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## MCA

**(SEM V) ODD SEMESTER EXAMINATION 2015-16**  
**ADVANCE DATABASE MANAGEMENT SYSTEMS**

[Time: 3 hrs.]

[Max. Marks: 100]

**Note- Attempt All Questions. All Questions carry equal marks:-****Question-1 Attempt any two parts.****(10x2=20)**

1. What is Serializability Theory? How one can test that schedule is serializable or not?
2. What are the methods of testing for Serializability?
3. What are the possible reasons for the transaction failure in the middle of execution?

**Question-2 Attempt any two parts.****(10x2=20)**

1. What do you understand by Checkpoints? Discuss benefits of checkpoints.
2. Roll of Locking Scheduler? Discuss with suitable example.
3. Write Short notes on the following :-
  - (i) shadow paging recovery technique.
  - (ii) Multiple Granularity

**Question-3 Attempt any two parts.****(10x2=20)**

1. What do you mean by Fragmentation? What do you understand by Horizontal and Vertical Fragmentation?
2. What do you understand by Data Replication in a DDBMS. Discuss replication techniques in brief.
3. Discuss Concurrency Control in Distributed Database System.

**Question-4 Attempt any two parts.****(10x2=20)**

1. How is recovery done in Distributed Database?
2. Write Short notes on the following :-
  - (i) Deferred Update
  - (ii) Cascade Rollback

**Question-5 Attempt any two parts.****(10x2=20)**

1. Discuss steps of Query Processing in Distributed Database.
2. What do you understand by Cost estimation of Query in a DDBMS.
3. List and explain all criterions for transforming global query to fragment query.