

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)

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.

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