Wednesday, December 11, 2019	10:30 am - 01:30 pm	1T00145 - M.C.A. (SEM-V) (Choice Based) (R 2018-19) / 56604 - Elective I : Big Data Analytics	78136

Time: 3 Hours   **Total Marks: 80**

N.B.:   1) Question No.1 is **compulsory.**
              2) Attempt any **three** from the remaining **five** questions.
              3) Figures to the right indicate full marks

Q1.   Write short note on
     (a)   CAP theorem   **5**
     (b)   HiveQL   **5**
     (c)   Speculative Execution   **5**
     (d)   HDFS High availability   **5**

Q2. (a)   What is Big Data? What are its various characteristics?   **10**
       (b)   Explain the Hadoop ecosystem with the diagram. Elaborate any three components of Hadoop Ecosystem?   **10**

Q3. (a)   Explain Map Reduce Architecture and elaborate Map task and Reduce task with an example?   **10**
       (b)   Discuss HBASE architecture.   **10**

Q4. (a)   Illustrate with Diagram Hadoop Architecture YARN 2.0 in detail?   **10**
       (b)   Write down a Map Reduce algorithm for word Count.   **10**

Q5. (a)   What is HIVE? Explain HIVE architecture in detail.   **10**
       (b)   What is Pig? Discuss the Load () & Store() commands in Pig framework.   **10**

Q6.   Write short notes on **any four** of the followings   **20**
              (a)   Row oriented vs. column oriented storage
              (b)   Recordreader in Hadoop Mapreduce
              (c)   Name Node vs Data Node
              (d)   5 HDFS Commands
              (e)   Key-value databases

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