

**B.TECH. SEM -V (COMPUTER) 2014 COURSE (CBCS) : WINTER -
2017**

SUBJECT: DATABASE MANAGEMENT SYSTEMS

Day: **Thursday**
Date: **18/01/2018**

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

W-2017-2129

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat diagrams **WHEREVER** necessary.

-
- Q.1** a) Draw and explain 3 level architecture of DBMS. (06)
b) Distinguish between logical data independence and physical data independence. (04)

OR

- Q.1** a) Explain in detail, advantages of DBMS over file processing system. (06)
b) Explain in detail, Data Governance. (04)

- Q.2** Construct an ER model for customer care system and convert it into normalized relations. (10)

OR

- Q.2** a) Explain in detail and with suitable example, loss less and dependency preserving decomposition. (06)
b) Distinguish between strong entity and weak entity. Give suitable example. (04)

- Q.3** a) State and explain various key constraints with suitable examples. (05)
b) What is relational algebra? Explain its operations. (05)

OR

- Q.3** With suitable examples, explain in detail mapping of E-R model to Relational Model. (10)

- Q.4** a) Distinguish between Stored procedure and function in PLSQL. (05)
b) What is subquery? Explain in detail its types. (05)

OR

- Q.4** a) What is Trigger? Explain in detail with example. (05)
b) State and explain joins with examples. (05)

- Q.5** a) What is schedule? State and explain it's types. (05)
b) Explain in detail 2PL protocol for concurrency control. (05)

OR

- Q.5** a) Distinguish between View and Conflict serializability. Give suitable example. (06)
b) Explain log based recovery in detail. (04)

- Q.6** a) Explain the concept of Data warehouse and it's architecture in detail. (06)
b) Write a note on: NoSQL. (04)

OR

- Q.6** a) Explain in detail Multimedia databases. (04)
b) What is Data mining? State and explain it's techniques. (06)

* * * *