* R B - 3 7 2 0 *

RB-3720

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

March / April – 2017

205 : Database Management System

Time : Hours] [Total Marks : **70**

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ FIRST YEAR B. C. A. (SEM. 2)

Name of the Subject :

☛ 205 - DATABASE MANAGEMENT SYSTEM

☛ Subject Code No. : 3 7 2 0 ☛ Section No. (1, 2,.....) : NIL

Seat No. :

Student's Signature

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

1 Answer following : (any **seven**) **14**

(1) Explain *Like* operator in SQL.

(2) List various DCL commands.

(3) What is referential integrity ? How can we achieve it ?

(4) How to reduce data redundancy ?

(5) Explain prime and non-prime attributes.

(6) Define Domain.

(7) Define Data Dictionary.

(8) What is the difference between ALTER and UPDATE command ?

2 Answer in detail : (any **two**) **14**

(a) What is Normalization ? Explain need of normalization with an example.

(b) What is functional dependency ? Explain full and partial functional dependency.

(c) Explain Relational Model, Network Model and Hierarchical model.

3 Answer any **three** : 18

(a) Define DBMS. Explain advantages of DBMS.

(b) Explain the concept of Aggregation.

(c) Explain Entity and Entity sets. Differentiate between strong and weak entity set.

(d) Explain Super key, Candidate key Primary key, and Composite key with appropriate example.

4 (a) Draw an E-R diagram for online library management system. **6**

(b) Explain attributes and discuss types of attributes. **6**

OR

(b) Explain DDL and DML in detail with appropriate constraints. **6**

5 (a) Write SQL statement to create tables with appropriate constraints. **4**

Students(RollNo, Name, DateofBirth)

Subjects(SubjectCode, SubjectName)

Result(RollNo, SubjectCode, Marks)

(b) Solve following queries : (any **four**) 8

(1) Display total number of students who passed in subject 'DBMS'.

(2) To add a column(field) 'Class' in table students.

(3) To display name of the students who failed in subject 'Advanced C programming'.

(4) To display student wise total number of marks scored.

(5) To display roll number of all the students who appeared in exam for the subject 'Introduction to Operating System'.
