

Total No. of Questions : 12]

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SEAT No. :

P1937

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S.Y.M.C.A. (Engineering)(Under Faculty)

ADVANCED DBMS

(Semester-IV) (2013 Course) (410913)

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) Neat diagrams must be drawn wherever necessary.
- 2) Figures to the right side indicate full marks.
- 3) Assume suitable data if necessary.

Q1) a) With suitable diagram explain the steps in query processing. [4]

b) Explain and compare nested loop join and block nested loop join algorithm. [5]

OR

Q2) a) Consider the following query,

“Select balance from account where balance<2500.”

Write relational algebra expression for the above query and explain query evaluation plan. [4]

b) With a suitable example, explain the materialization approach. [5]

Q3) a) Differentiate between centralized and client-server systems. [4]

b) Explain parallel database architectures. [4]

OR

Q4) a) Explain speed up and scaleup in parallel databases with suitable diagram. [4]

a) Explain the structure of Transaction Server process with diagram. [4]

P.T.O.

- Q5) a) Explain Distributed DBMS Architectures. [4]
b) Explain advantages and disadvantages of Distributed Databases. [4]

OR

- Q6) a) Explain database integration process with neat diagram [4]
b) Explain Data and Access Control. [4]

- Q7) a) Explain structured types and inheritance with example in SQL. [4]
b) Explain object identity and reference types with examples. [4]

OR

- Q8) a) What is persistent programming language and how it is different from embedded language? [4]
b) Explain need of complex data type? [4]

- Q9) a) What is XML databases? Explain XML Database types. [4]
b) What is a Native XML Database? Write features of Native XML database. [4]

OR

Q10) Write short note on:

- i) Oracle Database and XML
ii) Generating XML pages using Basic SQL [8]

- Q11) a) What is NoSQL? Compare relational (RDBMS) and noSQL database. [3]
b) What is Graph Databases? What are the pros and cons of Graph database? [3]
c) What is schema-less Databases? What are the pros and cons of schema-less Databases? [3]

OR

Q12) Write short note on: [9]

- a) Single server
b) Sharding
c) Master-slave replication

