Roll No.....

Total No. of Sections : 03

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Annual Examination - 2018

BCA Part - II

(BCA-202)

DBMS (ORACLE, SQL)

Max.Marks : 100

Time : 3 Hrs. **Min Marks : 40**

Note : Section 'A', containing 10 very short-answer-type questions, is compulsory. Section 'B' consists of short answer type questions and Section 'C' consists of long answer type questions. Section 'A' has to be solved first.

Section - 'A'

Answer the following very short-answer-type questions in one or two sentences : (2x10=20)

Q.1 Define DBMS.

Q.2 What is Instance?

Q.3 Explain a primary key.

Q.4 What is an entity?

Q.5 How do we represent a select operation in relational algebra?

Q.6 Explain the not NULL constraint.

Q.7 What is redundancy?

Q.8 Why do we perform normalization?

Q.9 What is DDL?

Q.10 Explain DROP command.

P.T.O.

Section - 'B'

Answer the following short answer type questions with word limit 150-200. (6x5=30)

Q.1 Explain Data Independence in detail.

OR

Explain the various data models in brief.

Q.2 Differentiate between super key, candidate key and primary key.

OR

What do you understand by weak entity and strong entity?

Q.3 Explain the project and cartesian product operation in Relational Algebra with example.

OR

Explain inner joins, outer joins and self joins with examples.

Q.4 Explain Boyce Codd normal form in detail.

OR

What do you understand by multi valued dependencies? Explain.

Q.5 Write down the syntax for Create and Insert command in SQL.

OR

What are nested queries? Explain with example.

Section - 'C'

Long answer type questions with word limit 300-350. (10x5=50)

Q.1 Explain the system structure of the DBMS.

OR

Write short notes on DDL, DML and DCL statements.

Q.2 Construct E-R diagram for the library management system of a college.

OR

Explain specialization and generalization with suitable example.

Q.3 What is natural join? Explain it with suitable example and data.

OR

What are the different types of constraints defined in SQL? Explain.

Q.4 What is functional dependency? Explain definition with suitable example.

OR

What are the properties of decomposition? Explain.

Q.5 Specify the following SQL queries :-

Supplier (Sno, Sname, Status, City)

Part (pno, pname, color, weight, city)

Project (projno, projname, city)

SPJ (Sno, pno, projno, qty)

i) Get full details of all projects in London.

ii) Get supplier number for suppliers who supply for project J1.

iii) Find the supplier name for those whose city is 'Bhilai'

iv) Find those suppliers whose city is same.

OR

Explain the group by and order by clause in SQL queries.

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