

- 10 (a) State Faraday's law of electromagnetic induction.

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..... [2]

- (b) A simple iron-cored transformer is illustrated in Fig. 10.1.

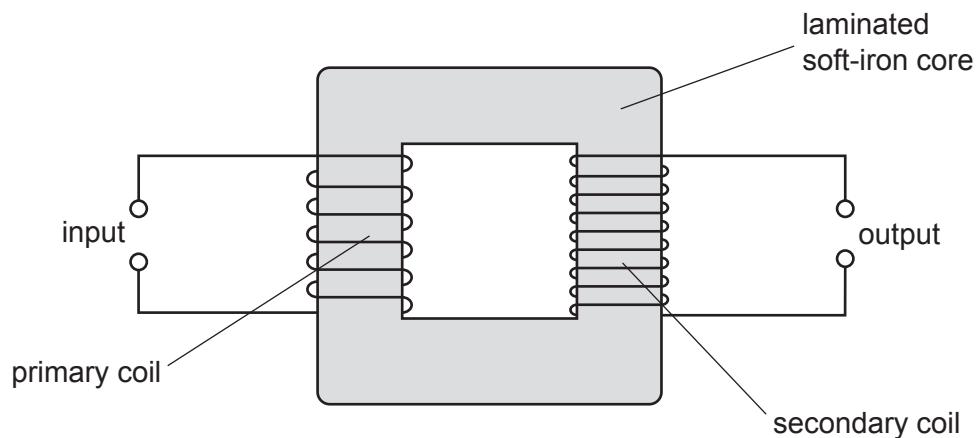


Fig. 10.1

- (i) State **one** function of a transformer.

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..... [1]

- (ii) A sinusoidal alternating current in the primary coil gives rise to a varying magnetic flux linking the secondary coil.

Use Faraday's law to explain why the output from the transformer is an electromotive force (e.m.f.) that is alternating.

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..... [3]

- (iii) State why the soft-iron core of the transformer is laminated.

..... [1]