8 The diagram shows a step-down transformer.
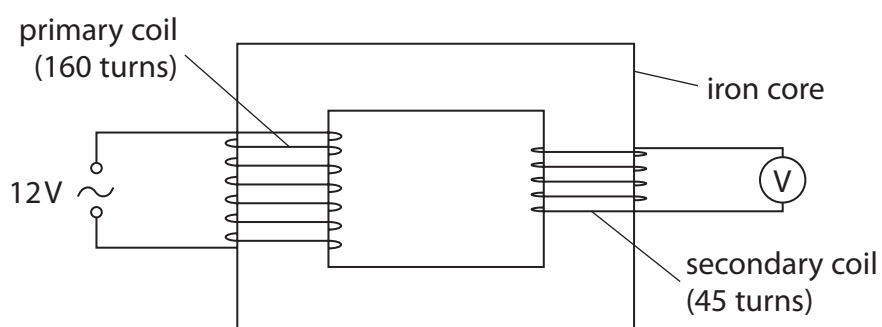
(a) Explain the operation of a step-down transformer.

(4)

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(b) (i) State the formula linking input voltage, output voltage and the turns ratio of a transformer.

(1)

(ii) Calculate the output voltage for the transformer.

(3)

voltage = ... V

(Total for Question 8 = 8 marks)

TOTAL FOR PAPER = 70 MARKS