

**GUJARAT TECHNOLOGICAL UNIVERSITY****MCA – SEMESTER – V • EXAMINATION – WINTER – 2017****Subject Code: 650004****Date: 29/11/2017****Subject Name: Advance Data Base Management Systems****Time: 10:30 am to 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) Do as Directed** **7**
1. Define Dense index
  2. What do you mean by Dirty bit?
  3. Differentiate interleaved concurrency v/s parallel concurrency.
  4. List out various database utilities that help the DBA manage database system.
  5. What is the use of BLOB?
  6. DES stand for -----
  7. The description of database is called the -----
- Q.1 (b)** **4**
1. Explain Three- schema architecture with diagram
  2. Write a note on Double Buffering **3**
- Q.2 (a)** List out and Explain advantages of DBMS approach **7**
- Q.2 (b)** What is tuning? What are the goals of it? Discuss types of problems encountered during it. Also discuss the different types of statistics required for it. **7**
- OR**
- Q.2 (b)** What do you mean by key field ? Explain in brief the concepts of primary index, clustering index and secondary index **7**
- Q.3 (a)** Write a note on PKI with its six ingredients and Digital signature **7**
- Q.3(b)** Why deferred update technique is called NO UNDO/REDO method? Discuss deferred update technique in a single user environment with example. **7**
- OR**
- Q.3 (a)** Write a note on WAL, Steal/No-steal approach and Force/no-Force approach **7**
- Q.3 (b)** List out four main control measures that are used to provide security of data. Explain Access control and action performed by DBA for security in brief. **7**

- Q.4 (a)** Explain Fixed length records, variable length records, spanned records and un-spanned records with example. **7**
- Q.4 (b)** Give functions of Temporal database. List out various temporal data types. Explain the concepts of valid time and transaction time dimension with example. **7**

**OR**

- Q.4 (a)** Explain in brief distributed concurrency control based on distinguished copy of a data item in DDBMS. **7**
- Q.4 (b)** List the object relational features included in SQL-99. Give an example of each **7**
- Q.5 (a)** What is GIS? List out and explain various characteristics of data in GIS. **7**
- Q.5 (b)** Explain bulk insert using SQL\* loader. **7**

**OR**

- Q.5 (a)** Write a note on Mobile computing architecture. **7**
- Q.5 (b)** Explain oracle Net configuration in detail. **7**

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