

Code: EC6T6FE-E, IT6T5FE-B, ME6T6FE-C

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

**MATLAB PROGRAMMING AND APPLICATIONS**  
**(Common for ECE, IT & ME)**

Duration: 3 hours

Max. Marks: 70

**PART – A**

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

11x 2 = 22 M

1.

- a) List special variables available in MATLAB.
- b) What is the syntax for plotting MatLab?
- c) Give the priority order for arithmetic operators in MatLab.
- d) List all relational operators in MatLab.
- e) What are return commands in MatLab?
- f) Write syntax for while-end loop in MatLab.
- g) Write built in functions for single variable polynomial.
- h) What is key word for simple integration for  $2\sin(x)$  in MatLab?
- i) Solve  $x^2-3x+4=0$  in MatLab.
- j) What is the difference between mesh and surface plots in MatLab?
- k) What is handle command in MATLAB?

## PART – B

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

3 x 16 = 48 M

2. a) Explain clearly how to start a m-file program in MatLab and how to save and execute in MatLab? 8 M
- b) Plot  $y=2t\sin(2t)$  for  $0 \leq t \leq 50$  and see to it that Y-axis is amplitude and X-axis is time and title is  $y(t)$ . 8 M
3. a) Create two different 3X3 matrices say A & B and perform  $A/B$  and  $A./B$  and explain its execution clearly in MatLab. 8 M
- b) Briefly explain the logical operators in MATLAB. 8 M
4. a) Write a short note on `fplot`, `ezplot`, `ezpolar` built in functions in MatLab? 8 M
- b) Write a MatLab program to sum up all the numbers which are less than 50 in given list.  
 $A = [10, 9, 55, 2, -3, 4, 65, 7]$  8 M
5. a) Find the solution for  $x+2y+3z=1$ ,  $3x+3y+4z=2$ ,  $4x+3y+6z=2$  and explain its execution in MatLab. 8 M
- b) Write a short note on Interpolation in MatLab? 8 M

6. a) Explain different commands in 3-D plots with examples.

8 M

b) Explain the following Built in functions

i) gcf      ii) gca      iii) gco      iv) get

8 M