

Roll No.

BCA–09/BA-IT–06

Database Management System

Bachelor of Computer Application
(BCA–16/BCA–11)

Third Year/Third Semester, Examination, 2017

Time : 3 Hours

Max. Marks : 60

Note : This paper is of **sixty (60)** marks containing **three (03)** sections A, B, C. Attempt the questions contained in these sections according to the detailed instructions given therein.

Section–A

(Long Answer Type Questions)

Note : Section ‘A’ contains four (04) long answer type questions of fifteen (15) marks each. Learners are required to answer *two* (02) questions only.

1. Describe Relational Model for a Database in detail.
2. Give a brief overview of Data Definition Language and Data Manipulation Language.
3. What is a database ? Describe the architecture of a database in detail.
4. Write short notes on any *two* of the following :
 - (a) Fixed vs. Variable Length Records
 - (b) Join Dependency
 - (c) Data and Information
 - (d) Job of Database Administrator

Section-B**(Short Answer Type Questions)**

Note : Section 'B' contains eight (08) short answer type questions of five (05) marks each. Learners are required to answer *four* (04) questions only.

1. Differentiate between primary key and candidate key with example.
2. What do you mean by mapping cardinality in a relationship in ER data model ?
3. How can we create the table in SQL ? Explain with example.
4. What do you mean by domain constraints ?
5. Differentiate between 3NF and BCNF with suitable examples.
6. What is the procedure to take the Backup of a large database ?
7. What is referential integrity ? Explain with example.
8. What do you mean by data independence ?

Section-C**(Objective Type Questions)**

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this section are compulsory.

Choose the correct answer from the given choices :

1. A type of query that is placed within a WHERE or HAVING clause of another query is called :
 - (a) Superquery
 - (b) Subquery
 - (c) Master query
 - (d) Multiquery

2. A transaction that completes its execution is said to be :
 - (a) Saved
 - (b) Loaded
 - (c) Rolled
 - (d) Committed
3. Which of the following cannot be generated in a DBMS ?
 - (a) Table
 - (b) Query
 - (c) Report
 - (d) None of these
4. Which algebra is widely used in DBMS ?
 - (a) Relational algebra
 - (b) Arithmetic algebra
 - (c) Both of the above
 - (d) None of the above
5. Which of the following is the structure of the database ?
 - (a) Table
 - (b) Schema
 - (c) Relation
 - (d) None of these
6. Which of the following normal form is based on multi-valued dependency ?
 - (a) First
 - (b) Second
 - (c) Third
 - (d) Fourth

7. If every non-key attribute is functionally dependent on the primary key, the relation will be in :
 - (a) 1NF
 - (b) 2NF
 - (c) 3NF
 - (d) 4NF
8. Which of the following is not the part of E-R Model :
 - (a) Entity
 - (b) Attribute
 - (c) Relationship
 - (d) None of these
9. One limitation of Entity-Relationship Model is that it cannot :
 - (a) Use generalization
 - (b) Express relationships among relationships
 - (c) Use one single primary key
 - (d) None of these
10. The level of data abstraction which describes how is the data actually stored is :
 - (a) Physical Level
 - (b) Conceptual Level
 - (c) Storage Level
 - (d) File Level