

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Programme | : | **B.Tech** | Semester | : | **Fall 2022-23** |
| Course Title | : | **Foundations of Data Analytics Lab** | Code | : | **CSE3505** |
| Class Nbr | : |  |
| Date | : | **22/07/2022** | Week & Slot | : | 1 |
| Faculty | : | **Dr. C. Sweetlin Hemalatha** | | | |

**Exercise 1: Basic Data Types in R**

1. Convert TRUE to an integer
2. Assign a string to a variable and extract any substring.
3. Assign an integer value to two variables p & q
4. Use R as a calculator to do basic arithmetic operations on p &q and store each result in different variables.
5. Calculate sqrt(p) and perform log2 transformation on the result.
6. Calculate the 10-based logarithm of 100 and multiply the result with cosine of π.
7. Create a vector ‘x’ using : operator from -2 to 2.
8. Create a vector ‘y’ using c() with values 1 to 10. What is the dimension of y and length of y.
9. Create two vectors small and caps with first 5 alphabets in lower case and last 5 alphabets in upper case respectively. Bind it row and columnwise.
10. Create a matrix M= and find MxMxM.
11. Find the result of elementwise multiplication of M by M.
12. Find the transpose, inverse and determinant of M.