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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)**B.Tech II Year I Semester Supplementary Examinations Feb-2021****DATABASE MANAGEMENT SYSTEM**

(Common to CSE & CSIT)

Time: 3 hours

Max. Marks: 60

PART-A

(Answer all the Questions 5 x 2 = 10 Marks)

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|----------|---|-----------|
| 1 | a Explain about class hierarchy. | 2M |
| | b Define-relational algebra. | 2M |
| | c List the SQL domain Types. | 2M |
| | d Define deadlock. | 2M |
| | e What is the use of RAID? | 2M |

PART-B

(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

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|----------|---|------------|
| 2 | Explain about integrity constraints over relations. | 10M |
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OR

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| 3 | List the database models and explain Architecture of database. | 10M |
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UNIT-II

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| 4 | a Differentiate the relational algebra and calculus. | 5M |
| | b Explain in detail about expressive power of algebra and calculus. | 5M |

OR

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| 5 | a Discuss about outer joins with examples. | 5M |
| | b Write about triggers and active databases. | 5M |

UNIT-III

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| 6 | a Prove that a relation which is in 4NF must be in BCNF. | 5M |
| | b Define and explain 4NF with suitable example. | 5M |

OR

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| 7 | a Compare and contrast between First normal form and second normal form. | 5M |
| | b Write about loss-less join decomposition with an example. | 5M |

UNIT-IV

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| 8 | Explain briefly normal forms with relevant example. | 10M |
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| 9 | Explain buffer management in concurrency control system. | 10M |
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UNIT-V

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| 10 | a Discuss about file organizations and indexing. | 5M |
| | b Explain about Index structures. | 5M |

OR

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| 11 | a Discuss about static hashing. | 5M |
| | b Explain about Extendible hasing. | 5M |

END