



DPP-3720

First Year B. C. A. (Sem. II) Examination

March / April - 2016

205 : Database Management System

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

नीचे दृशावेव निशानीवाणी विगतो उत्तरवाडी पर अवश्य लपवी. 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. II)	<input type="text"/>
Name of the Subject :	<input type="text"/>
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
Student's Signature	

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

1 Answer the following: (any seven) 14

- (1) List the requirements of DBMS.
- (2) List out rules derived from Armstrong's axioms.
- (3) What is the purpose of storage manager?
- (4) Is it possible to change the structure of existing view?
If yes then how?
- (5) Give example of decomposition which is loss less but not dependency preserving.
- (6) How redundancy can be removed?
- (7) Give difference between column level and row level constraint.
- (8) What is tuple?

2 Answer the following: (any three) 18

- (1) What is DDL ? How it is different from DML ? Briefly explain guidelines for creation of table.
- (2) Explain types of relationship set with an ER diagram.

(3) Explain briefly advantages and disadvantages of Distributed Database Management Systems.

(4) Explain Data manager.

3 Answer the following: (any **two**) **12**

(1) Explain the concept of Aggregation.

(2) Explain 3NF. Also justify the statement "BCNF is stronger than 3NF" with the help of an example.

(3) What are nested queries? Explain with the help of an example.

4 Answer the following : (any **three**) **12**

(1) Draw an ER diagram for the situation given below :

Library consists of many books in different subject areas where books are written by different authors and are published by different publishers. A book is published by only one publisher. There are inside - members and outside - members who gets books issued for their uses. The issuing and return operation of the books are managed by the librarian.

(2) What is Functional Dependency (FD)? Find the valid FD's in the following relation:

<i>A</i>	<i>B</i>	<i>C</i>
<i>i</i>	1	2
<i>i</i>	1	3
<i>j</i>	1	4
<i>j</i>	1	3
<i>k</i>	2	5
<i>l</i>	4	7

(3) Design a generalization specialization hierarchy for different accounts of a bank.

(4) Explain Database Integrity.

- 5 (A) Write Queries for creating following tables with appropriate constraints: 4
- Salesman_Master (SCode, SName, Target, City)
- Product_Master (PCode, PName, Price)
- Sales (SCode, PCode, Sdate, Qty)
- (B) Solve the following Queries: 10
- (i) Display Salesman of Mumbai City selling 'LCD'.
 - (ii) Display Salesman who sold more qty of products than the target.
 - (iii) Display products not sold by any salesman.
 - (iv) Display all the sales details between 1st Nov 2015 to 1st March 2016
 - (v) Display total amount of sales of each salesman for January 2016.
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