

CBCS SCHEME

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18CB81

Eighth Semester B.Tech. Degree Examination, June/July 2024 Big Data Analytics

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Define Big Data. With a neat diagram explain evolution of big data and their characteristics. (10 Marks)
b. Define scalability and its types along with examples. (10 Marks)

OR

- 2 a. With a neat diagram, explain the big data architecture design. (10 Marks)
b. How does Berkeley Data Analytics stack help in analytics tasks? (10 Marks)

Module-2

- 3 a. With a neat diagram, explain core components of Hadoop and features of Hadoop. (12 Marks)
b. Explain the concepts of the HDFS block replication with an example. (08 Marks)

OR

- 4 a. What is APACHE Flume? Describe the features components and working of apache flume. (10 Marks)
b. Demonstrate any six HBase commands with output. (10 Marks)

Module-3

- 5 a. Explain about NOSQL data store and its characteristics. (10 Marks)
b. With example, explain key-value store. (10 Marks)

OR

- 6 a. Describe the features of MongoDB and its industrial application. (10 Marks)
b. i) Explain different components of Cassandra. (05 Marks)
ii) Describe different CQL commands and their functionalities. (05 Marks)

Module-4

- 7 a. Describe the Map tasks, Reduce tasks and MapReduce Execution process. (10 Marks)
b. With a neat diagram, describe Hive integration and work flow steps. (10 Marks)

OR

- 8 a. Demonstrate the pig architecture for scripts data flow and processing. (10 Marks)
b. Differentiate between Pig and MapReduce, give industrial applications for each. (10 Marks)

Module-5

- 9 a. Explain the simple linear regression analysis. (10 Marks)
b. Explain with an example Apriori algorithm to evaluate candidate key. (10 Marks)

OR

- 10 a. With a neat diagram, write the steps in K-means clustering. (10 Marks)
b. Explain the purpose of web usage analytics and the significance of web graphs. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and/or equations written eg, 42+8=50, will be treated as malpractice.