BCA Third Semester Examination - Dec.2018

FIRST PAPER

Data Base Management System

Paper Code: 3611

Time Allowed: Three Hours **Maximum Marks: 70**

No supplementary answer book will be given to any candidate. Hence the candidates should write the answers precisely in the main answer book only.

(Attempt all six questions.)

Part I (Question No. 1& 2) is compulsory & Part II (Question No. 3, 4, 5 & 6) has internal choice.

PART I

1. Attempt any 10 questions out of the following. Each question carries 1 mark. **10x1=10**
(Words limit up to 20 words each)

a. Write full for of DBA.

b. Define Normalization.

c. What do you mean by Naive User?

d. Write one main difference between Network Model and Hierarchical Data Model.

e. Define QBE.

f. Define Index.

g. What do you mean by "procedural" ?

h. Define Attribute.

i. Give the Notation of Weak Entity.

j. Why we need Normalization?

k. Give three names of Clauses.

l. Write full form of SQL.

2. Attempt all questions. Each question carries 5 marks. **4X5=20**
(Words limit up to 50 words each)

a. Explain Instance and Schema with suitable example.

b. Define E-R model.

c. Write the difference between 3NF and BCNF.

d. Explain advantages of SQL.

Part-II
Unit- I

3. Explain the following: **10**

a) DDL (b) DML
c) DCL (d) Meta data

OR

What is DBMS? Explain system structure (Architecture) of DBMS. **10**

P.T.O.

Unit- II

4. Explain the following: **10**

a) Primary Key
b) Foreign Key
c) Candidate Key
d) Super Key
e) Generalization

OR

Describe the fundamental operations in the relational algebra with suitable examples of each operation. **10**

Unit- III

5. Define Transaction. Define ACID and write desirable properties of transactions. **10**

OR

Explain the following : **10**

a) Full and Partial Functional Dependency
b) Functional Dependency
c) Transitive Dependency
d) Multivalued Dependency
e) Join Dependency

Unit- IV

6. What do you understand by Structured Query Language? Explain basic structure of execution way of SQL Command with an example. **10**

OR

Consider the relational database: **5x2**

Employee (emp-name, street, city)
Works (emp-name, company – name, salary)
Company (emp-name, city)
Manager (emp-name, manager-name)

Give expression in SQL for the following :

a. Find the name of all employees who work for XYZ Ltd.
b. Find all employees in the database who live in the same cities as the companies for which they work.
c. Find all names, street address and cities of residence of all employees who work for the XYZ Ltd.
d. Find all employees in the database who live in the same cities and on the same street as do their managers.

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