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Paper Code : BCAC401 Database Management System

UPID : 400086

Time Allotted : 3 Hours *Full Marks :70*

The Figures in the margin indicate full marks.

Candidate are required to give their answers in their own words as far as practicable

Group-A (Very Short Answer Type Question)

1. Answer any ten of the following : [1 x 10 = 10]

(I) State two advantages of Using a DBMS system.

(II) Explain Attribute concept.

(III) Give example of DCL?

(IV) Give example of derived attribute?

(V) What is Query Optimization?

(VI) State two basic kinds of indices.

(VII) Why is the use of DBMS recommended?

(VIII) Mention different types of relationships in ER model.

(IX) DDL scripts have no functional or procedural operations to carry out. [TRUE / FALSE]

(X) What is Relational Algebra?

(XI) What is database partitioning?

(XII) In a row of a relational table an attribute can have more than one value. [True / False]

Group-B (Short Answer Type Question)

Answer any three of the following : [5 x 3 = 15]

2. State the 3 schema's of data abstraction in DBMS. [5]
3. Define E-R diagram and how does it help in system development. [5]
4. What is a database management system (DBMS)? Write Advantages of Database Management System (DBMS).(2+3) [5]
5. What is the difference between cardinality and modality? [5]
6. What are two basic kinds of indices used in Database? [5]

Group-C (Long Answer Type Question)

Answer any three of the following : [15 x 3 = 45]

7. (a) State database properties. [6]
   (b) What are the difference between RDBMS and DBMS? [4]
   (c) Describe Three Schema architecture of DBMS. [5]
8. (a) Give at least two examples of derived attribute and multi valued attribute. [6]
   (b) What do you mean by domain of an attribute? [3]
   (c) Explain primary key,Alternate Key,Super key. [6]
9. (a) Differentiate between specialization and generalization. [9]
   (b) "All candidate keys are super keys but the reverse is not true"...critically comment. Prove it. [6]
10. (a) What is constraints in DBMS? [3]
    (b) Discuss the types of constraints in relational model. [12]
11. (a) What are null values? Can null values create any problem in updating database? [5]
    (b) How many different type of cursors are there give example? [5]
    (c) Write the difference between Implicit and Explicit cursor [5]

*** END OF PAPER ***