USN ☐☐☐☐☐☐☐☐☐☐

Eighth Semester B.E. Degree Examination, July/August 2021
Big Data Analytics

Time: 3 hrs.   Max. Marks: 100

Note: *Answer any FIVE full questions.*

1 a. What is HDFS? Explain its components with a neat diagram.   **(10 Marks)**
   b. Explain HDFS safemode and rack awareness, with neat diagram.   **(10 Marks)**

2 a. What is MapReduce Program? Explain MapReduce parallel data flow, with neat functional diagram.   **(10 Marks)**
   b. What is Nano node federation? Explain NaneNode high availability design with diagram. **(10 Marks)**

3 a. Explain Apache Sqoop Import and Export methods, with neat diagram.   **(10 Marks)**
   b. How do you run MapReduce and message passing interface on Yarn architecture?   **(10 Marks)**

4 a. Explain with a neat diagram, the Apache Oozie work flow for Hadoop architecture.   **(10 Marks)**
   b. What is YARN? Explain Yarn application frame work.   **(10 Marks)**

5 a. What is Business Intelligence? List the different BI applications and explain in detail any four applications.   **(10 Marks)**
   b. Draw and explain flow of BIDM cycle. Explain the Strategic and Operational decisions. **(10 Marks)**

6 a. Explain CRISP DM cycle, with neat diagram.   **(10 Marks)**
   b. Define Data warehouse and illustrate design considerations for data warehouse.   **(10 Marks)**

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)**

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)**

9 a. Discuss the application and practical consideration of Social network Analysis.   **(10 Marks)**
   b. Explain the 3 types of Web mining. Use appropriate flow diagrams to represent the same. **(10 Marks)**

10 a. Explain the Text Mining process and the architecture.   **(10 Marks)**
    b. Briefly explain the Data Mining. Compare text mining and data mining.   **(10 Marks)**

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