Hall Ticket Number:

Code No. : 14118 N(D)

VASAVI COLLEGE OF ENGINEERING *(Autonomous)*, HYDERABAD

B.E. (CBCS) IV-Semester Main Examinations, May-2019

Programming for Engineers

(Open Elective-II)

Time: **2** hours Max. Marks: **40**

*Note: Answer **ALL** questions in **Part-A** and any **FIVE** from **Part-B***

Q.No.	Stem of the question	M	L	CO	PO
	Part-A (5 × 2 = 10 Marks)				
1.	Brief notes on different types of windows in MATLAB.	2	2	1	5
2.	Explain about *help* and look for commands in MATLAB.	2	2	1	5
3.	What are the different ways of creating script files in MATLAB.	2	1	3	3,5
4.	Give the syntax for the evaluation of Numerical Integration using *quad* and quadl commands.	2	1	3	3,5
5.	With suitable examples show the different ways of generating overlay plots.	2	1	2	5
	Part-B (5 × 6 = 30 Marks)				
6. a)	Explain in detail about *linspace(a,b,n)* and *logspace(a,b,n)* with an example.	2	2	2	3,5
b)	With an examples write in detail about arithmetic operations on matrices and arrays.	4	3	1	5
7. a)	Describe the use of anonymous functions with atleast two examples.	4	2	3	3
b)	MATLAB program: *A = eye(4,4);* *for x = 1:2:4* *A(x,x) = 0;* *end* What is the final value of A?	2	4	4	3,5
8. a)	Suppose x is a new variable, with the following MATLAB command, >> x = [-10:-1:-15; -2:1:3]; What is the size of x?	2	4	1	3,5
b)	Explain and sketch the following in MATLAB. i) subplot ii) stem iii) xlabel iv) ylabel v) legend vi) title vii) fplot viii) plot	4	3	2	3,5
9. a)	Discuss with an example about if, if-else, nested if structures in MATLAB.	4	2	3	5
b)	Analyze the importance of P-Code in MATLAB.	2	4	3	5
10. a)	With an example explain the procedure to create a function file in MATLAB.	3	2	3	3,5
b)	Write the functionality of any two *interactive input* commands used in MATLAB.	3	2	2	5

Contd... 2

11. a)	Illustrate the procedure of creating and displaying a GUI.	4	2	4	3,5
b)	Write a function file that converts temperature in degrees Fahrenheit (◦F) to degrees Centigrade (◦C). Use *input* and *fprintf* commands to display a mix of text and numbers. Recall the conversion formulation, C = 5/9∗(F−32).	2	3	3	3,5
12. a)	Write the MATLAB commands for drawing the curve $f(x,y) = -\left(\frac{x}{5}\right)^2 - \left(\frac{y}{2}\right)^2 - 16$ for $-5 \le x \le 5$ and $-5 \le y \le 5$ Using *meshgrid* and *surf* functions.	3	3	3	3,5
b)	With an example explain the importance of *cells* in MATLAB.	3	2	2	5

M: Marks; L: Bloom's Taxonomy Level; CO: Course Outcome; PO: Programme Outcome

S. No.	Criteria for questions	Percentage
1	Fundamental knowledge (Level-1 & 2)	63.5%
2	Knowledge on application and analysis (Level-3 & 4)	36.5%
3	*Critical thinking and ability to design (Level-5 & 6) (*wherever applicable)	--