Code: 13A05402

B.Tech II Year II Semester (R13) Regular & Supplementary Examinations May/June 2016

## **DATABASE MANAGEMENT SYSTEMS**

(Common to CSE and IT)

Time: 3 hours Max. Marks: 70

## PART – A

(Compulsory Question)

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- 1 Answer the following:  $(10 \times 02 = 20 \text{ Marks})$ 
  - (a) What is a data model? List the types of data model used.
  - (b) What are attributes? Give examples.
  - (c) Define weak and strong entity sets.
  - (d) What is embedded SQL? What are its advantages?
  - (e) What are the ACID properties?
  - (f) What are the time stamps associated with each data item?
  - (g) What is database tuning?
  - (h) What is functional dependency?
  - (i) What is 2NF?
  - (j) What is indexing and what are the different kinds of indexing?

## PART – B

(Answer all five units,  $5 \times 10 = 50 \text{ Marks}$ )

UNIT – I

2 Explain the Overall Structure of Data base management system.

OR

What is ER diagram? Explain the terms of ER diagram and draw the ER diagram for library management system.

UNIT - II

- 4 (a) Explain about Composition of Relational Operations.
  - (b) Explain about Domain Relational Calculus.

OR

5 Explain about Multi-valued dependencies and Fourth Normal Form.

UNIT – III

6 Explain about Embedded SQL

OR

7 Explain about schemas and triggers in DBMS.

UNIT - IV

8 Explain about several types of ordered indexes.

OR

9 Briefly explain about B+ tree index file.

UNIT - V

10 Explain about concurrency control.

OR

Define the time stamp? Explain time stamp based protocol.

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