

2123
B.E.(MEC), First Semester
ESC-X02: Computer Programming (MATLAB)

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- a) What is the difference between command "format short" and "format short e".
- b) What does the built-in function "echo" do in MATLAB?
- c) How can you have block comments in script m-files in MATLAB?
- d) State different built-in MATLAB functions for creating 3-D plots.
- e) Briefly differentiate between "fft", "fftn", "fft2" and "fftw" in MATLAB. (5x2)

UNIT - I

- II. Explain in detail different control flow techniques in MATLAB using appropriate examples of each. (10)
- III. Describe using examples, at least 15 rules concerning M-File function construction in MATLAB. (10)
- IV. Explain following with regards to multidimensional array :
 - (a) reshape
 - (b) repmat
 - (c) cat
 - (d) squeeze
 - (e) ind2sub
 - (f) sub2ind
 - (g) fliplr
 - (h) flipdim(10)

P.T.O.

(2)

UNIT - II

- V. Illustrate in detail, using examples, the seven MATLAB functions for computing integrals. (10)
- VI. With regards to using colors and light in MATLAB explain: colormaps, describing fourth dimension using colors, transparency, lighting models. (10)
- VII. Explain in detail using examples, class creation in MATLAB. (10)

x-x-x