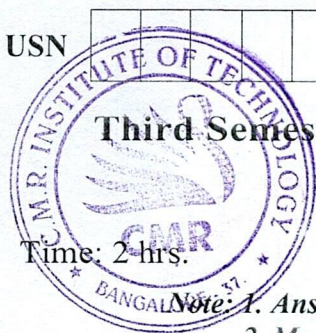


CBCS SCHEME

USN

BEC358B



Third Semester B.E./B.Tech. Degree Examination, June/July 2025 MATLAB Programming

Time: 2 hrs.

Max. Marks: 50

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks, L: Bloom's level, C: Course outcomes.

Module – 1				M	L	C
Q.1	a.	What are the basic commands available in MATLAB. And also explain.		5	L2	CO1
	b.	Explain in detail about arithmetic operations with examples.		5	L2	CO1
OR						
Q.2	a.	What is an array in MATLAB? How to create arrays with example.		5	L2	CO1
	b.	Write a MATLAB program to find the sum of the squares of first 100 natural numbers. Also write the output.		5	L3	CO1
Module – 2						
Q.3	a.	How to create plot using plot function and also specifying line styles and colors.		5	L3	CO2
	b.	How to create matrix in MATLAB and write all the matrix functions with examples.		5	L3	CO2
OR						
Q.4	a.	Plot sin(x) and cos(x) on the same figure, then on the same axis using different colors and indicate title and label the axis.		5	L3	CO2
	b.	If $x = \begin{bmatrix} 1 & 4 \\ 8 & 3 \end{bmatrix}$ find i) The inverse matrix of x ii) The diagonal of x iii) The sum of each column and the sum of whole matrix x iv) The transpose of x v) The maximum and minimum of x.		5	L3	CO2
Module – 3						
Q.5	a.	What are the mathematical expressions are there in MATLAB and explain with example.		5	L2	CO3
	b.	Explain how to create a new directory and change the current directory with example.		5	L2	CO3
OR						
Q.6	a.	Explain in detail how to read data into MATLAB's workspace with example.		5	L2	CO3
	b.	Explain in detail about anonymous functions.		5	L2	CO2
Module – 4						
Q.7	a.	Explain in detail about array arithmetic operations with examples.		5	L2	CO3
	b.	Explain the mathematical functions available in MATLAB with example.		5	L2	CO3
OR						
Q.8	a.	Explain in detail about relational and logical operations with example.		5	L2	CO3
	b.	Explain the following : i) How to create character arrays ii) How to create 2D character arrays.		5	L2	CO3

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Module – 5						
Q.9	a.	Explain in detail about M-file scripts with examples.		5	L3	CO4
	b.	Explain in detail about M-file functions with examples.		5	L2	CO4
OR						
Q.10	a.	Differentiate between script and function and also input and output arguments.		5	L3	CO4
	b.	Write some MATLAB language specific features.		5	L1	CO4
