CBCS SCHEME

USN | | | | | | | | | | |

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 :
   i) Support   ii) Confidence   iii) Lift. **(10 Marks)**
   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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