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BICS-038

00771

DIPLOMA - COMPUTER SCIENCE AND ENGINEERING

Term-End Examination

December, 2012

BICS-038 : DATABASE MANAGEMENT SYSTEM

Time : 2 hours *Maximum Marks : 70*

Note : *All the questions are to be answered in* ***English*** *language only. Attempt* ***any five*** *questions. Question No.* ***1*** *is* ***compulsory.***

1. Choose the correct answer : **7x2=14**

(a) A column or combination of columns that uniquely identifies each row is called :

(i) Intersection (ii) Relation

(iii) Primary key (iv) Unique key

(b) The table exist only in main memory is known as :

(i) Primary Table

(ii) Virtual table

(iii) Base table

(iv) Secondary table

(c) Every Foreign key value must match an existing primary key value is called :

(i) Referential Integrity

(ii) Unique Integrity

(iii) Primary key Integrity

(iv) Relational Integrity

State ***True/False*** :

(d) A relation does not allow multivalue attributes (True/False)

(e) A View Table is a Virtual Table (True/False)

(f) Transitive Dependency exist in 2NF (True/False)

(g) The Inverted List Records are stored in sequence only (True/False)

2. (a) What is a Schema ? Explain the different types of Data Models. 2+5

(b) Explain the difference between file system and database system. 7

3. (a) What is Relational Model ? Discuss the other Model differ from Relational Model. 2+5

(b) Explain the enforcing policies of Integrity Constraint. 7

4. (a) What are the different types of views in Relational database ? How do you alter the content of the table ? 3.5+3.5

(b) Illustrate with an example the set and renaming operations performed in a data base. 3.5+3.5

5. (a) Illustrate with an example the AND, OR and NOT impact on SQL. 7

(b) What is the use of Comparison Operators in SQL ? Write Aggregative Operators. 7

6. (a) Explain First and Second Normal form in detail. 3.5+3.5

(b) Define Performance tuning. Write notes on Index data structure. 3+4

7. (a) Explain in detail about Lock Based Concurrency. 7

(b) Define Schedules. Explain in detail about performance Locking. 2+5

8. Write short note on ***any four*** :

(a) ER diagram 3.5

(b) Tables/views 3.5

(c) Relational Algebra 3.5

(d) SQL Query 3.5

(e) Tree base Indexing 3.5

(f) Dead lock 3.5