Q.P. Code: 19EC0451 **R19**

Reg. No: | | | | | | | | | | |

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech III Year II Semester Regular Examinations August-2022

MATLAB PROGRAMMING

(Open Elective-IV)

Time: 3 hours Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

1	a	What are the good programming practices for MATLAB?	L1	6M
	b	Consider the following set of equations and Write MATLAB script to solve it. $6x - 4y + 8z = 112$ $-5x - 3y + 7z = 75$ $-5x - 3y + 7z = 75$	L2	6M

OR

2	a	Describe input and output commands used in MATLAB.	L2	6M
	b	Illustrate debugging and what types of errors occur in MATLAB programming.	L1	6M

UNIT-II

3	a	Define an array. Explain the one dimensional and two-dimensional array with suitable examples.	L1	6M
	b	Discuss the Element-by-Element operation on (i) Array Addition and Subtraction (ii) Element-by-Element Multiplication	L1	6M

OR

4	a	Explain cell array. How does it differ from ordinary array.	L2	6M
	b	Explain about the functions to sort, rotate, permute, reshape, shift array contents and circshift array contents.	L1	6M

UNIT-III

5	a	List the user defined functions? Write MATLAB program to sort vector v = [23 45 12 9 5 0 19 17] using MATLAB commands	L1	6M
	b	Explain in detail about working with data files.	L2	6M

OR

6	a	Illustrate how standard menu for a GUI can be created in MATLAB.	L3	6M
	b	Explain any 3 complex number handling functions in MATLAB.	L2	6M

UNIT-IV

7	a	List the requirements essential to producing plots that communicate effectively.	L1	6M
	b	Explain different types of conditional statements in MATLAB with examples.	L2	6M

OR

8	a	Describe about control-flow structures frequently used in MATLAB programming with examples.	L1	6M
	b	Explain briefly about methods for calling functions.	L2	6M

UNIT-V

9	a	Explain Underdetermined Systems with an example.	L2	6M
	b	Solve the following equations, using the matrix inverse method. $2x1 + 9x2 = 5$ $3x1 - 4x2 = 7$.	L3	6M

OR

10	a	Describe Matrix functions and commands for solving linear equations.	L2	6M
	b	Write MATLAB script using left division method to solve the following set of equations. $5x1 - 3x2 = 21$ $7x1 - 2x2 = 36$	L2	6M