

Code: 9A05401

SS

B.Tech II Year II Semester (R09) Supplementary Examinations May/June 2016

DATABASE MANAGEMENT SYSTEMS

(Electrical & Electronics Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Explain relational database entities with example.
(b) Describe object database management system.
- 2 (a) What is redundancy? What are the problems caused by the redundancy?
(b) Explain various cardinalities that are supported by the crow's foot notation.
- 3 (a) What are the differences between select and project operations? Explain with examples.
(b) Discuss about 1:M and M:N relationships with examples.
- 4 Discuss about the data manipulation commands in SQL with syntax and examples
- 5 (a) Compute canonical cover F_c for the $R = \{A, B, C, D\}$ and FD's = $\{A \rightarrow BC, B \rightarrow C, A \rightarrow B, AB \rightarrow C, AC \rightarrow D\}$.
(b) Consider a relation $R = \{ABCDE\}$. The FD's = $\{A \rightarrow B, BC \rightarrow E, ED \rightarrow A\}$ list all candidate keys for R?
- 6 (a) What are the events that give rise to recovery of database management system?
(b) Explain about all the level that is in lock granularity and 2 phase locking.
- 7 (a) What is restart recovery and logical undo logging? Explain.
(b) Explain how the recovery can be done with concurrent transaction.
- 8 How is an indexed-sequential access method file created?
