

 <p>KEMENTERIAN PENDIDIKAN TINGGI POLITEKNIK MALAYSIA KUCHING SARAWAK</p> <p>JABATAN MATEMATIK, SAINS DAN KOMPUTER</p>		COURSE CODE/ COURSE NAME		DBM2013 ENGINEERING MATHEMATICS 2	
		COURSEWORK ASSESSMENT		TE1	
		SESSION		DECEMBER 2017	
NAME		DURATION	15 MIN	CLO 1	
REGISTRATION NO.					
PROGRAMME/ SECTION		TOTAL MARKS			

Question 1 [CLO3, C2]

Simplify by using exponent rules.

<p>i.</p> $\frac{(4^3)^5(2^{-6})}{(16^{-3})^2(8)}$ <p style="text-align: right;">[2marks]</p>	<p>ii.</p> $\sqrt{\left(25x^{\frac{1}{2}}yz^{-2}\right)^3}$ <p style="text-align: right;">[2marks]</p>
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Question 2 [CLO3, C2]

Expand the following logarithmic functions by using logarithm rules.

<p>i.</p> $\log_{10} \frac{7ab}{5c}$ <p style="text-align: right;">[2marks]</p>	<p>ii.</p> $\log_q \left[\frac{p^4}{q^4 r^{-4}} \right]^2$ <p style="text-align: right;">[3marks]</p>
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Question 3 [CLO3, C3]

Solve the following.

<p>i.</p> $9^{4(2-x)} = 6561$ <p style="text-align: right;">[3marks]</p>	<p>ii.</p> $\frac{9^x \times 27^x}{9} = \frac{243^{2x}}{3^x}$ <p style="text-align: right;">[3marks]</p>
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