PAPER ID-420518

Subject Code: KCS061

Roll No: | | | | | | | | | | | | | |

BTECH
(SEM VI) THEORY EXAMINATION 2021-22
BIG DATA

Time: 3 Hours ***Total Marks: 100***

Note: Attempt all Sections. If you require any missing data, then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2*10 = 20

Qno	Questions	CO
(a)	List any five Big Data platforms.	1
(b)	Write any two industry examples for Big Data.	1
(c)	What is the role of Sort & Shuffle in Map-Reduce?	2
(d)	Give the full form of HDFS.	2
(e)	What is the block size of a HDFS?	3
(f)	Name the two type of nodes in Hadoop.	3
(g)	Compare and Contrast No SQL Relational Databases.	4
(h)	Does MongoDB support ACID properties? Justify your answer.	4
(i)	Describe schema.	5
(j)	Discuss the different types of data that can be handled with HIVE.	5

SECTION B

2. Attempt any *three* of the following: 10*3 = 30

Qno	Questions	CO
(a)	Detail about the three dimensions of BIG data.	1
(b)	Illustrate the architecture of Map-Reduce.	2
(c)	Examine how a client read and write data in HDFS.	3
(d)	With the help of suitable example, explain how CRUD operations are performed in MongoDB.	4
(e)	Differentiate between Map-Reduce, PIG and HIVE	5

SECTION C

3. Attempt any *one* part of the following: 10*1 = 10

(a)	Discuss in detail the different forms of BIG data.	1
(b)	Elaborate various components of Big Data architecture.	1

4. Attempt any *one* part of the following: 10 *1 = 10

(a)	Explain the detailed architecture of Map-Reduce	2
(b)	Differentiate “Scale up and Scale out” Explain with an example How Hadoop uses Scale out feature to improve the Performance.	2

5. Attempt any *one* part of the following: 10*1 = 10

(a)	Demonstrate the design of HDFS and concept in detail.	3
(b)	Write the benefits and challenges of HDFS	3

6. Attempt any *one* part of the following: 10*1 = 10

(a)	Classify and detail the different types of NoSQL	4
(b)	Summarize the role of indexing in MongoDB using an example.	4

7. Attempt any *one* part of the following: 10*1 = 10

(a)	Explore various execution models of PIG.	5
(b)	Design and explain the detailed architecture of HIVE.	5