

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



B.Sc.DEGREE EXAMINATION –COMPUTER SCIENCE

FOURTH SEMESTER – APRIL 2018

16UCS4MC01– RELATIONAL DATABASE MANAGEMENT SYSTEM

Date: 20-04-2018

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

PART - A

Answer All Questions:

(10 * 2 = 20)

1. Define DBMS.
2. What is the difference between a Primary Key and a Candidate Key?
3. What is Functional Dependency?
4. Define an entity and its attributes.
5. What is the purpose of Savepoints?
6. What are the types of locks?
7. List any four Database Objects.
8. Write any two character functions and date functions.
9. What is %type and %rowtype?
10. Write the syntax for “if” statement in PL/SQL.

PART - B

Answer All Questions:

(5 * 8 = 40)

11. a) Write notes on Foreign Keys.

(or)

- b) Discuss about the levels of Database Architecture.

12. a) Explain 3NF and Boyce-Codd Normal Form with an example.

(or)

- b) Discuss about 1NF and 2NF with examples.

13. a) Discuss about the different types of recovery of Database Systems.

(or)

- b) Discuss about Transactions.

14. a) Explain the SELECT statement and its clauses with example.

(or)

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

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

15.a) Discuss about the looping structures with examples.

(or)

b) 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.

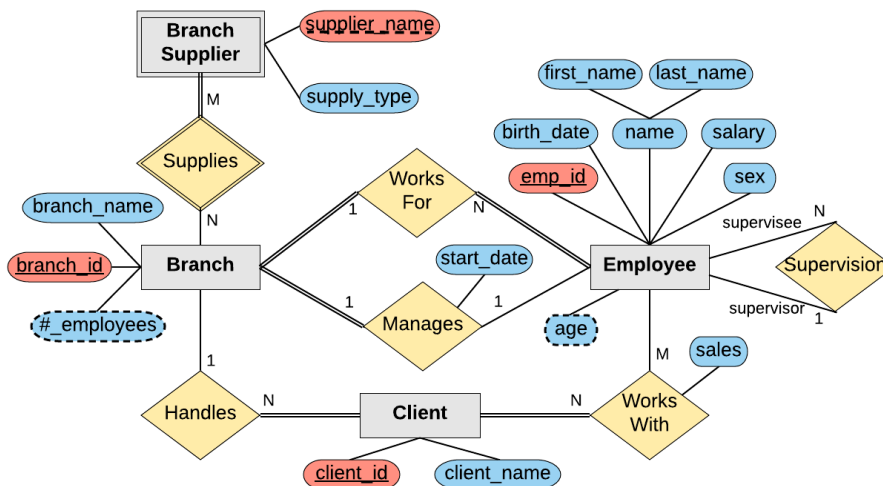
PART - C

Answer Any Two Questions:

(2 * 20 = 40)

16.a) Explain any five Relational Algebra operations with examples.

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



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

b) Discuss about the DML commands with examples.

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

b) Write notes on (i) Any two Aggregate functions (ii) creating a trigger for inserting a row in a table while deleting a row in another table.
