

(b) Suggest two reasons why using a graph to find the refractive index is a better method than simply calculating it using a pair of angles from the table.

(2)

1

.....

2

.....

(Total for Question 6 = 10 marks)

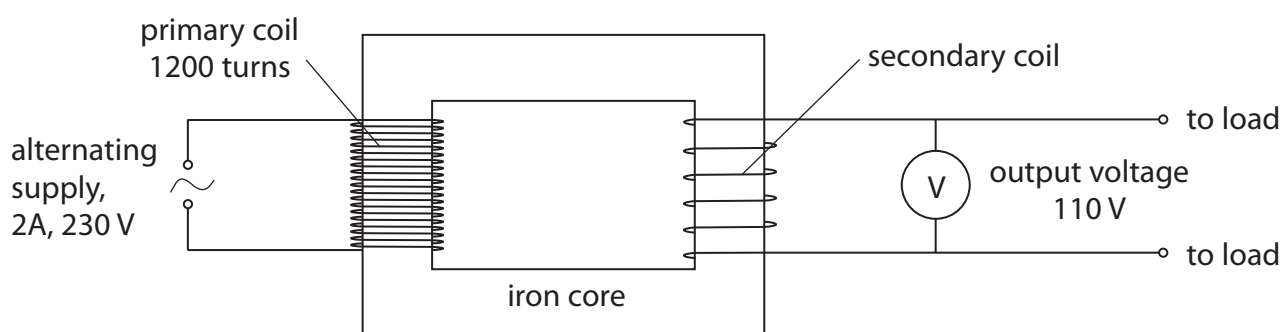


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P 4 2 8 7 5 A 0 1 5 2 0

- 7 The diagram shows a transformer that is 100% efficient.



- (a) (i) State the equation linking input power and output power for the transformer.

(1)

- (ii) Calculate the output current of the transformer.

(2)

output current = A

- (b) (i) State the equation linking input voltage, output voltage and turns ratio for the transformer.

(1)

- (ii) Calculate the number of turns on the secondary coil of the transformer.

(2)

number of turns =



(c) Explain how a transformer works.

In your answer, you should include the reasons for using

- two coils
- an iron core
- an alternating supply

(5)

(Total for Question 7 = 11 marks)

