KEMENTERIAN PENDIDIKAN TINGGI

POLITEKNIK MALAYSIA KUCHING SARAWAK

JABATAN MATEMATIK, SAINS DAN KOMPUTER

		COURSE CODE/ COURSE NAME	DBM2033 DISCRETE MATHEMATICS	
		COURSEWORK ASSESSMENT	QUIZ 2	
		SESSION	DECEMBER 2017	
NAME	Su Kiong Hong	DURATION 20 MINS	CLO1	
REGISTRATION NO.	OSDDT17F1043		CLO2	10 MARKS
PROGRAMME/ SECTION	DDT2AB		CLO3	
		TOTAL MARKS		10 MARKS

Instructions

- Answer ALL questions. Write your answers in the spaces provided.
- Show your working to get marks. You may use a non-programmable scientific calculator.

Question 1 (CLO2, C3)

Based on the given statements, write the correct answers.

(a) A vertex that is not incident on any edge. isolated ~~vertic~~ vertex

(b) A graph with neither loops nor parallel edges. simple graph

(c) A graph in which loops and multiple edges are allowed. pseudograph

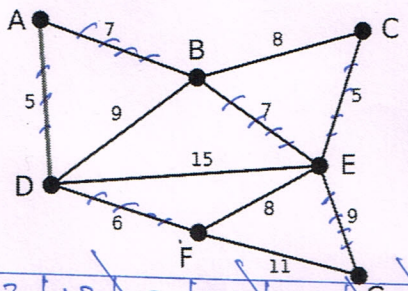
(d) A graph with one edge connect each pair of vertices. complete graph

(e) A path that begins and ends at the same vertex. Euler circuit

[5 marks]

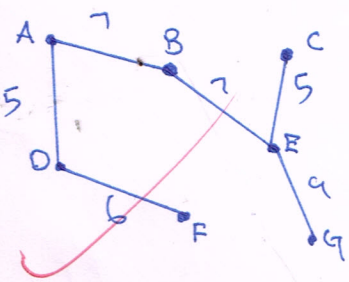
Question 2 (CLO2, C3)

Find the minimal spanning tree for the given graph by using Kruskal's algorithm.
Draw the minimal spanning tree you obtained.



total vertices = 7
remain edges = 7-1 = 6

Edges	AD	CE	DF	AB	BE	BC	FE		
Weight	5	5	6	7	7	8	8		
Add									



[5 marks]

Edges	AD	CE	DF	AB	BE	BC	FF	EG	BD	FG	DE
Weight	5	5	6	7	7	8	8	9	9	11	15
Add	Yes	Yes	Yes	Yes	Yes	No	No	Yes			