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Bengaluru

Mid Term Examinations - October 2026

Date: 05/10/2026 **Time:** 11:45 AM - 01:15 PM

Course Code: CBD3401 **Course Name:** Distributed Computing with Hadoop

Semester: Seventh Semester **Max. Marks:** 50 **Weightage:** 50%

CO - Levels	CO1	CO2
Marks	44	46

PART A: Answer Following Questions. 10 M

Q.N.	Questions	M	CO	BT
1	Discuss the fault tolerance in a distributed system?	2	CO1	BT2
2	What is Hadoop? Name any two components of the Hadoop ecosystem.	2	CO1	BT1
3	Explain data replication in HDFS? Why is it required?	2	CO2	BT2
4	What is data locality in Hadoop?	2	CO2	BT1
5	What are Mapper and Reducer in MapReduce?	2	CO2	BT1

PART B : Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
6	Explain scalability in distributed computing. Discuss horizontal and vertical scalability with examples.	10	CO1	BT2
7	Explain Fault Tolerance in Distributed Systems. Discuss techniques used to achieve fault tolerance.	10	CO1	BT2

PART C: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
8	Explain Distributed File Systems. Discuss their characteristics, advantages, and requirements.	10	CO1	BT2
9	Explain Hadoop Architecture and Hadoop Ecosystem in detail.	10	CO1	BT2

PART D: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
10	Explain data locality and fault recovery in Hadoop.	10	CO2	BT2
11	Explain the architecture of MapReduce with its major components and working stages.	10	CO2	BT2

PART E: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
12	Explain the roles of Mapper, Reducer, Partitioner, and Combiner in MapReduce with an example.	10	CO2	BT2

13	Explain the complete MapReduce Job Execution Workflow with a suitable example.	10	CO2	BT2