Roll No. ....

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B.Tech. (Sem. - 6th)
RDBMS - II
SUBJECT CODE : CS - 302
Paper ID : [A0470]

[Note : Please fill subject code and paper ID on OMR]

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 is Data Independence?

b) What is a view? How it is related to data independence?

c) What is Relational Calculus?

d) What is Functional Dependency?

e) What is 1 NF (Normal Form)?

f) What is BCNF (Boyce-Codd Normal Form)?

g) What is static SQL? How does it differ from dynamic SQL?

h) How do you pass cursor variables in PL/SQL?

i) Difference between an implicit & an explicit cursor.

j) What is database security?

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Section - B

(4 × 5 = 20)

Q2) What does ISAM stand for? Briefly describe the advantages of ISAM Indexes/Indices.

Q3) What is a SQL server? Explain.

Q4) What are the advantages and disadvantages of triggers?

Q5) What is normalization? Explain normalization techniques using functional dependencies with relevant examples.

Q6) Discuss views with relevant examples in SQL.

Section - C

(2 × 10 = 20)

Q7) (a) List the basic features of embedded SQL.

    (b) What are the various control structure of oracle?

Q8) (a) List the types of integrity constraints used in Transact - SQL.

    (b) What are the advantages and disadvantages of triggers?

Q9) Consider the relational database :

employee (empname, street, city)

works (empname, companyname, salary)

company (companyname, city)

manages (empname, managername).

Give an expression in the relational algebra/SQL for each request.

(a) Find the names of all employees who work for first bank Corporation.

(b) Find the names, street addresses and cities of residence of all employees who work for first Bank Corporation and earn more than 200000 per annum.

(c) Find the names of all employees in this database who live in the same city as the company for which they work.

(d) Find the names of all employees who earn more than every Employees of small Bank Corporation.

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