

- 5 (a) Fig. 5.1 below shows an a.c. waveform displayed on a cathode ray oscilloscope screen. The time base of the oscilloscope is set at 1.5 ms per division and the y-gain at 1.5 V per division.

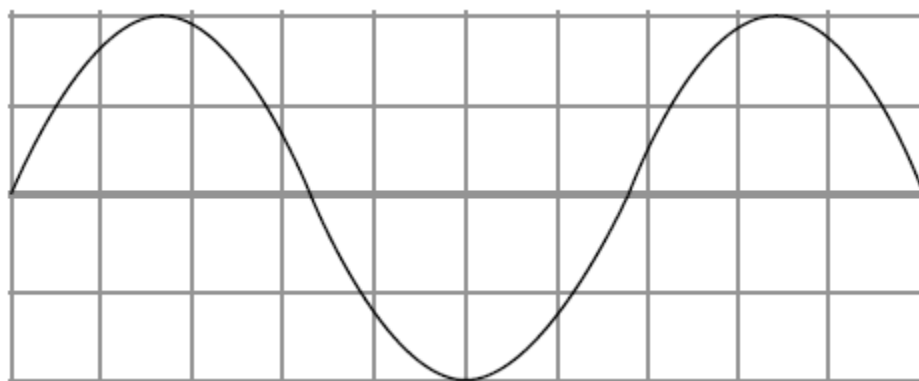


Fig. 5.1

- (i) Determine the frequency and root-mean-square voltage.

frequency = ..... Hz [2]

$V_{\text{rms}}$  = ..... V [2]

- (ii) Draw on Fig. 5.1 a second waveform that is half the frequency and full-wave rectified.  
[2]

- (b)** Explain how an induction cooker works and why it works only on metal cookware instead of non-metallic cookware such as wood or ceramic.

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