Con. 9243–13.

LJ–11650

(3 Hours)

[Total Marks : 100

N.B.: (1)   Question No. **1** is **compulsory**.

(2)   Answer any **four** questions out of the remaining **six** questions.

(3)   Assume data if **required**, and state **clearly**.

Q1. (A) What is a Data ware house? Explain the three tier architecture of a Data Ware house with a block diagram .   10

Q1. (B) Explain Data mining as a step in KDD. Explain the architecture of a typical DM system.   10

Q2. (A) What is meant by market- basket analysis? Explain with an example. State and explain with formula the meaning of following terms   10

(I) Support

(ii) Confidence

(iii) Iceberg Queries

Hence explain how to mine multilevel Association rules from transaction databases, with examples.

Q2. (B) What is meant by Web Mining? Explain any one Web mining Algorithm.   10

Q3. (A) All Electronic company have sales department sales, consider three dimensions namely   10

(i)   Time   (ii) Product   (iii) Store

The schema contains central fact table sales with two measures

(I) Dollars-cost and   (ii) Units-Sold

Using the above example, describe the following OLAP operations

(I) Dice (ii) Slice   (iii) Roll-Up   (IV) Drill-Down

Q3. (B) Explain ETL (Extract Transform Load) cycle in a Data Warehouse in detail   10

[TURN OVER

Q4. (A) Compare between OLAP and OLTP   10

Q4. (B) Explain in detail the HITS Algorithm   10

Q5. (A) What is meant by Information Package Diagram, For recording the information requirements for "Hotel Occupancy" having dimensions like time, hotel etc., give the information package diagram for the same, also draw the star schema and snowflake schema   10

Q5. (B) Consider the following transactions: -   10

TID	Items
01	1,3,4,6
02	2,3,5,7
03	1,2,3,5,8
04	2,5,9,10
05	1,4

Apply the Apriori Algorithm with minimum support of 30 % and minimum confidence of 75 and find the large item set L

Q6. (A) Give five examples of application that can use clustering. Describe any one clustering algorithm with an example.   10

Q6. (B) What is meant by meta data? Explain with example. Explain the different types of meta data stored in a data ware house. Illustrate with examples.   10

Q7. Write short Notes on (Any Two)   20

   (a) Web Personalization
   (b) Decision Tree based classification Approach
   (c) Trends in Data Ware Housing
   (d) Attribute Oriented Induction