PRN:		Course Code :	UST558

Third Year **B. Tech** End Semester Examination Summer 2024

Fundamentals of Data Science 000105

Day and Date: Thu 2 8 [illegible] 2024 Max Marks: **100**

Time : 10:30AM To 01:30PM Duration: **03** hrs

Instructions: All questions are compulsory.

		Attempt the following	**Marks**	**Bloom's Level**	**CO**
Q.1	a)	Describe in details Big Data and Data Science Hype?	08	L2	CO1
	b)	Explain in details data Scientist role in this process?	08	L2	CO1
		OR			
	b)	Explain in details population and samples of Big Data?	08	L2	CO1
Q.2		**Attempt the following**			
	a)	How the statement "correlation is not causation" with an example in detail	08	L2	CO2
	b)	Explain cleaning and munging of data with an example?	08	L2	CO2
		OR			
	b)	Explain minibatch and stochastic gradient descent in detail?	08	L2	CO2
Q.3		**Attempt any two from the following**			
	a)	Difference between score and ranking with example?	08	L3	CO3
	b)	Describe Z_Score and advanced Ranking Techniques in details?	08	L3	CO3
	c)	Explain in details Permutation and P_Values with example?	08	L3	CO3
Q.4		**Attempt any two from the following**			
	a)	Elaborate the exploratory data analysis techniques in details?	08	L3	CO3
	b)	Write short note on Evaluation Environment?	08	L3	CO3
	c)	Illustrate the terms Philosophies of Modeling?	08	L3	CO3
Q.5		**Attempt any Two of the following**			
	a)	Compare between simple and multiple linear regression?	09	L4	CO4
	b)	Difference between Supervised and unsupervised machine learning	09	L4	CO4
	c)	Explain any one of data clustering techniques in details?	09	L4	CO4
Q.6		**Attempt any Two of the following**			
	a)	Explain in details learning models?	09	L4	CO4
	b)	Demonstrate the terms of support vector machine with example?	09	L4	CO4
	c)	Analyze training and validation terms and write uses of it?	09	L4	CO4

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