

TM211930TR

Reg. No :

Name :

M. Sc. DEGREE (C.S.S.) EXAMINATION, NOVEMBER 2021
[2021 Admissions Regular and 2020 Admissions Improvement & Supplementary]
SEMESTER I - CORE COURSE (APPLIED STATISTICS AND DATA ANALYTICS)
ST1C05TM - DATABASE MANAGEMENT SYSTEM

Time : 3 Hours

Maximum Weight : 30

Part A

I. Answer any Eight questions. Each question carries 1 weight

(8x1=8)

1. Explain mapping cardinalities in a relation.
2. Explain the importance of Data dictionary and metadata.
3. Explain data redundancy in File processing.
4. Explain Join Operations.
5. Discuss the syntax of SELECT with WHERE query. Explain with example.
6. Define referential integrity constrain. Illustrate with an example.
7. Define Multiset Type .
8. Explain method overriding and polymorphism in OOP's concept.
9. Define centralized database.
10. Differentiate Single and Multi User system in DBMS.

Part B

II. Answer any Six questions. Each question carries 2 weight

(6x2=12)

11. Explain instance and schema in a database.
12. Explain different types of attributes in ER model.
13. Explain Functional Dependencies in a relational schema.
14. Consider Employee database with following schema:
Employee(Emp_Id,First_Name,Last_Name,Salary,Joining_date,Department)
Bonus(Emp_Ref,Bonus_Amount,Bonus_date) Designation(Emp_Ref_Id,Emo_Designation,Affected_From) Write queries in SQL for the following requirements :- i) To fetch the departments that have less than five people in it. ii) To print the name of employees having the highest salary in each department. iii) Write an SQL query to print details of the employee who are also Managers.
15. Describe Table inheritance in Object Oriented database.
16. Discuss about array in Object oriented database.
17. Discuss different validation methods in classification problem in data mining.
18. Describe different data warehouse schemas.

Part C

III. Answer any Two questions. Each question carries 5 weight

(2x5=10)

19. Discuss different DBMS Models.
20. Explain different DDL Query statements in SQL. Explain with Syntax and Example schema.

21. Explain Object Oriented Programming Paradigm.

22. Discuss in detail Data Mining Classification Techniques. List Applications of Data Mining.