

- (3) Explain briefly advantages and disadvantages of Distributed Database Management Systems.
- (4) Explain Data manager.

3 Answer the following: (any two) 12

- (1) Explain the concept of Aggregation.
- (2) Explain 3NF. Also justify the statement "BCNF is stronger than 3NF" with the help of an example.
- (3) What are nested queries? Explain with the help of an example.

4 Answer the following : (any three) 12

- (1) Draw an ER diagram for the situation given below :
Library consists of many books in different subject areas where books are written by different authors and are published by different publishers. A book is published by only one publisher. There are inside - members and outside - members who gets books issued for their uses. The issuing and return operation of the books are managed by the librarian.
- (2) What is Functional Dependency (FD)? Find the valid FD's in the following relation:

A	B	C
i	1	2
i	1	3
j	1	4
j	1	3
k	2	5
l	4	7

- (3) Design a generalization specialization hierarchy for different accounts of a bank.
- (4) Explain Database Integrity.

5 (A) Write Queries for creating following tables with appropriate constraints: 4

Salesman_Master (SCode, SName, Target, City)

Product_Master (PCode, PName, Price)

Sales (SCode, PCode, Sdate, Qty)

(B) Solve the following Queries: 10

(i) Display Salesman of Mumbai City selling 'LCD'.

(ii) Display Salesman who sold more qty of products than the target.

(iii) Display products not sold by any salesman.

(iv) Display all the sales details between 1st Nov 2015 to 1st March 2016

(v) Display total amount of sales of each salesman for January 2016.