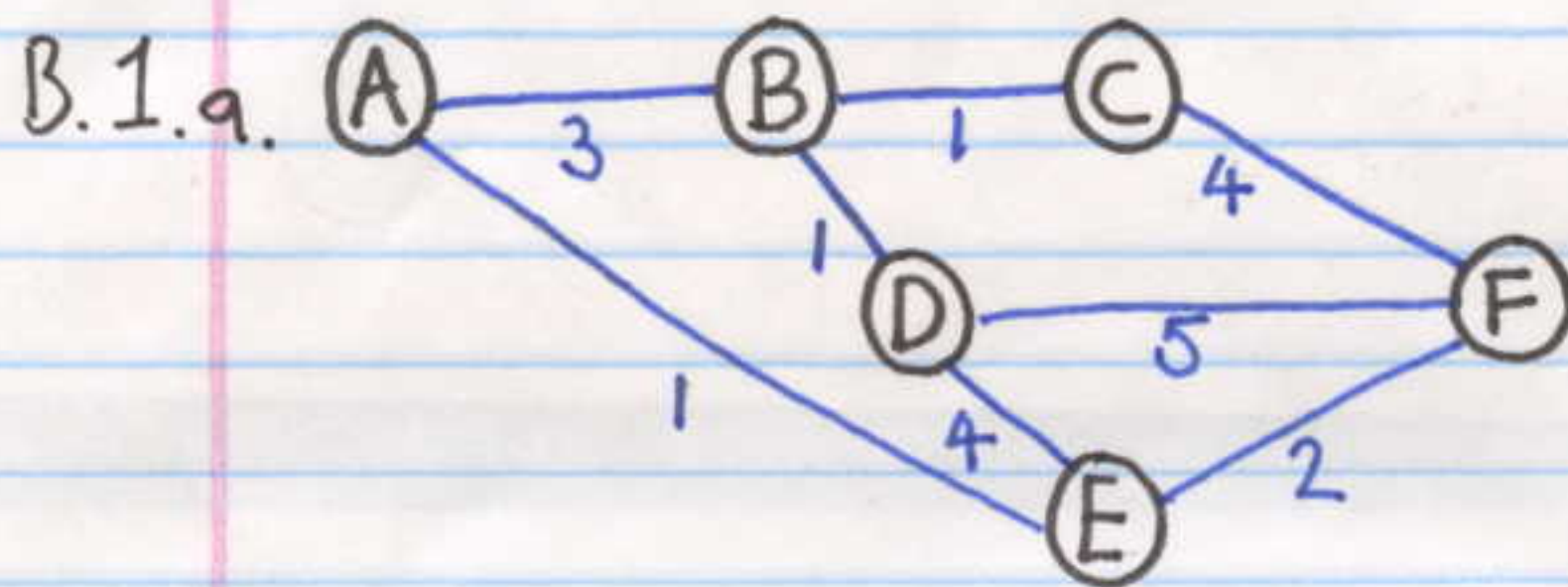CMPT434 ~ ASSIGNMENT 2

B.1.a.

SpanningTree = [ ]   Distances = [(C,0), (A,∞), (B,∞), (D,∞), (E,∞)(F,∞)]

SpanningTree = [(C,0)] Distances = [(C,0),(B,1),(F,4),(A,∞), (D,∞), (E,∞)]

SpanningTree = [(C,0), (B,1)] Distances = [(C,0),(B,1),(D,2),(F,4),(A,4), (E,∞)]

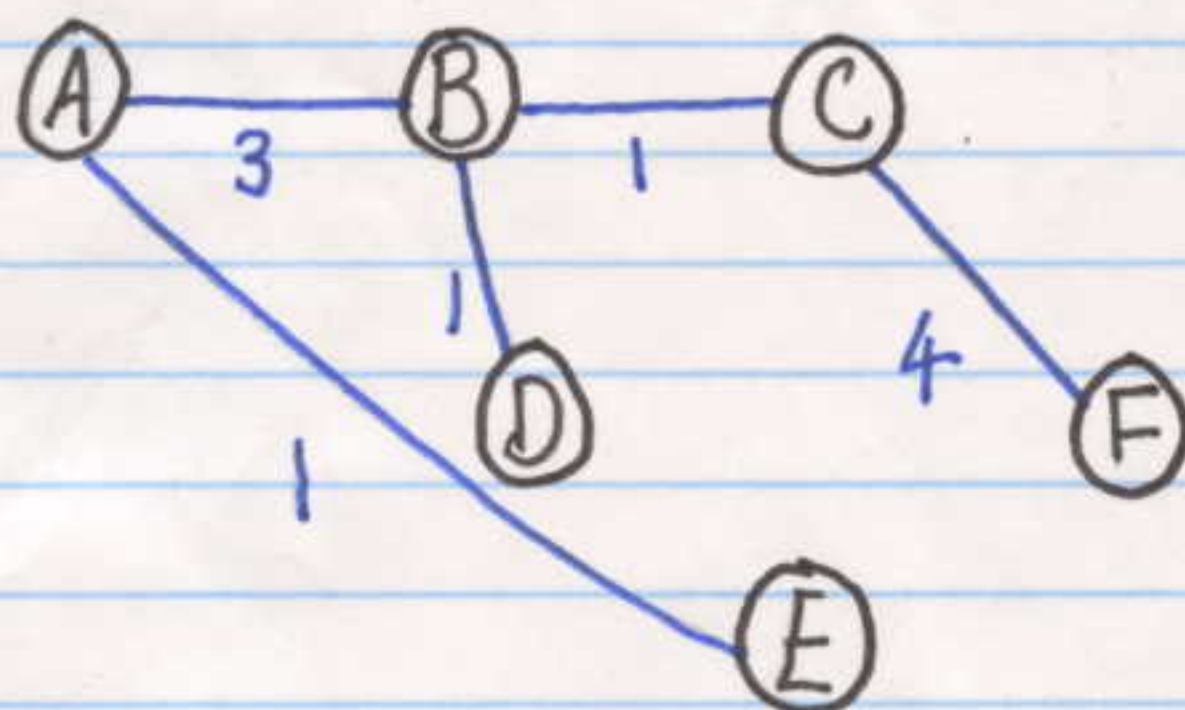SpanningTree = [(C,0),(B,1),(D,2)] Distances = [(C,0),(B,1),(D,2),(F,4),(A,4),(E,6)]

SpanningTree = [(C,0),(B,1),(D,2),(F,4)] Distances = [(C,0),(B,1),(D,2),(F,4),(A,4),(E,6)]

SpanningTree = [(C,0),(B,1),(D,2),(F,4),(A,4)] Distances = [(C,0),(B,1),(D,2),(F,4),(A,4),(E,5)]

SpanningTree = [(C,0),(B,1),(D,2),(F,4),(A,4),(E,5)]

Resultant Spanning Tree:

Iain Workman
IPW969
11139430

CMPT 434 ~ Assignment 2

B.1.b

$D^x(c)$, hop

	A	B	D	E	F	
	4,B	1,C	2,B	5,A	4,C	
	4,B	∞	2,B	5,A	4,C	B→C = ∞
	6,E	3,D	9,E	5,A	4,C	
	6,B	9,A	4,B	6,F	4,C	
	7,E	5,D	9,F	6,F	4,C	
	7,E	10,D	6,B	6,F	4,C	
	7,E	7,D	9,F	6,F	4,C	
	7,E	10,D	8,B	6,F	4,C	
	7,E	9,D	9,F	6,F	4,C	
	7,E	10,D	9,F	6,F	4,C	
	7,E	10,D	9,F	6,F	4,C	

c.

A	B	D	E	F
4,B	1,C	2,B	5,A	4,C
4,B	∞	2,B	5,A	4,C
∞	∞	9,E	5,A	4,C
∞	10,D	9,E	6,F	4,C
13,D	10,D	9,F	6,F	4,C
7,E	10,D	9,F	6,F	4,C
7,E	10,D	9,F	6,F	4,C