

QP CODE: 24027464



Reg No :
Name :

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

Third Semester

B.Sc Information Technology Model III

Core Course - IT3CRT04 - DATABASE MANAGEMENT SYSTEMS

2017 Admission Onwards

C71EC30C

Time: 3 Hours

Max. Marks : 80

Part A

*Answer any **ten** questions.*

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

1. Why is the use of DBMS recommended?
2. Who are the database designers?
3. What is a data model?
4. What is DDL and DML? Give examples.
5. What is an entity set?
6. What is a strong entity?
7. What is a derived attribute?
8. What are the attribute data types used in SQL?
9. Write the syntax of View.
10. What is a sparse index?
11. What are the ACID properties of a transaction?
12. What is audit trail?

(10×2=20)

Part B

*Answer any **six** questions.*

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





13. Briefly explain the advantages of DBMS.
14. Write short notes on Data Independence.
15. Compare between ER model and Relational model.
16. Consider a MAIL-ORDER database in which employees take orders for parts from customers.
It contains:
 - The mail order company has employees,each identified by a unique employee number.
 - Each customer of the company is identified by a unique customer number,first and last name.
 - Each part sold by the company is identified by a unique part no,price and quantity.
17. Write 'DELETE' command.Write query to remove the address details of the customer named IVAN.
Also explain DROP command and its syntax.
18. Discuss how NULLs are treated in comparison operators in SQL.Write in short about comparison operators.
19. What are the informal design guidelines for relation schemas?
20. Differentiate between 1NF and 2NF.
21. What are problems occurred when there is no concurrency control?

(6×5=30)

Part C

*Answer any **two** questions.*

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

22. Explain database system environment with diagram.
23. Draw an E-R diagram of a Bank taking necessary assumptions and draw the concerned tables.
24. Explain functional dependencies with inference rules..
25. Explain the different types of security and threats to the database.
Also describe about the various control measures taken in a database.

(2×15=30)

