



CBCS SCHEME

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Seventh Semester B.E. 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. What is data? How do you classify data as structured, semistructured, multistructured and unstructured data? Give suitable examples. (10 Marks)
b. Define big data. Describe characteristics and types of Big data. (10 Marks)

OR

- 2 a. Explain the role of big data in medicine and healthcare system. (10 Marks)
b. Explain the functions of each of the five layers in big data architecture design with a diagram. (10 Marks)

Module-2

- 3 a. Give the purpose of Hadoop, describe the core components and features. (10 Marks)
b. List and explain the HDFS commands. (10 Marks)

OR

- 4 a. Explain in detail about Hadoop MapReduce framework with programming model. (12 Marks)
b. Describe Hadoop YARN and Hadoop execution model. (08 Marks)

Module-3

- 5 a. What is NOSQL? Explain the characteristics and features of NOSQL. (08 Marks)
b. Explain in detail about NOSQL data architecture pattern. (12 Marks)

OR

- 6 a. Explain BASE and CAP theorems in detail. (10 Marks)
b. Explain in detail the MongoDB along with its characteristics. (10 Marks)

Module-4

- 7 a. Explain relation algebra operations with an example. (08 Marks)
b. Define Hive. List out characteristics, limitations and explain hive architecture in detail. (12 Marks)

OR

- 8 a. Explain in detail about map-tasks, key value, pair grouping by key. (10 Marks)
b. Explain the pig architecture in detail. (10 Marks)

Module-5

- 9 a. Explain the text mining process architecture and applications. (10 Marks)
b. Explain the 3 types of web mining. (10 Marks)

OR

- 10 a. Explain the working of simple linear regression, along with a real-world application illustration. (12 Marks)
b. Compare Text Mining and Data Mining. (08 Marks)

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.