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ACE
Engineering College
(An Autonomous Institution)

Question Paper Code:

CS404PC

ACE-R20

Semester End Examination
II B. Tech- II Semester- AUGUST/SEPTEMBER -2022
DATABASE MANAGEMENT SYSTEMS
Common to CSE,IT,CSM, CSD

Time: 3 Hours

Max. Marks: 70

H. T. No

Answer any 5 Questions out of 8 Questions from the following

Q.No	Question	Marks
1. a)	Explain the structure of DBMS with a neat diagram?	7
b)	Define the following terms with an example: entity, attribute, relationship set, key, aggregation.	7
2. a)	Construct E-R diagram with your own example which includes all types of attributes.	7
b)	How do you represent cardinalities, roles, weak entities and weak relations in E/R diagram? Explain.	7
3. a)	Write a note on Triggers with examples	7
b)	Explain different Integrity constraints can be specified in the relational model with an example	7
4. a)	Define decompositions and problems related to decomposition	7
b)	Explain functional dependencies and multi-valued dependencies	7
5. a)	Define normalization. Explain First, Second and Third Normal Form with example	7
b)	What is lossless join decomposition? Explain the same with an example.	7
6. a)	Describe the states of a transaction with a neat diagram	7
b)	Discuss the issues in handling concurrent transactions.	7
7. a)	Explain the purpose of the Two phase locking protocol? What are its limitations? How it resolved?	7
b)	Explain how Concurrency control can be achieved with locking methods.	7
8. a)	Explain different file allocation strategies with example.	7
b)	Demonstrate the implementation of B+ trees	7