

**R09**

Code: 9A05401

B.Tech IV Year II Semester (R09) Advanced Supplementary Examinations, July 2013

**DATABASE MANAGEMENT SYSTEMS**

(Electronics and Control Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Define the terms data, field, record and file. Explain.  
(b) What is internet? Explain the role and scope of the data base market.
- 2 (a) Discuss about the computed attributes with examples.  
(b) What is an entity cluster? Explain the advantages of entity cluster.
- 3 (a) Explain about different keys that are used in a relational DB.  
(b) Consider two tables painter, painting and perform select and project set operations.
- 4 (a) Explain about the logical AND, OR and NOT operators.  
(b) Consider a table and perform UNION, UNIONALL, INTERSECT and MINUS queries based on that table.
- 5 (a) Define the concept of MVD and desirable? How this concept relates to 4NF provide an example to illustrate your answer?  
(b) In a relation R(A, B, C, D, E, F, G, H, I, J) different set of FD's are given  
 $G = ( \{ A,B \} \rightarrow \{ c \} \rightarrow \{ B,D \} \rightarrow \{ E,F \}, \{ A,D \} \rightarrow \{ G,H \}, \{ A \} \rightarrow \{ I \}, \{ H \} \rightarrow \{ J \})$   
(i) What is the key of R?  
(ii) Decompose R into 2NF, then 3NF relation.
- 6 (a) What is database recovery management? Explain.  
(b) Define transaction. Explain how it is evaluated for transaction results.
- 7 (a) What is restart recovery and logical undo logging? Explain.  
(b) Explain how the recovery can be done with concurrent transaction.
- 8 Define the following terms:
  - (a) Seek time.
  - (b) Latency time.
  - (c) Waiting time.
  - (d) Response time.

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