

 <p>KEMENTERIAN PENDIDIKAN TINGGI</p> <p>POLITEKNIK MALAYSIA KUCHING SARAWAK</p> <p>JABATAN MATEMATIK, SAINS DAN KOMPUTER</p>		COURSE CODE/ COURSE NAME		PBM1035 INTENSIVE MATHEMATICS	
		COURSEWORK ASSESSMENT		TUTORIAL 3	
		SESSION		DECEMBER 2017	
NAME		DURATION	60 MINS	CLO1	10 MARKS
REGISTRATION NO.				CLO2	
PROGRAMME/ SECTION	IPP1			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 [CLO1, C1]

Rewrite each expression as a single exponent.

- (a) $4^8 \times 4^3$
(b) $6^4 \div 6^{-6}$
(c) $(8^9)^{-3}$

[3 marks]

Question 2 [CLO1, C2]

Simplify the operations using law of indices.

- (a) $\frac{9(x^2)^2}{3xy^2}$
(b) $\frac{a \times (ab^4)^2}{(a^2 \times b)^3}$
(c) $\frac{a^{-2}}{b^3} \div \left(\frac{a}{b^2}\right)^{-2}$

[3 marks]

Question 3 [CLO1, C2]

Solve the equations involving indices.

- (a) $2^{7x} \cdot 8 = 256^x$
(b) $\left(\frac{1}{36}\right)^{3-x} \left(\frac{1}{6}\right)^x = 216$

[4 marks]