

TCS/TIT-402**B. TECH. (CS/IT)****(FOURTH SEMESTER)****MID SEMESTER EXAMINATION, 2019****DATABASE MANAGEMENT SYSTEM****Time : 1 : 30 Hours****Maximum Marks : 50**

Note : (i) This question paper contains two Sections.

(ii) Both Sections are compulsory.

Section—A

1. State True-False : (1×5=5 Marks)

(a) “Truncate” is a DML command which cannot be rolled back.

(b) There can be only 2 (two) primary keys in a table.

(c) Flat file systems have high level of redundancy.

(2) TCS/TIT-402

- (d) DBMS are not suitable for concurrent transactions.
 - (e) Size of a column cannot be increased if it has values.
2. Attempt any *five* parts : (3×5=15 Marks)
- (a) Database Interfaces
 - (b) Data Dictionary
 - (c) SQL data types.
 - (d) Entities
 - (e) Types of attributes
 - (f) Mapping cardinality

Section—B

3. Attempt any *two* parts of choice from (a), (b) and (c). (5×2=10 Marks)
- (a) Explain various features and facilities of a typical DBMS. Also list the advantages.
 - (b) What are “Legacy Systems” or “TFOS” ? Discuss problems associated with them.
 - (c) With reference to SQL, write queries for the following :
 - (i) Creating a new user
 - (ii) Removing a user

(3) TCS/TIT-402

- (iii) Changing the name of a table
 - (iv) See the current user
 - (v) View all the tables of current user
4. Attempt any *two* parts of choice from (a), (b) and (c). (5×2=10 Marks)
- (a) List and explain various types of data models. What is an ER diagram ? Why is it used ?
 - (b) Who is a DBA ? Explain its role in detail. List and explain other types of users also.
 - (c) Explain Primary and Foreign keys using proper SQL examples and tables.
5. Attempt any *two* parts of choice from (a), (b) and (c). (5×2=10 Marks)
- (a) List and explain various components and elements that are part of a typical DBMS using a proper diagram. Discuss the role of each.
 - (b) Draw an ER diagram for a typical “Employee Management System”. Convert it into set of tables. Show sample values and make required assumptions.

- (c) Assuming a "Sports" Table, write SQL queries for the following :
- (i) Creation of table with "SerialNo, GameName and NumberOfPlayers" Fields.
 - (ii) Input Records of *three* different games.
 - (iii) Add a New column "Registration Fees".
 - (iv) Increase the size of "GameName" by 10.
 - (v) Set the registration fees of all games to 1500.