TED (15) – 3132

(REVISION — 2015)

Reg. No. .....

Signature .....

THIRD SEMESTER DIPLOMA EXAMINATION IN COMPUTER ENGINEERING — APRIL, 2017

DATABASE MANAGEMENT SYSTEM

[*Time* : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I Answer the following questions in one or two sentences. Each question carries 2 marks.

1. Define DDL and DML.
2. List the different keys in SQL.
3. Name any two attribute types.
4. Discuss the use of Having clause.
5. Differentiate between Data Mining and Data Warehousing. (5 × 2 = 10)

PART — B

(Maximum marks : 30)

II Answer *any five* of the following questions. Each question carries 6 marks.

1. Explain data independence.
2. Describe the different database users.
3. Discuss strong entity set and weak entity set with examples.
4. Describe the use of Aggregate functions in SELECT statements.
5. Explain the different states of a transaction.
6. Write short notes on parallel DBMS.
7. Outline the characteristics of data warehouses. (5 × 6 = 30)

PART — C

(Maximum marks : 60)

(Answer *one full* question from each unit. Each full question carries 15 marks.)

UNIT — I

III (a) List the advantages of DBMS over File Processing System. 8

(b) Describe Centralized and Client-Server Database Systems. 7

OR

Marks

IV (a) Explain three-schema architecture with the help of a diagram. 9

(b) Write short notes on query processor and storage manager. 6

UNIT — II

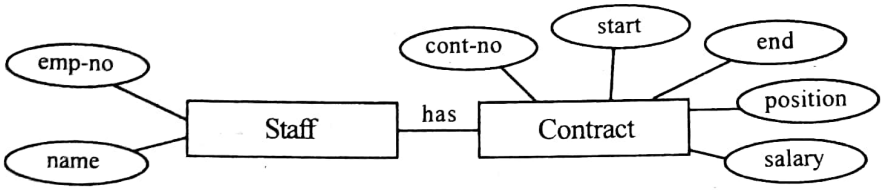
V (a) Discuss the various join operations in relational algebra. 6

(b) Explain the concepts of specialization and generalization in EER. 9

OR

VI (a) Describe the terms domains, attributes, relation schema and relation. 8

(b) Map the E-R model into relational model.



7

UNIT — III

VII (a) A simple library database contains the following tables.

Book (isbn, title, language, price, publisher)
Author (id, lastname, firstname, nationality)
Book-Author (id, bookisbn, author-id)
Member (id, lastname, firstname, postalcode, validupto)

Write SQL statements :

(i) To create tables with suitable primary keys 4

(ii) Add a member to the Member table 2

(iii) List the members whose membership card will expire in 2015 2

(iv) Count the number of books by each publisher. 2

(b) Discuss the use of views with suitable examples. 5

OR

VIII (a) State the desirable properties of transactions. 6

(b) Explain granting and revoking of privileges with the help of an example. 6

(c) List the data types in SQL. 3

UNIT — IV

IX (a) Discuss the properties of good relational decomposition. 9

(b) Explain the goals of Data Mining Technology. 6

OR

X (a) Define Distributed DBMS. List the advantages of Distributed Databases. 8

(b) Explain the data management issues associated with mobile databases. 7

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