ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY
Survey No. 2/8, 2/9 and 2/2, Kamakshipura, Hesaraghatta Hobli, Yelahanka, Bengaluru, Karnataka, 560089
Approved by AICTE, New Delhi & Affiliated to VTU, Belagavi, Govt. of Karnataka

Semester: **V**	DEPARTMENT OF Data Science	AY: 2026-27
Course Code: **BDS502**	Course Name: **NoSQL Database**	

Module -1				
Q.No.	Questions	Marks	RBT	COS
1	Describe Emergence of NOSQL.	6	L2	CO1
2	What is impedance mismatch? Explain in detail.	4	L2	CO1
3	Describe attacks of the Clusters.	4	L2	CO1
4	What is Polyglot persistence?	8	L1	CO1
5	Discuss the importance or values of RDBMS	6	L2	CO1
6	Explain common characteristics of NoSQL databases.	6	L2	CO1
7	What is aggregate models?	8	L2	CO1
8	Explain/ differentiate Relational Model and Aggregate model with an example.	8	L2	CO1
9	What are consequences of aggregate orientation	6	L2	CO1
10	Explain NoSQL models which supports aggregate models.	8	L2	CO1
11	How Key value and Document model supports aggregation?	8	L2	CO1
12	Explain column family for aggregation orientation.	8	L2	CO1
13	Explain graph models with an example	6	L2	CO1
14	Explain schema less databases.	6	L2	CO1
15	What are materialized Views? Explain with an example	8	L2	CO1
16	Describe Modeling for Data Access using column store and graph data base	8	L2	CO1
Module -2				
Q.No.	Module -2 Questions	Marks	RBT	COS
1	What is CAP theorem? How it is applicable to NO SQL systems?	6	L2	CO2
2	What are Quorums? What is read quorum, write quorum and replication factor.	8	L2	CO2
3	What is version stamp? How version stamp is applied on different nodes.	8	L2	CO2
4	What are the different ways to create versi on stamp.	8	L2	CO2
5	Discuss various data distribution models.	6	L2	CO2
6	Explain the concept of sharding with example.	6	L2	CO2
7	Discuss master slave replication in detail.	7	L2	CO2
8	What are the different ways to create version stamps.	8	L2	CO2
9	Explain peer to peer replication and single server architecture.	8	L2	CO2

Module 3				
Q.No.	Questions	Marks	RBT*	COS
1	Explain Basic Map Reduce Function with an example.	8	L2	CO3
2	Discuss different operations in Map Reduce Functions.	8	L2	CO3
3	Discuss partitioning and combining and combining with an example	9	L2	CO3
4	Explain Two Stage Map-Reduce with a neat diagram	6	L2	CO3
5	What is Key value store?	4	L2	CO3
6	What is bucket? Explain with an example	8	L2	CO3
7	Explain Key Value features in detail.	6	L2	CO3
8	When Not to Use Key Value Pair	10	L2	CO3
9	Discuss about shopping CART data	10	L2	CO3

Module -4				
Q. No.	Questions	Marks	RBT*	COS
1	What is document Data base? Explain with an example	8	L2	CO4
2	Compare the terminologies between oracle and Mango DB.	8	L2	CO4
3	Explain the features of Document Data Bases.	8	L2	CO4
4	Discuss Availability of nodes in Document Databases.	4	L2	CO4
5	How scaling will achieve in Document Data base. Explain with a neat diagram	6	L2	CO4
6	Discuss query feature of document database.	4	L2	CO4
7	Explain E Commerce application in document database	6	L2	CO4
8	Discuss Event Logging	8	L2	CO4
9	Explain Web Analytics or Real-Time Analytics,	6	L2	CO4
10	When Not to Use document Data Base	8	L2	CO4

Module -5				
Q.No.	Questions	Marks	RBT*	COS
1	Write code to create two relationships in Neo4j.	8	L2	CO5
2	Explain Relationship with their properties in graph database with a neat diagram	8	L2	CO5
3	Discuss query features in graph database	8	L2	CO5

4	When not to use graph data base? Explain in detail.	4	L2	CO5
5	How do you achieve scaling in Graph Database? Explain in detail.	6	L2	CO5
6	Discuss the features of Graph Database in detail.	4	L2	CO5
7	What is Graph Database? Discuss with a neat diagram	6	L2	CO5
8	Discuss different Graph Data bases.	8	L2	CO5
9	Write code to create two nodes in Neo4j.	6	L2	CO5
10	Explain the traversing the graph data base with an example.	8	L2	CO5