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

B.Tech II Year II Semester Supplementary Examinations July-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

- 1 a Define Database. Discuss about applications of Database Systems. 6M
b Define Instance and Schema. List different data models and explain. 6M

OR

- 2 a Draw the Architecture of Database and explain. 6M
b Discuss in detail about Database users and Administrators. 6M

UNIT-II

- 3 a Differentiate the relational algebra and calculus. 7M
b Explain in detail about expressive power of algebra and calculus. 5M

OR

- 4 a Discuss about outer joins with examples. 6M
b Write about triggers and active databases. 6M

UNIT-III

- 5 a Differentiate BCNF with 3rd normal form. 6M
b Explain about normalization and denormalization with examples. 6M

OR

- 6 a What is redundancy? What are the problems caused by the redundancy? 7M
b Compute canonical cover Fc for the R={A,B,C,D} and FD's= { A→BC, B→C, A→B, AB→C, AC→D}. 5M

UNIT-IV

- 7 a Explain transaction management with relevant concept. 6M
b Explain transaction states with example. 6M

OR

- 8 Discuss various concurrency control protocols. 12M

UNIT-V

- 9 a Discuss about file organizations and indexing. 6M
b Explain about Index structures. 6M

OR

- 10 Explain about B+ Trees Dynamic Indexing. 12M

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