Course Code: 23AM6T01

BONAM VENKATA CHALAMAYYA INSTITUTE OF TECHNOLOGY & SCIENCE

(AUTONOMOUS)

III - B.Tech II-Semester Regular Examinations (BR23), APRIL - 2026

BIG DATA ANALYTICS

Common for Both CSE-AI&DS & AI&ML

Time: 3 hours Max. Marks: 70

Question Paper consists of Part-A and Part-B
*Answer **ALL**the question in **Part-A andPart-B***

PART–A (10X2 = 20M)

		Marks	CO	BL
1. a)	Compare Set and Map.	(2M)	CO1	BL5
b)	Definea Stack? Mention its principle.	(2M)	CO1	BL1
c)	Illustrate Hadoop Distributed File System in detail.	(2M)	CO2	BL3
d)	List out any two Hadoop configuration XML files.	(2M)	CO2	BL1
e)	Explain Map Reduce with examples.	(2M)	CO3	BL2
f)	Define Driver Code.	(2M)	CO3	BL1
g)	Demonstrate Stream Data Model with Examples.	(2M)	CO4	BL3
h)	Define Apache Spark.	(2M)	CO4	BL1
i)	Define primitive data types in Hive.	(2M)	CO5	BL1
j)	Compare Local Mode and Distributed Mode in Pig.	(2M)	CO5	BL5

PART–B (5X10 = 50M)

2a.	Explain Linked List with diagram and advantages.	5(M)	CO1	BL2
b.	What are Generics in Java? Explain Generic classes and type parameters.	5(M)		BL2
	(OR)			
3a.	Explain the concept of Serialization and its uses.	5(M)	CO1	BL2
b.	Illustrate Generic Methods with a suitable example.	5(M)		BL3

4a.	Describe the configuration of Hadoop using XML files.	5(M)	CO2	BL2
b.	Illustrate the building blocks of Hadoop in detail.	5(M)		BL4
	(OR)			
5a.	Briefly describe the Google File System in detail.	5(M)	CO2	BL2
b.	Compare Pseudo-distributed, Fully Distributed hadoop clusters.	5(M)		BL5

6a.	Illustrate the working of Mapper and Reducer with an example.	5(M)	CO3	BL4
b.	Define the role of the Driver class in MapReduce program execution.	5(M)		BL1
	(OR)			
7a.	Describe the steps involved in executing a Hadoop MapReduce job.	5(M)	CO3	BL2
b.	Illustrate Shuffle and Sort phase in MapReduce.	5(M)		BL4

8a.	Explain Apache Spark architecture and Show its components with examples.	5(M)	CO4	BL3
b.	Describe Stream Computing and its applications.	5(M)		BL2
	(OR)			
9a.	Explain techniques used in Sampling Data in Streams.	5(M)	CO4	BL2
b.	What is RDD (Resilient Distributed Dataset)? Illustrate its characteristics.	5(M)		BL4

10a	Compare Local Mode and Distributed Mode of running Pig scripts.	5(M)	CO5	BL5
b.	Explain Apache Pig architecture with neat diagram.	5(M)		BL4
	(OR)			
11a	Explain Apache Hive architecture with neat diagram	5(M)	CO5	BL4
b.	Compare Hive and traditional relational databases.	5(M)		BL5

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Faculty in- charge

Head of the department

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