4.

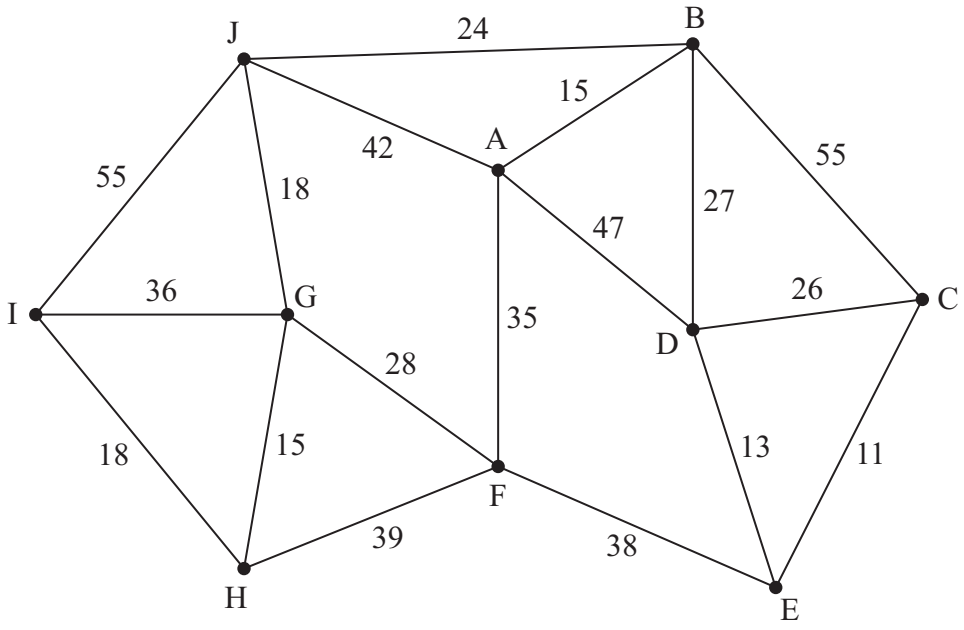

Figure 2

Figure 2 represents the cycle paths between ten towns, A, B, C, D, E, F, G, H, I and J. The number on each arc is the time, in minutes, to cycle between the towns. Munira must cycle from I to C travelling via A.

(a) Explain how Dijkstra's algorithm can be used to find the quickest route from I to C travelling via A.

(2)

(b) (i) Use Dijkstra's algorithm to find the quickest route from I to C via A.

(ii) State the length of this quickest route.

(6)

(Total for Question 4 is 8 marks)

Question 4

Write the answer to Question 4 on these 2 pages

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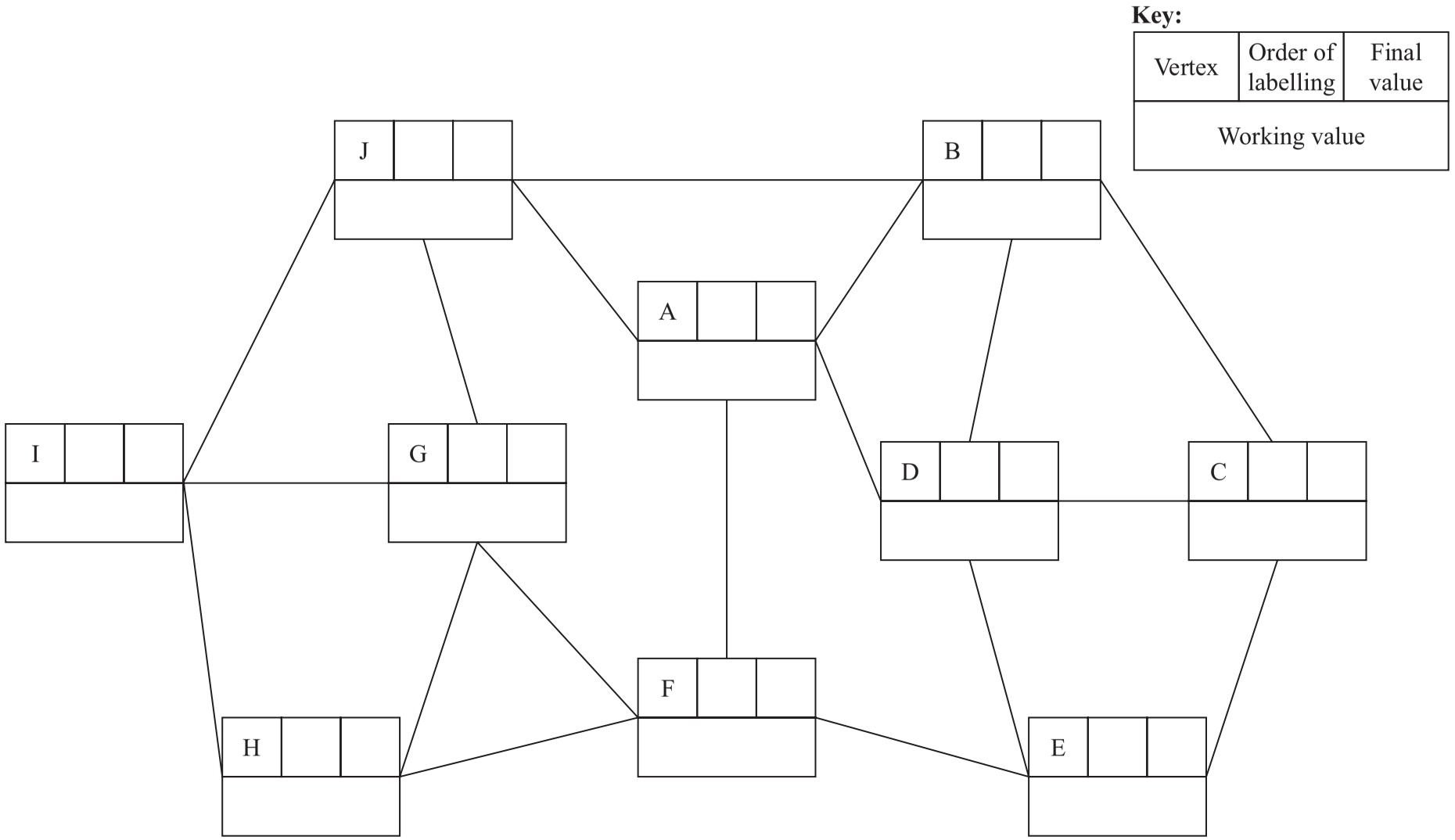
Question 4 continued



(b) (i) Quickest route: _____

(ii) Length of the quickest route: _____

This is the end of Question 4 answer space. Please turn the page for Question 5 answer space.

(Total for Question 4 is 8 marks)