

GUJARAT TECHNOLOGICAL UNIVERSITY**MBA. Sem-III Regular Examination January 2011****Subject code: 830401****Subject Name: Database Management****Date: 06 /01 /2011****Time: 10.30 am – 01.00 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) Briefly describe data, information and metadata with example. How do file processing systems differ from database approach? **07**

(b) How are attributes associated with entities? Explain different types of attributes with examples. **07**

Q.2 (a) What is three-schema architecture for database development? Explain the difference between user views, a conceptual schema, and an internal schema as different views of the same database. **07**

(b) What do you mean by database management system (DBMS)? List and explain major components in a database system environment. **07**

OR

(b) Name and explain major types of integrity constraints with examples. What are the properties of well-structured relation? **07**

Q.3 (a) Discuss benefits of achieving an SQL standard. Briefly explain data definition commands, data manipulation commands, and data control commands. **07**

(b) Explain Normalization and its objectives. What are the steps involved in the Normalization and how do functional dependencies affect normalization? **07**

OR

Q.3 (a) What is client/server architecture? List major advantages of the three-tier architecture as compared to other computing approaches. **07**

(b) Describe data warehouse and major trends that necessitate data warehousing in organization and also list some characteristics of data warehouse data. **07**

Q.4 (a) What are the difference between OLAP (Online Analytical Processing) and OLTP (Online Transaction Processing)? List various data mining techniques and data mining applications. **07**

(b) Explain distributed database and its objectives. What are the strategies for implementation of the distributed database in organization? **07**

OR

Q.4 (a) What is object oriented data modeling? Compare and contrast the object oriented model with E-R & EER models. **07**

(b) What is attribute inheritance? Discuss the role of constraints on supertype/subtype relationships. **07**

Q.5 (a) Explain the difference between a static web site and a dynamic one. What are the components to create a dynamic web site that enable it to better support the development of an e-business? **07**

(b) What is the difference between base table and virtual table? Discuss pros and cons of using dynamic views. **07**

OR

Q.5 (a) Briefly describe four typical problems that often arise in merging relation and common techniques for addressing those problems. **07**

(b) Discuss some of the languages that are associated with Internet application development. Classify these languages according to the functionality they provide for each application. **07**
