B.Sc. DEGREE END SEMESTER EXAMINATION - MARCH/APRIL 2019

SEMESTER – 4: COMPUTER APPLICATION (CORE COURSE)

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

(Common for Regular 2017 admission and improvement 2016/ supplementary 2016/2015 admission)

Time: Three Hours   Max. Marks: 75

PART A

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

1. List down any two advantages of using DBMS
2. What is data independence
3. What is referential integrity?
4. How UNION AND INTERSECTION are different in relational algebra.
5. Define Data Definition Languages
6. What are views?
7. Define Functional Dependencies.
8. What is Transaction Processing?
9. What are Association Rules in Data Mining?
10. Define Data Warehouse   (1 x 10 = 10)

PART B

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

11. Differentiate between Schemas & Instances.
12. What are weak Entity types?
13. What are attributes & relations in a Relational Data Model
14. What do you mean by relational database schemas?
15. Write SQL query to create a table named "PRODUCT' with the fields: Product_ID, Product_Name, Price, DOM and Quantity
16. What are Nested queries? Give an example
17. Difference between EXCEPT and INTERSECT commands.
18. What is Indexing?
19. What is Classification in Data Mining?
20. What is OLAP   (2 x 8 = 16)

PART C

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

21. Explain DBMS architecture
22. Explain DBMS components and modules
23. Explain ER Modeling with the help of sample ER diagram
24. Differentiate between entity integrity and referential integrity constrains.
25. What are the difference between LIKE operator and BETWEEN operator
26. Explain Indexing and the type of single level ordered indexing
27. Explain the various Data Mining Tools and its application.   (5 x 5 = 25)

PART D

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

28. Explain about the following clauses with example queries
    (i)   Group by
    (ii) Order by
    (iii) Aggregation function

29. Explain INF, 2NF 3NF, 4NF and 5NF with suitable examples.

30. Explain the various Data Mining Technologies used.

31. Explain the types of Database security and control measures used. What is the importance of access protection and database audits.

(12 x 2 = 24)

****