 <b>JABATAN MATEMATIK, SAINS &amp; KOMPUTER</b>		COURSE CODE / COURSE NAME		DBM2033 DISCRETE MATHEMATICS	
		COURSEWORK ASSESSMENT		TUTORIAL 3	
		SESSION		JUNE 2018	
NAME		DURATION	1 hour	CLO 2	
REGISTRATION NO.					
PROGRAMME/SECTION				TOTAL MARKS	

**INSTRUCTION:**

Answer ALL questions.

**Question 1 (CLO2, C3)**

Illustrate a suitable graph for the graph terminology below

- i) A multigraph
- ii) A pseudograph
- iii) A directed graph
- iv) A weight graph
- v) A connected graph

**[5 marks]**

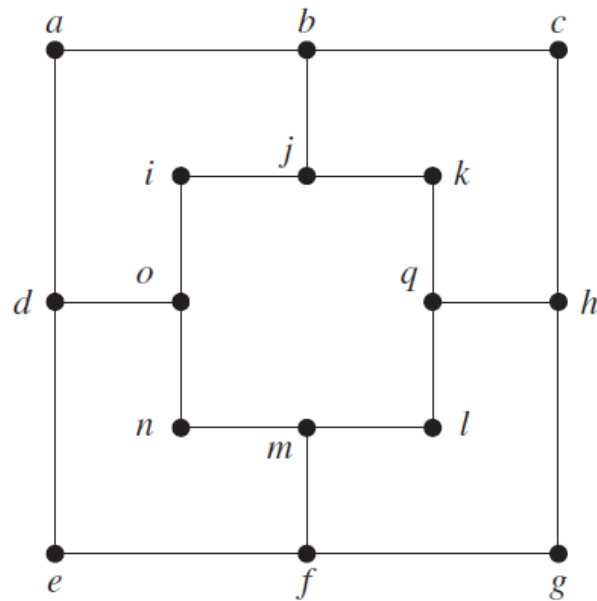
**Question 2 (CLO2, C1)**

Draw the following graph.

- i) A linear graph of  $L_7$ . **[1 mark]**
- ii) A complete graph of  $K_5$  **[1 mark]**
- iii) A complete bipartite graph of  $K_{4,3}$  **[2 mark]**
- iv) A discrete graph of  $D_4$  **[1 mark]**

### Question 3 (CLO2, C1)

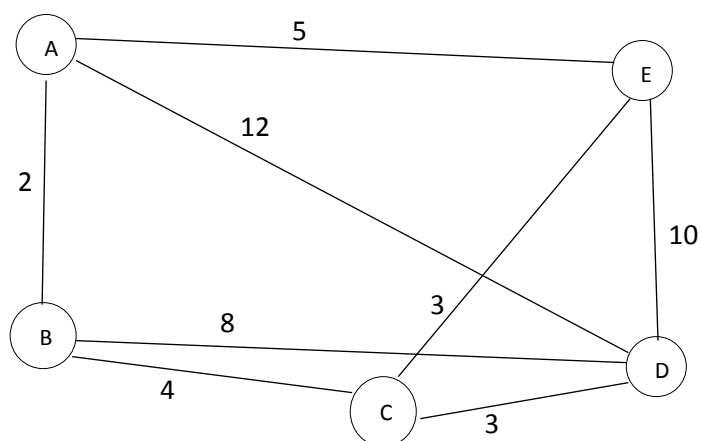
Identify either the graph below has an Hamilton path or not? Justify your answer and construct a path.



**[4 marks]**

### Question 4 (CLO2, C3)

Syukree want to do the sales for her products. She has to visit each one of the cities starting from A and returning to the same city. Find the minimum distance (km) Syukree have to travel between all pairs of cities.



**[6 marks]**