



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

FOURTH SEMESTER – APRIL 2022

16/17/18UCS4MC01 – RELATIONAL DATABASE MANAGEMENT SYSTEM

Date: 16-06-2022

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

PART – A

Answer All the Questions.

(10x2=20)

1. Define database.
2. What is a foreign key?
3. Define entity.
4. What is partial dependency?
5. Define transaction.
6. What is a savepoint?
7. Illustrate any 2 date functions.
8. Define cluster.
9. What is a trigger?
10. Give the PL/SQL block structure.

PART – B

Answer all the Questions

(5x8=40)

11a. Explain the client-server architecture with a neat diagram.

(OR)

11b. Explain the operations involved in relational algebra.

12a. Construct an ER diagram for a hospital management system

(OR)

12b. Discuss 1NF and 2NF with examples.

13a. Explain two phase commit protocol.

(OR)

13b. Discuss about Transactions.

14a. Explain the Groupby statement and its clauses with example.

(OR)

14b. Write the SQL statement for creating the following table with the given constraints and how will you remove the constraints?

Employee (eno – should be primary key, Name – should not be empty, gender – (M /F), Age – allowed is 21 to 60)

15a. Discuss about the looping structures with examples.

(OR)

15b. How are exceptions handled in PL/SQL? Write a PL/SQL program to find all employees whose salary is greater than 60,000. If no such employee, then handle the exception.

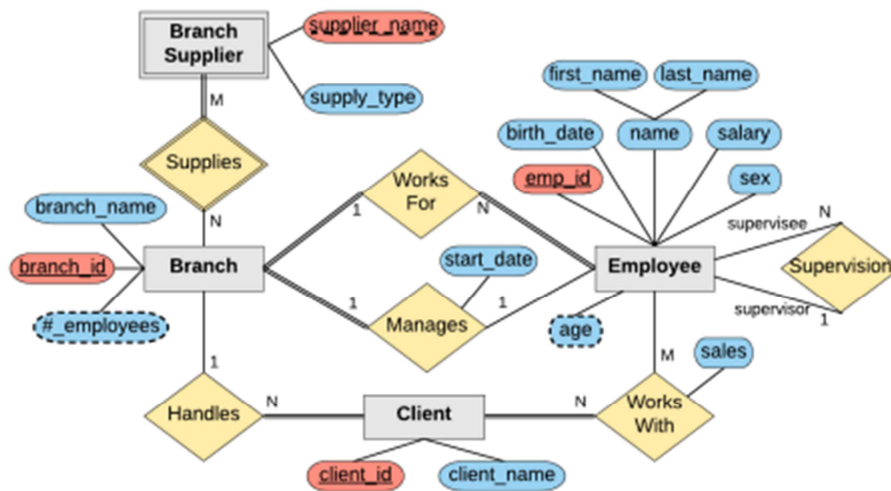
PART – C

Answer any Two Questions

(2x20=40)

16a. Explain tuple relational calculus with example.

16b. What is an ER Model? Using the following model, explain the ER concepts and notations:



17a. What is Concurrency problem? Explain the three categories of concurrency problems.

17b. Explain in detail the various database objects.

18a. What is a Cursor? Explain explicit cursors with an example.

18b. Discuss about procedures and functions in PL/SQL.

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