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Bengaluru

Mid Term Examinations - October 2026

Date: 07/10/2026 **Time:** 11:45 AM - 01:15 PM

Course Code: CSA4704 **Course Name:** Data Modelling with NoSql Databases

Semester: Third Semester **Max. Marks:** 50 **Weightage:** 50%

CO - Levels	CO1	CO2
Marks	54	126

PART A: Answer Following Questions. 10 M

Q.N.	Questions	M	CO	BT
1	Define Database Management System (DBMS)	2	CO1	BT1
2	List the major differences between traditional databases and NoSQL databases.	2	CO1	BT1
3	What is the purpose of ACID properties in relational databases?	2	CO1	BT1
4	Define Key-Value data model with an example.	2	CO1	BT1
5	What is a Document-Oriented database?	2	CO1	BT1

PART B : Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
6	Explain the evolution of database management systems from early DBMS to relational databases. Discuss the importance of the relational database revolution.	10	CO2	BT2
7	Explain the need for NoSQL databases. Discuss different requirements that motivated the development of NoSQL systems.	10	CO2	BT2

PART C: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
8	Explain ACID and BASE properties in database systems. Compare ACID and BASE approaches.	10	CO2	BT2
9	Explain CAP Theorem in distributed databases with suitable examples.	10	CO2	BT2

PART D: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
10	Describe different types of NoSQL databases. Explain Key-Value stores and Document databases in detail.	10	CO2	BT2
11	Explain Column-Family and Graph database models with their applications.	10	CO2	BT2

PART E: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT

12	Explain the Key–Value NoSQL database model, its features, performance, scalability, and applications with suitable examples.	10	CO2	BT2
13	Explain the Document Database model, its structure, terminology, features, CRUD operations, querying, and applications with suitable MongoDB examples.	10	CO2	BT2