

B.E. Information Technology Seven Semester  
**IT703 - Data Mining & Data Warehousing**

P. Pages : 2

Time : Three Hours



**GUG/W/18/1814**

Max. Marks : 80

- Notes :
1. Same Answer book must be used for all questions.
  2. All questions carry marks as indicated.
  3. Due credit will be given to neatness and adequate dimensions.
  4. Assume suitable data wherever necessary.
  5. Diagrams and Chemical equation should be given wherever necessary.
  6. Illustrate your answers wherever necessary with the help of neat sketches.

1. a) Define the term 'Data Warehouse'. Draw and explain three - tier Data Warehouse architecture. 10
- b) Define the following terms : 6
- i) Enterprise Warehouse
  - ii) Data Mart

**OR**

2. a) Define CUBE. Explain operations on CUBE. 8
- b) Differentiate between OLTP and OLAP systems. 8
3. a) What is Data Mining ? Describe different kinds of data mined. 8
- b) Data Mining is a dynamic and fast growing field still there are some major issues in Data Mining - Discuss. 8

**OR**

4. a) Explain the following terms : 8
- i) Data Characterization
  - ii) Data Discrimination.
- b) What are different applications of Data Mining. 8
5. a) Define Attributes. Also explain types of attributes. 8
- b) Describe the following statistical measures giving suitable example : 8
- i) mean
  - ii) median
  - iii) mode
  - iv) Box plot

**OR**

6. a) Describe Data Reduction Process. 8
- b) Write a short note on Data cleaning. 8

7. a) Define classification. Describe the two step process in Data Classification. 8
- b) Describe Gain and Gain Ratio with suitable example. 8

**OR**

8. a) Write a short note on Tree Pruning. 6
- b) Explain Apriori Algorithm for single dimensional data. 10
9. a) Explain clusters & clustering process. Give applications of clustering. 8
- b) What are different requirements of clustering. 8

**OR**

10. a) Describe any one method of clustering. 8
- b) Write a short note on outlier analysis. 8

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