CLASS: M.TECH                                                   SEMESTER : II
BRANCH: IT                                                      SESSION : SP/19

**SUBJECT : IT513 BIG DATA ANALYTICS**

TIME:    3.00 Hrs.                                             FULL MARKS: 50

**INSTRUCTIONS:**
1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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| Q.1(a) | Explain different dimensions associated with Big Data. Classify the opportunities imparted by Big Data Technology. | [5] |
| Q.1(b) | Arrange four major parts of credit risk management which are handled by the use of Big Data. | [5] |
| Q.2(a) | Investigate graph based and document-oriented data base in NoSQL. | [5] |
| Q.2(b) | Illustrate the features and advantages provided by the NoSQL data base. | [5] |
| Q.3(a) | Design the components and working of Hadoop Distributed File System. | [5] |
| Q.3(b) | Apply the concept of pipeline with suitable sketch to write data on HDFS. | [5] |
| Q.4(a) | Design and summarize the shuffle and sort method during the map reduce process. | [5] |
| Q.4(b) | Establish the relationship between the resource manager and node manager during the process of running an application in YARN. | [5] |
| Q.5(a) | Design Apache Pig architecture and outline the functions of parser, optimizer and compiler. | [5] |
| Q.5(b) | Exemplify and explain the HBASE data model. | [5] |

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