20U417S (Pages: 2) Name: …..…….

Reg. No……..……

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2022

(CUCBCSS-UG)

CC17U BCS4 B05 - DATABASE MANAGEMENT SYSTEM & RDBMS

(Computer Science – Core Course)

(2017, 2018 Admissions – Supplementary/Improvement)

Time: Three Hours Maximum: 80 Marks

PART A

Answer ***all*** questions. Each question carries 1 mark.

1. Define DBA.
2. What is 2NF.
3. What are the unary operations in Relational Algebra?
4. What is Transaction Manager?
5. Write a query to display create a table Student with attributes rollno (primary key), student name, marks and grade.
6. _____ express the number of entities to which another entity can be associated via a relationship set.
7. _____ symbol is used to denote the selection operation in relational algebra.
8. The two types of trigger are _____ and _____
9. _____ normal forms states that attribute values be in atomic state.
10. Consider the following action:

    Transaction…..

    Commit;

    Rollback;

    What does Rollback do?

(10 × 1 = 10 Marks)

PART B

Answer ***all*** questions. Each question carries 3 marks.

11. Define SQL and state the differences between SQL and other conventional programming Languages.
12. What is primary key?
13. Define the "integrity rules".
14. What is meant by Data Independence?
15. What is meant by Functional Dependency?

(5 × 3 = 15 Marks)

PART C

Answer any ***five*** questions. Each question carries 5 marks.

16. Describe the three levels of data abstraction.
17. Define Join and enlist its types. Illustrate with help of an example.
18. What are stored-procedures? Explain the advantages of using them.
19. What are cursors? What are its different types?
20. Enlist the various relationships types in database. Explain in **detail**.
21. What are ACID properties of a transaction?
22. Explain Group by and Order by with example.
23. Explain the difference between DELETE, TRUNCATE and DROP commands?

(5 × 5 = 25 Marks)

PART D

Answer any ***three*** questions. Each question carries 10 marks.

24. Describe the types of keys in relational model with example.
25. Enlist the various transaction phases. Explain in detail.
26. What are the different type of normalization? Explain each with example.
27. What is the E-R model? Explain the different symbols used to define a ER model?
28. List significant differences between a file-processing system and a DBMS.

(3 × 10 = 30 Marks)

****