

Code: EE6T6FE-E

III B.Tech - II Semester – Regular Examinations – May 2017

**INTRODUCTION TO MATLAB
(ELECTRICAL & ELECTRONICS ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

PART – A

Answer *all* the questions. All questions carry equal marks

11x 2 = 22 M

1.

- a) What are different applications with MATLAB.
- b) List different display commands in MatLab?
- c) Write a built- in – function used to find minimum & maximum values in the data set.
- d) How to create a 3X3 matrix in MatLab?
- e) Write a simple code to add two 1D arrays in MatLab.
- f) What is the difference between “/” and “./” in MatLab?
- g) Give a MatLab command to plot two figures in a single page.
- h) What are different clear functions available in MatLab?
- i) Define script and function file.
- j) What is Interpolation?
- k) Explain the command “inline”?

PART – B

Answer any *THREE* questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) Explain Different types of built in functions available in MatLab ? 10 M
- b) Enumerate and Explain advantages of MatLab? 6 M
3. a) Create the following matrix in MatLab and also find $\det(A)$, $\text{rank}(A)$ using MatLab . 8 M
$$A = [1 \ 2 \ 3 \ 4; 5 \ 6 \ 7 \ 8; 4 \ 3 \ 2 \ 1; -1 \ 2 \ 5 \ 6]$$
- b) Solve for unknowns in the given equations using MatLab?
 $2x-3y+6z+w=4, \quad 3x+4y-z+3w=-9, \quad 2x+y+7z-2w=1,$
 $- 3x+5y+2z+4w=3$ 8 M
4. a) Write a short note on **pie**, **area**, **bar** and **hist** functions. 8 M
- b) Write a simple MatLab program which can plot day temperature value for 15 days . 8 M
5. a) Explain the concept of function and sub functions in MatLab. 8 M
- b) Write MatLab program to check whether the given number is prime or not? 8 M

6. For a polynomial

$$f(x) = x^5 - 12.5x^4 + 40.59x^3 - 17.015x^2 - 71.95x + 35.88$$

and explain about the functions used in detail.

a) Calculate $f(9)$ & $f(5)$

8 M

b) Plot the polynomial for $-1.5 \leq x \leq 6.7$

8 M