B. Tech. DEGREE EXAMINATIONS, OCTOBER 2012

Model Question Paper

CH0323 MATLAB Programming

Max Marks: 25 Duration : 30 min

PART – A

Answer ALL the questions

(2 x 5 = 10 Marks)

1. Compute,

$$2+\frac{3+\frac{4}{5}}{5+\frac{3}{4}}$$

2. Match the each of the following commands of MATLAB in **Group I**, with the corresponding function in **Group II**

Group I	**Group II**
(P) `clear`	(I) Clears the workspace, all variables are removed
(Q) `clear all`	(II) Clears only variables *x*, *y*, *z*
(R) `clear x y z`	(III) Clears command window, command history is lost
(S) `clc`	(IV) Clears all variables and functions from work space

3. Choose the most appropriate word from the options given below to complete the following sentence:

A pair of single right quote (`' '`) is used to enclose

(a) character string (b) command line (c) title of a command (d) all of these

4. Find the roots of the polynomial $p(x) = x_4 + 10x_3 + 35x_2 – 50x + 24$.

5. Which of the following is TRUE? The command input ('string') displays

(a) the text in string on the screen and waits for the user to give keyboard input

(b) the text in string on the screen and do not wait for the user input

(c) both (a) and (b)

PART – B

Answer **ALL** questions

(3 x 5 = 15 Marks)

6. Write a script file to show the center of the circle.

7. Write a function file for temperature conversion between Celsius and Fahrenheit.

8. Create a function file to calculate specific volume of n-butane at 500 K and 18 atm using Redlich-Kwong equation of state. Data: Critical Pressure Pc: 37.5 atm, Critical Temperature Tc: 425 K and R = 0.08206 (atm) (m^3) / kmol K

(or)

9. Solve the first order ordinary differential equation as given below:

$dx/dt = x + t$ .With the initial conditions x (o) = 0. Show a plot for x versus t.