Roll No. ....

DD-472

M. Sc. (Second Semester)
EXAMINATION, May/June, 2020

COMPUTER SCIENCE

Paper First

[RDBMS (SQL Programming with Oracle)]

Time : Three Hours

Maximum Marks : 100

Note : Attempt any *two* parts from each question. All questions carry equal marks.

1. (a) Discuss the different types of DBMS users. Describe main functions of Database Administrator.

   (b) Explain the types of database languages.

   (c) Compare database oriented approach with file oriented approach. Explain the purpose of database system.

2. (a) What do you mean by ER model ? Explain with suitable example.

   (b) Explain the concept of keys giving suitable example.

   (c) Describe Join and Cartesian product operations in Relational Algebra.

(A-74) P. T. O.

[2]

3. (a) Differentiate between primary key and unique constraints along with suitable example. What do you mean by check constraint ?

(b) Consider the following table :

Table (Emp)

Columns (emp_id varchar (5),

name varchar (20) not null,

dept_name varachor (20),

salary numeric (8, 2)

Write SQL queries for the following :

(i) To display all records of the table.

(ii) To display emp_id and name of employees whose salary is greater than 10,000.

(iii) To display records of the employees who works for Computer Science department.

(iv) To display records of the employee whose salary is greater than or equal to 20,000 and less than or equal to 50,000.

(v) To display records of those employees, whose name starts with letter 'A'.

(c) Explain cursors.

4. (a) Write a PL/SQL program to calculate percentage.

(b) Write a PL/SQL block to demonstrate use of loop.

(c) Explain packages.

5. (a) Explain Normalization with appropriate example.

(b) What does INDEXING mean ? Explain.

(c) Describe HASHING.

DD-472

150

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