

GUJARAT TECHNOLOGICAL UNIVERSITY**BE(MINOR) - SEMESTER-V EXAMINATION – SUMMER 2023****Subject Code:115AG01****Date:08-08-2023****Subject Name:Introduction to Data Analytics****Time:02:30 PM TO 05:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) Give importance to EDA in Data Analytics.	03
	(b) Explain Interval Estimation and Hypothesis Testing in terms of Quantitative EDA.	04
	(c) What is Data Analytics? Explain the process of Data Analytics in detail.	07
Q.2	(a) Define Data Science. Explain the need of Data Science.	03
	(b) Explain steps involved in EDA(Exploratory Data Analysis).	04
	(c) State and Explain characteristics of Data Science along with advantages and disadvantages of it.	07
	OR	
	(c) State and Explain Application of Data Science in the Real World along with sectors where it is used.	07
Q.3	(a) Explain Following Terms with Example.	03
	1. Box Plots	
	2. Histograms	
	3. Scatter Plots	
	(b) During the data preprocessing step, how should one treat missing/null values? How can we deal with them?	04
	(c) Explain Feature Selection Techniques in detail.	07
	OR	
Q.3	(a) What is the Difference between Univariate, Bivariate, and Multivariate analysis?	03
	(b) Explain working of following functions.	04
	1. df.info()	
	2. sns.countplot()	
	3. replace()	
	4. df.corr()	
	(c) Differentiate between Data Analytics and Data Science.	07
Q.4	(a) What is the difference between feature selection and feature extraction?	03
	(b) Explain security and privacy in Data Science.	04
	(c) Write down a case study on Netflix in terms of Data Science.	07

OR

- Q.4** (a) What are some important features of a good data visualization? **03**
(b) Explain the future of Data Science. **04**
(c) Write down a case study on Amazon in terms of Data Science. **07**

- Q.5** (a) Write a python code to Print the constant value of PI. **03**
(b) Write a python program to Add a list of names to give each row a name. **04**
(c) Write a python program to draw Histogram to plot the age of population. **07**

OR

- Q.5** (a) Write a python code to plot a graph with a 20.5pt wide line. **03**
(b) Write a python program to Load a comma separated file (CSV file) into a DataFrame. **04**
(c) Write a python program to add and subtract Matrices in Python. **07**
