

6. (a) Briefly describe the concept of 'Views' in SQL. Also write how 'Views' can be specified in SQL ? **9**
- (b) List and explain different schema change statements. **6**

#### Unit IV

7. (a) Discuss the concept of PL/SQL execution environment. Also write the advantages of PL/SQL. **8**
- (b) What are different PL/SQL control structures ? Explain. **7**
8. Write short notes on the following :
- (a) Cursors
- (b) Triggers. **15**

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Roll No. ....

**D212**

**B.C.A. EXAMINATION, May 2019**

(Fourth Semester)

(B. Scheme) (Main & Re-appear)

(BCA)

BCA204B

RELATIONAL DATABASE MANAGEMENT  
SYSTEMS

*Time : 3 Hours]*

*[Maximum Marks : 75*

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Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

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**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

### Unit I

1. (a) What are different Codd's Rules for Relational Model ? Illustrate. 7  
(b) Discuss the various types of inner join operations. Why is theta join required ? 8

2. (a) Compare and contrast Tuple relational Calculus and domain relational calculus. 7  
(b) Discuss the DIVISION operation. How is it represented, and what are the requirements of the numerator and denominator relation ? Explain with an example. 8

### Unit II

3. What do you mean by Normalization ? Also explain 2NF, 3NF and BCNF with suitable examples. 15

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4. (a) What is Data Redundancy ? What are the consequences of redundancy within a database ? 7  
(b) List and explain different type of functional dependencies ? Also write characteristics of functional dependencies. 8

### Unit III

5. (a) Describe the different types of constraints which you can specify in SQL. 9  
(b) Write SQL update statements to perform the following queries in the student' table mentioned below.

Table : Student

Name	Student_number	Class	Major
Amit	15	1	CS
Sumit	8	2	CS

- (i) Insert a new student, <'Vijay', 25, 1, 'Math'>, in the student table.
- (ii) Delete the record for the student whose name is 'Sumit' and whose student number is 8. 6

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P.T.O.