



SF-7705

B. E. IV (Sem. VIII) (CE) Examination
May / June – 2011
Advanced Database Management System
(Elective-II)

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दृशावेक निशानीवाणी विगतो उत्तरवडी पर अवश्य कभवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="B. E. 4 (Sem. 8) (C.E.)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="Advanced Database Management System"/>	<input type="text"/>
Subject Code No. : <input type="text" value="7"/> <input type="text" value="7"/> <input type="text" value="0"/> <input type="text" value="5"/>	Section No. (1, 2,.....) : <input type="text" value="Nil"/>
	<input type="text" value="Student's Signature"/>

- (2) Use separate answer sheet for each section.
(3) Make assumptions wherever required.
(4) Numbers on the right side indicate marks.

- 1 (a) Do as directed : 10
- (i) Define following terms : (any two) 4
- (a) Global Transaction
(b) Shared Memory
(c) Hash Partitioning
(d) Data Replication
- (ii) State True or False : 4
- (a) Data server is also known as query server.
(b) Attribute Value Skew refers to the fact that there may be load imbalance in the partitioning.
(c) Transaction Manager coordinates the execution of the various transactions both local and global initiated at that site.
(d) Distributed Database Systems handles geographically distributed data spread across multiple database systems.
- (iii) Explain Storage Area Network. 2
- (b) Answer the following : 10
- (i) Explain Data Server. 5
(ii) Discuss centralized system. Explain single user and Multi User Systems. 5

- 2 Answer the following : (any **three**) 15
- (i) Differentiate horizontal and vertical fragmentation.
 - (ii) Differentiate single lock manager and distributed lock manager approaches.
 - (iii) Discuss pros and cons of data replication.
 - (iv) Explain parallel system.
- 3 Answer the following : 15
- (i) Explain fragment-and-replicate join technique of parallel join. 5
 - (ii) Discuss majority protocol of concurrency control in distributed database. 4
 - (iii) Discuss deadlock handling in distributed database. 6
- OR**
- Discuss two phase locking protocol.
- 4 (a) Do as Directed : 10
- (i) Define following : (any **four**) 8
 - (a) Data Acquisition
 - (b) Meta Data
 - (c) Executive Information System
 - (d) Data Mart
 - (e) Data Visualization
 - (f) Pivot.
 - (ii) Do as directed : 2
 - (a) MDDDB stands for _____.
 - (b) If the native OLE DB provider for SQL server is not supplied to the PROVIDER parameter, the OLEDB provider for ODBC is used by default. (T/F)
- (b) Answer the following : 10
- (i) Discuss Data Mining and KDD. What are the applications of Data Mining ? 6
 - (ii) Discuss MQE (Managed Query Environment) 4
- 5 Attempt any **three** : 15
- (i) Explain OLAP guidelines.
 - (ii) List Parameters of Database connection string and explain each with example.
 - (iii) Write a Client-Server program to insert record in "Student" table using Command Object. Here, Server is MS SQL Server.
(Note : Student table fields are: rollno, name, city, email)
 - (iv) Discuss Operational Data Storage and Informational Data Storage.

- 6** Attempt any **three** : **15**
- (i) Describe ROLAP (Relational Online Analytical Processing) with diagram.
 - (ii) Discuss three tier and multi tier architecture.
 - (iii) Differentiate record set and command object with suitable example.
 - (iv) List types of Locks and explain each with proper example.
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