

**C. ABDUL HAKEEM COLLEGE (AUTONOMOUS),  
MELVISHARAM - 632 509.  
SEMESTER EXAMINATIONS, NOVEMBER - 2018**

**B.Sc., COMPUTER SCIENCE / B.C.A., SEMESTER V  
U15MCS501 / U15MCA501 – DATABASE MANAGEMENT SYSTEM**

Time: Three Hours

Maximum: 75 Marks

**SECTION - A (10 X 2 = 20 Marks)**

Answer **ALL** Questions.

1. List down any four Codd's rules.
2. Differentiate schema and instance.
3. List down the primary operations that can be performed using relational algebra.
4. State the types of relational query languages.
5. Draw an ER diagram to relate student and course entity with many to one relationship.
6. What is multivalued dependency?
7. What is deferred update?
8. List the merits of normalization.
9. Mention the merits of PL/SQL.
10. Give the syntax of PL/SQL function.

**SECTION - B (5 X 5 = 25 Marks)**

Answer **ALL** Questions.

11. a) Who is DBA? Explain the functions and responsibilities of DBA.

(Or)

- b) Elaborate on DBMS components with neat diagram.

12. a) Illustrate create table command with suitable example.

(Or)

- b) Write about the tuple relational calculus.

13. a) Classify the types of attributes with suitable examples.

(Or)

- b) Comment on the lossy decomposition.

14. a) Explain the concept of backward recovery.

(Or)

- b) Differentiate between authorization and authentication.

15. a) How will you raise an exception in PL/SQL?

(Or)

- b) Difference between DBMS and RDBMS.

**SECTION - C (3 X 10 = 30 Marks)**

Answer **ANY THREE** Questions.

16. Describe the components of Data dictionary in detail.
17. Discuss in detail about DML query languages with examples.
18. Explain the trivial and non-trivial functional dependency with suitable examples.
19. Elucidate 1NF, 2NF, 3NF with suitable examples.
20. Explain the cursor attributes with suitable examples.

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