Code: 9A05401

**R09**

B.Tech II Year II Semester (R09) Supplementary Examinations January/February 2014

**DATABASE MANAGEMENT SYSTEMS**

(Common to CSS, IT and CSE)

Time: 3 hours Max Marks: 70

Answer any FIVE questions

All questions carry equal marks

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1 (a) Why data base design is important? Explain.
(b) Explain the evolution of data models.

2 (a) What is relationship? Explain about recursive relationship.
(b) Differentiate between a composite key and a composite attribute with example.

3 (a) How the natural join and outer join are performed in relational DB?
(b) Write about the evolution of CODD's rules and explain about those rules.

4 (a) What is the purpose of a trigger? Explain with example.
(b) Explain about arithmetic and logical operators in SQL.

5 (a) Consider the universal relation R(A,B,C,D,E,F,G,H,I,J ) and the FD's
F = ( { A,B} ->{A}->{D,E}, {B}->{F}, {F->{G,H}, {D}->{I,J} )
(i) What is the key of R?
(ii) Decompose R into 2NF then 3NF relations.
(b) What undesirable dependencies are avoided when a relation is 3NF?

6 (a) How the concurrency can be controlled using optimistic method? Explain.
(b) Explain about database recovery management.

7 Explain the terms:
(a) ARIES.
(b) Transaction rollback.
(c) Fuzzy check pointing.
(d) Logical undo logging.

8 Explain different file organization methods.

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