

- N. B.: (1) Question **No. 1** is **compulsory**.  
 (2) Attempt **any four** from **Question Nos. 2 to 7**.  
 (3) Make **suitable assumptions** wherever necessary and **state the assumptions** made.  
 (4) Answers to the **same question** must be **written together**.  
 (5) Numbers to the **right** indicate **marks**.  
 (6) Draw **neat labeled diagrams** wherever **necessary**.

- 1 A Explain Symbolic constants. **5**  
 B Discuss the evolution of ANSI/ISO standard for SQL. **5**  
 C Table Structure **5**  
 Employee(ecode,ename,salary,status,deptno,city)  
 Dept(deptno,dname,city)

Write a SQL statement for the following based on above table structure:

- i) Create employee table from above table structure that accepts the values for attribute ecode as unique value.  
 ii) Create dept table from above table structure.  
 iii) To display the details of employees 'EVAN', 'RAJ' and any other employees from department D1  
 iv) List the employees who are getting highest salary.  
 v) Select the employee whose salary less than the salary of the highest paying employees from department D3

- D Give the brief history of structured Query Language. **5**

- 2 A Explain the role played by SQL. **8**  
 B Explain Network database model with example. **6**  
 C Explain various aggregating functions in SQL with example. **6**
- 3 A Explain the DDL statements with example. **8**  
 B Explain the 12 rules suggested by E. F. Codd **6**  
 C Supplier (sno, sname, status, city) **6**  
 Parts (pno, pname, color, weight, city)

Write a SQL statement for the following based on above table structure:

- i) Change the status of each supplier to its double for suppliers in 'Mumbai'.  
 ii) Get the numbers of suppliers currently supplying parts.  
 iii) Get pno for all parts supplied.

- 4 A What are Integrity Constraints? Explain any four Integrity Constraints. **8**  
 B What are the various methods of Data Insert in SQL? **6**  
 C Write a short note on SQL, ODBC and SQL access group. **6**

{TURN OVER

- 5 A What is deadlock? How it can be avoided? Explain various techniques used to overcome deadlocks. **8**
- B Write a notes on: **6**
- Single database architecture
  - File-server architecture
- C Define Join. Explain outer join with example. **6**
- 6 A Explain the various types of search condition that can be specified in SQL. **8**
- B Explain non-repeatable read and dirty read. **6**
- C Explain the various data types available in SQL2. **6**
- 7 A **MOVIE** **8**

Attribute	Datatype	Constraints
Mvno	Number(2)	Primary key
Title	Varchar(25)	
Type	Varchar(10)	
Star	Varchar(25)	
Price	Number(8,2)	

**CUSTOMER**

Attribute	Data Type	Constraints
Custid	Varchar(2)	Primary key
Lname	Varchar(15)	
Fname	Varchar(15)	
Area	Varchar(2)	
Phone	Number(8)	

**INVOICE**

Attribute	Datatype	Constraints
Invno	Varchar(3)	Primary key
Mvno	Number(2)	Foreign key movie(mvno)
Custid	Varchar(3)	Foreign Key customer(custid)
Issue date	Date	
Return date	Date	

- Find out the movies that cost more than 159 and also find the new cost as original cost\*15
  - Print the names and types of all the movie except horror movies
  - List the various movie types available
  - List the mvno, title of movies whose stars begins with letter 'm'
  - Determine the maximum and minimum of price. Rename the title as max-price and min\_price respectively.
  - Find out number of movies in each type
  - Find out Lname, Fname and mvno of customers who have been issued a movie.
- B What are the drawbacks of File Management systems? Explain. **6**
- C Explain the privileges that are defined in the SQL standard? **6**