



CBCS SCHEME

17CS82

Eighth 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. Discuss the various system roles in an HDFS components or deployment. (10 Marks)
b. Describe HDFS block replication with an example. (10 Marks)

OR

- 2 a. Briefly explain HDFS NameNode Federation, NFS gateway, Snapshots. (10 Marks)
b. Write a program to Read and Write HDFS file using java. (10 Marks)

Module-2

- 3 a. What is the significance of Apache pig in Hadoop context? Describe the main components and the working of Apache pig with a simple example. (10 Marks)
b. Explain Apache squoop import and export method with neat diagrams. (10 Marks)

OR

- 4 a. With a neat diagram, explain Oozie DAG workflow and its types of nodes. (10 Marks)
b. Describe the various features of hadoop YARN administration. (05 Marks)
c. Discuss the three components of Apache frame. (05 Marks)

Module-3

- 5 a. List and explain any 3 areas of applications of Business Intelligence (BI). (10 Marks)
b. Define Data Warehouse. Explain design consideration for data warehouse. (10 Marks)

OR

- 6 a. What is Data Mining? What are supervised and unsupervised learning techniques? (10 Marks)
b. What is Data visualization? Explain how visualization tools are used. (10 Marks)

Module-4

- 7 a. What is Association Rule? Explain below given rules with suitable examples : (10 Marks)
i) Support ii) Confidence iii) Lift.
b. What is Unsupervised Machine Learning concept? Explain K – Means clustering techniques, with suitable example. (10 Marks)

OR

- 8 a. Write and explain Apriori Algorithm with example. (10 Marks)
b. List and explain the steps for developing an ANN (Artificial Neural Network). (10 Marks)

Module-5

- 9 a. List and explain different types of Text Mining applications. (10 Marks)
b. What is Naïve-Bayes technique? Explain its model. (10 Marks)

OR

- 10 a. What is SVM? With a neat diagram, explain support vector machine model. (10 Marks)
b. Define social network analysis? Explain different types of network topologies. (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.