

Total No. of Questions : 8)

[Total No. of Printed Pages : 2

Roll No .....

**CS-8003 (2) (CBGS)**

**B.E. VIII Semester**

Examination, November 2019

**Choice Based Grading System (CBGS)**

**Data Mining**

*Time : Three Hours*

*Maximum Marks : 70*

- Note:* i) Attempt any five questions.  
ii) All questions carry equal marks.

1. Briefly explain the Data Warehouse Models with an example. 14
2. a) Describe OLAP operations in Multidimensional Data Model. 8  
b) Write the difference between OLAP and OLTP. 6
3. What is the need of Data Preprocessing? Discuss various forms of preprocessing. 14
4. a) Discuss FP-Growth algorithm with an example. 7  
b) Explain the methods to improve the efficiency of Apriori Algorithm. 7
5. a) Discuss the concept of Naive Bayes Method for classifying data tuples. 8  
b) Discuss categorization of clustering methods. 6

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6. Write a short note on following:  
a) Supervised and Unsupervised Learning with an example. 5  
b) OLAP Servers 5  
c) Multilevel Association Rules 4
7. Briefly explain major issues and challenges of Data Mining. 14
8. Write a short note on following:  
a) Data Mining Functionalities 8  
b) Data Warehouse Architecture 6

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