AQA Computer Science A-Level

4.3.6 Optimisation algorithms

Past Paper Questions

Additional Spec Qs Paper 1

0 1 **Table 1** contains a list of problems.

Table 1

Letter	Problem
A	Finding the shortest route that visits all nodes in a graph exactly once
B	Finding the shortest path between two nodes in a graph
C	Finding an item in a large unordered list
D	Finding a route between two nodes in a graph
E	Finding out if any program will eventually stop if given a particular input

0 1 . 1 State the letter (**A-E**) that corresponds to the problem that Dijksta's Algorithm is designed to solve.

Write the letter corresponding to the correct answer in the box provided in your Electronic Answer Document.

[1 mark]

0 1 . 2 State the letter (**A-E**) that corresponds to an intractable problem.

Write the letter corresponding to the correct answer in the box provided in your Electronic Answer Document.

[1 mark]

0 1 . 3 Explain the significance of problem **E** for computation.

[1 mark]