		COURSE CODE/ COURSE NAME	PBM1035 INTENSIVE MATHEMATICS
KEMENTERIA PENDIDIKAN MALAYSIA	POLITEKNIK MALAYSIA	COURSEWORK ASSESSMENT	TUTORIAL 3
		SESSION	DECEMBER 2018
JABATAN MATEMATIK, SAINS DAN KOMPUTER			CLO1	10 MARKS
NAME		DURATION	60 MINS	CLO2	
REGISTRATION NO.				CLO3	
PROGRAMME/ SECTION	IPP1	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

CLO1, C1   [1 mark]
   (a) Fill in missing index number.
$$2^{\square} \times 2^4 \div 2^5 = 2^{10}$$

CLO1, C2   [2 marks]
   (b) Simplify the indices in the lowest form.
$$8 \times (8^2)^4 \div 8^3$$

Question 2

CLO1, C1   [1 mark]
   (a) Rewrite the expression as single exponent.
$$19^2 \times 19^0 \div 19^4$$

CLO1, C2   [3 marks]
   (b) Simplify the following indices in the lowest form.
$$\frac{2^{n+2} \times 4^{3-2n}}{8^{3n}}$$

Question 3

CLO1, C3   [3 marks]
Calculate the following without using calculator.
$$3^{x-2} = 27^{x+4}$$