

- (b) Explain star and flake schema with the help of dimensional. (10)
8. (a) What are the advantages of object oriented relational database over object oriented database ? (10)
- (b) Write short notes on the following : (10)
- (i) Cost based query optimization
- (ii) Indexing and Query Processing

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**M. Tech. 3rd Semester
(Computer Engg.) Examination-
December, 2016**

ADVANCED DBMS

Paper : MTCE-703-A

Time : 3 hours

Max. Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note: All questions carry equal marks. Attempt any five questions.

1. (a) What are database utilities ? List some common function that utilities perform.

(10)

- (b) Differentiate between Database Schema and Database state with the help of suitable example. (10)
2. (a) Explain Selection, Projection and join with the help of suitable example. (10)
- (b) Explain Query Execution Plan with the help of suitable diagram. (10)
3. (a) What is a time stamp ? How is it generated by the system? (10)
- (b) Write short notes on the following : (10)
- (i) Do, Undo and Redo
Transaction
- (ii) Disaster Management
4. Write short notes on the following : (20)
- (i) Concurrency Control

- (ii) Granularity of Locking
- (iii) Serializability Test Algorithm
- (iv) Phantom Phenomenon
5. (a) Differentiate between conceptual design of ODB and RDB. (10)
- (b) What are the similarities and difference between object and literals in ODMG Object Model ? (10)
6. (a) What is data fragmentation ? Explain different types of data fragmentation. (10)
- (b) Explain various types of data replication techniques in Distributed Database. (10)
7. (a) What is a data warehouse ? Explain the characteristics of data warehouse. (10)