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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

PART-A

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

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| 1 | a | What is a data model? List the types of data model used. | 2M |
| | b | Differentiate trigger with assertions. | 2M |
| | c | What is meant by attribute closure? Explain. | 2M |
| | d | List and define ACID properties, | 2M |
| | e | Draw the structure of B+ tree. | 2M |

PART-B

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

UNIT-I

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| 2 | a | Define a Database and discuss about applications of Database Systems. | 5M |
| | b | Briefly describe about Database languages with examples? | 5M |

OR

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| 3 | a | Draw ER diagram for Ternary Relationship set with suitable example. | 5M |
| | b | List and explain the role of Database users and Administrators. | 5M |

UNIT-II

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| 4 | a | What are the aggregate operators used in relational algebra? | 5M |
| | b | Describe about nested queries with examples. | 5M |

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

UNIT-III

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| 6 | a | What do you mean by de-normalization? Explain. | 5M |
| | b | Compare and contrast between third normal form and BCNF. | 5M |

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| 7 | a | Discuss about schema refinement in database design. | 5M |
| | b | Specify the problems related to decomposition. | 5M |

UNIT-IV

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| 8 | a | Explain classification of storage structure. | 5M |
| | b | Define and explain about Functional dependency. | 5M |

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| 9 | a | How do you perform concurrency control with lock-based protocols? | 5M |
| | b | Discuss about buffer management. | 5M |

UNIT-V

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| 10 | a | Explain about B+ Trees Dynamic Indexing. | 5M |
| | b | Discuss about file organizations. | 5M |

OR

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| 11 | a | Differentiate between Extendible and Linear hashing. | 5M |
| | b | What is ISAM? Explain. | 5M |

END