**Unit - IV**

**One marks**

* + - * 1. What is Data-Intensive Computing?

**Data Intensive Computing** is a class of parallel **computing** which uses **data**parallelism in order to process large volumes of **data**. The size of this **data** is typically in terabytes or petabytes

* + - * 1. List out the key design goals of Google Bigtable?

**Each table has only one index, the row key**

**Rows are sorted lexicographically by row key**

**All operations are atomic at the row level**

**Ideally, both reads and writes should be distributed evenly**

* + - * 1. What does the term “NoSQL” mean?

No relational database

* + - * 1. What are the characteristics of Data-Intensive computing?

algorithms to perform tasks

scalability

realibility avaaliablity utilization of tasks

* + - * 1. List out the Data-Intensive research issues?

**Issues** of **data** quality, **data** citation and **data** literacyList out the open challenges in Data-Intensive computing?

### Distributed data source, Multicloud Environments

Quality of service

* + - * 1. What are the ways cloud technologies support the Data-Intensive computing?

harnessing storage, networking **technologies**

* + - * 1. What are the two major stages of represented in MapReduce computation?
        2. List out the variations and extensions of MapReduce?

• Scien7fic Workloads

• Itera7ve extension

Adatptive indexes

* + - * 1. Define Hive?

Apache **Hive** is a data warehouse system for data summarization, analysis and querying of large data systems in open source **Hadoop** platform. It converts SQL-like queries into **MapReduce** jobs for easy execution and processing of extremely large volumes of data.

* + - * 1. Define HBase?

pache **HBase** (**HBase**) is the Hadoop database. It is a distributed, scalable, big data store. **HBase** is a sub-project of the Apache Hadoop project and is used to provide real-time read and write access to your big data.

* + - * 1. What are the advantages of HIVE?

features like **scalability**,redundancy etc and SQL like query over data in Hadoop. If you are not good in programming you can move to hive as you dont need to write complex codes of MapReduce.

**Five marks**

1. Explain in detail about the High-Performance Distributed File Systems and Storage Clouds?

2. Explain Amazon Elastic Block Store & Simple DB?

3. Explain the concept of Amazon Dynamo with its architecture?

4. What is Bigtable? How it is related to GFS?

5. Explain about Amazon Simple Storage Service (S3)?

6. Tabulate the examples of cloud computing offering with its vendor/product, service type and its description?

7. With a neat architecture, Explain the core concept of Microsoft Azure?

8. Write a short note on applications which are hosted on Google AppEngine?

**Ten marks**

1. Explain about Aneka MapReduce programming model architecture?

2. Explain in detail about Data flow implementation of MapReduce Computation?

3. With a neat diagram, Illustrate the concept of amazon AWS Platform and Explain in detail about compute services and Storage services?

**Unit -V**

**One Marks**

1. What is Salesforce.com?

2. What are the types of scientific applications that can benefit from cloud computing?

3. Define Green Cloud Computing?

4. Define Service Analyzer?

**Service Analyzer** page gives you a glance at the state of all of the ...

5. Define VM Manager?

Keep track of virtual machines and resource entitlements

6. What is InterCloud?

Cloud providers deploy their datacenters entire globe inorder to provide better services

7. What is Market-Oriented Cloud Computing?

8. Provide some examples of media applications that use cloud technologies?

9. What is the most important advantage of cloud technologies for social networking applications?

10. Suggest how cloud computing technology can be applied to support remote ECG monitoring?

**Five Marks**

1. Give a short note on Dropbox and iCloud usage scenarios?

2. Explain in detail about the Media applications used by the cloud technologies?

3. Explain in detail about CRM and ERP in business and consumer applications?

4. With a neat diagram, Illustrate the scenario of Market-oriented Cloud computing?

**Ten Marks**

1. Suggest any two scientific applications uses the cloud computing systems and technologies with its architecture?

2. Explain in detail about Energy-Efficient and Green Cloud-Computing architecture?

3. Explain the concept of Cloud Data centre with its reference architecture?