



RG-1862

B. C. A. (Sem. III) Examination

April / May - 2008

Database Management System - 302

(New Course)

Time : Hours]

[Total Marks :

Instruction :

नीचे दशांशिक निशानियाणी विगतो उत्तरवकी पर अयश्य लपनी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
B. C. A. (Sem. 3)

Name of the Subject :
Database Management System - 302 (New)

Subject Code No. : 1 8 6 2 Section No. (1, 2,) : Nil

Seat No. : [] [] [] [] [] [] [] []

Student's Signature

1 Answer in short : (any 7)

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- (1) Difference between composite key and primary key.
- (2) What is total participation ?
- (3) Define the following terms :
 - (1) Database instance
 - (2) Database schema
- (4) How Redundancy can be reduced ?
- (5) Define non-trivial dependency.
- (6) State the difference between DML and DCL.
- (7) What are the contents of data dictionary ?
- (8) What is Domain Integrity ?

2 Explain in detail :

- (a) Explain how database developer can hide various levels and kind of complexities from database users. 7
- (b) Explain the merits and demerits of database system. 7

OR

- (b) Explain Relational data model and Object oriented data model and also compare them. 7

(4) Ord_Item table

Field name and description

ordno number references to ordno field of ord table
itcode number references to itcode of itemmast table
qty_ord number

- (1) Get the detail of items whose name has alphabet "R" in the end of its name.
- (2) Get the detail of items whose rate is less than 100 Rs. in descending order of rate.
- (3) Get the customers detail whose order amount is maximum.
- (4) Get ordno, orddt, itdesc, Item_amount for all orders, which are placed on 10th of any month and year.
- (5) Get the detail of customer, which has not placed any order ?
- (6) Get the detail of items whose rate is least among all the items, which are ordered.

- 3 (a) Draw an E-R diagram for following : 8
Construct ER diagram for Hospital with a set of patients and a set of doctors associated with each patient the log of various test and examination conducted.

OR

- 3 (a) Draw an E-R Diagram for following :
Construct ER diagram for college with a set of students and set of Teachers. Teachers are teaching multiple subjects and students can opt multiple subjects.
- (b) Student hostel (roll_no. name, department, year, hostel)
set of FDs = {roll_no- > name, roll_no-> dept, roll_no->year, roll_no->hostel, year->hostel}.
In which normal form the relation is achieved the next higher normal form.

OR

- (b) Using the tables described in question no.5. Describe the FDs and draw an E/R diagram. Also identify in which NF the tables are at present ?
- 4 Answer the following (any three) 15
- (1) Explain the function of query processor and data manager components of DBMS in detail.
- (2) Discuss Dependency Preservation during Decomposition.
- (3) Explain the concept of specialization.
- (4) Explain Various types of Database Users.

- 5 Solve the following queries : 10

(1) Itemmast table
Field name and description
Itcode number primary Key
Itdesc varchar2(15)
Rate number

(2) Cust table
Field name and description
Custno number primary key
Cname varchar2(15)

(3) Ord table
Field name and description
Ordno number primary key
Ordtdt date default value is system date
Custno number references to custno field of cust table

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