

Roll No. ....

Total No. of Questions : 091

[Total No. of Pages : 02

## Paper ID [CS302]

(Please fill this Paper ID in OMR Sheet)

B.Tech. (Sem. - 6<sup>th</sup>)

### RELATIONAL DATABASE MANAGEMENT SYSTEM - II (CS - 302)

Time : 03 Hours

Maximum Marks : 60

#### Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

#### Section - A

Q1)

(10 × 2 = 20)

- a) What are the table level constraints?
- b) List significant differences between a file-processing and a DBMS.
- c) What is data conversion function?
- d) Use the TRUNCATE TABLE statement to truncate a table.
- e) Use the COMMENT ON statement to add a comment to a table.
- f) What are the UNIQUE constraints?
- g) What are the advantages of PL/SQL?
- h) What are partitioned views?
- i) What are the advantages of indexes?
- j) What are the database triggers?

#### Section - B

(4 × 5 = 20)

Q2) Explain all of the following types with SQL examples.

- DROP Index
- DROP Trigger
- DROP Procedure
- DROP Clause
- TRUNCATE Table

Q3) Write the SQL commands for Grant and Revoke. And also explain the role of stored procedures in database management system?

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- Q4) Demonstrate the use of four character functions; LOWER, UPPER, INITCAP, and LENGH.
- Q5) Discuss the various operations that can performed in relational algebra
- Q6) What are Indexes, Package, Cursor and Views? Explain briefly with SQL examples.

**Section - C** (2 × 10 = 20)

- Q7) Discuss the basic operations that can perform using relational algebra. Also explain the concept of referential integrity in database management system.
- Q8) The students passing in the various subjects are as follows:

STUDENT TABLE

| Student Code | Student Name |
|--------------|--------------|
| S901         | D Walters    |
| S902         | A Hughes     |

COURSE TABLE

| Course Code | Course Name |
|-------------|-------------|
| C12         | Science     |
| C15         | Costing     |
| C20         | Accounts    |
| C30         | Languages   |
| C45         | Mathematics |

MARKS TABLE

| Student Code | Course Code | Marks |
|--------------|-------------|-------|
| S901         | C12         | 71    |
| S901         | C20         | 89    |
| S901         | C30         | 42    |
| S901         | C45         | 67    |
| S902         | C15         | 54    |
| S902         | C30         | 91    |
| S902         | C45         | 76    |

Write the Relational Model for the following:

- (i) Find out the courses and marks of the student S901.
- (ii) Find out the marks of the students who have opted for the course C20.

- Q9) What are different types of normalization? Also explain the difference between BCNF and 3<sup>rd</sup> NF briefly.

