PRN:	Course Code:	BCA302

Third Year **B.C.A.** End Semester Examination Summer 2023

Data Science

Day and Date: Tuesday, 13/06/23 Max Marks: **100**

Time: 10.30 – 1.30 pm Duration: **03**hrs

Instructions: All questions are compulsory.

		Marks	Bloom's Level	CO
Q.1	**Attempt the following**			
a)	Explain data visualization in data science.	08	L2	CO1
b)	List the steps in EDA with definition.	08	L4	CO1
	OR			
b)	Illustrate high level programming language with example.	08	L2	CO1
Q.2	**Attempt the following**			
a)	Explain data with Sources of data.	08	L2	CO1
b)	Analyze data modeling with steps of modeling process.	08	L4	CO2
	OR			
b)	Apply data collection methods to collect data.	08	L3	CO2
Q.3	**Attempt any two from the following**			
a)	What is schema also write about schema-based query language.	08	L1	CO2
b)	Explain semistructured data with example.	08	L2	CO2
c)	Construct SQL for MongoDB.	08	L2	CO2
Q.4	**Attempt any two from the following**			
a)	Determine Regularization with its types.	08	L5	CO3
b)	Summarize machine learning with its types.	08	L2	CO3
c)	Explain cross validation with diagram.	08	L2	CO3
Q.5	**Attempt any Two of the following**			
a)	Determine regression and linear regression in detail with diagram.	09	L5	CO3
b)	Identify time series analysis with types.	09	L3	CO3
c)	How feature extraction works in data transformation.	09	L1	CO3
Q.6	**Attempt any Two of the following**			
a)	Solve k-means example with explaination.	09	L3	CO4
b)	Apply hierarchical clustering for the one-dimensional data set **{7,10,20,28,35}**, and plot the dendogram to visualize it.	09	L3	CO4
c)	Show logistic regression with diagram.	09	L1	CO4

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