

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER– VII EXAMINATION – SUMMER 2026****Subject Code:3170722****Date:26-05-2026****Subject Name:Big Data Analytics****Time:02:30 PM TO 05:00 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) What is Big data? Explain sources of big data.	03
	(b) Describe Traditional vs. Big Data business approach.	04
	(c) Write a short note on Hadoop Architecture.	07
Q.2	(a) Explain basic Components of Analyzing the Data with Hadoop.	03
	(b) Explain 4 V's of Big data	04
	(c) Write a short note on HDFS (Hadoop Distributed File System).	07
	OR	
	(c) Discuss Hadoop YARN in detail with failures in classic MapReduce.	07
Q.3	(a) Give difference between master-slave model and peer-to-peer model.	03
	(b) Elaborate Key-value stores, Graph stores, Column family stores & Document stores.	04
	(c) Explain the architecture of HBase	07
	OR	
Q.3	(a) What is Zookeeper?	03
	(b) Differentiate between HIVE and HBASE.	04
	(c) Which Four ways that NoSQL systems handle big data problems.	07
Q.4	(a) What is Pig?	03
	(b) What is Stream Computing and Sampling Data in a Stream?	04
	(c) Discuss about How E-Commerce is Using Big Data to Improve Business in detail.	07
	OR	
Q.4	(a) How MongoDB is better than SQL database?	03
	(b) Write a short note on Decaying Window.	04
	(c) Explain the HiveQL-Select-Order By with suitable example.	07
Q.5	(a) Write a short note on Spark.	03
	(b) Explain HIVE data types in brief.	04
	(c) Explain CRUD operations in MongoDB.	07
	OR	
Q.5	(a) Describe data processing operators in Pig.	03
	(b) Explain Replication and scaling feature of MongoDB.	04
	(c) Explain Spark Architecture.	07
