

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2018
(Fifth Semester)

Branch - MATHEMATICS WITH COMPUTER APPLICATIONS

CORE ELECTIVE -1 MAT LAB

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 2 = 20)

- 1 Explain 'coil (x)' and 'floor (x)'
- 2 Create a vector with constant spacing by specifying the first and last terms and the number of terms and give example.
- 3 Explain 'A(:, n)' and 'A(m : n, :)'
- 4 Write down the command to generate an n elements non vector and m x n matrix with random numbers between 0 and 1.
- 5 Explain the 'disp' command.
- 6 Explain the 'plot' command with its additional arguments to specify color, style of the line and type of markers.
- 7 What does this function definition line 'function A = Rect Area (a, b)' describes?
- 8 Write down the syntax to evaluate a function.
- 9 Which statement is used to execute one group of commands out of several possible groups? Also give its structure.
- 10 What are the two kinds of loops that MATLAB has?

SECTION - B (25 Marks!)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 5 = 25)

- 11 a Explain about elementary math functions.
OR
b Explain about the useful commands for managing variable.
- 12 a Write a note on zeros, ones and eye commands that are used to create matrices in MATLAB.
OR
b Explain about built-in functions for analyzing arrays.
- 13 a How will you create and save a script file? Give a short note.
OR
b Write a short note on 'hold on' and 'hold off' commands in MATLAB.
- 14 a Explain about plots using logarithmic axes.
OR
b Write down the differences between local and global variables.
- 15 a Explain about 'if-end' structure.
OR
b Write a note on 'break' and 'continue' command.

SECTION - C (30 Marks)

Answer any THREE Questions

ALL Questions Carry EQUAL Marks (3 x 10 = 30)

- 16 Discuss about the elementary math built-in functions with examples.
- 17 Explain in detail about built-in-functions for handling arrays.
- 18 Briefly discuss about the 'plot' command used in MATLAB.
- 19 Discuss the similarities and differences between script and function files.