| Name: | UPES |
| Enrolment No: | UNIVERSITY OF TOMORROW |

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2022

Course: BCA CSE+ IOT, BFSI   Semester: 4
Program: Big Data Overview   Time: 03 hrs.
Course Code: CSBC2021   Max. Marks: 100

Instructions:

SECTION A
(5Qx4M=20Marks)

S. No.		Marks	CO
Q 1	Enumerate at least four key differences between database and file management system.	4	CO1
Q2	Analyze different types of Data produced from various data sources.	4	CO3
Q3	Big Data is different from Data. Support this statement by throwing light on the characteristics of Big Data.	4	CO2
Q4	Evaluate why NoSQL database preferred for Big Data? Elaborate the various types of NoSQL database.	4	CO4
Q5	Illustrate the various components of Data Lake.	4	CO4

SECTION B
(4Qx10M= 40 Marks)

Q 1	HDFS architecture allows storage of Big Data. Elaborate its architecture	10	CO4
Q2	"Improved Customer Service" and "Reduced operational costs" are among a few benefits of Big Data Analytics. Elaborate.	10	CO1
Q3	Taking the example of Netflix explain "data explosion". OR Explain how Facebook exploited the benefits of Big Data Analytics.	10	CO2
Q4	Analyze the challenges for start-ups and SMEs in Migrating to Big Data Platform	10	CO3

SECTION-C
(2Qx20M=40 Marks)

Q1	The No. of cases of Dengue are on a steep rise in Dehradun. Following data has been extracted from a dataset that was collected in a small residential area near Raipur (most affected area) area. Apply map-reduce computation and find out the number of Affected and Not-affected people in that area.	20	CO3

Q2	Affected, Not-Affected, Affected Not- Affected, Affected, Affected Affected, Not –Affected, Affected Affected, Not-affected, Affected OR Illustrate the concept of Polyglot Persistence with the help of an example.	20	CO4