

Ganpat University
B.Tech Semester – IV
(Computer Engineering/Information Technology)
May-June 2012

Seat no:

2CE405/2IT405: Database Management System – II

[Total Marks: 70]

[Time: 3 hours]

Instructions:

1. Figure to the right indicates full marks.
2. Assume suitable data if necessary.
3. Be precise and to the point in answer.
4. Each section must be answered in separate answer sheet.

Section – I

- Q-1 [A]** Draw a Schematic diagram for following with detail [6]
- 1) Pl/Sql block structure.
 - 2) Implicit cursor processing in client-server environment.
 - 3) Processing of OPEN and FETCH command.
- [B]** Design a Pl/Sql block to create Procedure. Also discuss each term used for creating database procedure. [4]
- [C]** Differentiate Centralized and Client-Server Systems. [2]
- OR**
- Q-1 [A]** Explain two-phase commit protocol for distributed database system. [6]
- [B]** Design a Pl/Sql block to create Function. Also discuss each term used for creating database function. [4]
- [C]** List different types of triggers. [2]
- Q-2 [A]** Explain Data Access operation, also draw a conceptual diagram. [6]
- [B]** Explain: Checkpoints [5]
- OR**
- Q-2 [A]** Discuss following [6]
- 1) Disadvantages of Sql.
 - 2) Advantages of Pl/Sql.
- [B]** Define following terms [5]
- 1) Homogeneous distributed database.
 - 2) Heterogeneous distributed database.
 - 3) Replication transparency.
 - 4) Local transaction.
 - 5) Global transaction.
- Q-3 [A]** Explain following [6]
- (1) Exception and Exception handler. (2) Named & Numbered exception. [4]
- [B]** Consider given Customer table. Design pl/sql code which receive customer id and withdraw amount from user. if available balance is greater then entered amount then update the record ,if not then display error message “BALANCE IS NOT ENOUGH” using user define exception handling. Table **Customer** :(Cust_id, Cust_Name, Balance, Brach). [4]
- [C]** State two ways to assign value to variable in Pl/Sql. also give example of each. [2]

Section-II

- Q-4 [A] Explain Atomicity and Durability properties with an example. [6]
 [B] What is an inconsistent state of a transaction? Discuss it with a proper example. [3]
 [C] Explain wait-die condition. [3]

OR

- Q-4 [A] Discuss the transition of the transaction from partially committed to failed state. [3]
 [B] Explain Thomas Write rule protocol. [6]
 [C] What is deadlock? Draw any schedule which may produce a deadlock. [3]

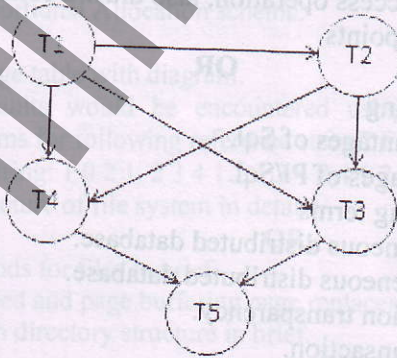
- Q-5 [A] Discuss four rules of conflict serializability. [4]
 [B] What is conflict equivalent schedule? Decide how many conflict equivalent schedules can be generated from the given below schedule. Draw each one. [4]

T1	T2
Read(A)	Read(B)
	Write(A)
Write(A)	

- [C] What is log? Explain any three log records with a proper example. [3]

OR

- Q-5 [A] Consider the following precedence graph. Is the corresponding schedule conflict serializable? Explain your answer. [4]



- [B] Draw Lock-Compatibility matrix of shared and exclusive locks. Explain each entry of matrix. [4]

- [C] What are Growing Phase and Shrinking Phase? Explain them with a suitable example. [3]

- Q-6 [A] Explain Deferred database modification technique in detail. [6]

- [B] Write down each rule of Graph-based protocol. [4]

- [C] Define the following terms. [2]

1. Strict 2-Phase protocol
2. Lock point

***** END OF PAPER *****