Model Question Paper

NoSQL Database (21CS745)

Q. NO.	Question	RBT	CO	Marks
1.a)	What are NoSQL databases? List and Explain the features of NoSQL databases.	L2		12
1.b)	What are aggregates? With a neat diagram explain the aggregate data model by taking e-commerce website as an example	L2		08
	OR			
2.a)	Write a note on i) kev-value data model ii) document data model iii) column-family stores iv) graph databases	L2		12
2.b)	Explain the following i) schemaless databases ii) materialized views	L2		08
3.a)	What are distribution models? Explain briefly the two data distribution paths.	L2		10
3.b)	Explain about update and read consistency with an example	L2		10
	OR			
4.a)	Explain the following i) Relaxing Consistency ii) Relaxing Durability iii) CAP Theorem iv) Quorums	L2		10
4.b)	What are version stamps? List and Explain the ways to construct version stamps.	L2		10
5.a)	Explain basic map-reduce process with a neat diagram.	L2		10
5.b)	With a neat diagram explain the partitioning and combining in map-reduce	L2		10
	OR			
6.a)	What are key-value stores? List and Explain the features of it.	L2		10
6.b)	List and Explain the problem spaces where key-value stores provide best solutions and does not provide best solutions.			

7.a)	What are Document databases explain with an example. Explain when and when not to use Document databases.	L2		10
7.b)	Explain the features of Document Databases.	L2		10
	OR			
8.a)	Explain with neat diagram the replica set configuration and scaling is done in MongoDB	L2		10
8.b)	Explain some SQL queries and their corresponding MongoDB queries that can be used on Document databases.	L3		10
9.a)	Explain with a neat diagram the graph databases. Also explain about relationships in graph databases with a neat diagram.	L2		10
9.b)	Explain the features of graph databases.	L2		10
	OR			
10.a)	Explain scaling and application level sharing of nodes in graph databases with a neat diagram	L2		10
10.b)	Explain most suitable use cases of graph databases and also explain when not to use graph databases.	L2		10