O.P.Code: 23CS1208	R23	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech. III Year II Semester Regular Examinations April-2026

BIG DATA

(CSE With Specialisation in Cloud Computing)

Time: 3 Hours **Max. Marks: 70**

PART-A

(Answer all the Questions **10 x 2 = 20** Marks)

1	a	Define structured data with one example.	CO1	L1	2M
	b	What is Velocity in Big Data?	CO1	L1	2M
	c	What is HDFS?	CO2	L1	2M
	d	Differentiate Sqoop and Flume operation.	CO2	L2	2M
	e	Define MapReduce.	CO3	L1	2M
	f	What is a FIFO scheduler?	CO3	L1	2M
	g	Define Apache Pig.	CO5	L1	2M
	h	What is a tuple in Pig Latin?	CO5	L1	2M
	i	What is the purpose of Hive shell?	CO6	L1	2M
	j	Define HBase.	CO6	L1	2M

PART-B

(Answer all Five Units **5 x 10 = 50** Marks)

UNIT-I

2	a	Examine the different types of digital data with examples.	CO1	L2	5M
	b	Examine the Significance of big data analytics.	CO1	L3	5M
		OR			
3	a	Discuss in detail about Apache Hadoop and History of Hadoop.	CO1	L2	5M
	b	Distinguish between structured, unstructured and semi-structured data with examples.	CO1	L2	5M

UNIT-II

4	a	Illustrate the concepts of HDFS.	CO2	L2	5M
	b	Explain the Block, NameNode and DataNode in Hadoop file system.	CO2	L3	5M
		OR			
5	a	Infer File read and File write operations in HDFS.	CO2	L4	5M
	b	Differentiate Sqoop and Flume operation.	CO2	L2	5M

UNIT-III

6	a	Sketch neatly and explain MapReduce Architecture in detail.	CO3	L2	5M
	b	Explain in detail about Hadoop YARN Architecture.	CO3	L3	5M
		OR			
7	a	Examine the Anatomy of a MapReduce Job Run.	CO3	L2	6M
	b	Discuss different types of failures in Classic MapReduce.	CO3	L2	4M

UNIT-IV

8	a	Explain Apache Pig Architecture in detail.	CO5	L4	6M
	b	Explain Pig Latin datatypes and data model in detail.	CO5	L4	4M
		OR			
9	a	Examine the Pig Latin Relational Operators.	CO5	L4	5M
	b	Find the Grouping and Joining Data in Pig Latin.	CO5	L4	5M

UNIT-V

10	a	Explain Hive Query Language (HiveQL) in detail.	CO6	L4	5M
	b	Illustrate Hive table with an example.	CO6	L4	5M
		OR			
11	a	Explain with a neat diagram the architecture of HBase.	CO6	L4	5M
	b	Differentiate HBase over RDBMS.	CO6	L4	5M

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