## BACHELOR OF TECHNOLOGY (C.B.C.S.) (2020 COURSE) B.Tech.Sem - IV CS&E :SUMMER- 2022 **SUBJECT: ITC-II: DATABASE SYSTEMS**

Time: 10:00 AM-01:00 PM

Day: Friday S-24307-2022 Max. Marks: 60 Date: 24-06-2022 **N.B.:** 1) All questions are **COMPUSLORY**. 2) Figures to the right indicate FULL marks. Use of non-programmable **CALCULATOR** is allowed. 3) Q.1 What is DBA? Mention the functionalities of DBA. Explain in detail. (10)OR Q.1 Explain the concepts of conceptual design with the E-R model. (10)Q.2 Briefly explain the concept of Generalization and specialization. (10)OR What are the views? Differentiate between views and tables. **Q.2** (10)Q.3 Differentiate between functions and procures write syntax of same. (10)OR Q.3 State 1NF, 2NF and 3NF and explain with examples. (10)Q.4 Explain concept of SQL, DDL2 and DCL in detail. (10)OR Q.4 Briefly explain foreign key and primary key with any example. (10)Discus about different types of failures. Q.5 (10)OR Q.5 Write concepts of storage structure recovery and atomicity. (10)Q.6 What is a massive database and Hadoop? Explain in detail. (10)OR **Q.6** What is spatial and geographic database? Explain in detail. (10)