

Total No. of Questions : 12]

SEAT No. :

P2013

[Total No. of Pages : 3

[5254]-184

B.E. (I.T.)

ADVANCED DATABASE MANAGEMENT SYSTEM

(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answer any three questions from each section.*
- 2) Answers to the two sections should be written in separate answer-books.*
- 3) Neat diagram must be drawn wherever necessary.*
- 4) Figures to the right indicate full marks.*
- 5) Assume suitable data wherever necessary.*

SECTION - I

- Q1)** a) What is need of PL/SQL? Draw PL/SQL BLOCK structure and execution environment. Explain each block. [8]
- b) How can you trap exceptions in PL/SQL? Write a code fragment to trap any three exceptions. [8]

OR

- Q2)** a) Explain difference between procedure & function in PL/SQL. Write a procedure with example. [8]
- b) Explain PL/SQL Transactions. What is save point & cursor? [8]

- Q3)** a) What are TP Monitors? Explain the TP Monitor architectures. [8]
- b) What are compensating transactions? [8]

OR

- Q4)** a) Explain Transactional workflow with suitable example. [8]
- b) Write short note on Main Memory Databases. [8]

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- Q5) a)** Where you need to use complex data types? Also explain structured data types and inheritance declaration using SQL: 1999. [10]
- b) Explain collection and large object types-arrays and Multisets with example. [8]

OR

- Q6) a)** Describe XML query algebra operation. Describe use of X-Query for path Expression and FLWOR expression in DBMS. [8]
- b) Explain XML DTD representation for nested relational schema. [10]

SECTION - II

- Q7) a)** Explain Kimball database design methodology for data warehouse. [9]
- b) Present a diagrammatic representation of typical architecture and main components of data warehouse. [9]

OR

- Q8) a)** Define data warehouse. Explain each clause in the definition. Can RDBMSes be used instead of warehouses? Give reasons. [9]
- b) Describe how a dimensional model differs from an Entity-Relationship(ER) model. Present a diagrammatic representation of typical star schema and state its advantages and disadvantages. [9]

- Q9) a)** What is market basket analysis? Explain the algorithm that implements this concept. [8]
- b) Explain in detail any four OLAP functions which are extensions to SQL.[8]

OR

Q10) Write short notes on (any two) **[16]**

- a) Categories of OLAP tools.
- b) Supervised and Unsupervised learning.
- c) OLAP benchmarks and applications.

Q11)a) Explain Implicit Locking. How does Oracle implement it? **[8]**

b) Explain statistical database auditing. **[8]**

OR

Q12)a) Explain Oracle's named Exception Handlers. **[8]**

b) What is authorization, Encryption in terms of providing security for database? **[8]**

