

CBCS SCHEME



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15CS82

Eighth Semester B.E. Degree Examination, June/July 2023

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. What are the various system roles in an HDFS development? Explain with the neat diagram. (08 Marks)
- b. Illustrate any 8 HDFS commands and briefly explain. (08 Marks)

OR

- a. Explain with neat diagram the parallel MapReduce data flow. (08 Marks)
- b. Write the code for simple mapper script and simple reducer script. (08 Marks)

Module-2

- a. Demonstrate 2 step Apache sqoop data import and export method with neat diagram. (08 Marks)
- b. With a neat diagram, the Apache oozie workflow for Hadoop architecture. (08 Marks)

OR

- a. What is Apache flume? Describe the features components and the working of Apache flume. (08 Marks)
- b. Discuss the different views supported by Apache Ambari. (08 Marks)

Module-3

- a. What is BI? List the different BI applications and explain in detail any five applications. (08 Marks)
- b. Describe any 4 design considerations of Data warehousing. (08 Marks)

OR

- a. Explain with diagram CRISP-DM Data mining cycle. (08 Marks)
- b. Explain with neat diagram, different types of graphs. (08 Marks)

Module-4

- a. Explain with a data set how to construct the decision tree. (08 Marks)
- b. Using the data given in Data set shown in Table Q7(b), create a regression model to predict the Test 2 from Test 1 score. Then predict the score for the one who got 46 in Test 1.

Table Q7(b)

Test 1	Test 2
59	56
52	63
44	55
51	50
42	66
42	48
41	58

Test 1	Test 2
45	36
27	13
63	50
54	81
44	56
50	64
47	50

(08 Marks)

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.

OR

- 8 a. What are the different design principles of artificial neural networks? (08 Marks)
 b. Explain the K means clustering algorithm state its advantages and disadvantages. (08 Marks)

Module-5

- 9 a. Explain the test mining process. (08 Marks)
 b. Explain the 3 types of web mining. Use appropriate flow diagrams to represent the same. (08 Marks)

OR

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- 10 a. What is support vector machine? Explain its model. (08 Marks)
 b. Describe Naïve Baye's model to classify the text data into class using following dataset Table Q10(b).

Training set	Document ID	Keyword in the Document	Class = h (Healthy)
	1	Love Happy Joy Joy Love	Yes
	2	Happy Love Kick Joy Happy	Yes
	3	Love More Joy Good	Yes
	4	Love Happy Joy Pain Love	Yes
	5	Joy Love Pain Kick Pain	No
	6	Pain Pain Love Kick	No
Test data	7	Love Pain Joy Love Kick	?

Table Q10(b)

(08 Marks)
