

**SYNERGY INSTITUTE OF ENGINEERING AND TECHNOLOGY, DHENKANAL**

**NBA Accredited**

**Assignment 2**

**Near NH-55, Banamali Prasad – 759001**

**Full Marks – 40**

**Duration      1 week from notification**

**Roll no-**

**Registration no-**

**Name:**

**Subject with Code : Big Data Integration and Management (BDIM) PCAC2009**

**Course & Branch : B.Tech : CE, EE, CS**

**Year & Semester: 2<sup>nd</sup> & IV**

	<b>Section- A</b> <b>Answer All questions</b>	
<b>1</b>	What do you mean by Data Architecture in Big Data?	<b>[2marks][CO2][L1]</b>
<b>2</b>	What is the role of Networking in Big Data infrastructure?	<b>[2marks][CO2][L1]</b>
<b>3</b>	What is HP Vertica? How is it useful in Big Data analytics?	<b>[2marks][CO2][L2]</b>
<b>4</b>	What is Redis? Why is it significant in Big Data?	<b>[2marks][CO2][L2]</b>
	<b>Section-B</b> <b>Answer All Questions</b>	
<b>1</b>	What is Impala, and how does it enhance Big Data querying? Compare it with SparkSQL ? <b>Explain</b>	<b>[6marks][CO2][L2]</b>
<b>2</b>	Explain Big Data Integration & its importance with examples.	<b>[6marks][CO2][L2]</b>
	<b>Section-C</b> <b>Answer All Questions</b>	
<b>1</b>	Describe MongoDB and its role in Big Data processing. How does it integrate with Spark?	<b>[10 Marks][CO2][L2]</b>
<b>2</b>	Explain Neo4j and its significance in handling graph-based Big Data applications	<b>[10 Marks][CO2][L2]</b>
	<b>Additional Questions</b>	
<b>1</b>	Explain the challenges in designing a Big Data system and their possible solutions.	<b>[2marks][CO2][L2]</b>
<b>2</b>	Describe the differences between traditional and big data management systems with suitable examples.	<b>[2marks][CO2][L2]</b>
<b>3</b>	What are the different techniques for retrieving Big Data, and how do they impact performance?	<b>[2marks][CO2][L2]</b>