Name: _____

Reg. No.: ☐☐☐☐☐☐☐☐☐☐☐

END TERM EXAMINATION – December-2022
SEMESTER – III
(B.Tech. CSE (All)/ For Batch 2020 and 2019)

Subject Code: 21CS2005/CS2005   Duration: 3 hours Subject: Database Management Systems   Max. Marks: 100

Instructions

- All Questions are compulsory
- The Question paper consists of 2 sections - Part A contains 10 questions of 2 marks each. Part B consists of 5 questions of 16 marks each.
- There is no overall choice. Only Part B question include internal choice.

PART – A
(2 * 10 = 20 Marks)

1. Explain Specialization.
2. Define DML?
3. What are the various anomalies that can occur in a database management system?
4. Write the difference between DDL and DML?
5. What are ACID properties of Transaction?
6. What are Concurrent Transactions?
7. What do you mean by Data Mining?
8. What is difference between delete truncate and drop? (1+1)
9. What are stored and derived attributes? Explain with an example? (1+1)
10. What are the various aggregate functions in sql?

PART – B

11. a) Compare the database system with conventional file system?

OR

b) Explain various data models

12.a) What is Relational Algebra? Explain the Different Operations of Relational Algebra with Example. (8+8)

OR

b) Draw an E-R diagram for the library management system.

13.a) What is highest normal form of the Relation R(A, B,C,D,E) with the set F= { AB → C, C →D, B→E }.Consider that no multivalued attribute exist in relation R.

OR

b) Consider a relation R (A, B, C, D, E) with set F= {A→CD. C→B, B→AE}. What are the prime attributes of this Relation? Explain augmentation rule of functional dependency.

14. a) Explain Transaction States in DBMS.

OR

b) What are Recoverable Schedules and Irrecoverable Schedules? (8+8)

15.a) What is difference between data mining and data warehousing.

OR

b) Write short note on Locking Protocols.