

Total No. of Questions : 12]

SEAT No. :

P3732

[4961]-408

[Total No. of Pages :2

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

ADVANCED DBMS

(2013 Course)

Time :3Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *Neat diagrams must be drawn wherever necessary.*
- 2) *Assume suitable data if necessary.*

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

b) Describe Binary Search algorithm for selection operation. **[4]**

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) Explain materialization evaluation with a suitable example. **[4]**

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]**

b) Explain the structure of Transaction Server Process with diagram. **[4]**

Q5) a) Explain Distributed DBMS Architectures. **[4]**

b) Explain need for Distributed Databases. **[4]**

OR

Q6) a) Explain Distributed query processing methodology. **[4]**

b) Explain Data and Access Control. **[4]**

Q7) a) Explain structured types with example. **[4]**

b) Explain object identity and reference types with examples. **[4]**

OR

P.T.O.

- 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 the purpose of XML? What are the rules for XML. [4]
b) What is a Native XML Database? Features of Native XML Database. [4]

OR

Q10) Write short note on: [8]

- a) XML schema document
b) Generating XML pages using Basic SQL.

- Q11)** a) What is NoSQL? Explain its features and applications in brief. [4]
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: [10]

- a) Single server.
b) master-slave replication
c) Sharding
d) peer to peer replication.

