



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – STATISTICS

THIRD SEMESTER – NOVEMBER 2023

PST3ID01 – DATA VISUALIZATION AND MATLAB THEORY

Date: 09-11-2023

Dept. No.

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

SECTION A – K1 (CO1)

Answer ALL the questions

(5 x 1 = 5)

1 MCQ

- a) The key and value are separated with
i), ii) ; iii) : iv) #
- b) Which of the following is used for variable length arguments?
i)^ ii) ! iii) @ iv) *
- c) Which function is used to create a scatterplot in Seaborn package?
i) sns.catplot() ii) sns.relplot() iii) sns.regplot() iv) sns.barplot()
- d) Which is the invalid variable name in MATLAB?
i) x6 ii) last iii) 6x iv) z
- e) What is the final value of j from the following code?
for j = (0:3)
 j = j+ 1;
end
i)syntactical error ii) declaration error iii) 3 iv) 4

SECTION A – K2 (CO1)

Answer ALL the questions

(5 x 1 = 5)

2 Fill in the blanks

- a) Python uses _____ for compiling the source program.
- b) The “def” keyword uses the _____ operator.
- c) Values which are displayed on x-axis is called _____.
- d) _____ MATLAB command is used to reduce the spacing between lines in command window.
- e) Let $X = \{22, 4, 6, 9, 12, 33, 7, 3\}$. The MATLAB command to compute mode of X is _____.

SECTION B – K3 (CO2)

Answer any THREE of the following

(3 x 10 = 30)

- 3 What are the applications of Python Programming languages?
- 4 What is a package? List the name packages for data visualization.
- 5 Write a user defined function in Python to calculate mean and standard deviation for 5, 8, 12, 15, 20, 22, 25, 30, 33, 35.
- 6 How could one refer and modify an element or a group of elements in MATLAB? Make use of a matrix to explain the above.
- 7 Explain the following MATLAB commands using suitable examples:
simplify b) surf c) rand d) bar3 e) loglog

