TED (15) –3132 Reg. No. ....

(REVISION — 2015) Signature ....

THIRD SEMESTER DIPLOMA EXAMINATION IN COMPUTER ENGINEERING — OCTOBER, 2016

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 field and record.
2. Define degree of a relation.
3. State the use of triggers.
4. Write the syntax for creating a virtual relation in SQL.
5. State the need of normalization. (5×2=10)

PART — B

(Maximum marks : 30)

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

1. Write various application areas of DBMS.
2. Describe the duties of a database administrator.
3. Define keys.
4. Summarize the notations used in E-R diagrams.
5. Distinguish between inner join and outer join.
6. Discuss the goals of Data Mining Technology.
7. Explain transparency in Distributed databases. (5×6=30)

[P.T.O.

Marks

PART— C

(Maximum marks : 60)

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

UNIT—I

III (a) Explain Component Modules of DBMS. 9

(b) Write short notes on DBMS languages. 6

OR

IV (a) Explain any two data models. 9

(b) Distinguish between two-tier and three-tier architectures for DBMS. 6

UNIT—II

V (a) Explain the following relational operations with examples.

(i) SELECT (ii) PROJECT (iii) RENAME 9

(b) Explain mapping of entity types and relationship types in E-R model to relational model. 6

OR

VI (a) Explain enhanced ER diagram with an example. 9

(b) Discuss the relational model concepts of a database. 6

UNIT—III

VII (a) Explain different aggregate functions with suitable examples. 8

(b) Discuss the use of stored procedures with an example. 7

OR

VIII (a) List the steps taken to provide database connectivity using JDBC. 9

(b) List and explain the operations that can be done using 'ALTER TABLE' command. 6

UNIT—IV

IX (a) Define Functional Dependency. 6

(b) Discuss parallel and distributed database architectures. 9

OR

X (a) State the object oriented database concepts. 9

(b) Explain dependency preservation and lossless join properties of decomposition. 6

———————