



DHARMSINH DESAI UNIVERSITY, NADIAD
FACULTY OF TECHNOLOGY
B.TECH. SEMESTER V [IT]

SUBJECT: (IT502) DATABASE MANAGEMENT SYSTEM

Examination	: Block Examination	Seat No.	: _____
Date	: 30/10/2012	Day	: Tuesday
Time	: 3:00 to 4.15	Max. Marks	: 36

INSTRUCTIONS:

1. Figures to the right indicate maximum marks for that question.
 2. The symbols used carry their usual meanings.
 3. Assume suitable data, if required & mention them clearly.
 4. Draw neat sketches wherever necessary.
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Q.1 Do as directed. [12]

- (a) Difference between E-R diagram and schema diagram. [2]
- (b) Define multivalued dependency and 4NF. [2]
- (c) What are the advantages of having an index structure? [2]
- (d) Two deadlock prevention techniques that use timestamps are _____ and [2]
_____.
- (e) What do you mean by a recovery system? Why do we need it? [2]
- (f) "Each site requires a transaction manager." Justify this statement as true or false. [2]

Q.2 Answer the following questions. [12]

- (a) What is the purpose of assertions and triggers? Explain with appropriate example. [6]
- (b) Explain the shadow paging as the recovery system with diagrams. [6]

Q.3 (a) Explain Graph based protocol with example. [6]

- (b) Explain the concept of Conflict Serializability. [6]

Is below schedule is Conflict Serializable?

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