Mathematics Department

Course: 2C MAT

Topic Title: Skills Test 3

JOHN TONKIN COLLEGE

Student Name: Solutions

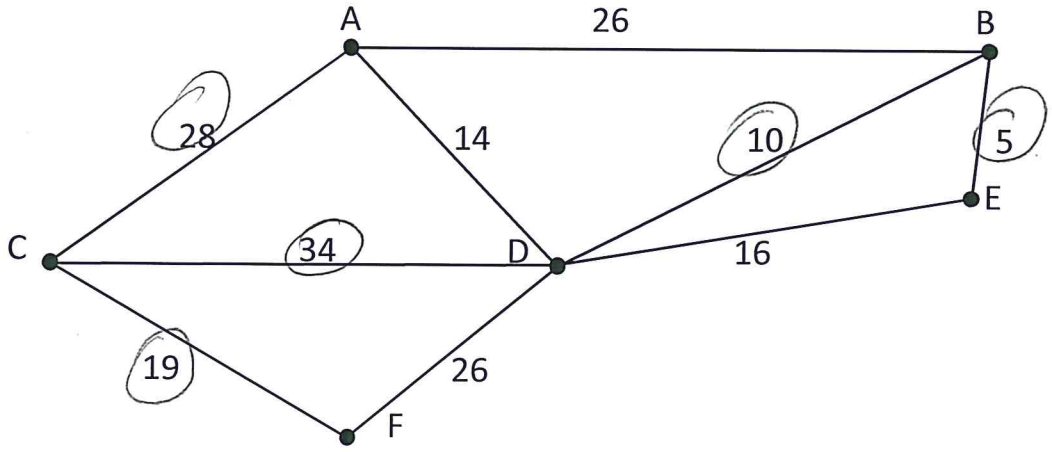
Date: _____

Special Instructions: No Calculator

Time Allowed: 18 minutes

Marks: / 18

1. Consider the following network where the numbers represent distances in km:



a. What is the shortest distance from C to E? 49km.

b. Give the letters of the shortest path. CDBE

c. Fill in the table below where only direct links are shown (don't fill in shaded cells)

	A	B	C	D	E	F
A		26	28	14		
B	26			10	5	
C	28			34		19
D	14	10	34		16	26
E		5		16		
F			19	26		

d. Use Prim's Algorithm on your table to determine the minimum spanning tree

14+5+10+26+19 = 74units

[2, 2, 4, 4 : 12 marks]