

	FINALTERM EXAMINATION	
	SPRING 2006	Marks: 55
	MTH301 - CALCULUS II (Session - 2)	Time: 120min

	StudentID/LoginID:		
	Student Name:		
	Center Name/Code:		
	Exam Date:	Thursday, August 17, 2006	

Please read the following instructions carefully before attempting any of the questions:

1. Attempt all questions. Marks are written adjacent to each question.
2. Do not ask any questions about the contents of this examination from anyone.
 - a. If you think that there is something wrong with any of the questions, attempt it to the best of your understanding.
 - b. If you believe that some essential piece of information is missing, make an appropriate assumption and use it to solve the problem.
 - c. Write all steps, missing steps may lead to deduction of marks.
3. Calculator is allowed.

****WARNING: Please note that Virtual University takes serious note of unfair means. Anyone found involved in cheating will get an 'F' grade in this course.**

For Teacher's use only											
Question	1	2	3	4	5	6	7	8	9	10	Total
Marks											
Question	11	12	13								
Marks											

Question No: 1 (Marks: 2) - Please choose one

Laplace transform of 't' is

	▶	
	▶	
	▶	
	▶	

Question No: 2 (Marks: 2) - Please choose one

Symmetric equation for the line through (1,3,5) and (2,-2,3) is

	▶	
	▶	
	▶	
	▶	

Question No: 3 (Marks: 1) - Please choose one

The level curves of $f(x, y) = y \csc x$ are parabolas.

	▶	True.
	▶	False.

Question No: 4 (Marks: 1) - Please choose one

The equation is written in

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	▶	Rectangular coordinates
	▶	Cylindrical coordinates
	▶	Spherical coordinates
	▶	None of the above

Question No: 5 (Marks: 5)

Compute where C is the curve

Question No: 6 (Marks: 5)

Evaluate

Question No: 7 (Marks: 10)

Use Stokes theorem to evaluate the integral
In the xy-plane with counter clockwise orientation looking down the positive z-axis.

Question No: 8 (Marks: 3)

Find

Question No: 9 (Marks: 4)

Locate critical points for the function

Question No: 10 (Marks: 4)

Set up a double integral for the volume bounded by surface and first octant.
(Do not evaluate.)

Question No: 11 (Marks: 4)

Determine whether make an acute angle ,an obtuse angle , or are orthogonal.

Question No: 12 (Marks: 4)

Given .Find $\text{div}(\text{Curl})$.

Question No: 13 (Marks: 10)

Determine the Fourier coefficients for a periodic function of period 2 defined by