M.E. Second Semester (Information Technology) (Full Time) (C.G.S.)

13433 : Elective-II : Data Warehousing and Data Mining

2 NMEF 5

P. Pages : 2 | AW - 3754

Time : Three Hours | Max. Marks : 80

* 1 2 9 3 *

Notes : 1. Assume suitable data wherever necessary.
2. Illustrate your answer necessary with the help of neat sketches.
3. Use of pen Blue/Black ink/refill only for writing the answer book.

1. a) Define 6
i) Time variant data ii) Data granularity
iii) Integration data

b) List the different components of a data warehouse. Explain the data staging component. 7

OR

2. a) Explain the Information delivery component of data warehouse. 7

b) Compare and contrast operational and decision support system. 6

3. a) What are the four major requirements of meta data ? Describe each of these requirements. 7

b) Describe slowly changing dimensions. Explain its three types. 6

OR

4. a) What are aggregate fact tables ? Explain its need giving an example. 7

b) Explain the characteristics and goals of a data warehouse architecture. 6

5. a) What is the need of multidimensional analysis ? Explain how OLAP provides it. 8

b) Explain : 6
i) Primary key ii) Foreign key

OR

6. a) What is an OLAP ? Explain the guidelines for an OLAP system. 8

b) Explain : 6
i) Drill-Down and Roll-up ii) Slice-and-Dice

7. a) What do you mean by data mining task primitives ? Explain. 7

b) Explain the different ways of integrating a data mining system with a data warehouse system. 6

OR

8. a) Describe the different aspects on which a data mining system can be classified. 7

b) Explain : 6
i) Cluster analysis ii) Outlier analysis

9. a) What are association rules ? Explain how multilevel association rules can be mined. 8

b) Explain : 6
i) Frequent itemsets ii) Closed itemsets

OR

10. a) What is constraint based association mining. 6

b) Explain the apriori algorithm for finding frequent itemsets. 8

11. a) Explain how classification and prediction methods can be compared and evaluated. 6

b) What is a decision tree ? How it can be used for the purpose of classification. 7

OR

12. a) Why is tree pruning required ? Explain approaches for tree pruning. 7

b) Explain rule based classification. 6

****