

2023

M. E. (Information Technology)

First Semester

MEIT-1103: Data Mining and Analytics

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- a) Is logistic regression a regression technique? Explain.
- b) Compare OLAP and OLTP.
- c) Differentiate between Classification and Association.
- d) What are data marts?.
- e) Compare the concepts of Support and Confidence. (5x2)

UNIT - I

- II.
 - a) Compare various schema for multidimensional databases using a suitable example.
 - b) Compare Roll-Up and Drill-Down operations using examples. (2x5)
- III.
 - a) What is "'Curse of Dimensionality' and how can it be resolved? Explain using a real-life case study.
 - b) Discuss various data transformation techniques using suitable examples. (2x5)
- IV.
 - a) How do you measure classifying power of an attribute within a set of data? Discuss and compare various methods for measuring classifying power of an attribute.
 - b) Compare Data generalization-based characterization and summary-based characterization using suitable examples. (2x5)

UNIT - II

- V. Demonstrate working of the Apriori Algorithm using an example. What are challenges for this algorithm? How can it be improved further? (10)

P.T.O.

(2)

- VI. Compare Decision Tree Induction and K-nearest neighbour classification using suitable examples. (10)
- VII. a) Where does data mining fit in a business process? Explain using suitable examples.
b) Illustrate embedded data mining using a suitable example. (2x5)

x-x-x