15CS82

USN

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 Ambasi 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

(08 Marks)

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-Baye's 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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