

2021

Computer Science

[HONOURS]

(CBCS)

(B.Sc. Third Semester End Examination-2021)

PAPER-SEC1T

Full Marks: 20

Time: 01 Hrs

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

Group A

1. Answer any TWO questions of the following: 2X2=4

- a) How can we obtain detail of all variables that are live at any time of instance?
- b) How to create M-file?
- c) How to generate an identity matrix of order 3x3?
- d) How can we obtain median of a vector V

Group B

Answer any Four questions of the following: 4x4 = 16

2. Write a MATLAB program to display thr following pattern:

(2)

*
* *
* * *

3. Write a MATLAB program to compute factorial of number.
4. Write a MATLAB program to read a vector from keyboard and then sort this vector in ascending order and then display this resultant vector.
5. Write a MATLAB program to initialize a square matrix randomly with elements in the range 0-9 and then compute its inverse if it's nonsingular. Show that multiplication of matrix and it's inverse gives identity matrix.
6. Write a MATLAB program to plot a graph $f(x) = \sin(x)$ for $-2\pi \leq x \leq 2\pi$.
7. Write a MATLAB program to read a vector and find standard deviation and mean of this vector.
