

**Bachelor of Science (Information Technology) (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) What is Data Mining ? How is data mining different from KDD ? 5
- (b) Explain Priori Algorithm. 5

**OR**

- (c) What are the issues and challenges in Data Mining ? 5
- (d) What is association rule ? What are the methods to discover association rules. 5

**EITHER**

2. (a) Explain Decision tree construction algorithm. 5
- (b) Explain optimal classification algorithm. 5

**OR**

- (c) What is best split ? Explain splitting indices. 5
- (d) Describe essential features in a decision tree. How is it useful to classify data ? 5

**EITHER**

3. (a) What is clustering ? Explain its applications. 5
- (b) Explain evaluation of clustering algorithm. 5

**OR**

- (c) Explain grid base clustering method. 5
- (d) Give classification of clustering algorithm. 5

**EITHER**

4. (a) Explain a method for mining :  
 (i) Distributed data  
 (ii) Spatial data. 5
- (b) Explain any one method used for multidimensional data mining. 5

**OR**

- (c) Explain a method use to mine transactional data. 5
- (d) What is partition discovery ? Explain in detail with example. 5

5. Attempt **ALL** :

- (a) List applications areas of DM in banking. 2½
- (b) What is a decision tree ? List advantages and shortcomings of decision tree classification. 2½
- (c) Explain outlier detection. 2½
- (d) Explain a method used for mining Relational Data. 2½