10. (A) Explain Apriori algorithm for frequent item sets using candidate generation. 9

(B) Explain mining multilevel association rules from transaction databases. 4

11. (A) Draw and explain map reduce technique with example. 10

(B) Write a note on characteristics of Big data. 4

OR

12. (A) Describe architecture of Hadoop. Also give its challenges and applications. 10

(B) Write a note on important factors of BI. 4

NTK/KW/15/7584

Faculty of Engineering & Technology
Seventh Semester B.E. (Infor. Tech.) (C.B.S.) Examination
DATA WAREHOUSING & MINING

Time—Three Hours] [Maximum Marks—80

INSTRUCTIONS TO CANDIDATES

(1) All questions carry marks as indicated.

(2) Solve Question No. **1 OR** Question No. **2**.

(3) Solve Question No. **3 OR** Question No. **4**.

(4) Solve Question No. **5 OR** Question No. **6**.

(5) Solve Question No. **7 OR** Question No. **8**.

(6) Solve Question No. **9 OR** Question No. **10**.

(7) Solve Question No. **11 OR** Question No. **12**.

(8) Assume suitable data wherever necessary.

1. (A) Explain three tier architecture of data warehouse with neat sketch. 7

(B) Describe the failure of past decision support system. 6

OR

2. (A) What is data mart ? How it differs from data warehouse ?
7

(B) Explain life-cycle of data warehouse with neat sketch.
6

3. (A) Summarize the data preprocessing steps in brief. 5

(B) What is data reduction ? Explain different methods of data reduction.
8

OR

4. (A) What is data transformation ? Explain the different methods of transformation.
9

(B) What are different measures of data dispersion ?
4

5. (A) Describe the STAR and SNOWFLAKE scheme with neat sketch.
7

(B) Explain various types of OLAP operations with example.
7

OR

6. (A) Discuss the architecture of HOLAP in detail with the help of suitable diagram.
4

(B) Write a short note on web based OLAP.
4

(C) What is the difference between OLAP & OLTP ?
6

7. (A) Explain the architecture of data mining with neat diagram.
9

(B) List out the data mining issues.
4

OR

8. (A) Describe the classification of data mining systems.
5

(B) Explain the application of data mining in (any **TWO**) :

(i) Financial Institute

(ii) Retail Industry

(iii) Telecommunication Industry.
8

9. (A) Explain market basket analysis in detail.
7

(B) Write a short note on association rule mining.
6

OR