Avinashilingam Institute for Home Science and Higher

Education for women, Coimbatore-641 043

Master's Degree Examination – November 2017

I Semester

Class: I PG **Max.Marks: 60**

Major: Computer Applications **Time: 3 Hours**

17MCAC04 Database Management System

Part – A **10x ½ =5**

Choose the Correct Answer

1. The data model which describes how the data is actually stored is:
   a) Internal model b) External model
   c) Logical model d) None of these
2. The following are components of database except_____
   a) user data b) meta data
   c) reports d) indexes
3. The term _____ is used to refer a row.
   a) attribute b) tuple
   c) field d) instance
4. The_____ operation allows the combining of two relations by merging pairs of tuples, one from each relation, into a single tuple.
   a) select b) join c) union d) intersection
5. The different classes of relations created by the technique for preventing modification anomalies are called:
   a) normal forms b) referential integrity constraints
   c) functional dependencies d) none of the above
6. Every Boyce codd normal form is in
   a) First normal form b) Second normal form
   c) Third normal form d) All of the above
7. The file organization that provides very fast access to any arbitrary record of a file is:
   a) Ordered file b) Unordered file c) Hashed file d) B-tree
8. Multilevel indexing
   a) Uses a binary search b) Does away binary search
   c) Uses a binary tree search d) None of the above
9. A _____ consists of a sequence of query and/or update statements.
   a) Transaction b) Commit c) Rollback d) Flashback
10. Writing the buffered log to _____ is sometimes referred to as a log force.
    a) Memory b) Backup c) Redo memory d) Disk

PART – B 5x4 = 20

Answer all the questions

Each answer should not exceed 200 words or one page

11. a) Write short note on data models.

Or

b) Give the advantages of DBMS.

12. a) Write short note on functional dependency.

Or

b) Describe about joined queries.

13. a) Give the features of good DBMS design.

Or

b) Describe about fourth normal form.

14. a) Write a note on file operations.

Or

b) Discuss about static hashing.

15. a) Describe the states of transactions in DBMS.

Or

b) Write short note on buffer management.

PART – C 5x7 = 35

Answer all the questions

Each answer should not exceed 600 words or one page

16. a) Explain the architecture of DBMS.

Or

b) What is Entity Relationship model? Explain the design issues of Entity Relationship mode.

17. a) Explain the following: i) Enforcing integrity constraints ii) Functional dependency.

Or

b) Illustrate on embedded SQL and dynamic SQL.

18. a) Explain multi valued dependencies with example.

Or

b) Explain the following with example: i) Boyce codd normal form ii) Third normal form.

19. a) Explain in detail about file structure.

Or

b) Discuss in detail about indexing techniques.

20. a) What is concurrency control? Explain locking techniques in concurrency control.

Or

b) Explain about deadlock control.