

**Guru Nanak Dev Engineering College, Ludhiana**

**Department of Computer Science & Engineering**

<b>Program</b>	B.Tech.(CSE)	<b>Semester</b>	8(A,B,C)
<b>Subject Code</b>	PECS-118	<b>Subject Title</b>	Big Data
<b>Mid Semester Test (MST) No.</b>	2	<b>Course Coordinator(s)</b>	Dr.Hardeep Singh Kang
<b>Max. Marks</b>	24	<b>Time Duration</b>	1 hour 30 minutes
<b>Date of MST</b>	30 <sup>th</sup> May, 2022	<b>Roll Number</b>	

**Note:** Attempt all questions

Q. No.	Question	COs, RBT level	Marks
Q1	Illustrate role of Aggregate Data models in Big Data management?	CO2, L2	2
Q2	Compare and contrast Hive and Spark?	CO3, L4	2
Q3	Explain Descriptive analytics, Predictive analytics and Perspective analytics with example?	CO3,4,L2	4
Q4	Explain Decision Tree Classification & Logistic Regression with example?	CO4, L3	4
Q5	Illustrate the role of Mapper, Reducer and Combiner in context to Word count problem?	CO2,4, L4	4
Q6	Discuss the use of NoSQL database. List the differences between NoSQL and relational databases. Explain various categories of NoSQL databases in practice. Also discuss briefly Graph-less Databases.	CO5, L6	8

**Course Outcomes (CO)**

*Students will be able to*

1	Apply knowledge of statistics, science and programming skills, to solve of complex analytical problems related to big data and business analytics.
2	Identify, formulate, and analyze business analytical problems concerning and demanding big data.
3	Design and evaluate fully distributed model of big data to solve real time problems.
4	Make use of research-based knowledge to identify the appropriate data collection methods, apply statistical methods to analyze, synthesis and interpretation of data, to provide valid conclusions.
5	Utilize knowledge of modern tools such as Hadoop, NoSQL, and Artificial intelligence, techniques to propose solutions for business analytic demands.
6	Function in multi-disciplinary teams through groups while working on mini-project concerning business analytical problems.

RBT Classification	Lower Order Thinking Levels (LOTS)			Higher Order Thinking Levels (HOTS)		
RBT Level Number	L1	L2	L3	L4	L5	L6
RBT Level Name	Remembering	Understanding	Applying	Analyzing	Evaluating	Creating