

- 10 (a)** The mean value of an alternating current is zero.  
Explain why heating occurs when there is an alternating current in a resistor.

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..... [2]

- (b)** Transmission of electrical energy is frequently achieved using alternating high voltages.  
Suggest why

- (i)** high voltages are used,

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..... [2]

- (ii)** the voltage is alternating.

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..... [2]

[Total: 6]