ज्ञानेन प्रकाशते जगत्
INDUS UNIVERSITY

Enrollment No: _____

INDUS UNIVERSITY
IITE/ISHLS/IICT
Constituent Institutes of Indus University

X - CE0630 - 001

Semester:	6th	Branch:	CE/IT/CSE
END SEMESTER EXAMINATION – May-2023			
Subject Code:	CE0630	Subject Name:	Data Science
Date:	17/05/2023	Time:	3 Hrs. 2:00 PM TO 5:00PM
Day:	Wednesday	Total Marks:	100

Instructions:

1. Attempt all questions
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicates full marks
4. Questions shall be drawn in accordance with the unit numbers as given below, However ***Breakup of Questions are allowed***:

Q.1	A	**Define Data Science. Discuss Data Science Process with diagram.**	10
	B	**Differentiate Data Science and Business Intelligence with suitable example.**	10
Q.2	A	**Calculate Sample Skewness and Sample Kurtosis from the following grouped data** Class | Frequency 2-4 | 3 4-6 | 4 6-8 | 2 8-10 | 1	10
	B	**Consider given 8 Data Points as a Sample.** **Data (in Terms of Minutes)** **72, 110, 134, 190, 238, 287, 305, 324** **Apply Descriptive Statistic Analysis in form of Variability Like Range, Interquartile Range, Standard Deviation, and Variance.**	10
Q.3	A	**Differentiate Supervised, Unsupervised and Reinforcement Machine Learning Types.**	10
	B	**Define Machine Learning. Discuss entire Machine Learning Process Steps.**	10

Data collection, cleaning, Analysis
Model Training, Testing, Deployment

Q.4	A	What is the Connection between Data Science and Ethics?	10
	B	Explain Visualization Technique. Discuss any two Data Visualization Library in Python.	10
Q.5		Any Four (05*4=20)	20
	A	Discuss Regression Techniques with suitable Example.	05
	B	Explain Classification Technique in Supervised Machine learning.	05
	C	Discuss any one Clustering Technique in Unsupervised learning.	05
	D	Discuss KNN (K-Nearest Neighbour) Algorithm with suitable example.	05
	E	How do we care about Data Science Ethics?	05
	F	Discuss any two framing guidelines in Five Cs.	05