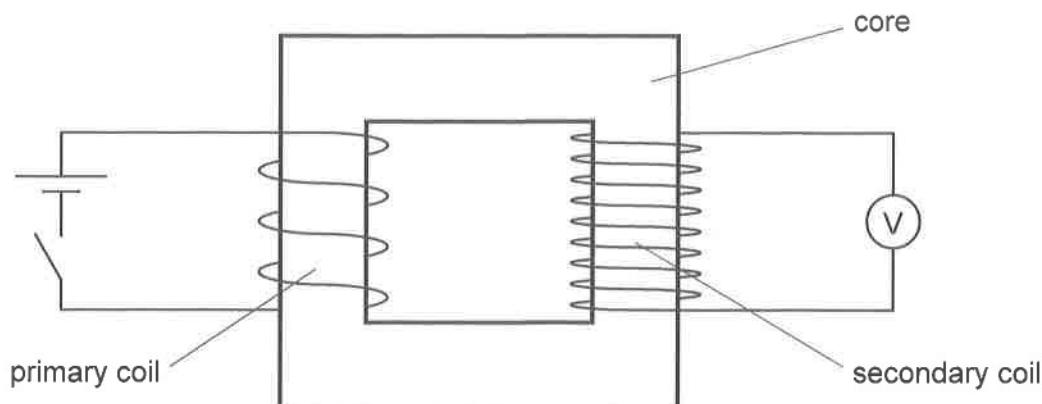


- 5 A cell and a switch are connected to the primary coil of a transformer. A digital voltmeter is connected to the secondary coil, as shown in Fig. 5.1.



**Fig. 5.1** (not to scale)

Initially, the switch is open. The switch is then closed for a short time and then re-opened.

- (a) Describe what happens to the reading on the voltmeter.

[3]

[3]

- (b) Use Faraday's law of electromagnetic induction to explain these observations.

[5]

[Total: 8]

