

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA– SEMESTER –IV EXAMINATION –SUMMER-2019

Subject Code:4649306

Date: 21-05-2019

Subject Name: Big Data Tools

Time:10.30 am to 1.00 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a) Do as Directed.**
1. Explain the following **05**
 - a. Document in MongoDB?
 - b. Big Data
 - c. JobTracker
 - d. RDD
 - e. NameNode
 2. Full form of SerDe **01**
 3. Differentiate Pig vs High **01**
- (b) Answer the following.**
1. Explain 4 V's of Big Data. **04**
 2. Give a difference between SQL, NoSQL and NewSQL. **02**
 3. Give example of NoSQL Databases. **01**
- Q.2 (a) What is Hadoop? What are the features of Hadoop? Explain key advantages of Hadoop.** **07**
- (b) Enlighten the overview of Hadoop EcoSystem with diagram.** **07**

OR

- (b) Explain NameNode, Secondary NameNode, and DataNode with example** **07**
- Q.3 (a) Write equivalent MongoDB queries of following SQL queries.** **07**
1. Select first name, salary from employee where designation ="Manager".
 2. Select * from employee where designation ="Manager".
 3. Select * from employee where salary > =8500 and salary ≤1000
 4. Update employee set City ='Baroda' where eno='e03'
 5. Delete from employee where eno='e01'
 6. Select * from employee where name like 'M%'
 7. Select * from employee where city in ('Anand','VVNagar')
- (b) What is MapReduce Function in MongoDB? How is a MapReduce function implemented in MongoDB. Explain with suitable example.** **07**

OR

- Q.3 (a) How the CRUD operations are implemented in MongoDB? Explain it with example.** **07**
- (b) Explain any five HDFS command with example.** **07**
- Q.4 (a) What is Partition in Hive? Explain Static and dynamic partition with suitable example.** **07**
- (b) Explain Filter, Foreach, Group, and Limit operator of Pig with suitable example.** **07**

OR

- Q.4 (a)** Explain the data types in Pig. Explain Complex data types in Pig. How many types of Execution mode of Pig? Explain Execution mode of Pig. **07**
- (b)** Explain Hive Architecture with diagram. **07**
- Q.5 (a)** What is Bucketing in Hive? Explain it with example. **07**
- (b)** What is Spark? Explain RDD in details. **07**

OR

- Q.5 (a)** Write a Pig Script for Word Count. **07**
- (b)** Write a short note on MLib and GraphX. **07**
