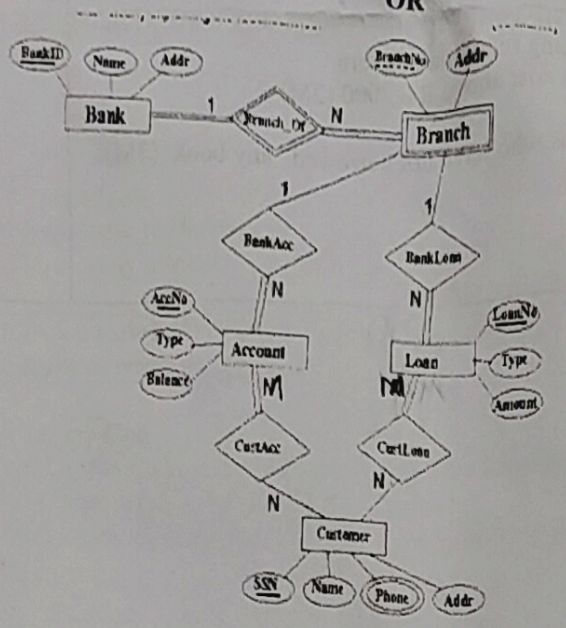
SOMAIYA VIDYAVIHAR UNIVERSITY

Semester: January 2024 – April 2024		
Maximum Marks: 30	**Examination: In-Semester Examination**	**Duration :1 hr 15 min**
Programme code: 01 **Programme: B.Tech**	**Class:** SY	**Semester:** III **(SVU 2023)**
Name of the Constituent College: **K. J. Somaiya College of Engineering**	**Name of the Department:** COMP	
Course Code: 116U01C403	**Name of the Course: Relational Database Management System**	

Question No.		Max. Marks
Q1	Draw the ER diagram for the following: A company wants to develop a database system to manage its inventory and sales. The company sells multiple products, each with a unique product ID, name, price, and quantity in stock. Customers can place orders for one or more products, and each order has a unique order ID, date, and time. The company also wants to track customer information, including name, address, and phone number. Each order can have multiple products, and each product can be part of a single order. The system should also track the sales made by each employee, including their name and employee ID. Employees may be supervised by supervisors who are also employee [redacted] **OR**  -Convert the above ER diagram to Relational Model -How Generalization is mapped to Relational model give example	10

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Q2	Consider the following relational Schema *employee* (*employee-name*, *street*, *city*) *works* (*employee-name*, *company-name*, *salary*) *company* (*company-name*, *city*) *manages* (*employee-name*, *manager-name*) Write SQL Queries for the following: 1. Find the names of the Employee who work for 'TATA' and earn more than 5 Lakh 2. Give a 10% raise in salary for all employee working for 'SBI' 3. Delete all the employees who stay in ' Jammu' or 'GOA' 4. Find the maximum salary given by each company 5. Add contact number of the manager.	10
Q3	a) Draw the DBMS System architecture and its components(5M) b). Consider the following relational Schema of Library: LIBRARY(Codeno, Name, No_of_books) PERSON(Id, Name, Age) Member(Codeno, Id,, Date_of_Books) Book(Access_no, Title, Author, Price) Borrowed_by(Access_no, Id, Date_of_issue) Answer the following queries using relational algebra i). List all the book titles having cost above Rs. 2000 (2M) ii). Give the details of the persons who have not borrowed any book (3M)	10