

# CBCS SCHEME

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15CS82

**Eighth Semester B.E. Degree Examination, Jan./Feb. 2021**

## Big Data Analytics

Time: 3 hrs.

Max. Marks: 80

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

### Module-1

- a. Demonstrate various system roles and components of HDFS, with neat diagram. (08 Marks)  
b. Illustrate any 8 HDFS commands and briefly explain. (08 Marks)

OR

- a. Demonstrate Apache Hadoop Parallel Map Reduce data flow with neat diagram for word count. (10 Marks)  
b. Explain Terasort benchmark run steps. (06 Marks)

### Module-2

- a. Demonstrate Two – step Apache Sqoop data Import method, with neat diagram. (10 Marks)  
b. List and explain Apache HBase Capabilities. (06 Marks)

OR

- a. Illustrate Flume agent and pipeline of Apache to acquire data streams with neat diagram. (10 Marks)  
b. List and explain XML configuration files used for Hadoop configuration accomplishment. (06 Marks)

### Module-3

- a. Justify the importance of Business Intelligence tools in :  
i) Education ii) Retail iii) Banking iv) Public sector. (12 Marks)  
b. Describe any 4 design consideration of Data Warehousing. (04 Marks)

OR

- a. Discuss the key steps in Data Mining Process, with neat diagram. (08 Marks)  
b. Describe objectives of graphical excellence in data visualization. (08 Marks)

### Module-4

- a. Build Decision Tree for the following data set(Refer Table Q7(a)). The objective is to predict the class category for play approval of outdoor game :

Outlook	Temperature	Humidity	Windy	Play
SUNNY	HOT	HIGH	FALSE	NO
SUNNY	HOT	HIGH	TRUE	NO
OVERCAST	HOT	HIGH	FALSE	YES
RAINY	MILD	HIGH	FALSE	YES
RAINY	COOL	NORMAL	FALSE	YES
RAINY	COOL	NORMAL	TRUE	NO
OVERCAST	COOL	NORMAL	TRUE	YES
SUNNY	MILD	HIGH	FALSE	NO
SUNNY	COOL	NORMAL	FALSE	YES
RAINY	MILD	NORMAL	FALSE	YES
SUNNY	MILD	NORMAL	TRUE	YES
OVERCAST	MILD	HIGH	TRUE	YES
OVERCAST	HOT	NORMAL	FALSE	YES
RAINY	MILD	HIGH	TRUE	NO

Table Q7(a) Outdoor game dataset

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.

