

MCA–13/M.Sc. (IT)-14

Advanced Database Management system

Master of Computer Applications/

Master of Science in Information

Technology(MCA/MSc.IT-11/12/16/17)

Fourth Semester, Examination 2019

Time : 3 Hours

Maximum Marks : 80

Note : This paper is eighty (80) marks containing three (03)sections A,B & C. Attempt the questions contained in these sections according to the detailed instruction given therein

Section –A

(Long Answer Type Questions)

Note : Section 'A' contains four (04) long answer type questions of nineteen (19) marks each.Learner are required to answer any two (02) questions only.

1. What are the problems arising out of concurrent data access? What are the various methods of handling concurrency?
2. What do you understand by the three- level architecture of databased system? Explain its advantage over two-tier architcture.
3. Explain the following terms:
 - (a) Aggregate funetion
 - (b) Functional Dependencies
 - (c) Primary key
 - (d) Candidate key

4. Explain the all components of the DBMS with neat diagram.

Section – B

(Short Answer Type Questions)

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

1. Explain the characteristics of data base Management System.
2. What is Entity Relationship Model?
3. Explain the difference between relational algebra and relational calculus.
4. Define Natural join with an example.
5. What do you mean by database recovery?
6. Explain the aggregate function with an example.
7. What are the different security issues in data base management?
8. Explain the different types of SQL commands with example.

Section –C

(Objective type Questions)

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

1. The _____ clause is used to list the attributes desired in the result of a query.
(a) Where (c) From
(b) Select (d) Distinct
2. Which of the join operation do not preseve non matched tuples.
(a) Left outer join (c) Inner join
(b) Right outer join (d) Natural join
3. Which of the following creates a virtual relation for storing the query?
(a) Function (c) Procedure
(b) View (d) None of the mentioned
4. Updating the value of the view
(a) Will affect the relation from which it is defined
(b) Will not change the view definition
(c) Will not affect the relation from which it is defined
(d) Cannot determine
5. In the _____ normal form, a composite attribute is converted to individual attributes.
(a) First (c) Third
(b) Second (d) Fourth

6. Functional Dependencies are the types of constraints that are based on _____
- (a) Key (c) Superset key
(b) Key revisited (d) None of the mentioned
7. Which is a bottom- up approach to database design that design by examining the relationship between attributes:
- (a) Functional dependency (c) Normalization
(b) Database modeling (d) Decomposition
8. Which of the following makes the transaction permanent in the database?
- (a) View (c) Rollback
(b) Commit (d) Flashback
9. In order to maintain the consistency during transaction database provides
- (a) Commit (c) Flashback
(b) Atomic (d) Retain
10. Which of the normal form is based on multivalued dependencies?
- (a) First (c) Third
(b) Second (d) Fourth
