GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VI (NEW) EXAMINATION – SUMMER 2022

Subject Code:3161607   **Date:08/06/2022**
Subject Name:Big Data Analytics
Time:10:30 AM TO 01:00 PM   **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			MARKS
Q.1	**(a)**	Explain types of data which we can distinguish for big data analytics.	**03**
	(b)	Explain characteristics of Big Data.	**04**
	(c)	What are the benefits of Big Data? Discuss challenges under Big Data. How Big Data Analytics can be useful in the development of smart transport.	**07**
Q.2	**(a)**	What is Zookeeper? List the benefits of it.	**03**
	(b)	Explain working of reduce phase of MapReduce with an example.	**04**
	(c)	Define HDFS. Explain HDFS Architecture with diagram.	**07**
		OR	
	(c)	Write a short note on NoSQL databases. List the differences between NoSQL and relational databases.	**07**
Q.3	**(a)**	Explain the following commands of HDFS: i)df ii) chown iii) chmod	**03**
	(b)	Explain Security in Hadoop.	**04**
	(c)	Explain Hadoop Components with diagram.	**07**
		OR	
Q.3	**(a)**	Write a MapReduce code for Word Count.	**03**
	(b)	What is HBase? List out and explain the basic concepts of HBase in detail.	**04**
	(c)	Explain working of Hive with proper steps and diagram.	**07**
Q.4	**(a)**	Explain CREATE TABLE statement of HIVE with an example.	**03**
	(b)	Differentiate: Apache pig Vs Map Reduce.	**04**
	(c)	Explain stream data architecture in detail.	**07**
		OR	
Q.4	**(a)**	Write short note in Graph based Database.	**03**
	(b)	How Implicit filtering is differing from explicit filtering?	**04**
	(c)	How Big data helps stock market analysis.	**07**
Q.5	**(a)**	Describe important features of Apache Spark.	**03**
	(b)	Mention usefulness of Pig. What are key features of Pig?	**04**
	(c)	Explain types of NoSQL databases with suitable examples	**07**
		OR	
Q.5	**(a)**	Explain Meta store in Hive.	**03**
	(b)	Describe application of RTAP.	**04**
	(c)	Explain Spark component in detail.	**07**

****