

Roll No. 

Total No. of Pages : 01

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M.Tech.(IT)(2015 &amp; Onwards)/(CSE Engg.) (2015 to 2017) (Sem.-1)

**ADVANCED DATABASE SYSTEM**

Subject Code : MTCS-104

Paper ID : [72632]

Time : 3 Hrs.

Max. Marks : 100

**INSTRUCTION TO CANDIDATES :**

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

1. Explain the following in detail :
  - a) Semi structured data
  - b) Client cache management
  - c) OLAP servers.
2. Explain briefly about the following :
  - a) Distributed garbage collection
  - b) Pointer swizzling.
3.
  - a) What is the relationship between a type and its subtype in a type hierarchy?
  - b) Explain ODBMS examples and its applications.
4.
  - a) What is meant by concurrency controls?. Explain with example.
  - b) Why is data replication useful in Distributed Database and what typical units of data are replicated?
5. Explain about query processing and Optimization in Distributed Databases.
6.
  - a) What are the advantages of a distributed database management system over a centralized DBMS?
  - b) With an example explain the process of multimedia database.
7.
  - a) Discuss about mobile database and multimedia database with examples.
  - b) Explain in details spatial database and temporal database.
8.
  - a) What are the origins of the object-oriented approach?
  - b) Explain the encapsulation of operations.