UNIT 1

1. **What do you understand by Big data Computing**
2. **Define various V’s of Big Data with proper examples.**
3. **List benefits of Big data and its various applications.**
4. **What are features and various services of cloud computing?**
5. **Illustrate the concept of map reduce solution with example**
6. **Illustrate the concept of Distributed and parallel computing. Differentiate**

**between Distributed and parallel computing.**

**7. Discuss the concept of HADOOP .**

**8. Write short notes on Crowd sourcing analytics,Open source technologies in Big**

**Data and Mobile Business Intelligence.**

**9. Explain various building blocks of Hadoop . Discuss HDFS Architecture with proper diagram.**

**(10)**  **Discuss various categories of applications of Big Data Analytics with proper examples.**

UNIT 2

1. **Illustrate the concept of NoSQL mentioning its features.**
2. **What are various types of NoSQL databases .**
3. **Compare various attributes of NoSQL with SQL.**
4. **What do you understand by Aggregate Data Models?**
5. **Write short notes on schema-less databases and and Master Slave replication.**
6. **Discuss the concept of sharding and replication used in NoSQL Technology.**
7. **State and explain CAP-Theorem with proper example.**
8. Discuss Key-Value pairs, graph based, Column oriented and Document based NoSQL databases with proper examples.
9. Explain Map Reduce partitioning and combining process with complete details of MAP-REDUCE Framework .

**UNIT 3**

1. **Illustrate basic concept of HADOOP.**
2. **What do you understand by Hadoop scaling out feature?**
3. **List features of HADOOP.**
4. **What are tasks managed by Name Node and Data Node?**
5. **How do you analyze data with Hadoop ?**
6. **Discuss the concept of Hadoop streaming.**
7. **What do you understand by concept of compression and serialization?**
8. **Write brief writeup on Avro File based data structures.**
9. **Explain various building blocks of Hadoop . Discuss HDFS Architecture with proper diagram.**
10. Write short notes on following :
11. Hadoop I/O
12. (ii) Data integrity
13. (iii) Java interface

**UNIT 4**

1. **Define Map Reduce framework.**
2. **What is the role of Job Tracker and Task tracker?**
3. **What are various Map-Reduce types?**
4. **How does MAP-REDUCE work?Discuss Map Reduce programming workflow.**
5. **Write short note on unit Tests with MRUnit.**
6. **What do you understand by shuffle and sort?**
7. **Briefly discuss input and output formats used in Map-Reduce.**
8. **List advantages of YARN over Map-Reduce.**
9. **What is the fundamental idea behind YARN tool ? Discuss YARN architecture in detail.**
10. **Explain detailed anatomy of Map Reduce job focusing on various activities of MAP Phase and Reduce Phase.Also discuss proper example to demonstrate same.**

**UNIT 5**

1. **What do you understand by Resource manager?**
2. **Who is Cassandra client?**
3. **Bring out the need of Cassandra discussing its fundamental concept.**
4. **What is Pig Data model? Discuss concept of Pig Latin as well.**
5. **Discuss HiveQL data definition and HiveQL data implementation.**
6. **Write short on HiveQL Queries.**
7. **What do you understand by Grunt?**
8. **What is Hive? Define its architecture with details of its components.**
9. **Explain Hbase discussing its data model , architecture and implementations.**
10. **Explain Cassandra architecture in detail.**