Roll No. ....

EB–178

B. E. (Third Semester) (CGPA) EXAMINATION, 2011-12

(Computer Science & Engg.)

DATABASE MANAGEMENT SYSTEM

(CS–304)

Time : Three Hours

Maximum Marks : 60

Note : Question No. 1 is compulsory. Attempt all questions.
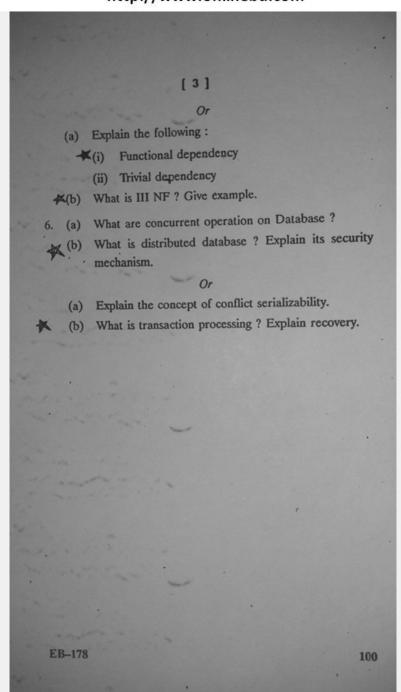
1. Write answer in only one or two lines each of the following questions :

   (i) How architecture of the database can be viewed ?

   (ii) Write about the value of the attribute.

   (iii) Define tuple and attribute.

   (iv) Explain high level data model.

   (v) What is Relational Calculus ?

   (vi) What is Data Dictionary ?

   (vii) What is Normalization ?

   (viii) What is Foreign Key ?

   (ix) What is meta data ?

   (x) What are the components of a Distributed Database System ?

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[2] EB–178

2. (a) Describe the architecture of DBMS in terms of three schema architecture.

   (b) Explain data model in detail.

   Or

   (a) What are the functions of DBA and define data independence.

   (b) What are the advantage of the traditional file processing and database approach ?

3. (a) What is relational model and describe its integrity constraints.

   (b) Differentiate relational and hirarchical model.

   Or

   (a) Explain ER diagram and describe different type of keys used in database.

   (b) What is forign key ? Explain with an example.

4. (a) Define relational algebra and write operations of relational algebra.

   (b) What are tuple veriables and range variables ?

   Or

   (a) What is the use of update and view statement in SQL ?

   (b) Differentiate relational algebra and relational calculus.

5. (a) What is normalization and define normal forms.

   (b) What is Dependency Preservation and Lossless join ?

[3]

Or

(a) Explain the following :

(i) Functional dependency

(ii) Trivial dependency

(b) What is III NF ? Give example.

6. (a) What are concurrent operation on Database ?

(b) What is distributed database ? Explain its security mechanism.

Or

(a) Explain the concept of conflict serializability.

(b) What is transaction processing ? Explain recovery.

EB–178   100