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## The Assam Royal Global University, Guwahati

Royal School of Engineering & Technology (RSET)

BTech CSE 7th Semester

Semester End Examination, January 2023

Course Title: Big Data Analytics Course Code: CSE022D704

Time: 3 Hours

Maximum Marks: 70

Note: Attempt all questions as per instructions given.

The figures in the right-hand margin indicate marks.

## Section - A

1. Attempt all questions. (Maximum word limit 50)

 $2 \times 8$ 

- a. What is big data?
- b. Give the difference between data analysis and data reporting.
- c. What is Big table?
- d. Write the two major functionalities of Hadoop YARN.
- e. What are association rules? Give an example.
- f. Define predictive analytics.
- g. Give the properties of stream data.
- h. Why NoSql is essential in handling big data?

## Section - B

2. Attempt any two of the following:

6 x 2

- a. Define veracity & value of big data? Explain characteristics and types of big data.
- b. What are the challenges of Big Data and how these challenges are addressed? Explain.
- c. Define Unstructured Data Analytics. Elaborate on Context-Sensitive and Domain-Specific Searches.
- 3. Attempt any two of the following:

7 x 2

- a. Illustrate the various phases involved in Big Data Analytics with neat diagram.
- b. Illustrate the Hadoop core components with neat diagram
- c. Discuss the Hadoop system and ecosystem components in four layers.
- 4. Attempt any two of the following:

7 x 2

- a. Define HDFS. Describe name node, data node and block. Explain HDFS operations in detail.
- b. What is HBase? Explain storage mechanism of HBase with an example.
- c. What is Zookeeper? List the benefits of it. Differentiate between Apache pig Vs Map Reduce?
- 5. Attempt any two of the following:

7 x 2

- a. Explain the procedure for installing R in your system. Describe the any three packages which support predictive analysis.
- b. What is NoSQL? List out the features of NoSQL. Explain types of NoSQL databases in brief
- c. Illustrate main features and architecture of Hive with neat diagram.