

SS**Code: 9A05401**

B.Tech II Year II Semester (R09) Supplementary Examinations December/January 2015/2016

DATABASE MANAGEMENT SYSTEMS

(Electrical & Electronics Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions

All questions carry equal marks

- 1 (a) Discuss about the relational database management system.
(b) What is hierarchical model? Explain with examples.
- 2 (a) What kind of data would you store in an entity subtype?
(b) Explain the M:N relationship using composite primary key with example.
- 3 (a) Explain about data dictionary and system catalog.
(b) List and explain the relational set operators used in relational database.
- 4 (a) What are SQL constraints? Explain.
(b) Consider an employee table and perform queries on that table using group by and having clauses.
- 5 (a) A Relation R (A, B, C, D) has FD $C \rightarrow B$. is in 3NF? Justify your answer.
(b) A Relation R (A, B, C,) has FD's $A \rightarrow AC$, is R is in 3NF? Does $AC \rightarrow C$? Justify your answer.
- 6 Explain about:
 - (a) Transaction recovery.
 - (b) 2-phase locking.
 - (c) Inconsistent retrieval.
 - (d) Scheduler.
- 7 (a) Explain how the immediate database modifications and deferred database modifications are used.
(b) Discuss how the recovery can be done with concurrent transaction.
- 8 (a) Explain about hash based recovery.
(b) Describe the structure of magic disks.
