

Time allowed: 3 Hours

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

Max. Marks: 50

x-x-x

I. Attempt the following:-

- How is a data warehouse different from a database?
- What do you understand by noisy data? Give examples.
- What is OLAP cube used for? Discuss in brief.
- Differentiate between classification and clustering.
- What is spatial data mining?

(5x2)

### UNIT – I

- What kinds of patterns can be mined using Data Mining concepts? Discuss in brief.
  - Differentiate between ROLAP, MOLAP and HOLAP servers.
- Explain multi-tier data warehouse architecture with the help of a diagram.
  - Briefly discuss any two major tasks involved in Data Preprocessing.
- What are the major issues and challenges in Data Mining? Discuss in brief.
  - Write a note on Data Generalization by Attribute-Oriented Induction.

(2x5)

(2x5)

(2x5)

### UNIT – II

- What do you understand by Association Rule Mining? Explain the algorithm for discovering frequent item sets for mining association rules with the help of an example. (10)
- Explain k-nearest neighbour classification approach with the help of an example.
  - What are decision trees? What are their advantage and disadvantages for classification? Discuss in brief. (2x5)
- What is Cluster Analysis? Give the overview of any two basis clustering methods. (2x5)
  - Write a note on sequence data mining and its applications.

x-x-x