

- 5 Diagrams 5.1 and Diagram 5.2 show an Aluminium block and a Copper block is heated for 5 minutes using an immersion heater. Both immersion heaters have the same specification. The initial reading of both blocks are the same. The rise of temperature is recorded after it was heated for 5 minutes.

*Rajah 5.1 dan Rajah 5.2 menunjukkan satu bongkah Aluminium dan satu bongkah Kuprum dipanaskan dengan menggunakan pemanas selam selama 5 minit. Kedua-dua pemanas rendam itu mempunyai spesifikasi yang sama. Suhu awal kedua-dua bongkah adalah sama. Kenaikan suhu dicatatkan selepas pemanasan 5 minit dibuat.*

Given:

Diberi:

Specific heat capacity of Aluminium is  $902 \text{ J kg}^{-1} \text{ }^{\circ}\text{C}^{-1}$

Specific heat capacity of Copper is  $385 \text{ J kg}^{-1} \text{ }^{\circ}\text{C}^{-1}$

*Muatan Haba Tentu Aluminium adalah  $902 \text{ J kg}^{-1} \text{ }^{\circ}\text{C}^{-1}$*

*Muatan Haba Tentu Kuprum adalah  $385 \text{ J kg}^{-1} \text{ }^{\circ}\text{C}^{-1}$*

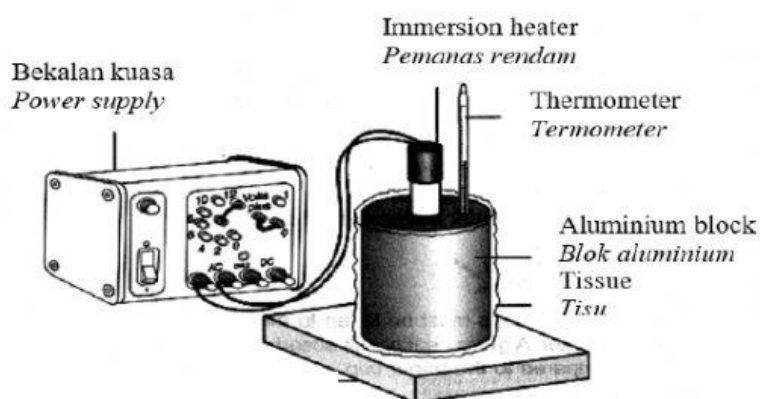


Diagram 5.1

*Rajah 5.1*

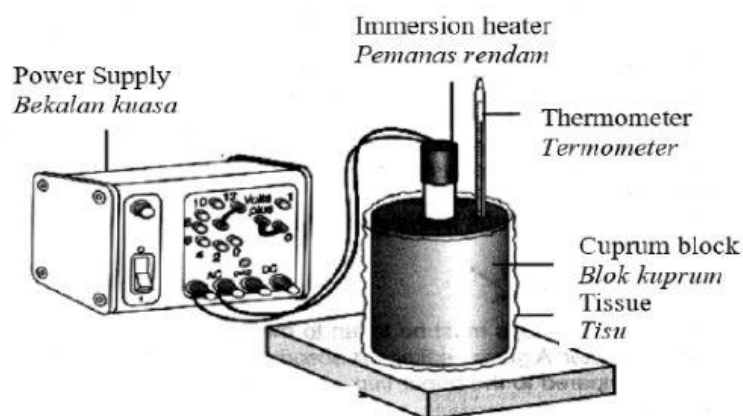


Diagram 5.2

*Rajah 5.2*

- a) What is the meaning of specific heat capacity?

*Apakah maksud muatan haba tentu?*

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[1 mark/markah]

|               |   |
|---------------|---|
| No 5<br>( a ) |   |
|               | 1 |

- b) Observe Diagram 5.1 and 5.2,

*Perhatikan Rajah 5.1 dan Rajah 5.2,*

- i) Compare the change of temperature of both thermometers.

*Bandingkan perubahan suhu kedua-dua termometer itu.*

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[1 mark/markah]

- ii) Compare the specific heat capacity of both thermometers.

*Bandingkan muatan haba tentu kedua-dua bongkah tersebut.*

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[1 mark/markah]

- iii) Compare the amount of heat supplied quantities supplies to both.

*Bandingkan jumlah haba yang dibekalkan kepada kedua-dua bongkah.*

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[1 mark/markah]

- iv) Compare the mass of both.

*Bandingkan jisim kedua-dua bongkah.*

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[1 mark/markah]

|               |   |
|---------------|---|
| No 5<br>( b ) |   |
|               | 4 |

- c) Based on your answer in 5(b), state the relationship between specific heat capacity and change of temperature.

*Berdasarkan jawapan anda pada 5 (b), nyatakan hubungan antara muatan haba tentu dan perubahan suhu.*

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[1 mark/markah]

|               |   |
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| No 5<br>( c ) |   |
|               | 1 |

- d) Diagram 5.3 shows the sea breeze phenomenon.  
*Rajah 5.3 menunjukkan fenomena bayu laut.*

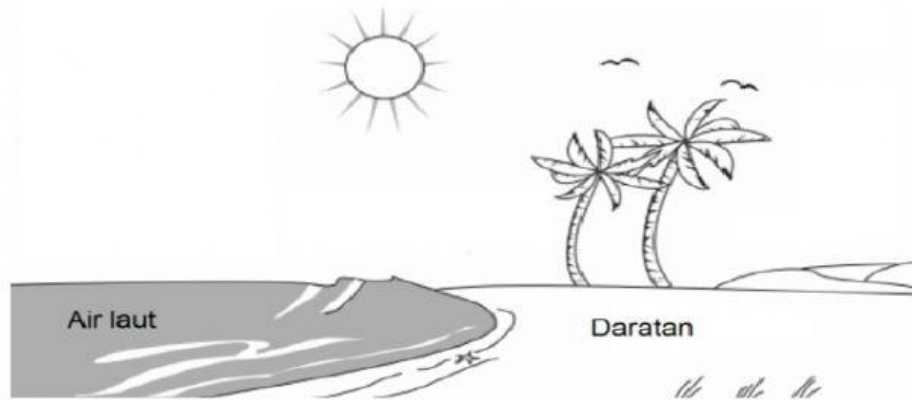


Diagram 5.3  
*Rajah 5.3*

Explain how the sea breeze phenomenon occurs during the day time.  
*Terangkan bagaimana fenomena bayu laut berlaku pada siang hari.*

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[1 mark/markah]

|               |   |
|---------------|---|
| No 5<br>( d ) |   |
|               | 1 |

|                     |   |
|---------------------|---|
| Total<br>Juml<br>ah |   |
|                     | 7 |