

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE**Supplementary Summer Examination - 2023****Course: B. Tech.****Branch : Computer Engineering****Semester : VII****Subject Code & Name: Big Data Analytics [BTCOE702 (A)]****Max Marks: 60****Date:15/07/2023****Duration: 3 Hr.****Instructions to the Students:**

1. All the questions are compulsory.
2. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question.
3. Use of non-programmable scientific calculators is allowed.
4. Assume suitable data wherever necessary and mention it clearly.

(Level / Marks
CO)

Q. 1	Solve Any Two of the following.	12
A)	Define Big Data? What are challenges and Applications of Big Data?	1
B)	Which are the enabling technologies of Big data Explain with suitable Example.	1
C)	Explain Big Data stack with suitable example.	1
Q. 2	Solve Any Two of the following.	12
A)	Write Note on: 1. Cassandra 2. HBase	2
B)	Analyze the Role of Zookeeper in brief? How information is stored in Zookeeper explain workflow of zookeeper.	2
C)	What is consistency trade-off. Write a difference between ACID and BASE Model. Which Model will be suitable for Stock Market.	2
Q. 3	Solve Any Two of the following.	12
A)	Enlist and explain the GRAPH Algorithms. How is GraphX different when compared to Giraph?	4
B)	Explain K-Means clustering Algorithm. How the optimal value of K is decided.	4
C)	What is mahout ?Explain features and Applications of Mahout.	2
Q. 4	Solve Any Two of the following.	12
A)	What is Data Streaming? Why is Real-time Big Data Pipeline So Important Nowadays?	3
B)	What are the Different Features of a Real-time Big Data Pipeline System?	3
C)	What is Messaging System? Explain Role and working of KAFKA.	3
Q. 5	Solve Any Two of the following.	12
A)	Where we can use MongoDB? Write the Features of MongoDB.	2
B)	What is difference between MongoDB and RDBMS.	1
C)	What are NoSQL databases? What are the different types of NoSQL databases?	2

***** End *****

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Regular & Supplementary Winter Examination-2023

Course: B. Tech.

Branch: Computer Engineering/CSE

Semester: VII

Subject Code & Name: Big Data Analytics [BTCOE703(C)]

Max Marks: 60

Date:06-01-24

Duration: 3 Hr.

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(Level/ Marks
CO)

Q. 1	Solve Any Two of the following.	12
A)	Enlist and explain in brief the motivation behind emergence of Big Data?	CO1
B)	Identify and discussed the two major challenges associated with Big Data processing.	CO1
C)	Explain Big Data stack with suitable example.	CO1
Q.2	Solve the following Questions.	12
A)	Define and explain HDFS. Explain its role in Big Data Ecosystem.	CO2
B)	Explain the functionalities of YARN in the context of big data processing.	CO2
Q. 3	Solve Any Two of the following.	12
A)	Explain in brief the key features of spark streaming.	CO3
B)	Explain in detail the role of KAFKA in building real time data pipeline.	CO3
C)	Write a note on the significance of big data streaming platforms in handling big data.	CO3
Q.4	Solve the following Questions.	12
A)	Why machine learning is important in the context of Big Data.	CO4
B)	Compare Spark GraphX and Giraph in the context of graph processing.	CO4
Q. 5	Solve the following Questions.	12
A)	Discuss the advantages of using the JavaScript shell for MongoDB queries.	CO5
B)	Explain the syntax and structure of the MongoDB query language. Provide an example of a complex query in MongoDB.	CO5

End