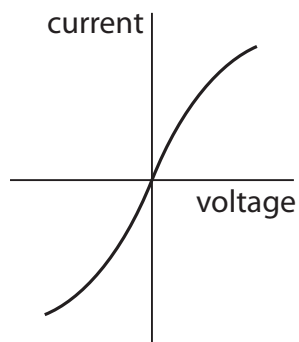


12 The graph shows how current and voltage vary for a filament lamp.



- (a) Draw a circuit diagram to show how you should connect the equipment needed to make the measurements needed to plot the graph.

(4)

- (b) The resistance of the filament lamp changes as the voltage is increased.

- (i) How can you tell this from the graph?

(1)

- (ii) Explain these changes in resistance.

(3)

(Total for Question 12 = 8 marks)

TOTAL FOR PAPER = 120 MARKS

