

Code No: **R194205E**

R19

Set No. 1

IV B.Tech II Semester Regular Examinations, April – 2023
BIG DATA ANALYTICS
(Elective V for CSE & IT, Open Elective for Other Branches)

Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
ONE Question from Each unit
All Questions Carry Equal Marks

UNIT I

- 1 a) List and explain different analytic processes. [7]
b) Write down the characteristics of Big Data Applications. [8]
(OR)
- 2 Discuss the following in detail.
a) Conventional challenges in big data [7]
b) Nature of Data [8]

UNIT II

- 3 a) Explain Filtering a stream in detail [7]
b) Explain stream data model and architecture. [8]
(OR)
- 4 a) Discuss Real Time Analytics platform application for Stock Market predictions. [7]
b) Illustrate Stream Processing Model [8]

UNIT III

- 5 a) Draw the architecture of HDFS and explain its components. [7]
b) How Hadoop streaming is suited with text processing explain. [8]
(OR)
- 6 a) Discuss the various types of map reduce & its formats. [7]
b) Explain various phases of Map Reduce job with an example. [8]

UNIT IV

- 7 a) Explain the key components of PIG architecture. [7]
b) Write short notes on: i) HBase ii) zookeeper [8]
(OR)
- 8 a) How will you query the data in HIVE? [7]
b) Explain two execution types or modes in PIG. [8]

UNIT V

- 9 a) Distinguish between Regression and Classification. [7]
b) Explain the importance of predictive analytics for improving Business. [8]
(OR)
- 10 a) How do businesses use Regression Analysis? [7]
b) Explain in detail about Multiple Linear Regression technique. [8]



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Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
ONE Question from Each unit
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UNIT I

- 1 a) Discuss in detail about Intelligent Data Analysis. [7]
b) Discuss various sources of Big Data and the significance of Big Data Analytics. [8]
(OR)
- 2 a) What is Bigdata? Describe the main features of a big data in detail. [7]
b) What are the various forms of Big Data? Explain the suitable Data Exploration techniques. [8]

UNIT II

- 3 a) What is meant by stream Processing? Explain how to count distinct elements in a stream. [7]
b) Explain the concept of Mining data streams and applying filters. [8]
(OR)
- 4 Explain the following: (i) Decaying Windows [7]
(ii) RTAP Applications [8]

UNIT III

- 5 a) Explain in detail about HDFS. [7]
b) Write in detail the concept of developing the Map Reduce Application. [8]
(OR)
- 6 a) Mention the configuration of Hadoop Cluster using Fully Distributed Mode in detail. [7]
b) Name different configuration files in Hadoop. [8]

UNIT IV

- 7 a) Give a detail note on HBASE. [7]
b) Illustrate the Architecture of PIG. [8]
(OR)
- 8 a) How to create and Manage the database and tables using Hive. [7]
b) Write a brief notes on distributed modes of running PIG Scripts. [8]

UNIT V

- 9 a) Explain about Predictive Analysis. [7]
b) Illustrate Simple Linear Regression. [8]
(OR)
- 10 a) Write the importance of Regression in Data Science and Data Analytics. [7]
b) How to interpret coefficients of Multiple Linear Regression? Explain. [8]

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Set No. 3

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Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
ONE Question from Each unit
All Questions Carry Equal Marks

UNIT I

- 1 a) Explain in detail about Nature of Data and its applications. [7]
b) List out the challenges of Conventional Systems. [8]
(OR)
- 2 Define the following:
a) Intelligent Data Analytics [7]
b) Analysis Vs Reporting. [8]

UNIT II

- 3 a) Explain with a neat diagram about Stream data model and its Architecture. [7]
b) Explain the real time application of stream computing. [8]
(OR)
- 4 a) Illustrate Stream Computing. [7]
b) Explain the usecases of Real Time Sentiment Analysis. [8]

UNIT III

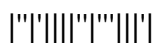
- 5 a) List and explain the important features of Hadoop. [7]
b) Explain the differences between old and new Java MapReduce API. [8]
(OR)
- 6 a) Explain the architecture of Building blocks of Hadoop. [7]
b) Describe the anatomy of Map Reduce program and discuss various types of failures in running a Map Reduce job. [8]

UNIT IV

- 7 a) Explain various types of Data processing operators in pig. [7]
b) Describe two modes for running scripts in Pig [8]
(OR)
- 8 a) Explain the creating, dropping and altering databases using Apache Hive. [7]
b) Discuss in detail about windowing in HiveQL. [8]

UNIT V

- 9 a) What are the interpretations of the coefficients in the multiple linear regression models? [7]
b) How do you interpret statistically significant coefficients? [8]
(OR)
- 10 a) Discuss in detail about visualization in big data analytics. [7]
b) Illustrate Multiple Linear Regression. [8]



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Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
ONE Question from Each unit
All Questions Carry Equal Marks

UNIT I

- 1 a) Distinguish between conventional computing and intelligent computing. [7]
b) List out and Explain the Features of Big Data Platforms/frameworks. [8]
(OR)
2 a) Discuss in detail about Structured Unstructured Data and [7]
Semi-structured Data.
b) Define Big Data. Describe its characteristics. [8]

UNIT II

- 3 a) Explain the Data streaming concept in detail. [7]
b) Write a short note on Decaying Window Algorithm. [8]
(OR)
4 a) Explain the different applications of data streams in detail. [7]
b) What is Real Time Analytics? Discuss their technologies in detail [8]

UNIT III

- 5 a) Explain the anatomy of write operation in HDFS. [7]
b) Explain the map reduce data flow with single reduce and multiple [8]
reduce.
(OR)
6 a) Write a Java program to implement the word count program using Map [7]
Reduce paradigm.
b) Explain the role of combiner and partitioner phases in Map Reduce job. [8]

UNIT IV

- 7 a) What is HiveQL? Explain its features. [7]
b) What is Zookeeper explain its features with applications. [8]
(OR)
8 a) Give a brief note on Querying Data in Hive. [7]
b) What is Apache PIG? Give its features, running modes and applications. [8]

UNIT V

- 9 a) How to interpret p values and coefficients in regression analysis? [7]
b) Explain Cross-Validation in Multiple linear regression. [8]
(OR)
10 a) Is multiple linear regression predictive analytics? justify. [7]
b) Give a brief note on Model Selection and Stepwise Regression. [8]

