

SARDAR VALLABHBHAI PATEL INSTITUTE OF TECHNOLOGY, VASAD.

Information Technology Department

Course for Mid Semester Exam September-2019

Semester: VII

Subject Name: **BIG DATA ANALYTICS (2171607)**

Sr. No.	Course Contents
1.	INTRODUCTION TO BIG DATA Introduction– distributed file system–Big Data and its importance, Four Vs, Drivers for Big data, Big data analytics, Big data applications. Algorithms using map reduce
2.	INTRODUCTION TO HADOOP AND HADOOP ARCHITECTURE Big Data – Apache Hadoop & Hadoop Eco-System, Moving Data in and out of Hadoop – Understanding inputs and outputs of Map-Reduce, Data Serialization.
3.	HDFS, HIVE AND HIVEQL, HBASE HDFS-Overview, Installation and Shell, Java API; Hive Architecture and Installation, Comparison with Traditional Database, Hive-QL Querying Data, Sorting And Aggregating, Map Reduce Scripts, Joins & Sub queries, H-Base concepts, Advanced Usage, Schema Design, Advance Indexing, PIG, Zookeeper , how it helps in monitoring a cluster, H-Base uses Zookeeper and how to Build Applications with Zookeeper.
4.	No-SQL What is it?, Where It is Used Types of No-SQL databases, Why No-SQL?, Advantages of No-SQL, Use of No-SQL in Industry, SQL v/s No-SQL, NewSQL
5	Data Base for the Modern Web Introduction to MongoDB key features, Core Server tools, MongoDB through the JavaScript's Shell, Creating and Querying through Indexes, Document-Oriented, principles of schema design, Constructing queries on Databases, collections and Documents , MongoDB Query Language.

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