

Paper ID [CS507]

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M.Tech.**ADVANCE DATABASE MANAGEMENT SYSTEMS (CS - 507)****Time : 03 Hours****Maximum Marks : 100****Instruction to Candidates:**

- 1) Attempt any **Five** questions.
- 2) All questions carry equal marks.

- Q1)** (a) What are the different advantages of Database Management System over the traditional file processing system for managing data?
(b) What do you mean by isolation property of two concurrently executing transactions? Discuss the concurrency control based on time stamp ordering.
- Q2)** Discuss in detail the different types of relational query languages used for RDBMS. Explain different techniques for query optimization.
- Q3)** How the normalization is important for good database design? What is the role of functional dependencies for the normalisation process? Discuss the different normal forms with the help of examples.
- Q4)** (a) Discuss the important functions of a distributed database management system for managing the complexity of data distribution. What are the different methods for data distribution?
(b) How a distributed database system can be recovered in case of failure?
- Q5)** Discuss the different concepts of Object Oriented Database Management System those make it beneficial for certain applications than the other database management systems. Explain the complexities of OODBMS than the other DBMS in detail.
- Q6)** (a) How a data warehouse is different from a database? Explain the designing of a data warehouse.
(b) Discuss in detail the deductive databases.

- Q7)** (a) What is the use of association rules for data mining? What are the objectives of data mining? Discuss any data mining algorithm.
- (b) What is the objective of online analytical processing? Discuss online analytical processing in detail.

Q8) Write short notes on:

- (a) Multimedia Databases
- (b) Mobile Databases