First Year B.C.A (Semester - II) Examination
Paper - 15BCA111
Relational DBMS

Time : Three hours]   [Full Marks - 60

N.B. :   *i)*   *Due Credit will be given to neatness and adequate dimensions.*

ii)   *Assume Suitable data wherever necessary.*

iii)   *Illustrate your answer if necessary, with the help of neat sketches.*

iv)   *Use Blue / Black ink only for writing the answers.*

Q.1   Choose correct alternative.   5

a)   The collection of data items called as.
   i)   Data Name   ii)   Data record
   iii)   Data File   iv)   DBMS

b)   In Relational Model, the number of rows in a table is termed as
   i)   Domain   ii)   Relation
   iii)   Cardanality   iv)   Degree

c)   Which of the following is not in SQL component.
   i)   DML   ii)   DDL
   iii)   DSL   iv)   DCL

d)   Which of the following is not Aggregate Function.
   i)   AVG ( )   ii)   SUM ( )
   iii)   ABS ( )   iv)   COUNT ( )

e)   In PL/SQL, PL stand for.
   i)   Programming Logic
   ii)   Programming Language
   iii)   Procedural Language
   iv)   Procedural Logic

1

Q.2 a) Explain Architecture of DBMS in detail. 7
b) Write any four differences between DBMS &
RDBMS. 4

OR

Q.3 a) What is Data Models ? Explain with their types in
detail. 7
b) Explain Advantages and disadvantages of DBMS. 4

Q.4 a) What is Normalization ? Explain with 1NF, 2NF,
3NF with proper example. 7
b) Write any four differences between 3NF and
BCNF. 4

OR

Q.5 a) What is Relational Algebra ? Explain following set
operations with proper example. 7
i) Union   ii) Intersection   iii) Cartesian Product
iv) Minus/difference
b) What is E-R Diagram ? Explain with symbol used in
E-R Diagram with proper example. 4

Q.6 a) What is SQL ? Explain with Advantages and
Disadvantages of SQL. 4
b) Explain ANY FOUR SQL Data types in detail. 4
c) Explain components of SQL in brief. 3

OR

Q.7 a) What is DDL ? Explain following DDL commands
with proper syntax and their example. 4
i) CREATE   ii) ALTER

b) What is Database Manipulation Language ?
Explain SELECT , DELETE command with syntax
and example. 4
c) What is Clause ? Explain any two clauses with
proper example. 3

Q.8 a) Explain any SIX Number function with syntax,
meaning, example and Result. 6
b) Explain Group/Aggregate function with syntax,
meaning, example and Result. 5

OR

Q.9 a) Explain any SEVEN character function with syntax,
meaning example and Result. 7
b) Explain Conversion function with Syntax, Meaning,
Example and Result for following. 4
i) To_Number   ii) To_Char

Q.10 a) What is PL/SQL ? Explain with its advantages. 4
b) Draw & explain architecture of PL/SQL. 4
c) Draw Block Structure PL/SQL ? Explain. 3

OR

Q.11 a) What is Cursor ? Explain with Implicit cursor &
Explicit cursor with proper example. 7
b) Explain PL / SQL basic used in PL/SQL. 4

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