Seat No.	

SC-170

Total No. of Pages : 2

T.E. (C.S.E.) (Semester - VI) (Revised) Examination, November - 2019
DATABASE ENGINEERING
Sub. Code : 66860

Day and Date : Friday, 15 - 11 - 2019

Time : 9.30 a.m. to 11.30 a.m.

Total Marks : 50

Instructions :
1) **All questions are compulsory.**
2) **Figures to right indicate full marks.**
3) **Assume suitable data wherever required.**

Q1) Attempt any two: **[2×7]**

a) Draw on ER diagram for university database and explain it.

b) State and briefly explain the advantages of DBMS over traditional file based system.

c) Draw the schema diagram for a student database & explain.

Q2) Attempt any two: **[2×6]**

a) What is a DML? State the types of access using DML.

b) With reference to relational databases, explain the following terms:

i) Relation

ii) Tuple

iii) Relation instance

iv) Domain of attributes.

c) State & specify the SQL datatypes supporting dates & times.

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SUK-41184

Q3) Attempt any two: **[2×6]**

a) What are functional dependencies? State the rules to find logically implied functional dependencies.

b) What is normalization? Explain INF and 2NF.

c) What is stable storage? How it can be implemented?

Q4) Attempt any two from: **[2×6]**

a) What is a transaction? Explain the ACID properties of transaction.

b) Explain 2 phase commit protocol.

c) Explain buffer management.

SUK-41184