BACHELOR OF TECHNOLOGY (C.B.C.S.) (2020 COURSE)
B.Tech.Sem - IV ELECTRICAL :SUMMER- 2022
SUBJECT : DATABASE MANAGEMENT SYSTEM (SQL)

Day : Friday   Time : 10:00 AM-01:00 PM
Date : 24-06-2022   **S-24552-2022**   Max. Marks : 60

N. B. :
1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Draw neat and labelled diagrams **WHEREVER** necessary.
4) Assume suitable data, if necessary.

Q. 1   Explain the following: **(10)**

   a) DBMS (Data Base Management system)
   b) RDBMS (Relational database Management system)
   c) Entity Relationship model
   d) Network data Model
   e) E-R diagram

OR

Q.1   What is ER diagram? Define following terms a) entity attribute, derived   **(10)**
attribute and draw ER for Railway reservation system.

Q.2   Explain the following: **(10)**

   a) First Normal form of Normalization
   b) Second Normal form of Normalization

OR

Q.2   Discuss the concept of Different keys with suitable database example.   **(10)**

Q.3   Distinguish DDL and DML with a suitable example.   **(10)**

OR

Q.3 a) Explain various DML commands with suitable example.   **(05)**
   b) What are constraints? Explain types of constraints in brief.   **(05)**

Q.4   Explain PL/SQL. Explain the function and procedure with suitable example   **(10)**
in brief.

OR

   a) What is cursor? Explain its types.   **(05)**
   b) Write PL / SQL block to calculate simple interest.   **(05)**

Q. 5   Define locking. What is need of locking and explain two phase locking   **(10)**
protocol.

OR

What is system Recovery? Explain ACID properties in brief.   **(10)**

Q. 6 a) What are characteristics of big data?   **(05)**
   b) Explain NOSQL database.   **(05)**

OR

   a) Differentiate between RDBMS and NOSQL database.   **(05)**
   b) Write short note on big data and MongoDB.   **(05)**

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