

## Bachelor of Science (B.Sc.) (I.T.) Semester—VI Examination

## DATA MINING

## Paper—4

Time : Three Hours]

[Maximum Marks : 50

**N.B. :—** (1) **ALL** questions are compulsory and carry equal marks.

(2) Draw neat and labelled diagram wherever necessary.

**EITHER**

1. (a) Discuss the following : 5
  - (i) HOLAP
  - (ii) ROLAP
  - (iii) MOLAP.
- (b) Discuss Optimal Frequent Itemset Mining algorithm in detail. 5

**OR**

- (c) Write notes on the following : 5
  - (i) Conciseness of Result
  - (ii) Sequential Rule.
- (d) What do you mean by Association Rule Mining ? Explain. 5

**EITHER**

2. (a) What are the issues with the classification mining ? Explain. 5
- (b) Explain the following with respect to decision tree in data mining : 5
  - (i) Best Split
  - (ii) Splitting Criteria.

**OR**

- (c) What criteria is used for classification ? Under what circumstances is classification useful in data mining ? 5
- (d) Explain in detail decision tree algorithm. 5

**EITHER**

3. (a) What is clustering ? How is simplicity measured in clustering ? 5
- (b) What is outlier ? How is it detected ? Explain. 5

**OR**

- (c) What parameters are used to evaluate different algorithms used in clustering ? 5
- (d) Explain density based clustering with example. 5

**EITHER**

4. (a) Explain any one algorithm used to mine the special data. 5
- (b) What do you mean by data stream ? Explain with example. 5

**OR**

- (c) What mining methods are used in time series data ? Explain any one method. 5
- (d) Differentiate Text data, Web data and Multidimensional data. 5

5. Attempt **ALL** :

- (a) Differentiate between DBMS and Data Mining. 2½
- (b) Explain Regression in Data Mining. 2½
- (c) Explain Horizontal method of classification. 2½
- (d) What is transactional data ? Explain. 2½