

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MBA Semester –III Examination Dec. - 2011**

Subject code: 2830401

Date: 13/12/2011

Subject Name: Database Management

Time: 10.30 am – 01.30 pm

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) What is the difference between Data and Information? Explain different types of database and what key parameters affect their implementation? **07**
- (b) Describe SDLC for database development process and also discuss the alternative Information System development approaches. **07**

- Q.2** (a) Explain Database Management system and also discuss advantages of database approach. **07**
- (b) Define thin client and discuss advantages of three – tier database architecture in detail. **07**

**OR**

- (b) Write difference between file processing system and database management system. Discuss several disadvantages associated with conventional file processing system **07**

- Q.3** (a) Describe Relational Database Management system and discuss the different components of database environment. **07**
- (b) Explain three schema architecture for database development in detail. **07**

**OR**

- Q.3** (a) State the reason for entity clustering. Specify constraints in Supertype/ Subtype relationships. **07**
- (b) Give a roadmap of the steps involved in the transformation of an E-R diagram into a relation. **07**

- Q.4** (a) Write a short note on Structured Query Language and discuss advantages of standardized relational language. **07**
- (b) Distinguish among data definition commands, data manipulation commands, and data control commands. **07**

**OR**

- Q.4** (a) Write a short note on Attributes. **07**
- (b) What is degree of relationships? Explain Unary, Binary and Ternary relationships in detail. **07**

- Q.5** (a) What is middleware? Describe six categories of middleware. **07**
- (b) Write a short note on Entity. **07**

**OR**

- Q.5** (a) Explain cardinality constraints. List different types of cardinality constraints, and draw an example of each. **07**
- (b) What is EER? Discuss Supertype / Subtype relationships in detail. **07**

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