

Roll No. 19EP005 068

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**B.Tech. VII Semester (Main & Back) Examination, Dec. - 2015**  
**Computer Science & Engineering**  
**7CS6.1A Advance DataBase Management Systems**  
**Common With CS (Old & New) & IT (Old)**

**Time : 3 Hours**

**Maximum Marks : 80**

**Min. Passing Marks : 24**

**Instructions to Candidates:**

*Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly).*

**Unit - I**

1. What is Optimization? How can you optimize a SQL query and how we estimate cost of query plan? Explain with suitable examples. (4+6+6=16)

**OR**

1. a) Explain the term system catalog? Also explain how catalog are stored? (8)  
b) Describe enumeration of alternative plan in brief? (8)

**Unit - II**

2. a) Define and describe abstract data type. How methods of abstract data types define in an external programming language? (8)  
b) What is reference type? Define deep and shallow equality and illustrate them through an example. (8)

**OR**

2. a) What is the object database system? How object database system support for complex object and types of object? (8)  
b) What are different structured data types available in object database system? (8)

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**Unit - III**

3. a) What is concurrency control? What are the recovery techniques to overcome from concurrency? (8)  
b) How are data flow concept used to parallelize existing sequential code? (8)

**OR**

3. a) What is distributed DBMS? Explain its architecture. (8)  
b) How can we evaluate and optimize queries over distributed data? (8)

**Unit - IV**

4. a) Explain the term security policy and security mechanism and how they are related. (8)  
b) Describe role of database administrator in statistical DBMS. Write all security and authorization method in detail. (8)

**OR**

4. a) Define and describe integrity constrains and multilevel relational and polyinstantiation with an example. (8)  
b) Discuss the DOD security levels for database system. (8)

**Unit - V**

5. a) Explain the transaction management with various key notation. (8)  
b) What is XML? What is the background of XML with SGML & HTML? (8)

**OR**

5. a) Explain in brief query processing optimization and system architecture? (8)  
b) Describe POSTGRES user interface? Explain its architecture? (8)