Code: 15A04605

B.Tech III Year II Semester (R15) Supplementary Examinations December/January 2018/2019
MATLAB PROGRAMMING
(Electronics & Communication Engineering)

Time: 3 hours   Max. Marks: 70

PART – A
(Compulsory Question)
*****

1   Answer the following: (10 X 02 = 20 Marks)
  (a)   What is a command window?
  (b)   How to create M-file?
  (c)   Implement element by element multiplication operation of two matrices A and B.
        $A = \begin{pmatrix} 4 & 1 \\ 2 & 3 \end{pmatrix}$; $B = \begin{pmatrix} 2 & 1 \\ 1 & 2 \end{pmatrix}$.
  (d)   Give any two advantages of cell array in matlab programming.
  (e)   Write any two advantages of advanced function programming.
  (f)   What is the purpose of data files?
  (g)   Distinguish between plot and stem in plotting results.
  (h)   How does the subplot function will work in plotting graphs?
  (i)   Find the determinant of $A = \begin{pmatrix} 3 & 4 \\ 2 & 3 \end{pmatrix}$ and write the matlab command for determinant.
  (j)   Write a matlab program to solve linear equations using inverse method given below.

PART – B
(Answer all five units, 5 X 10 = 50 Marks)
UNIT – I

2   Discuss about script file and function file in writing matlab program with examples.
OR
3   Explain about MATLAB basic syntax and matlab help system.
UNIT – II

4   Describe about MATLAB array and discuss about the following functions with examples used in MATLAB program: (i) Zeros ( ).   (ii) Ones ( ).   (iii) Eye ( ).
OR
5   Explain cell array and its syntax in writing a matlab program with an example.
UNIT – III

6   What are the user defined functions? Write matlab program to sort vector v = [23 45 12 9 5 0 19 17] using matlab commands.
OR
7   Discuss about elementary mathematical function with proper commands.
UNIT – IV

8   List various relational operators available in matlab with detailed description.
OR
9   Describe about control-flow structures frequently used in matlab programming with examples.
UNIT – V

10   Write a matlab program to solve the set of linear system equations using the matrix method:
$$x + 2y + 3z = 9$$
$$2x - y + 3z = 8$$
$$3x + 0y - z = 3$$

OR
11   Write a matlab program to solve the set of linear system equations using the Cramer's method:
$$x + y + z = 11$$
$$2x - 6y - z = 0$$
$$3x + 4y + 2z = 0$$

*****
www.FirstRanker.com