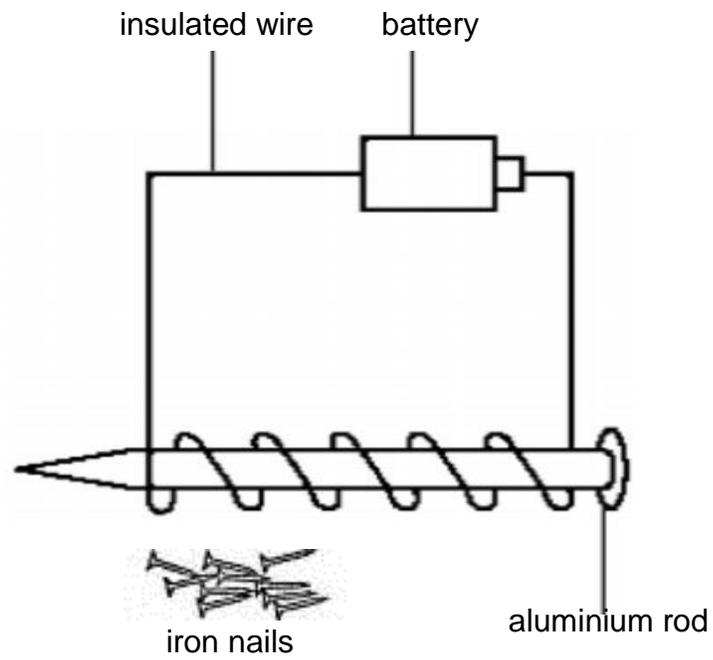
(1m)

- (b) After the ice cube has completely melted, the iron rod became warmer gradually. Explain why. (1m)

\_\_\_\_\_

\_\_\_\_\_

26. (a) Study the diagram below.



(i) What will happen when iron pins are placed near the aluminium rod? (1m)

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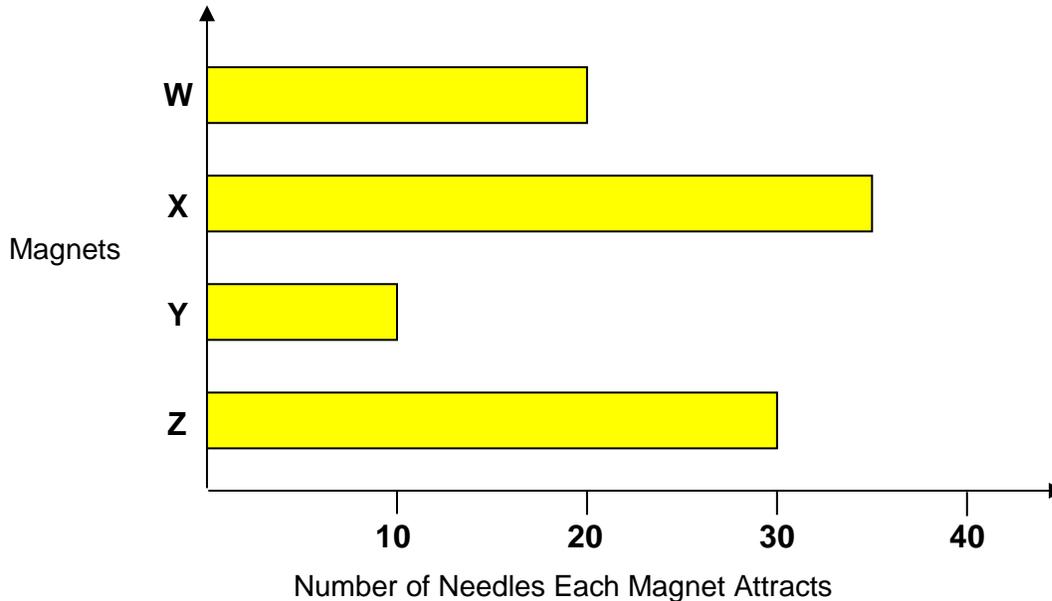
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(ii) Give a reason for your answer in (a)(i). (1m)

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26. (b) May wanted to find out which magnet is the strongest. She used 4 similar bar magnets, W, X, Y and Z, to attract needles in a container. She recorded the number of needles each magnet attracted in the bar graph below.



Based on the graphs, which bar magnet (W, X, Y or Z) is the strongest? Give the reason for your answer. (1m)

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27. The diagrams below show four living things.



Falcon



Lime Plant



Blackbird



Caterpillar

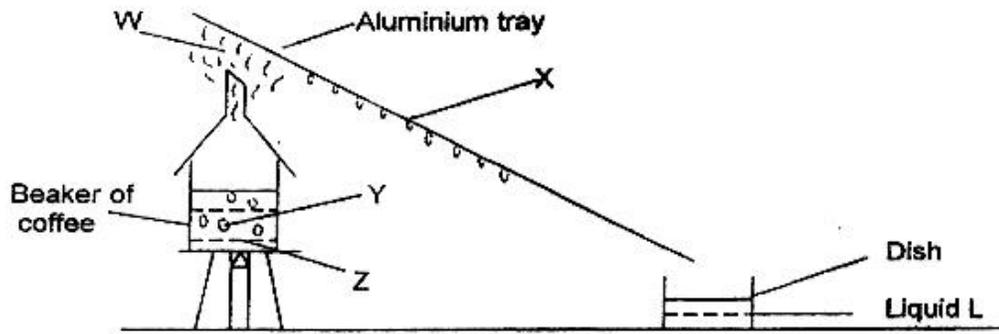
- (a) Complete the food chain based on the information given above for these four living things. (2m)

\_\_\_\_\_ → \_\_\_\_\_ → \_\_\_\_\_ → \_\_\_\_\_

27. (b) Which organism is a predator as well as a prey? (1m)

---

28. Betty conducted an experiment using the setup shown below.



After heating the beaker of coffee for half an hour, Liquid L was collected in the dish at the end of the experiment.

(a) What is Liquid L? (1m)

---

(b) Explain how X is formed. (2m)

---

---

(c) Which letter, W, X, Y or Z, represents the clouds in the sky? (1m)

---

29. The following shows the activities that Gary carried out in school.

A: Playing football

B: Reading a book

C: Walking in the park

(a) During which of the activities listed above, would he likely have:

(i) the slowest heart beat? (1m)

---

(ii) the fastest heart beat? (1m)

---

The table below shows the average pulse rate of a human being at different ages.

| <b>Age (years)</b> | <b>Average pulse rate (Beats per minute)</b> |
|--------------------|--|
| 1                  | 120  |
| 8                  | 85   |
| 25                 | 75   |
| 40                 | ?  |
| 65                 | 65   |

(b) Based on the table, what is the relationship between the age and average pulse rate of a human being? (1m)

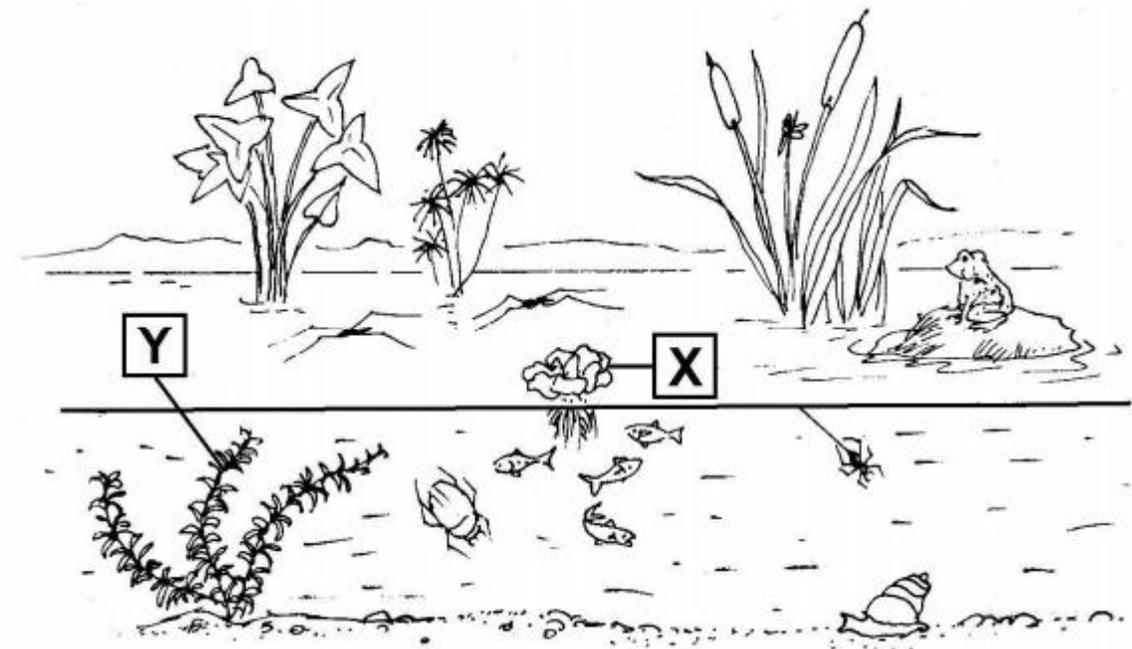
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(c) Based on the information in the table, what could be the possible average pulse rate of a healthy 40 year old adult? (1m)

---

30. Look at the picture below.



(a) Name the **community**. (1m)

---

(b) Explain how the aquatic animals and plants depend on each other. (1m)

---

---

(c) Explain what will happen to plant **Y** if plant **X** reproduces quickly. (2m)

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