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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

MCA I Year II Semester (R16) Regular Examinations May 2017 **Database Management Systems**

(For Students admitted in 2016 only) Time: 3 hours Max. Marks:60 (Answer all Five Units $5 \times 12 = 60 \text{ Marks}$) UNIT-I 1 Define Database and DBMS. Explain the importance of database design. 12M OR a Define ER model. Explain about Entities and Relationships. 6M b What is an Attribute? Explain different types of attributes in detail. 6M UNIT-II 3 Explain the following briefly: a Entity Integrity 6M b Referential Integrity 6M OR 4 What are the different types of Relational Set Operators? Explain in detail. 12M **UNIT-III** 5 12M Explain various Data Definition Commands in details with syntax & examples. OR 6 Explain Aggregate functions with examples. 12M UNIT-IV Define Normalization. 3Mb Explain about 1NF, 2NF with relevant examples. 9M OR 8 Discuss about denormalization in detail. 12M **UNIT-V** 9 Define Concurrency control. Explain the 3 problems those occur in concurrency. 12M OR 10 Explain locking based protocols for concurrency control. 12M *** END ***