

**B.Tech. DEGREE EXAMINATION, MAY - 2015**

**(Examination at the End of Third Year)**

**COMPUTER SCIENCE & IT**

**Paper - V : Database Management Systems**

**Time : 3 Hours**

**Maximum Marks : 75**

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Answer question No.1 is compulsory

(5 × 3 = 15)

Answer ONE question from each unit

(4 × 15 = 60)

1) Write short notes on :

- a) E – R model
- b) Relational Algebra
- c) System Catalog
- d) ACID properties.
- e) SQL

**UNIT - I**

2) Draw ER diagram for University and also convert ER diagram to tables?

OR

Explain Data abstraction and different levels of Data abstraction with neat sketch?

**UNIT – II**

3) Explain Integrity constraints with examples?

OR

Explain Relational languages.

**UNIT – III**

4) What is normalization? And also explain different normal forms with examples?

OR

- a) Compare and contrast BCNF versus 3NF.
- b) Explain Functional Dependency and multivalued dependency.

## UNIT - IV

- 5) Explain
- a) 2 phase locking.
  - b) Strict 2PL
  - c) Hike hock

OR

Explain time stamp based concurrency control technique with example.

