

M.E. Second Semester (Information Technology) (Full Time) (CGS)  
**13433 : Elective-II : Data Warehousing and Data Mining : 2 NMEF 5**

P. Pages : 2

Time : Three Hours



AU - 3314

Max. Marks : 80

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

**SECTION – A**

1. a) Explain the Information delivery component of data warehouse. 7  
b) Explain 6  
i) Integrated Data ii) Time-variant-Data iii) Data granularity.

**OR**

2. a) Explain, why do we need a separate staging area in data warehouse environment. 6  
b) Why is data cleaning and data transformation functions considered to be a vital task in integration process? Explain there functions. 7  
3. a) Define and explain the importance of metadata in data warehouse. 6  
b) Explain star schema with relevant example. 7

**OR**

4. a) Explain three tier Architecture of Data warehouse. 6  
b) What are aggregate fact tables? Explain its need giving an example. 7  
5. a) Explain, what are hyper cubes. 7  
b) What do you understand by surrogate keys? Why are they important in data warehouse environment. 7

**OR**

6. a) Explain what is meant by data clustering. 7  
b) Explain different models of OLAP? Differentiate between MOLAP and ROLAP. 7

**SECTION – B**

7. a) Explain classification and prediction. 6  
b) List and describe the primitives for specifying a data mining task. 7

**OR**

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|----|----|---|---|
| 8. | a) | Explain the Architecture of data mining system.   | 6 |
|    | b) | What is class/concept description? Also explain data characterization and discrimination. | 7 |
| 9. | a) | What are itemsets? Explain closed itemset.  | 6 |
|    | b) | Explain generator of association rules from frequent itemset.                             | 7 |

**OR**

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|-----|----|---|---|
| 10. | a) | Explain how apriori property is used in the algorithm.                    | 6 |
|     | b) | What do you mean by constraint based mining? Explain.                     | 7 |
| 11. | a) | Explain the criteria for comparing classification and prediction methods? | 7 |
|     | b) | Explain Baye's theorem.   | 7 |

**OR**

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|-----|----|--|---|
| 12. | a) | Explain IF-THEN rules of classification. | 7 |
|     | b) | Explain Rule pruning.                    | 7 |

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