Name: Enrolment No:	UPES UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Big Data Overview **Semester: 5**
Program: B.Tech CSE+DevOps **Time 03 hrs.**
Course Code: CSBD1001 **Max. Marks: 100**

Instructions:

1. **Section A** shall have 5 Questions of 4 marks each. . All the questions shall be compulsory.
2. **Section B** This section shall have 4 Questions of 10 marks each, out of which 3 Questions shall be compulsory and 1 Questions may have internal choice to attempt any one.
3. **Section C** shall have 2 Questions of 20 marks each, out of which 1 Question shall be compulsory and 1 Question shall have internal choice to attempt any one. This section may be further subdivided as per the requirement of course. These Questions shall be of long answer type.

SECTION A

S. No.		Marks	CO
Q 1	"Data is the new fuel." Elaborate this statement with supporting facts.	**4**	**CO1**
Q2.	Explain the "veracity" and "variety" characteristics of Big Data.	**4**	**CO3**
Q3.	"Need for Talent" and "Cyber-Security Risks" are some of the limitations that need to be addressed in Big Data. Explain.	**4**	**CO2**
Q4.	Elaborate the sources of data and datastores in datalake.	**4**	**CO5.**
Q5.	Draw out the differences between the different NoSQL database types.	**4**	**CO4**

SECTION B

Q6.	Discuss the various components of Big Data Ecosystem. Support your answer with the example of Google.	**10**	**CO2**
Q7.	Categorize and elaborate the types of data based on the homogeneity and heterogeneity.	**10**	**CO3**
Q8.	Consider the case study of Facebook. Analyze the advantages of big data exploited by Facebook for improving its business.	**10**	**CO2**
Q9.	Differentiate between DBMS and RDBMS.	**10**	**CO1**

	OR Explain the different types of flat files generally used for Big Data Analytics.		
SECTION-C			
Q 10	The given file has some text. Apply map-reduce computation to find out the frequency of occurrence of each word in the file. I have a robot its name is AKIRA AKIRA is my name too I love making a robot	**20**	**CO4**
Q11	Explain "Heart-beat Signal" and the information that it carries. Also analyze how this information is used by the Namenode. **OR** Explain "Block-report" and the information that it carries. Also analyze how this information is used by the Namenode.	**20**	**CO5**