

management system.

- (b) Explain database system architecture with diagram in detail. (7)

Q-5

Attempt all questions

- (a) Explain Fundamental Operators in Relational Algebra with Syntax (7)

- (b) Explain two-phase commit protocol. (4)

- (c) Consider following schema and write SQL queries for given statements. (3)

Employee(Emp_ID, Name, Age, Gender, City, Salary)

Accounts(A_ID, Emp_ID, Balance)

Write a query:

- 1) To create table "Accounts" with constraints.
- 2) To find the "Name(s)" of employee who has balance greater than 50000 in his/her account.
- 3) To find the "Balance" of employees having salary less than 10000

Q-6

Attempt all questions

- (a) What is locking? Explain Two-Phase Locking protocol. (7)

- (b) List and explain DML commands with example. (7)

Q-7

Attempt all questions

- (a) Explain Transactions with Atomicity, Consistency, Isolation and Durability properties. (8)

- (b) What is trigger? Explain in detail with example. (6)

Q-8

Attempt all questions

- (a) What is Query processing? Explain its steps with diagram. (7)

- (b) What is deadlock? Explain deadlock detection and recovery. (7)

