



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)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. 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"/> 3 <input type="text"/> 7 <input type="text"/> 2 <input type="text"/> 0		Section No. (1, 2,...): <input type="text"/> NIL	
		<div>Student's Signature</div>	

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

1 Answer the following : (any seven) 14

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

2 Answer following : (any three) 18

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

- (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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