Marking Outline for Assignment 4

Part 1: (20 marks)

- implement an algorithm to construct a random graph with weighted edges: **15 marks**
- documentation/style is acceptable: **5 marks**

Part 2 (20 marks):

- implement BFS so that it returns the total weight of the spanning tree it finds: **15 marks**
- documentation/style: **5 marks**

Part 3 (25 marks):

- implement Prim’s MST algorithm so that it returns the total weight of the spanning tree it finds: **20 marks**
- documentation/style: **5 marks**

Part 4 (35 marks):

- conduct the experiment as described in the assignment: **20 marks**
- report the results: **5 marks**
- discuss the relative performance of BST and Prim with respect to the total weight of the spanning trees they construct: **5 marks**