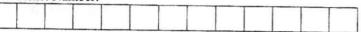
Hall Ticket Number:



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	М	L	СО	PO
	Part-A $(5 \times 2 = 10 \text{ Marks})$				
1.	Brief notes on different types of windows in MATLAB.	2	2	1	5
2.	Explain about <i>help</i> 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 ($5 \times 6 = 30$ 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) subplotii) stemiii) xlabeliv) ylabelv) legendvi) titlevii) fplotviii) 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 <i>interactive input</i> commands used in MATLAB.	3	2	2	5

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11. a)	Illustrate the procedure of creating and displaying a GUI.	4	2	4	35
		-	4	4	5,5
b)	Write a function file that converts temperature in degrees Fahrenheit (°F) to degrees Centigrade (°C). Use <i>input</i> and <i>fprintf</i> 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 $f(x, y) = -\left(\frac{x}{5}\right)^2 - \left(\frac{y}{2}\right)^2 - 16 \text{ for } -5 \le x \le 5 \text{ and } -5 \le y \le 5$	3	3	3	3,5
	$(x,y) = \begin{pmatrix} 5 \\ 2 \end{pmatrix}$ To for $5 \le x \le 5$ and $-5 \le y \le 5$ Using <i>meshgrid</i> and <i>surf</i> functions.				
b)	With an example explain the importance of <i>cells</i> 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)		

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