Fourth Semester B.C.A. Degree Examinations
October / November 2019
(New Scheme - 2016-17 Batch)

BCD 430 : DATA WAREHOUSING AND DATA MINING

Time : 3 Hours   Max. Marks : 80

I.   Answer ALL questions: **5x1=5**

1.   What is datawarehouse ?

2.   What is Supervised learning ?

3.   State Apriori principle.

4.   Expand OLTP.

5.   What is Boosting ?

II.   Answer any <u>FIVE</u> of the following: **5x15=75**

6.   a)   Explain the characteristics of data warehouse.

      b)   Explain the two schemas of data warehouse.

      c)   Explain Enterprise warehouse and virtual warehouse.   **(5+5+5)**

7.   a)   What is Data cube ? Explain the features of OLAP.

      b)   Explain Data cube operations.

      c)   Differentiate between OLAP & OLTP.   **(5+5+5)**

8.   a)   Explain descriptive tasks in data mining.

      b)   Explain motivating challenges in data mining.

      c)   Explain machine learning techologies in data mining.   **(5+5+5)**

9.   a)   Explain the applications of data mining.

      b)   What are the steps involved in data pre-processing for data mining ? Explain.

      c)   Define frequent item set. Explain the steps in Apriori algorithm.   **(5+5+5)**

10. a) Illustrate the steps for Generating FP tree.

    b) Illustrate rule generation with an example.

    c) Define the following:

    i) Itemset   ii) Support Count   iii) Support

    iv) Association Rule   v) Frequent itemset   **(5+5+5)**

11. a) Describe a decision tree with an example.

    b) Explain general approach to solve classification problem.

    c) Write a note on rule based classifiers.   **(5+5+5)**

12. a) Explain Bootstrap and Bagging methods in classification.

    b) Explain evaluation criteria for classification methods.

    c) Write a note on Multiclass problem.   **(5+5+5)**

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