Exam. Code : 206703

Subject Code : 3680

M.Sc. Computer Science 3rd Semester

DATA MINING AND WAREHOUSING

Paper : MCS-303

Time Allowed—3 Hours]   [Maximum Marks—100

Note :— Attempt any **five** questions. All questions carry equal marks.

1. (a) Explain structure of the data warehouse. Discuss in detail all the steps involved in making a data warehouse.   10

   (b) It is always said that the data warehouse should be built separate. Justify.   10

2. (a) Explain OLTP and OLAP and also discuss differences between them.   10

   (b) Draw and explain 4-dimensional data cube with an example.   10

3. (a) Discuss various problems with Data Warehousing. Map the Data Warehouse to multiprocessor architecture.   10

   (b) Explain cluster analysis.   10

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4. Explain MOLAP and ROLAP. Explain the following OLAP operations in the multidimensional data model with the diagram and an example :

   (i) Dice for

   (ii) Slice for

   (iii) Drill down

   (iv) Roll up

   (v) Pivot. 20

5. (a) Is it necessary that every small or big company should have a data warehouse ? Justify your answer. 10

   (b) Explain the three-tier data warehouse architecture. 10

6. (a) Explain various steps involved in Data Mining Process. 10

   (b) Discuss major classifications of Data Mining Systems. 10

7. Discuss in detail the application of Data Mining for Financial Data Analysis. Give suitable data flow diagram. 20

8. (a) Write short notes on :

   (i) Predictive Modelling.

   (ii) Database Segmentation. 2×5=10

   (b) Discuss any two applications of Data Mining. 10