1C7103

Roll No. : _____ Total Printed Pages : 2

1C7103

M. C. A. (Sem. I) Examination, January - 2011
MCA-103 : Database Management System

Time : 3 Hours] [Total Marks : 80

[Min. Passing Marks : 32

Attempt all questions.
Marks of questions are indicated against each question.

Use of following supporting material is permitted during examination.
(Mentioned in form No. 205)

1. Nil 2. Nil

1 Answer in one-two lines :

(a) Define data and information
(b) Mention important features of D.B.M.S.
(c) What is database design?
(d) Define logical and physical data independence.
(e) How a table is created in SQL ?
(f) What are different types of SQL data types?
(g) Define attribute and entity.
(h) What is the meaning of D.D.L?
(i) Given an example of nested query.
(j) What is embedded SQL ?

1x10=10

2 Answer each part in 50 words :

(a) What is a relational database? What is the role of cursor in SQL?
(b) Define the concept of data control Language (D.C.L). What is interactive SQL?
(c) What are five major functions of database administrator?
(d) What is the concept of data modelling? What are different data models?
(e) Describe in detail the ANSI/SPARC database architecture.

3x5=15

3 Answer each part in 150 words :

(a) Define Relational database. What are 12 rules for RDBMS?

(b) What is the use of Relational algebra? Which operations are used in Relational algebra?

(c) What are different normalization forms? Define BCNF in detail.

(d) Define schema and subschema. What is the concept of functional dependencies?

(e) Define functions and procedures. Give suitable example.

4x5=20

4 What is Entity-relationship model? Draw an E-R diagram for an automobile company. What is a table and how multiple tables are integrated?

20

5 (a) Define and draw the architecture of DBMS. What is Relational Calculus? Explain Join operations.

15

OR

(b) Define different SQL operators. What is Generalization and aggregate functions.

15
