

**SRI RAMAKRISHNA COLLEGE OF ENGINEERING SET-A**

**SRI SARADHA NAGAR, NH -45.**

**PERAMBALUR – 621113.**

**FIRST INTERNAL ASSESSMENT TEST**

Sub Code/Name : CS8492 / DATABASE MANAGEMENT SYSTEM Max. Marks : 100

Course : B.E/CSE Duration : 3 Hrs.

Year/Sem : II/IV Date : 26-02-2020(FN)

**PART-A (10x2=20 Marks)**

1. Differentiate strong and weak entity set.
2. What are entity and entity set?
3. Define attribute. List out its types.
4. State functional dependency with example.
5. Mention some problems caused by redundancy
6. Define ACID property of transaction.
7. State the needs of concurrency control.
8. What are the two phases of locking?
9. Define serializability. How it is tested?

**r1(x), r3(x), w1(x), r2(x), w3(x)**

**r3(x), r2(x), w3(x), r1(x), w1(x)**

1. State the role of shared lock and exclusive lock.

**PART-B (5x13=65 Marks)**

1. (a) Explain first, second, third and fifth normal form with example. (13)

**OR**

(b) Explain BCNF and fourth normal form with example. (13)

1. (a) Write a brief note on enhanced ER model. (13)

**OR**

(b) Discuss the correspondence between the ER model construct and the relational model constructs. Show how each ER model construct can be mapped to the relational model. Discuss the option of mapping EER construct. (13)

1. (a) What is dependency? Discuss the different types of dependencies with example. With proof, depict the Armstrongs’ axiom rules. (13)

**OR**

(b) Define closure set and canonical cover. Explain with a suitable example to derive the closure set and canonical cover. (13)

1. (a) Write a brief note on SQL facilities for transaction concurrency and recovery. (13)

**OR**

(b) Outline the deadlock handling mechanisms. Explain the ways to detect and avoid a deadlock from occur. (13)

1. (a) Explain how concurrency control is implemented in DBMS? Elucidate the lock-based concurrency control with suitable examples. (13)

**OR**

(b) What is transaction? Discuss the different types of transaction with example. Illustrate the states and properties of transaction. (13)

**PART-C (1x15=15 Marks)**

1. (a) Draw the E-R diagram for the “Restaurant Menu Ordering System” which will facilitate the food items ordering and services within a restaurant. (15)

**OR**

(b) Explain in detail about view serializabilty and conflict serializability. (15)

**PREPARED BY, APPROVED BY,**

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