

Big Data Analytics**(Computer Science and Engineering)****Date: 29-07-2025****Time: 3 Hours.****Max. Marks: 70****Answer ONE Question from each UNIT and each question carries 14 Marks****UNIT-1**

1. A) Explain the difference between Array List and Linked List class functionalities with examples. [7 Marks;CO1; Analyze]
B) What is the use of generic methods and generic classes in java and explain the various generic methods and classes supported by java. [7 Marks;CO1;Understand]

(OR)

2. A) What are the data structures in Java? Explain in brief about hash map and free map. [7 Marks;CO1;Understand]
B) Write Java Program to Implement Generic Single-linked list? [7 Marks;CO1;Understand]

UNIT-2

3. A) What is big data? How Hadoop Framework can be the solution for analyzing Big Data. [7 Marks;CO2;Understand]
B) Extend the basic concept of Big Data and challenges in industry. [7 Marks;CO2;Understand]

(OR)

4. A) Describe the pros and cons of data nodes? List few applications. [7 Marks;CO2;Understand]
B) Explain the steps of Hadoop configuration in local/standalone mode [7 Marks;CO2;Understand]

UNIT-3

5. A) Distinguish between the old and new versions of Hadoop API for Map Reduce framework. [7 Marks;CO3; Analyze]
B) Explain the role of driver code, mapper code and reducer code within a map reduce program model by a suitable example. [7 Marks;CO3;Understand]

(OR)

6. A) With an example explain, how Hadoop uses Scale out feature to improve the performance? [7 Marks;CO3;Understand]
B) How to specify a combiner function? Write a program on application to find maximum temperature using a combiner function for efficiency. [7 Marks;CO3;Apply]

UNIT-4

7. A) Consider The student data File (st.txt), Data in the following format
Name, District, age, gender [7 Marks;CO4;Apply]
i) Write a PIG script to Display Names of all female students
ii) Write a PIG script to find the number of Students form Prakasham District
iii) Write a PIG script to Display District wise count of all male students.
B) Write the general PIG Latin program/flow organization. [7 Marks;CO4;Understand]

(OR)

8. A) Describe the Functions that can be used in PIG and PIG Latin Schemas? [7 Marks;CO4;Understand]
B) Write about the key design principles of Pig Latin. [7 Marks;CO4;Understand]

UNIT-5

9. A) Explain about the various data types supported by HIVEQL with an example. [7 Marks;CO5;Understand]
B) Write Example Hive Queries for Natural Join and outer-Join. [7 Marks;CO5;Understand]

(OR)

10. A) How can we install the Apache Hive on the system – Explain? [7 Marks;CO5;Understand]
B) What is Hive meta store? Which classes are used by the Hive to Read and Write HDFS Files? [7 Marks;CO5;Understand]

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