

Roll No.

23075

M. Tech. 3rd Sem. (Computer Engg.)

Examination – December, 2014

ADVANCED DBMS

Paper : MTCE-703-A

Time : Three Hours]

[Maximum 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 examination.

Note : Attempt any *five* questions. All Questions carry equal Marks.

1. (a) What is the need of Normalization ? Explain 2NF and DKNF with the help of suitable example. 10
- (b) Explain Generalization and Aggregation with the help of suitable example. 10
2. (a) What do you understand by Selection Projection and join ? Explain with the help of suitable example. 10
- (b) Explain Query Processor with the help of suitable diagram. 10

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3. (a) What is a Transaction ? Explain Transaction states with the help of diagram. 10
- (b) Write short notes on the following : 10
- (i) Audit Trials
- (ii) Disaster Management
4. (a) What is a Serializability ? Also write Serializability Test algorithm. 10
- (b) Write short notes on the following : 10
- (i) Concurrency Control
- (ii) Granularity of Locking
5. Describe the following OQL concepts : 20
- (i) Database entry points
- (ii) Path expression
- (iii) Named queries(views)
- (iv) Aggregate function
- (v) Grouping
6. What is data fragmentation ? Explain different types of data fragmentation with example. 20
7. (a) What is a data warehouse ? Explain the characteristics of data warehouse. 10
- (b) Explain with the help of example that how star differs from snowflake schema. 10

8. (a) What are the advantages of object relational database over object oriented database. 10
- (b) List the object relational features of SQL. Give syntax and explain with example. 10
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