CBCS SCHEME

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15CS651

Sixth Semester B.E. Degree Examination, Dec.2018/Jan.2019
Data Mining and Data Warehousing

Time: 3 hrs. Max. Marks: 80

Note: Answer any FIVE full questions, choosing one full question from each module.

Module-1

1 a. What is data warehouse? Differentiate between ODS and data warehouse. **(06 Marks)**
b. Explain with diagram, a three-tier data warehouse architecture. **(10 Marks)**

OR

2 a. Explain OLAP operations with examples. **(10 Marks)**
b. Define: i) Dimensions ii) Measures iii) Fact tables. **(03 Marks)**
c. What is metadata in data warehouse? What it contains? **(03 Marks)**

Module-2

3 a. Explain indexing OLAP data: Bitmap index and join index with example. **(10 Marks)**
b. Explain ROLAP versus MOLAP. **(06 Marks)**

OR

4 a. What is data mining? Briefly explain the motivating challenges. **(06 Marks)**
b. Explain data preprocessing steps. **(10 Marks)**

Module-3

5 a. Explain frequent itemset generation of the Apriori algorithm. **(08 Marks)**
b. Explain rule generation in Apriori algorithm. **(08 Marks)**

OR

6 a. Explain alternative methods for generating frequent itemsets. **(08 Marks)**
b. Explain briefly FP-growth algorithm. **(08 Marks)**

Module-4

7 a. With neat block diagram, explain general approach to solve classification problem. **(08 Marks)**
b. Explain how to build a decision tree using Hunt's algorithm. **(08 Marks)**

OR

8 a. Explain rule based classifiers with illustration. **(08 Marks)**
b. Explain K-nearest neighbor classification algorithm with example. **(08 Marks)**

Module-5

9 a. What is cluster analysis? Explain different types of clusterings. **(08 Marks)**
b. Explain briefly agglomerative hierarchical clustering with example. **(08 Marks)**

OR

10 a. Explain DBSCAN algorithm with example. **(08 Marks)**
b. Briefly explain BIRCH scalable clustering algorithm. **(08 Marks)**

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