Code No.: CS301PC R20   H.T.No. | | 8 | R | | | | |

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
II–B.TECH–I–Semester End Examinations (Regular) - February- 2023
DATABASE MANAGEMENT SYSTEMS
(Common to CSE, CSC & CSD)

[Time: 3 Hours]   [Max. Marks: 70]

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 20 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART- A   (20 Marks)

1. a)	Draw the notations of ER-Diagram?	[2 M]
b)	Discuss about Data Definition language, Data Manipulation language commands with example?	[2 M]
c)	Define Aggregate Functions?	[2 M]
d)	Discuss the basic form of SQL query?	[2 M]
e)	Illustrate Functional dependency with example?	[2 M]
f)	Define a View and write the syntax of view.	[2 M]
g)	Define schedule and legal schedule.	[2 M]
h)	Explain about different types of locks?	[2 M]
i)	Discuss the Primary and Secondary indexes?	[2 M]
j)	Define Indexed Sequential Access Method?	[2 M]

PART - B   (50 Marks)

2.	Describe the Structure of DBMS?	[10M]

OR

3.	Model the conceptual design of hospital with an ER Diagram.	[10M]

4. a)	Explain relational calculus?	[4M]
b)	Write a TRC query to find the names of sailors who have reserved boat 103?	[3M]
c)	Write a DRC query to find the names of sailors who have reserved boat 103?	[3M]

OR

5.	List in detail various types of joins with example.	[10M]

6.	Define normalization? Explain 1NF, 2NF, 3NF Normal forms?	[10M]

OR

7.	Define trigger and explain its three parts? Differentiate row level and statement level triggers?	[10M]

8.	Illustrate Concurrent execution of transaction with examples?	[10M]

OR

9.	Write in detail about the timestamp based protocol.	[10M]

10.	Compare I/O costs for all File Organizations?	[10M]

OR

11.	Compare and Contrast Extendible Hashing with Linear Hashing?	[10M]

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