**VISHNU INSTITUTE OF TECHNOLOGY(A)**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**NoSQL Databases**

**III B.Tech II SEM MID-I Question Bank**

**UNIT-I**

| 1 | 1. Define NoSQL database? List the differences between NoSQL and relational databases? | [CO1] | L1 | [6M] |
| --- | --- | --- | --- | --- |
| 1. Explain the Emergence of NOSQL | [CO1] | L2 | [6M] |
| 2 | Discuss various types of NoSQL databases with example | [CO1] | L2 | [12M] |
| 3 | 1. List out the limitations of RDBMS over NoSQL. | [CO1] | L1 | [6M] |
| 1. Write a short note on Attack of the Cluster | [CO1] | L2 | [6M] |
| 4 | Define Aggregate Data Models? Explain Relations and Aggregates. | [CO1] | L2 | [12M] |
| 5 | Explain key value database and Document database with example in detail. | [CO1] | L2 | [12M] |
| 6 | 1. What are Aggregate Data Models? Explain Relations | [CO1] | L2 | [6M] |
| 1. List out the limitations of RDBMS over NoSQL. | [CO1] | L1 | [6M] |
| 7 | 1. Difference between SQL and NoSQL Databases in detail. | [CO1] | L1 | [6M] |
| 1. Explain the Consequences of Aggregate Orientation in detail. | [CO1] | L2 | [6M] |
| 8 | 1. Difference between Base Properties and ACID Properties | [CO1] | L1 | [6M] |
|  | 1. List the characteristics and applications in NoSQL Databases. | [CO1] | L1 | [6M] |

**UNIT-II**

| 1 | What are distribution Models? Explain its types in detail. | [CO2] | L2 | [12M] |
| --- | --- | --- | --- | --- |
| 2 | 1. List and explain the features of Key-Value Store. | [CO2] | L1 | [6M] |
|  | 1. Discuss some use cases and limitations of Key-Value Store. | [CO2] | L2 | [6M] |
| 3 | Define Replication. Explain types of Replication in detail. | [CO2] | L2 | [12M] |
| 4 | 1. Explain about Master Slave Replication Model in detail. | [CO2] | L2 | [6M] |
| 1. Discover the suitable use cases of Key-value stores. | [CO2] | L3 | [6M] |
| 5 | 1. Explain about Peer-to-Peer Replication in detail. | [CO2] | L2 | [12M] |
| 1. Define CAP theorem? Explain the importance in NOSQL databases. | [CO2] | L2 | [6M] |
| 6 | 1. Explain Key-Value Store and its limitation in detail | [CO2] | L1 | [6M] |
| 1. Discuss CAP Theorem. How is it applicable to NoSQL Systems? | [CO2] | L2 | [6M] |
| 7 | 1. Write a note on: (i) Single Server (ii) Sharding | [CO2] | L1 | [6M] |
| 1. Explain the process of Combining Sharding and Replication. | [CO2] | L2 | [6M] |
| 8 | 1. Difference between Key Value Database and Relational Database in   detail. | [CO2] | L1 | [6M] |
| 1. Define Key Value Database. List some key value database operation with an example. | [CO2] | L1 | [6M] |

**UNIT-III**

| 1 | Explain Column family data store with suitable examples | [CO3] | L2 | [6M] |
| --- | --- | --- | --- | --- |
| 2 | Explain different data types available in CQL. | [CO3] | L2 | [6M] |
| 3 | List out advantages and limitations of Document Databases. | [CO3] | L1 | [6M] |
| 4 | Discuss some real time use cases for the document databases. | [CO3] | L2 | [6M] |
| 5 | Define CQL. Describe about creating, altering, dropping a keyspace in Cassandra. | [CO3] | L2 | [6M] |
| 6 | Describe Cassandra architecture and how does it performs write functions. | [CO3] | L2 | [6M] |
| 7 | Define CQL. List Cqlsh Commands and explain any three with example. | [CO3] | L1 | [6M] |
| 8 | Describe Cassandra architecture and how does it performs read functions. | [CO3] | L2 | [6M] |