(Please write your Exam Roll No.) *Exam Roll No. .....*

END TERM EXAMINATION

SECOND SEMESTER [BBA] MAY-JUNE 2012

Paper Code: BBA108 ***Subject: Database Management Systems***
BBA(B&I)108
BBA(TTM)108
BBA(MOM)108

Time : 3 Hours ***Maximum Marks :75***

Note: Attempt any five questions.

Q1 (a) Define Data Model. Compare hierarchical model with the relational model. **(8)**
(b) Differentiate between schema and metadata. Explain the three-level schema architecture in detail. **(7)**

Q2 (a) Explain the following concepts with an example of each: Unary relationship, generalization, specialization and aggregation. **(9)**
(b) Explain the responsibilities of DBA and Database Manager. **(6)**

Q3 (a) Construct an ER diagram for an author-publisher relation. An author can write for more than one publisher. The publisher publishes the work of many different authors. The database includes data about author, publisher and work the author has done. **(10)**
(b) Convert the above ER diagram to appropriate table structure. **(5)**

Q4 (a) Define the following terms:- **(4)**
(i) Super key (ii) Candidate key (iii) Primary key (iv) Foreign key
(b) List two reasons why null values might be introduced into the database. **(3)**
(c) Consider the following employee database Primary Keys are underlined. **(8)**
Employee (employee_name, street, city)
Works (employee_name, company name, salary)
Company (company_name, city)
Manages (employee_name, manager_name)
Write SQL for the queries given below:
(i) Find the names of all employee who work for FBI bank.
(ii) Find all employees in the database who live in the same cities as the companies for which they work.

Q5 Differentiate between the following:- **(3x5=15)**
(a) Database and DBMS
(b) Relational and Traditional file
(c) Logical and Physical data independence.
(d) Strong entity and weak entity.
(e) Composite attribute and Multivalued attribute

Q6 (a) What is the purpose of normalizing data in a database application? Explain in detail 1NF, 2NF and 3NF. **(8)**
(b) What is the importance of Functional dependency in database design? Differentiate between Multivalued and Join dependency. **(7)**

Q7 (a) State and explain Notations used in ER diagram. **(8)**
(b) Give one example and describe the concept of recursive relationship. **(7)**

Q8 (a) What is a view? What are its advantages? Explain the syntax. **(3)**
(b) What is the purpose of GROUP BY, ORDER BY and HAVING Clause in the select statement? Explain with example. **(6)**
(c) What are unions? When two tables are said to be union compatible? Explain. **(6)**

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