



JA-3720

First Year B. C. A. (Sem. - II) Examination
March/April - 2013
Paper - 205 : Database Management System

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

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| नीचे दशांशविक - निशानीवाणी विगतो उत्तरवही पर अवश्य लक्षवी. Fillup strictly the details of signs on your answer book. | Seat No. : |
| Name of the Examination : | <input type="text"/> |
| FIRST YEAR B. C. A. (SEM. - 2) | <input type="text"/> |
| Name of the Subject : | <input type="text"/> |
| P. - 205 : DATABASE MANAGEMENT SYSTEM | <input type="text"/> |
| Subject Code No. : <input type="text" value="3"/> <input type="text" value="7"/> <input type="text" value="2"/> <input type="text" value="0"/> | Section No. (1, 2,.....) <input type="text" value="NIL"/> |
| Student's Signature | |

- (2) Figures on the right indicate marks.
(3) Take assumption whenever necessary.

1 Answer the following : (any seven) 14

- (i) What is multi-valued dependency ?
- (ii) In which condition you need to de-normalize the database ?
- (iii) What is the difference between physical and logical data independence ?
- (iv) What do you mean by total participation in a relationship ?
- (v) List out any two DDL statements and any two TCL statements.
- (vi) What is data manager ? List responsibilities of database manager.
- (vii) What is tuple ?
- (viii) What do you understand by data type memo ?

2 Answer following : (any three) 18

- (i) What is functional dependency ? Explain types of functional dependency with an example.
- (ii) What is normalization explain BCNF and compare how it is better than Third Normal Form ?

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[Contd...

- (iii) What is purpose of mapping cardinality ? Explain it with example.
- (iv) Explain the components of DBMS.

- 3** Answer following : (any two) **14**
- (i) Explain different level of data abstraction in detail.
 - (ii) Explain concept of generalization, specialization and aggregation. Explain it with example.
 - (iii) Explain entity set and types of attribute in detail.
- 4** (a) How to set relationship between tables in access ? **8**
What is cascade update and cascade delete ?
- (b) Construct E-R diagram for online Ticket Booking System. **6**

OR

- (b) Construct E-R diagram for online Banking system. **6**
- 5** Consider the following relations in database and solve the queries : **10**
- Fees (year, total_fee_amount)
Student (stud_no, name, address, year)
Student_fees (stud_no, paid_amt, paid_date)
Note : year contain F.Y, S.Y, T.Y.
- (i) Create tables and give proper constraints
 - (ii) Give information about the student who does not have paid fee till today.
 - (iii) Give the total fees amount received from T.Y. students
 - (iv) Give the name of paid fees in last 7 days.
 - (v) Give the total pending fees amount.
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