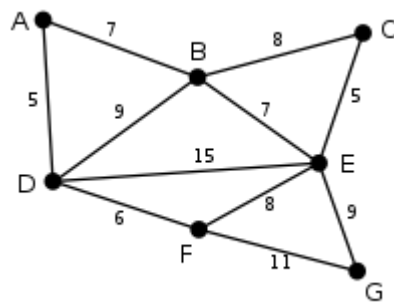


Exercise 4. Answer Sheet

Student's Name: Tsuyoshi Kumamoto

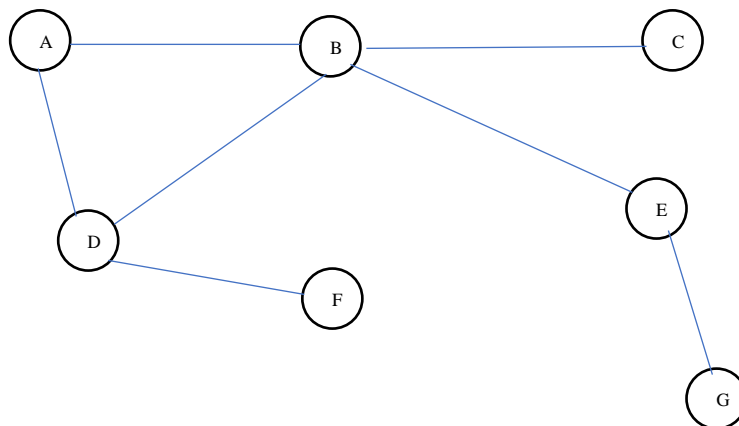
Student's ID: s1250050

Problem 1. (50 points) Consider the following graph and assume node A as a root.



a) Draw a spanning tree obtained by using the Breadth First Search (BFS) algorithm.

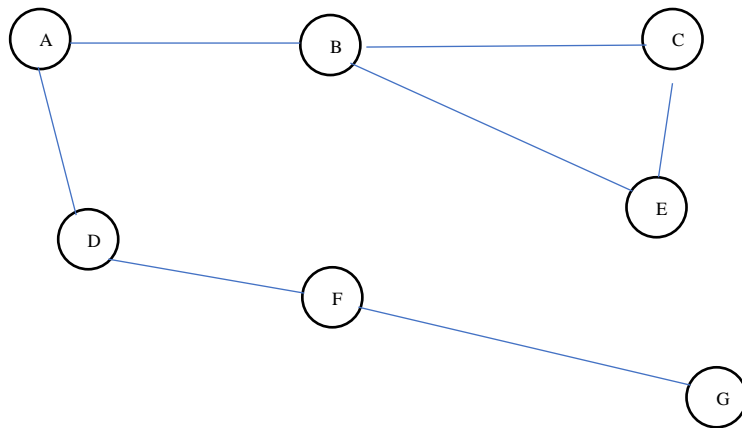
Put your answer here.



[A, D, B, F, C, E, G]

b) Draw a spanning tree obtained by using the Depth First Search (DFS) algorithm.

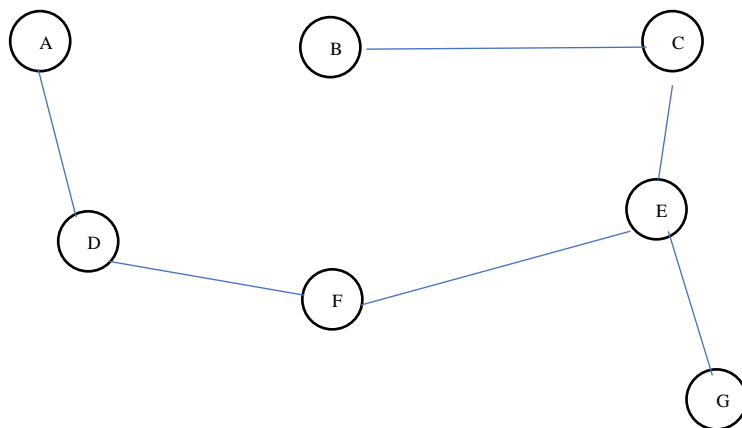
Put your answer here.



[A, D, F, G, B, E, C]

c) Draw the minimum spanning tree obtained by the Prim's algorithm.

Put your answer here.



Problem 2. (50 points) Write a program implementing Kruskal's algorithm. Upload your source code. Show your input graph and the obtained MST in the space below.