KEMENTERIA PENDIDIKAN MALAYSIA — POLITEKNIK MALAYSIA JABATAN MATEMATIK, SAINS DAN KOMPUTER		COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS	
		COURSEWORK ASSESSMENT		TUTORIAL 2	
		SESSION		DECEMBER 2018	
		DURATION	60 MINS	CLO1	20 MARKS
				CLO2	
				CLO3	
NAME		TOTAL MARKS		20 MARKS	
REGISTRATION NO.					
PROGRAMME/ SECTION					

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.

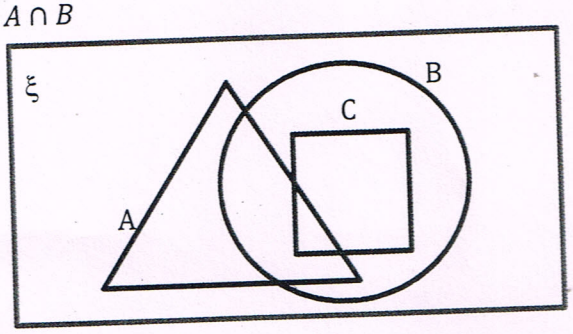
Question 1

[4 marks]

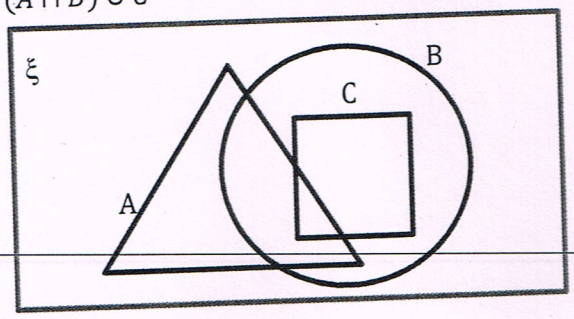
CLO1, C2

The Venn diagrams show the sets A, B and C such that the universal set, $\xi = A \cup B \cup C$. On the diagram, shade

(a) The set $A \cap B$



(b) The set $(A \cap B) \cup C'$



Question 2

[6 marks]

CLO1, C2

Given the relations $\{(1, 1), (1, 2), (2, 1), (2, 2), (3, 3), (4, 4)\}$ on the set $\{1, 2, 3, 4\}$. Identify whether the relations given are equivalence relations?

Question 3

[6 marks]

CLO1, C2

Illustrate the graph for the function $f(x) = \lfloor x + 2 \rfloor$ for the range of $-5 \leq x \leq 5$.

Question 4

[6 marks]

CLO1, C2

Let $f(x) = -3x + 7$ and $g(x) = 2x^2 - 8$. Compute $fg(-2)$