

	MIDTERM EXAMINATION SEMESTER SPRING 2005 MTH302 – Business Mathematics & Statistics	Total Marks: 35 Duration:60mins
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StudentID/LoginID	
Name	
PVC Name/Code	
Date	

Maximum Time Allowed: (1 Hour)

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.
 - d. Attempt all the questions on Excel sheet and use only one excel sheet to solve all the questions. More than one sheets are not acceptable
 - e. Solve the questions on excel sheet in usual manner i.e. from upward to downward not from left to right.

****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	Q1	Q2	Q3	Q4	Q5	Q6	Total
Marks							

Question No: 1 **Marks: 5**

The annual rate of interest is 13%. The period of the loan is 10 years. The present value is 200,000 Rs. Calculate using CUMPRINC Excel function total interest paid in the second Year of payments, for periods 13 through 24. What is the principal paid in a single payment in the first month?

Question No: 2 **Marks: 5**

The Cost is 100,000. The date of purchased is 19/06/1981 and the first period ended on 31/12/1980. Using actual Basis find first period depreciation with the help of AMORDEGRC EXCEL FUNCTION if the depreciation rate is 15%.

Question No: 4 **Marks:5**

Calculate IRR after 4 years, 5 years and 2 years. With a guess of 10%:

Initial cost of a business	-100,000
Net income for the first year	10,000
Net income for the second year	17,000
Net income for the third year	20,000
Net income for the fourth year	18,000
Net income for the fifth year	26,000

Question No: 4

Marks:5

If FC =2000, S = 300, Capacity = 400 units, VC=160. Determine the BEP as % of capacity if FC is increased to Rs.4600 and VC reduced to 80% of S.

Question No: 5

Marks:3

Fawad's Appliances bought a Motor bike for Rs. 41,500. To make the desired profit; he needs a 60% Markup on Cost. What is Fawad's Rs. Markup? What is his Selling price?

Question No: 6

Marks:12

6) Find multiplication and determinant of the two matrices written Below

$$A = \begin{pmatrix} 201 \\ 345 \\ 131 \end{pmatrix}, B = \begin{pmatrix} 1 & 0 & 1 \\ 0 & 1 & 1 \\ 0 & 1 & 1 \end{pmatrix}$$