QP CODE: 24027771

‖‖‖‖‖ (barcode)
24027771

Reg No   :   ....

Name   :   ....

B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE EXAMINATIONS, OCTOBER 2024

Third Semester

B.Sc Computer Science Model III

CORE COURSE - CC3CRT01 - DATABASE MANAGEMENT SYSTEMS

2017 Admission Onwards

62DEAA8B

Time: 3 Hours

Max. Marks : 80

core

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. List any two database systems.

2. What is a query?

3. What are entity types?

4. What is relational database schema?

5. What is a NULL constraint?

6. Write the syntax of DELETE query.

7. What is the use of view in SQL?

8. What is partial dependancy?

9. Define primary key field.

10. What is the use of begin transaction and end transaction?

11. Discuss about database confidentiality and databse availability.

12. Write short note on four kinds of control measures on database.

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Describe the concept of schema and instance with a suitable example.Use schema diagrams for the relations in a database.

14. Write notes on the following component modules. a) DDL Compiler b) Query Compiler c) Query optimizer d) DML Compiler e) Concurrency Control /Backup/ Recovery Subsystem

15. Briefly explain different types of attributes with example.

16. What are the main characteristics of relations?

17. Explain SET operations available in SQL.

18. Explain the different interpretations on NULL values.

19. Explain informal design guidelines for relation schemas.

20. What is functional dependency?

21. Discuss the types of previlages that can be granted on each individualrelation R.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Explain in detail about three schema architecture and data independence.

23. Construct an E-R schema diagram for the company database . Details of COMPANY database is as follows. (1) The company is organised into departments.each department has a unique name,unique numberand a particular employee who manages the department.Keep track of the start date when that employee began managing the department.A department may have several locations. (2) A department controls a number of projects,each of which has a unique name,a unique number and a single location. (3) Employee has name,SSN,address,salary,gender and birth date.An employee is assigned to ine department but may work on several projects,which are not necessarilyb controlled by the same department.Keep track of the current number of hours per week that an employee works on each project.Also keep track of the direct supervisor of each employee. (4) Keep track of the dependants of each employee for instance purposes.Dependant has name,genderdob and relationship to employee.

24. Explain various types of Normal Forms with examples.

25. Explain the four kinds of control measures to protect databases.

(2×15=30)