

Data Warehousing & Data Mining

P. Pages : 2

Time : Three Hours

**NRJ/KW/17/4626**

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Solve Question 9 OR Questions No. 10.
 7. Solve Question 11 OR Questions No. 12.
 8. Assume suitable data whenever necessary.
 9. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) Explain KDD in detail with neat diagram. 8
- b) Explain Data integration & Transformation in Data mining. 6

OR

2. a) Discuss major issues in Data mining. 7
- b) Explain applications of data mining in detail. 7
3. a) Define data warehouse. Explain an architecture of Data warehouse with suitable diagram. 7
- b) Briefly explain the OLAP guidelines suggested by Dr. Codd. 6

OR

4. a) Differentiate between OLTP and OLAP. 7
- b) Explain in detail life cycle of Data warehouse. 6
5. a) What do you mean by mining frequent patterns, Association & correlation with an example. 6
- b) Explain constraint- Based mining with suitable example. 7

OR

6. a) What is correlation Analysis? 4
- b) Define the following terms. 9
 - i) Association mining.
 - ii) Frequent item sets.
 - iii) Closed item sets.

7. a) Explain support vector machine with suitable diagram. 6
- b) Discuss different issues related to classification & prediction. 7

OR

8. a) Explain classification by Decision Tree Induction with an example. 7
- b) Write short note on Back propagation. 6
9. a) What is clustering? Why it is required. 3
- b) Differentiate between K-means and K-medoids. 6
- c) What is outlier? Why outlier mining is important. 5

OR

10. a) Explain any two clustering methods with their types in detail. 14
11. a) Explain the techniques for mining time- series data. 7
- b) Define the following terms. 6
- i) Data stream.
- ii) Time series Data.
- iii) Sequence Data.

OR

12. a) Write short note on **any three**. 13
- i) Graph mining.
- ii) Link mining.
- iii) Social Network Analysis.
- iv) Multi relational Data Mining.
