

**B.TECH. SEM -IV INFO. TECH. 2014 COURSE (CBCS) :
WINTER - 2017**

SUBJECT: DATABASE MANAGEMENT SYSTEM

Day: Thursday
Date: 23/11/2017

Time: 02.30 PM TO 05.30 PM
Max. Marks: 60

W-2017-2091

N.B:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Use of non-programmable **CALCULATOR** is allowed.
- 4) Neat diagram must be drawn **WHEREVER** necessary.
- 5) Assume suitable data **WHEREVER** necessary.

Q.1 Draw and explain detail system architecture of Database Management System (DMS). (10)

OR

Q.1 What is the purpose database management system (DMS)? Also explain advantages of DMS over file management system. (10)

Q.2 What is join operation? Explain different forms of join operation with suitable example. (10)

OR

Q.2 What is normalization? Explain different anomalies occurred in database in absence of normalization. (10)

Q.3 Explain the following with suitable example: (10)
i) Key constraints ii) Integrity constraints

OR

Q.3 What is trigger? Explain its structure? What are the differences between low-level and statement level triggers? (10)

Q.4 Which control structures are allowed in PL/SQL? Explain in detail. (10)

OR

Q.4 What are cursor in PL/SQL? Give syntax of cursor with suitable example. (10)

Q.5 Explain concurrency control in transaction management? What is need of it? (10)

OR

Q.5 What is serializable schedule? Explain conflict and view serializable schedule. (10)

Q.6 Explain document based data model in No SQL databases. (10)

OR

Q.6 Explain how unstructured data processing is performed using Hadoop? (10)