

Master's Degree Examination – November 2018
Semester I

CLASS : I PG
MAJOR: COMPUTER APPLICATIONS

MAX. MARKS: 60
TIME: 3 HRS

17MCAC04 DATABASE MANAGEMENT SYSTEMS

PART A
Choose the Correct Answer

10 x ½ = 5 Marks

1. The overall design of a database is called _____.
a. Schema b. Subschema c. Instance d. data model
2. _____ is a language that enables users to access data.
a. DDL b. DML c. DAL d. DRL
3. _____ is a language in which a user requests information from the database.
a. query b. data c. message d. file
4. _____ table adds attributes to an existing relation.
a. drop b. alter c. add d. append
5. A domain is _____, if elements of the domain are considered to be indivisible units.
a. Nonatomic b. Static c. Dynamic d. Atomic
6. _____ is a database design technique which organizes tables in a manner that reduces redundancy and dependency of data.
a. Formal b. Actual c. Normalization d. Denormalization
7. _____ is generating a value or values from a string of text using a mathematical function.
a. Indexing b. Hashing c. Storing d. Sorting
8. _____ refers to the organization of data according to a specific schema or plan
a. Indexing b. Hashing c. Storing d. Sorting
9. A _____ is a unit of program execution that accesses and updates various data items.
a. transaction b. record c. file d. data
10. A _____ is a state in which each member of a group is waiting for some other member to take action
a. deadlock b. congestion c. traffic jam d. wait state

PART B

5 x 4 = 20 Marks

Answer All Questions

(Each answer should not exceed 200 words or one page)

- 11.(a) Discuss the various database languages available.
(OR)
(b) Give the advantages of DBMS.
- 12.(a) Give the basic structure of SQL query. Give example.
(OR)
(b) Explain the Set operation with examples.
- 13.(a) Discuss about Boyce-Codd Normal form. Compare BCNF and 3NF.
(OR)
(b) What is Multivalued dependency? Explain.
- 14.(a) Illustrate Static and Dynamic hashing with examples.
(OR)
(b) Discuss about the data storage in DBMS.
- 15.(a) Explain buffer management in DBMS.
(OR)
(b) Briefly discuss shadow paging.

PART C

5 x 7 = 35 Marks

Answer All Questions

(Each answer should not exceed 600 words or three pages)

- 16.(a) Compare File System and DBMS.
(OR)
(b) Explain various Data Models.
- 17.(a) Explain the various DDL commands with example.
(OR)
(b) What are Embedded SQL and Dynamic SQL? Compare them.
- 18.(a) Give a review on relational database design.
(OR)
(b) Discuss the basic concept of Normalization with examples.
- 19.(a) Expand RAID. Explain the types of RAID.
(OR)
(b) How is database file indexing done using B+ tree? Explain.
- 20.(a) How is Deadlock handling done? Explain.
(OR)
(b) Discuss about Concurrency Control and protocols.
