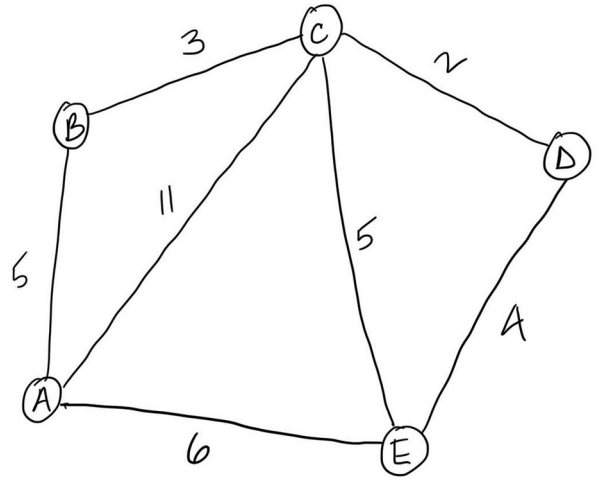
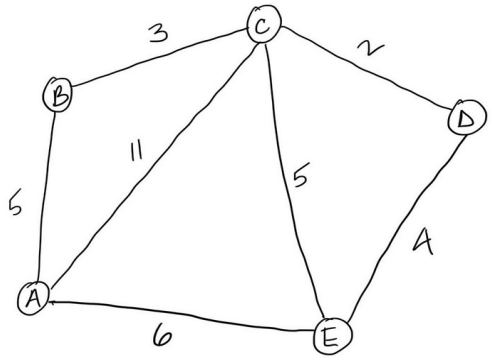
CSC 355. Discrete Structures and Basic Algorithms
Homework Assignment 8. Graphs Theory

Question 1.
If you run Dijkstra's Algorithm on the graph below starting at vertex A, what is the last edge added to the shortest path tree?



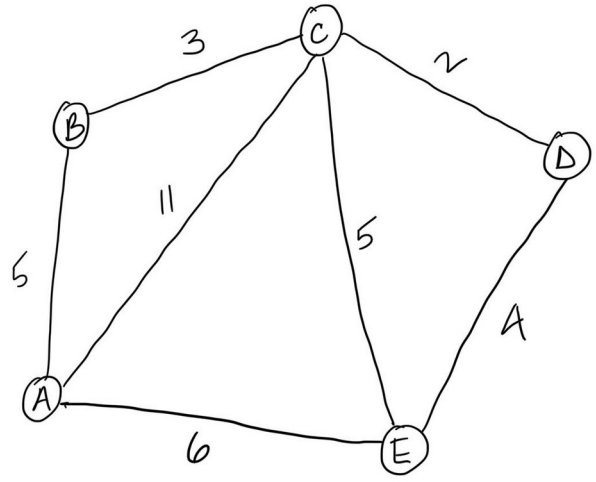
A. (A, B)
B. (A, E)
C. (B, C)
D. (C, D)
E. (E, D)

Question 2.
If you run Prim's Algorithm on the graph below with vertex A as the "source", what is the last edge added to the minimum spanning tree?



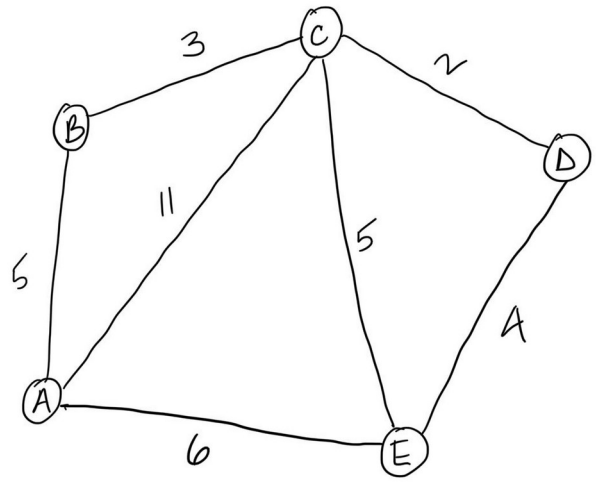
A. (A, B)
B. (B, C)
C. (C, D)
D. (D, E)
E. (C, E)

Question 3.
If you run Kruskal's Algorithm on the graph below, what is the last edge added to the minimum spanning tree?



A. (A, B)
B. (B, C)
C. (C, D)
D. (D, E)
E. (C, E)

Question 4.
If you run Baruvka's Algorithm on the graph below, what is the last edge added to the minimum spanning tree? Assume that we iterate through the components in alphabetical order.



A. (A, B)
B. (B, C)
C. (C, D)
D. (D, E)
E. (C, E)

Submission Instructions

You must upload your homework in a **pdf** file in the designated area in D2L.

Grading Points

Total Score: 25 points

Each question has a value of 6.25 points