TED (10) – 5063/4070

Reg. No. ....

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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2018

DATABASE MANAGEMENT SYSTEMS

[*Time* : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I Answer *all* questions in one or two sentences. Each question carries 2 marks.

1. Name different database languages.

2. What is meant by candidate key ?

3. Define Transaction.

4. Expand the term 'SQL'.

5. Write the use of Views.   (5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Mention the application areas of DBMS.

2. Write the functions of storage manager and data dictionary.

3. Differentiate between specialization and generalization.

4. Explain the relational operations union, intersection and minus.

5. Describe how to map entity types in ER model to relational model.

6. Compare 3NF and BCNF.

7. Explain triggers with example.   (5×6 = 30)

[346]   [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)   With diagram explain three schema architecture.   8

       (b)   Name different database users and write their functions.   7

Or

IV   (a)   Compare two tier and three tier architecture.   8

       (b)   Write the advantages of DBMS.   7

Unit — II

V   (a)   Draw ER Diagram notations and specify their use.   8

       (b)   Differentiate between weak entity type and strong entity type with example.   7

Or

VI   (a)   Explain any two unary relational operations.   8

       (b)   Explain different type of attributes.   7

Unit — III

VII   (a)   Draw the state diagram of transactions and explain its states.   8

       (b)   Explain functional dependency with example.   7

Or

VIII   (a)   Explain join dependency and 5NF.   8

       (b)   Explain 4NF with example.   7

Unit — IV

IX   (a)   Write DDL commands in SQL with their syntax and example.   8

       (b)   List and explain aggregate functions in SQL.   7

Or

X   (a)   Differentiate between embedded SQL and dynamic SQL.   8

       (b)   Write the steps in establishing connection to database using JDBC.   7