

CBCS SCHEME

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15CS82

Eighth Semester B.E. Degree Examination, Aug./Sept.2020

Big Data Analytics

Time: 3 hrs.

Max. Marks: 80

- Note: i) For Regular Students: Answer any FIVE full questions irrespective of modules.
ii) For Arrear Students : Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

- 1 a. What are the various systems roles in an HDFS development? Explain with a neat diagram. (08 Marks)
- b. Explain with a neat diagram HDFS Block replication. (08 Marks)
- 2 a. Write the code for simple mapper script and simple reducer script. (08 Marks)
- b. With a neat diagram explain Apache Hadoop parallel mapReduce data flow. (08 Marks)

Module-2

- 3 a. Explain the two-step Apache Sqoop data import and export method. (08 Marks)
- b. With a neat diagram explain YARN Application frameworks. (08 Marks)
- 4 a. Explain the Apache Ambari dashboard view of a Hadoop cluster. (08 Marks)
- b. How Basic Hadoop YARN administration is carried out? Explain. (08 Marks)

Module-3

- 5 a. List any ten different Business Intelligence applications and explain them in brief. (08 Marks)
- b. With a neat diagram explain Data warehousing architecture. (08 Marks)
- 6 a. How do you evaluate data mining results, explain with confusion matrix. (08 Marks)
- b. Explain with a neat diagram different types of graphs. (08 Marks)

Module-4

- 7 a. Explain with a data set how to construct the decision tree. (08 Marks)
- b. Using the data given in Dataset 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 a 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
45	36
27	13
63	50
54	81
44	56
50	64
47	50

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(08 Marks)

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- 8 a. What are the different design principles of artificial neural network? Explain. (08 Marks)
b. Write the advantages and disadvantages of K-means algorithm. (04 Marks)
c. How association rules are represented? (04 Marks)

Module-5

- 9 a. Explain with a neat diagram text mining process. (08 Marks)
b. What are the advantages and disadvantages of Naïve-Bayes algorithm? (04 Marks)
c. Explain with a neat diagram SVM model. (04 Marks)
- 10 a. Explain with a neat diagram web usage mining architecture. (08 Marks)
b. List and explain the applications of social network analysis. (08 Marks)

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