

BCA

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Total Pages : 2

**PC-4635/M**

**U-2/2055**

**RELATIONAL DATABASE MANAGEMENT  
SYSTEM WITH ORACLE – 225  
Semester-IV**

Time : Three Hours]

[Maximum Marks : 75

**Note :** Attempt *five* questions in all. Select *two* questions each from Section A and B. Q. No. IX of Section C is compulsory.

**SECTION – A**

- I. (a) What are the various operators available in Relational algebra ? Briefly discuss the purpose of each operator. 7.5
- (b) Distinguish between the Tuple and Domain Relational calculus. 7.5
- II. Define Relational calculus. How Domain and Tuple Relational calculus expressions are formed ? Explain giving examples. 15
- III. Discuss in detail the Client/Server architecture of Oracle. 15
- IV. Define Integrity. What are the various types of integrity constraints ? Explain giving examples. 15

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## SECTION – B

- V. Write short notes on the following :
- (a) Date manipulation in Oracle.
  - (b) Pattern matching in Oracle.
  - (c) Range searching in Oracle. (3×5=15)
- VI. What are the constraints on grouping command in SQL ? Explain and give an example of grouping command. 15
- VII. Define and distinguish between BEFORE and AFTER triggers. Explain them by giving relevant example. 15
- VIII. Define Triggers. What are the different types of triggers ? How triggers are implemented in Oracle ? Explain. 15

## SECTION – C

(Compulsory Question)

- IX. All questions are compulsory and carry equal marks.
- (a) What is the difference between Procedural and Non-procedural query language ?
  - (b) What are the properties of a valid relation ?
  - (c) Write an SQL query for finding union of *two* relations.
  - (d) Write the syntax for creating a database trigger.
  - (e) Write SQL query for performing division between two relations. (5×3=15)