AE-1322

B.C.A. New Course (Part - III)
Term End Examination, 2016-17

INTRODUCTION TO
RDBMS (ORACLE)

Time : Three Hours]　　　[*Maximum Marks* : 100
[*Minimum Pass Marks* : 33

Note : Answer **all** questions. The figures in the right-hand margin indicate marks.

1. Answer the following questions in short : $2\frac{1}{2}\times10$

(*a*) Explain DBA.

(*b*) Explain the network model of database.

(*c*) What is Super Key ?

(*d*) Explain Aggregation.

(*e*) Explain Inner Joins.

(*f*) What is Projection Operation of Relational Algebra ?

(2)

(*g*) What is Multivalued Dependency ?

(*h*) What is Data Redundancy ?

(*i*) Explain Alter Command.

(*j*) Write a SQL Query to create any table with foreign key.

2. (*a*) Draw an ER diagram for Hospital Management System. 15

OR

(*b*) What is ER Model ? Explain the symbols used in it. What is Specialization and Generalization ?

3. (*a*) Explain cartesian product, set difference, intersection, union and division operation of Relational Algebra. 15

OR

(*b*) Explain the various types of integrity constraints and keys in Relational Database.

4. (*a*) Explain pitfalls in Relational Database Design. What are desirable properties of good decomposition ? 15

OR

(3)

(*b*) What are 2NF, BCNF and 5NF of Normalization ?

5. (*a*) Explain syntax of the following : 15

  (*i*) Inserting single and multiple rows in a table.

  (*ii*) Deleting values from a table through which clause ?

  (*iii*) Altering table to remove any column from existing table.

  (*iv*) Creating table with composite primary key.

  (*v*) Selecting value from a table through nested query.

OR

(*b*) Explain any *five* functions of each type of the following :

  (*i*) Aggregate functions

  (*ii*) Conversion functions

  (*iii*) String or character based functions

(4)

6. (*a*) Explain the role of DBA and various types of Database users. What is data dictionary ?   15

OR

(*b*) Explain the various Database models through suitable example.

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