Sr. No	Lecture Title	Description	Category	Duration
	Segment 4: Control Flow & Biological Data Pre-processing in R			
1	If Else Statements	• Introduction to if-else statements in R. • Describes the syntax of if-else statement. • Describes script to utilize these conditional statements in R programming.	Control Flow	4:15
2	For Loops & Biological Data Binding	• Introduction to for loop in R programminf language. • Describes the syntax of for loop and its uses. • Describes script to bind multiple CSV files into a single data frame utilizing for loop.	Control Flow	16:30
3	While Loops & Reading Multiple Biological Datasets	• Introduction to while loop in R programming language. • Describes the syntax of while loop and its uses. • Describes script to read multiple files using the while loop and how it can be utilized to analyse data in Bioinformatics.	Control Flow	16:16
4	Data Frames	• Introduction to data frames in R programming language. • Describes characteristics of data frames. • Creating 2-D table of required data using built-in functions of data frame.	Biological Data Analysis	6:30
5	Loading Biological Data	• Importing the biological data in R proramming. • Different ways to import loading biological data. • Better visualization of data sets by loading data into R environment.	Biological Data Analysis	7:55
6	Saving Biological Data	• Describes to save CSV file from R using built-in functions of R. • Getting working directive of the file. • Changing working directive of R files.	Biological Data Analysis	5:26
7	R Notiation & Selecting Values from Biological Dataset	• Introduction to R Notation system. • Describes methods for selecting values from biological datasets. • Basic method to introspect data and use it for different analysis.	Biological Data Analysis	4:09
8	Positive Integers for Subsetting Biological Dataset (DataFrame)	• Introduction to positive interger for extracting data from dataset in R. • Describes different ways to extract values and save them in new data frame.	Biological Data Analysis	5:25
9	Negative Integers for Subsetting Biological Dataset (DataFrame)	• Introduction to negative integers for extracting data from dataset. • Describes different ways to extract values and save them in new data frame.	Biological Data Analysis	5:28

10	Zero Notation for Subsetting Biological Dataset (DataFrame)	• Introdcution to zero notation for extracting values from datasets in R. • Describes different ways to extract data utilizing zero notation.	Biological Data Analysis	1:09
11	Blank Spaces for Biological Data Subsetting	• Introduction to R notation system and blank spaces to extract data from datasets. • Describes script to extract data from datasets using blank spaces. • Advantages of blank spaces notation in R.	Biological Data Analysis	3:20
12	Dollar Signs for Biological Data Subsetting	• Introduction to R notation system and dollar signs notation. • Describes script to extract data from data frames using dollar signs.	Biological Data Analysis	2:58
13	Modifying Values in Existing DataFrames/Datasets	• Introduction to R notation system. • Describes script to modify values and creating new values using R notation system.	Biological Data Analysis	7:06
14	NA Values in Biological Datasets	• Introduction to NA values in R datasets. • Finding NA values in R datasets. • Describes script to insert NA values in datasets using stats operations.	Biological Data Analysis	5:24
15	Figuring Out NA Values in Biological Datasets	• Introduction to NA values in R datasets. • Describes to figure out NA values using built-in functions.	Biological Data Analysis	2:06
16	Logical Subsetting in Biological Datasets	• Introduction to ligical subsetting in R language and its uses. • Describes various logical operators and their syntax. • Describes script for logical subsetting and its importance in analyzing data in Bioinformatics.	Biological Data Analysis	9:45