B.Sc. DEGREE END SEMESTER EXAMINATION – JULY 2021

SEMESTER – 4: COMPUTER APPLICATION (CORE COURSE)

COURSE: **15U4CRCAP9: DATABASE MANAGEMENT SYSTEM**

(Common for Improvement 2018 admission / Supplementary 2018/2017/2016/2015 admissions)

Time: Three Hours   Max. Marks: 75

PART A

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

1.   What is Data Independence?
2.   What is Conceptual Schema of DBMS?
3.   Define Queries in a DBMS.
4.   What you mean by Relational model?
5.   Define Primary key and Foreign key
6.   What is Specialization?
7.   Define strong Entity.
8.   What is mean by relationship?
9.   Define constraint?
10. What is Durability of Transaction?

(1 x 10 = 10)

PART B

Answer *any eight* questions. Each question carries **2** marks.

11. What is aggregation? Give an example.
12. Explain Select and Project operation of SQL
13. Explain about Binary and Ternary relationship with an example?
14. Explain the types of operators of SQL
15. Explain the characteristics of relational Calculus.
16. Explain Multivalued dependency .
17. What is DDL of SQL?.Give an Example
18. What is Schedule of a transaction with an example?
19. What is indexing.? Give an example
20. What is Access control of DBMS   (2 x 8 = 16)

PART C

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

21. Explain the constraints of data base?
22. Discuss the significance of Normalisation?
23. Explain Tuple Relational calculus with examples.
24. Explain the set operations of relational algebra .

25. Explain the Second Normal with an Example

26. Explain serializability of a transaction with an example

27. Explain the role of DBA   (5 x 5 = 25)

PART D

Answer *any two* questions. Each question carries **12** marks.

28. Explain the 3 tier architecture of DBMS.

29. What is Normal Form? Explain the types of Normal forms

30. What is indexing? Explain the types of Indexing.

31. Explain the Concurrent execution of Transaction management   (12 x 2 = 24)

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