

Benha University		Midterm exa	am 2 Date:	April 2013			
Faculty of Engineering- Shoubra		Mathematics & Computer (B) Code: MDE 232					
Duration : 1 hour	AND THE ADDRESS OF TH						
Answer all the following questions	No. of questions	: 2	Total Mark: 20	marks			
I) Find the constants of the summer	1	that fit ()	101 (12 147)	(20, 210)			
1) Find the constants of the curve $y = \frac{1}{2} - \frac{1}{2} + \frac{1}{$							
	$a \sin x + \cos x + \cos x$						
<b>II</b> ) Derive the formula to solve the following P.D.E. numerically							
	C	-					
$\mathbf{H}$ $\mathbf{H}$ $\mathbf{O}$ $\mathbf{C}$ $\mathbf{H}$ $\mathbf{O}$ $\mathbf{C}$		1 U(-2) = 2	<sup>2</sup> 1 0 25 1	1			
$2U_t = U_{xx}$ $0 < x < 1$ , B.C. : $U(0,t) = 3$	3, U(1,t) = 2, 1.C.	U(x,0) = 3-x	$K^{-}, h = 0.25, K =$	= 1.			
			Dr. eng l	Khaled El Naggar			

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<b>I</b> ) Find the constants of the curve y =	$\frac{1}{a\sin x + b\ln x + c}$	$\frac{1}{x^2}$ that fit	(2, 101), (	13, 147)	), (20, 310)		
<b>II</b> ) Derive the formula to solve the following P.D.E. numerically							
$2U_t = U_{xx}$ $0 < x < 1$ , B.C. : U(0,t) = 3	3, U(1,t) = 2, I.C.	: U(x,0) =	$= 3-x^2, h = 0$	0.25, k = Dr. eng 1	= 1. Khaled El Naggar		