



LOYOLA COLLEGE (AUTONOMOUS) CHENNAI – 600 034

M.A. DEGREE EXAMINATION – ECONOMICS

THIRD SEMESTER – APRIL 2025

PEC3ME01 – DATA ANALYTICS FOR ECONOMICS



Date: 07-05-2025

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 PM

SECTION A – K1 (CO1)

Answer ALL the questions

(5 x 1 = 5)

1 True or False

- A descriptive model identifies patterns or relationships in data.
- When a few values are missing in a data set, it should be deleted in all circumstances.
- In Logistic regression the outcome is always between 0 and 1.
- Random forests create a forest of decision trees.
- Relational Neighbor Classifier is also known as guilt by association.

SECTION A – K2 (CO1)

Answer ALL the questions

(5 x 1 = 5)

2 Explain the following concepts in a sentence or two

- Clustering
- CLV
- Branch nodes
- Neural network
- Recency

SECTION B – K3 (CO2)

Answer any THREE of the following in 100 words each.

(3 x 10 = 30)

- Explain the role of 'Return on Investment' in measuring the effectiveness of data mining approach.
- State the various types of data elements. Give examples.
- 'The introduction of new technology, such as data analytics, brings new privacy concerns' – validate the above statement.
- What are Association rules? Explain the two key measures for association rule mining.
- Draw the possible hazard shapes that may arise from survival analysis and explain each case.

SECTION C – K4 (CO3)

Answer any TWO of the following in 200 words each.

(2 x 12.5 = 25)

- Explain the steps involved in KDD process.
- Illustrate the methods used for detecting and treating outliers.
- Distinguish between one-versus-one coding and one-versus-all coding with relevant diagrams.
- What is a Kite network? Give a real time example of your own and plot a Kite network for the same.

SECTION D – K5 (CO4)

Answer any ONE of the following in 500 words

(1 x 15 = 15)

- Explain Logistic regression using relevant equations, graphs and diagrams.
- Elucidate the Kaplan Meier survival analysis.

SECTION E – K6 (CO5)

Answer any ONE of the following in 1000 words

(1 x 20 = 20)

- Give an account of various implementation issues associated with data mining.
- Examine the various filter measures used in variable selection.
