

SYLLABUS

UNIT – I	INTRODUCTION	Hrs
The evolution of Data Management – Understanding the waves of managing data – Defining Big Data – Building a Successful Big Data Management Architecture – Examining Big Data Types: Structured data – Unstructured data– Looking at real-time and non-real-time requirements – Putting Big Data together – Distributed Computing: A brief history – Understanding the basics		9
UNIT - II	TECHNOLOGY FOUNDATION OF BIG DATA	Hrs
Exploring the Big Data stack – Redundant Physical Infrastructure – Security infrastructure – Operational databases – Organizing databases and tools – Analytical data warehouses – Big Data analytics – Big Data applications – Understanding the basics of virtualization – Implementing virtualization to work with Big Data – Understanding Cloud deployment and delivery models – The cloud as an imperative for Big Data		9
UNIT - III	BIG DATA MANAGEMENT	Hrs
MapReduce Fundamentals: Origin – Understanding map function – adding reduce function – putting map and reduce together – Optimizing MapReduce tasks – Exploring the world of Hadoop: Explaining Hadoop – Understanding Hadoop Distributed File System – HadoopMapReduce – Hadoop Foundation and Ecosystem: Building Big Data foundation with Hadoop Ecosystem		9
UNIT – IV	BIG DATA ANALYTICS	Hrs
Big Data Analytics: Modifying business intelligence products to handle Big Data – Studying Big Data Analytics Examples – Big Data Analytics Solutions – Understanding Text Analytics and Big Data: Exploring unstructured data – Text analytics – Analysis and extraction techniques – Putting results together with structured data – putting Big Data to use – Text analytic tools for Big Data		9
UNIT – V	BIG DATA IMPLEMENTATION	Hrs
Integrating Data Sources: Identifying needed data – Understanding the fundamentals of Big Data Integration – Defining traditional ETL – Understanding ELT – Prioritizing Big Data quality – Using Hadoop as ETL – Data Streams: Using streaming data – Using Complex Event Processing – Operationalizing Big Data: Making Big Data a part of Operational Process – Understanding Big Data workflows		9