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22MCA335

Third Semester MCA Degree Examination, Dec.2024/Jan.2025
NOSQL

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	What is NOSQL? Discuss the key features of NOSQL.	5	L1,2	CO1
	b.	Compare between RDBMS and NOSQL DB.	5	L2	CO1
	c.	Illustrate key-value data store with an example.	10	L2	CO1
		OR			
Q.2	a.	Discuss the merits and demerits of NOSQL databases.	5	L1	CO1
	b.	Compare between Apache Cassandra MongoDB and HBASE NOSQL databases.	5	L2	CO1
	c.	Construct document based datastore with an example.	10	L2	CO1
		Module – 2			
Q.3	a.	Examine with an example, how data is stored and accessed in HBASE.	10	L3	CO2
	b.	Explain the various datatypes in MongoDB.	5	L3	CO2
	c.	What is object versioning? Apply the concept of object versioning to explain the information of vector classes with an example.	5	L3	CO2
		OR			
Q.4	a.	Examine with an example, how data is stored and accessed in Apache Cassandra?	10	L3	CO2
	b.	Explain CRUD operations in MongoDB.	5	L1	CO2
	c.	Construct the Redis architecture with a neat diagram.	5	L3	CO2
		Module – 3			
Q.5	a.	Illustrate the different phases of MapReduce modes with an example.	10	L2	CO3
	b.	Explain Hive and its components.	10	L2	CO3
		OR			
Q.6	a.	Apply the concept of cloud, to explain the two scalable database services in cloud.	10	L2	CO3
	b.	Elaborate on the concept of Google App Engine and its Scalable database.	10	L2	CO3

		Module – 4			
Q.7	a.	Discuss the architecture of Apache Cassandra.	10	L2	CO4
	b.	Explain storage configuration of key values data store.	10	L2	CO4
		OR			
Q.8	a.	Discuss the architecture of MongoDB and Membase.	10	L2	CO4
	b.	Explain different framework integration with NOSQL database for web development.	10	L2	CO4
		Module – 5			
Q.9	a.	Explain the concept of developing web application using PHP and MongoDB.	10	L2	CO4
	b.	Discuss about creation of Blog Application using PHP.	10	L2	CO4
		OR			
Q.10	a.	Explain the concept of developing web application using Python and MongoDB.	10	L2	CO4
	b.	Describe the concept of NOSQL Database administration in detail.	10	L2	CO4

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