

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VIII • EXAMINATION – SUMMER • 2015****Subject Code: 183103****Date:05/05/2015****Subject Name: Business Intelligence & Data Mining****Time:10.30AM-01.00PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Explain the evolution of Database technology. **07**  
 (b) Explain the architecture of data mining system. **07**
- Q.2** (a) Discuss the taxonomy of data mining tasks. **07**  
 (b) Discuss the need of human intervention in data mining process. **07**
- OR**
- (b) List out the difference between OLTP and OLAP. **07**
- Q.3** (a) Explain the OLAP operations and multidimensional model. **07**  
 (b) Describe the different type of architectures for integration of a data mining system with database or data warehouse. **07**
- OR**
- Q.3** (a) List out four major types of concept hierarchies. Briefly define each type of hierarchy. **07**  
 (b) Define descriptive data mining and predictive data mining. Discuss attribute oriented induction approach to data generalization. **07**
- Q.4** (a) List out Data mining primitives. Discuss any two primitives for specifying a data mining task. **07**  
 (b) Explain frequent item set without candidate generation. **07**
- OR**
- Q.4** (a) Briefly outline the major steps of decision tree classification. Why tree pruning useful in decision tree induction? **07**  
 (b) Explain the following terms. **07**  
 (I) mean (II) median (III) mode (IV) Data's modality  
 (V) midrange (VI) Five numbers summary (VII) Entropy
- Q.5** (a) Discuss the issue regarding classification & prediction. **07**  
 (b) Explain Apriori algorithm with example. **07**
- OR**
- Q.5** (a) Explain the naïve Bayesian classifier. **07**  
 (b) Discuss visualization techniques in data mining. **07**

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