Total No. of Questions : 8]

SEAT No. :

PE-2556

[Total No. of Pages : 2

[6583]- 85

T.E. (Electronics/E & TC)

DATABASE MANAGEMENT

(2019 Pattern) (Semester - V) (304183)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6 and Q.7 or Q.8. from following questions.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***
4) ***Assume suitable data, if necessary.***

Q1) a) What are some common clauses used with SELECT query in SQL? Explain any three with example. **[8]**

b) What are different types of joins in SQL? Explain any one with suitable example. **[6]**

c) Define the use of TRUNCATE, DELETE and DROP statements in SQL? Explain any one with example. **[4]**

OR

Q2) a) Explain the use of constraints in SQL. List and explain any three constraints example. **[8]**

b) What is Cursor? Explain Implicit and Explicit cursor in PL/SQL with suitable example. **[6]**

c) Explain with example any two STRING functions used in SQL. **[4]**

Q3) a) When deadlock occurs? How to prevent them? How to recover if dead lock occurs. **[6]**

b) Define transaction. State and explain in brief the ACID properties of a transaction? **[5]**

c) Explain briefly different states of transaction with a neat state transition diagram. **[6]**

OR

P.T.O.

Q4) a) Explain Commit and Rollback operations of Transactions. **[6]**

b) What is Concurrent execution of transaction? Explain any two concurrency problems occurs during Concurrent execution of transaction with examples? **[5]**

c) Explain the term **[6]**

i) Conflict Serializability

ii) View Serializability

Q5) a) What are performance parameters for parallel database? **[6]**

b) Explain virtualization on Multicore processors with neat schematic diagram. **[6]**

c) What is Parallelism? Explain Inter query parallelism. **[5]**

OR

Q6) a) List the parallel database architectures and explain any one architecture. **[6]**

b) Explain Oracle Database Architecute. **[6]**

c) Explain client server architecture with suitable example. **[5]**

Q7) a) Explain Homogeneous and Heterogeneous Distributed Databases. **[6]**

b) Explain Fragmentation and Replication in Distributed data storage. **[6]**

c) What is distributed transaction? Explain failure modes of distributed transaction. **[6]**

OR

Q8) a) What is necessity of distributed database management system? What are the Factors Encouraging DDBMS. **[6]**

b) Explain two phase commit protocol in distributed database. **[6]**

c) Draw and explain client-server architecture for DDBMS. **[6]**