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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech II Year I Semester Supplementary Examinations December-2021

DATABASE MANAGEMENT SYSTEMS

(Common to CSE & CSIT)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

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|---|----------|--|-----------|-----------|
| 1 | a | Define Database? Discuss about applications of Database Systems. | L1 | 6M |
| | b | List out the purpose of Database Systems. | L2 | 6M |

OR

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| 2 | Explain about Database languages with examples? | L2 | 12M |
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UNIT-II

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| 3 | a | Distinguish between two set theoretic operations of relational algebra with an example. | L1 | 6M |
| | b | To establish the WHERE, ANY, AS and ALL sub queries with example. | L3 | 6M |

OR

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| 4 | a | Illustrate project, join, select and product set operators with examples. | L2 | 6M |
| | b | Describe the SET operators with example. | L1 | 6M |

UNIT-III

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| 5 | What is Normalization? Explain in detail 1NF, 2NF, 3NF, BCNF with example. | L1 | 12M |
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| 6 | a | Explain the following with suitable example: (i) Non- Loss decomposition.
(ii) Prime Attributes. | L3 | 6M |
| | b | Illustrate redundancy and the problems that it can cause | L2 | 6M |

UNIT-IV

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| 7 | a | Define a Transaction? List the properties of transaction. | L3 | 6M |
| | b | Write briefly about serializability with example. | L3 | 6M |

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| 8 | Discuss various concurrency control protocols. | L2 | 12M |
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UNIT-V

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| 9 | a | What are the types of storage devices? | L1 | 6M |
| | b | Explain Buffer Management in concurrency control system | L2 | 6M |

OR

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| 10 | a | Explain how recovery is done using undo logging and redo logging. | L3 | 6M |
| | b | Which level of RAID is best? Why? | L1 | 6M |

*** END ***