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 serializabilty with example   (10)