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**15CS82**

## Eighth Semester B.E. Degree Examination, July/August 2022 Big Data Analytics

Time: 3 hrs.

Max. Marks: 80

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. With a diagram, explain the HDFS components. (08 Marks)  
 b. Briefly explain HDFS block replication, Name node high availability, Snap shots and Safe mode. (08 Marks)

**OR**

- 2 a. Discuss the general HDFS commands. (08 Marks)  
 b. Write a HDFS Java application example for reading, writing and deleting files from HDFS. (08 Marks)

### Module-2

- 3 a. With block diagram, discuss the various frameworks that run under YARN. (08 Marks)  
 b. With diagram, explain the concept of Apache squoop (08 Marks)

**OR**

- 4 a. List the importance of Apache Flume, explain with weblog example. (08 Marks)  
 b. With respect to Oozie, describe the following i) DAG ii) Workflow definition. (08 Marks)

### Module-3

- 5 a. List three business intelligence applications in the hospitality industry. (08 Marks)  
 b. What are the two Data warehousing development approaches? Compare and contrast DW and Data mining. (08 Marks)

**OR**

- 6 a. List and explain BI Applications. (06 Marks)  
 b. Explain BIDM cycle with respect to BI. (06 Marks)  
 c. What is a confusion matrix? (04 Marks)

### Module-4

- 7 a. With example illustrate decision tree algorithm? Describe three criteria for choosing splitting variable. (08 Marks)  
 b. What is a regression model? What are the advantages and disadvantages? (08 Marks)

**OR**

- 8 a. Explain the design principles of an Artificial Neural Network. (08 Marks)  
 b. Using the data below, determine the number of clusters and the center points of those clusters.

Data Set

x	2	2	5	4	8	6	5	5	6	4
y	4	6	6	7	3	6	2	7	3	4

(08 Marks)

### Module-5

- 9 a. Define Text mining. Discuss the issues of private security by considering case study of whatsapp. (08 Marks)  
 b. Compare and contrast Text mining and Data mining. (08 Marks)

**OR**

- 10 a. What are the three types of web mining? Explain privacy issues in web mining. (08 Marks)  
 b. Discuss Page Rank application with reference to social network analysis. (08 Marks)

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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.