CLASS TEST-1

Subject: Introduction to Computing (EP-201)   **B. Tech. (EP), 3ʳᵈ Semester**

Date of Examination: 14-09-2020   **MM: 15**

Time: 45 minutes

Instructions

1. Solve the problems using the editor of Matlab/Octave.
2. In order to give the solution of the questions, paste the screen shot of the editor file and output shown in the command window.
3. <u>Create one editor file to attempt all parts of same question.</u>
4. Submit a Single pdf file having your Name and Roll number at the top of the answers before pasting the solution.

Q. 1 Procurement details of a firm XYZ. LTD is given below for the month of January to March, 2019.   **(2.5×3=7.5)**

Items	Rate (Rs/ton)	Quantity Purchased (tons)		
		January	February	March
1	600	2	3	5
2	300	4	6	7
3	200	1	1	1
4	100	10	12	8
5	250	4	6	8

a) Define a Matrix "A" in Matlab/Octave of dimension 5×4 having Column 1 that represent the rate of items, column 2, 3 and 4 represent the quantity purchased in the month of January, February and March respectively as per above given table.

b) Using this Matrix "A", write a code to generate a matrix "B" of dimension 5×3 which contains the information about the expenditure made on each item for each month.

c) What is the total expenditure made on the procurement of items 2 and 4 in the period of these three months?

Q. 2 The nth term of the series is given by the following expression

                                                    (2.5×3=7.5)

$$T_n = \frac{2n-1}{n(n+1)(n+2)}, n = 1,2,3 \ldots\ldots$$

$n =1,3,5\ldots..$ represent odd terms of the series, $n =2,4,6\ldots$ represent even terms of the series.

a) Find 1ˢᵗ, 3ʳᵈ, 7ᵗʰ, 15ᵗʰ and 19ᵗʰ terms of the series in form of a vector.
b) Find the summation of first ten even terms of the series.
c) Find the summation of first ten odd terms of the series.