

**Course Code: 20BS4101**

**ASSIGNMENT-1 QUESTION BANK**

**A.Y:2021-22/Sem-2**

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| **Q.No** | | **Question** | **Course Outcome** | **BTL** |
| 1 | a | List out various data types available in R Language? | CO1 | Understand |
| b | Create a function to calculate the average, median and mean for a numeric vector age in employee database | CO1 | Apply |
| 2 | a | Illustrate with an example NA and NULL? | CO1 | Understand |
| b | Define variable and write a short note on it. How do you assign value to variable in R and how do you remove variable. | CO1 | Understand |
| c | Create a data frame that stores the name, age, designation of the employee. Find how many employees are working in each designation? | CO1 | Apply |
| 3 | a | Write a short note on R Studio Tools? | CO1 | Understand |
| b | Create two vectors that stores the details of name and gender of the employees. Find how many male and female employees are present | CO1 | Apply |
| c | What kind of operations can be performed on vectors and dataframes | CO1 | Understand |
| 4 | a | With an example write a short note on Lists and matrices | CO1 | Understand |
| b | Explain about control statements in R. Find the cube and square of a given number using while and for loops | CO1 | Understand |
| c | Write R code to define the function by using if-else  F(x)=x if x<1/2  =(1-x) if ½<x<1  =0 otherwise | CO1 | Apply |
| 5 | a | Explain various ways of reading data into R | CO1 | Understand |
| b | Write a short note on command line interface | CO1 | Understand |
| c | With examples write a short note on Base Graphs and ggplot2 | CO1 | Understand |
| 6 | a | Write a short note on the following with examples.   1. nchar() 2. length() 3. Factor Vectors | CO1 | Understand |
| b | With examples write a short note on arrays | CO1 | Understand |