

OR

Q.6	a.	Explain the following merge methods: i) Outer ii) Left iii) Right	10	L3	CO3
	b.	Explore the following data transformation methods: i) Discretization and binning ii) Detecting and filtering outliers iii) Renaming axis indexes.	10	L3	CO3

Module – 4

Q.7	a.	What is Web scraping? Explain the various methods available in requests module with an example program.	10	L3	CO3
	b.	Discuss the implementation of web scraping in python with beautiful soup.	10	L3	CO3

OR

Q.8	a.	Explain the attributes of arrays in numpy with examples.	10	L3	CO3
	b.	Write a python program to demonstrate the following operations using numpy array: i) Array searching ii) Sorting iii) Splitting iv) Broadcasting v) Concatenation	10	L3	CO3

Module – 5

Q.9	a.	Describe the concepts of matplotlib package in detail.	10	L4	CO4
	b.	Write a python program for visualization of lineplot, histogram and scatter plot using matplotlib package.	10	L4	CO4

OR

Q.10	a.	Explain the concepts of seaborn package in detail.	10	L4	CO4
	b.	Explain the concepts of time series analysis with pandas.	10	L4	CO4
