

*Answer any FIVE Questions
All Questions carry equal marks*

1. (a) Discuss briefly various data mining functionalities.
(b) Explain dimensionality reduction as a preprocessing activity.

2. (a) Define data warehouse. Differentiate between data warehouse and database system.
(b) Explain mining class comparisons with AOI.

3. (a) Discuss ECLAT algorithm to find frequent patterns.
(b) Explain association rule clustering system with examples.

4. (a) Why information gain is considered as attribute selection measure? Illustrate with an example.

(b) How to derive rules from a decision tree?
(c) Discuss ensemble methods to increase the accuracy of a classifier.

5. (a) Discuss interval-scaled variables and their standardization.
(b) Discuss the categorization of major clustering methods.
(c) Describe a typical dimension-reduction sub space clustering methods.

6. (a) Explain Baum-Welch algorithm.
(b) What is a social network? Discuss its characteristics.

7. (a) How to construct a spatial data cube? Discuss the types of measures in a spatial data cube.

(b) Describe similarity search in multimedia data.
(c) Explain locality preserving indexing.

8. Discuss data mining for biological data analysis.