

Mark 80

3 hrs

Note:

Question 1 is compulsory

Solve any three of the remaining.

Draw neat diagrams

- Q1.** a) Identify and list down file operations (5)  
b) Describe ACID Properties (5)  
c) Explain Total participation and partial participation with example (5)  
d) Explain aggregate Function with example (5)
- Q2.** a) Explain stored procedure and functions with example (10)  
b) Explain Shadow Paging (10)
- Q3.** a) Identify and list all functional dependencies satisfied by the relation (10)

X	Y	Z
1	4	2
1	5	3
1	6	3
3	2	2

- b) Explain ER Model into Relational Model Conversion with example. (10)
- Q4.** a) Describe view in SQL with example (10)  
b) Explain any 2 concurrency protocols in database systems (10)
- Q5.** a) List various types of constraints in database? Explain any two (10)  
b) Explain cost based query optimization (10)
- Q6.** a) Explain deadlock with wait-for-graph (10)  
b) Explain conflict and view serializability with example (10)