

GUJARAT TECHNOLOGICAL UNIVERSITY**M.B.A. Sem. – III - Examination –June- 2011****Subject code: 830401****Subject Name: Database Management****Date:09/06/2011****Time: 02.30 pm – 05.30 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 RDBMS and what are the advantages gained by the adoption of the standardized relational language? **07**

(b) How do data and information differ from each other? Explain the range of database application in detail. **07**

Q.2 (a) What is the three-schema architecture for database development and what is its significance? **07**

(b) Discuss SDLC and its core components and also explain alternative information system development approaches. **07**

OR

(b) What is supertype/ subtype Hierarchies? Explain attribute inheritance in detail. **07**

Q.3 (a) What is integrity constraints? Discuss various integrity constraints in detail. **07**

(b) What are relationships? Compare and contrast the different degrees of relationships. **07**

OR

Q.3 (a) Explain Normalization in detail. How do functional dependencies affect Normalization? **07**

(b) Describe the components and structure of a typical SQL environment and briefly explain Data Definition Language, Data Manipulation Language and Data Control Language. **07**

Q.4 (a) What is distributed database? Discuss different objectives of distributed database. **07**

(b) Briefly explain the different categories of middleware and also explain the advantages of Three-tier architectures. **07**

OR

Q.4 (a) What is data warehouse? List characteristics of Data Warehouse Data. **07**

(b) Define Informational systems and also describe the major components of a data warehouse architecture. **07**

Q.5 (a) What is database? List the major components in a database system environment. **07**

(b) Explain the Internet and Database connection and also discuss some common Internet Architecture Components. **07**

OR

Q.5 (a) Differentiate between attribute, entity, entity type and entity instance. Explain the different types of attributes with examples. **07**

(b) Explain potential benefits of the database approach over conventional file systems. **07**