B. Tech. DEGREE EXAMINATIONS, OCTOBER 2016

Model Question Paper

CH1029 Process Modelling and Simulation Laboratory

Max Marks: 20   Duration : 50 min

Part – A

Answer ALL questions

(5 x 2 = 10 Marks)

1. Compute

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

2. 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

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

4. 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)

5. Write the difference between modelling and simulation.

Part – B

Answer ALL questions

(2 x 5 = 10 Marks)

6. Solving an example material balance problems involving system of linear equations.

7. Creating a function file/script file to solve empirical equations in chemical engineering.

(or)

8. Solving a first order differential equation model of in initial value problems in chemical engineering applications