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.	(a)	Explain the requirements of NoSQL databases.	5
	(b)	Explain the industry applications of Big Data.	5
	(c)	Compare MapReduce and Yarn.	5
	(d)	Explain the 3 Vs of Big data.	5
Q2.	(a)	Illustrate the main components of HDFS with the diagram. What is the task of Secondary NameNode in HDFS?	10
	(b)	Compare HBASE with conventional RDBMS.	10
Q3.	(a)	Explain the Hadoop ecosystem with the diagram. What is the difference between Flume & Sqoop ?	10
	(b)	What is Pig ? Discuss the Load() & Store() commands in Pig framework.	10
Q4.	(a)	List the types of NoSQL databases with an example of each.	10
	(b)	Enunciate the Word count algorithm using MapReduce.	10
Q5.	(a)	Explain how Map task & Reduce task work in MapReduce.	10
	(b)	What is HIVE? Explain HIVE architecture in detail.	10
Q6.		Write short notes on **any four** of the followings	20
	(a)	HBASE data models	
	(b)	Relational operators in MapReduce	
	(c)	Functions of JobTracker & TaskTracker	
	(d)	HDFS Commands	
	(e)	Pig Latin	

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