Assignment 5.3

Question No.1 – To Test the equality of two vectors element by element

> A <- c("orange","apple", "banana", "pineapple", "guava")

> B <- c("orange", "apple","pear", "strawberry", "guava")

> all(A==B)

[1] FALSE

Question No.2 – To sort the character vector in ascending and descending order

> vec <- c(rownames(mtcars[1:15,]))

> vec1 <- vec

> vec2 <- c(rownames(mtcars[11:25,]))

> sort(vec1, decreasing = FALSE)

[1] "Cadillac Fleetwood" "Datsun 710" "Duster 360"

[4] "Hornet 4 Drive" "Hornet Sportabout" "Mazda RX4"

[7] "Mazda RX4 Wag" "Merc 230" "Merc 240D"

[10] "Merc 280" "Merc 280C" "Merc 450SE"

[13] "Merc 450SL" "Merc 450SLC" "Valiant"

> sort(vec1, decreasing = TRUE)

[1] "Valiant" "Merc 450SLC" "Merc 450SL"

[4] "Merc 450SE" "Merc 280C" "Merc 280"

[7] "Merc 240D" "Merc 230" "Mazda RX4 Wag"

[10] "Mazda RX4" "Hornet Sportabout" "Hornet 4 Drive"

[13] "Duster 360" "Datsun 710" "Cadillac Fleetwood"

> sort(vec2, decreasing = FALSE)

[1] "AMC Javelin" "Cadillac Fleetwood" "Camaro Z28"

[4] "Chrysler Imperial" "Dodge Challenger" "Fiat 128"

[7] "Honda Civic" "Lincoln Continental" "Merc 280C"

[10] "Merc 450SE" "Merc 450SL" "Merc 450SLC"

[13] "Pontiac Firebird" "Toyota Corolla" "Toyota Corona"

> sort(vec2, decreasing = TRUE)

[1] "Toyota Corona" "Toyota Corolla" "Pontiac Firebird"

[4] "Merc 450SLC" "Merc 450SL" "Merc 450SE"

[7] "Merc 280C" "Lincoln Continental" "Honda Civic"

[10] "Fiat 128" "Dodge Challenger" "Chrysler Imperial"

[13] "Camaro Z28" "Cadillac Fleetwood" "AMC Javelin"

Question No. 3 – What is the major difference between the str() and paste() functions

The str() function displays the details of the string including the class, the number of strings as follows.

States <- rownames(USArrests)

> str(States)

chr [1:50] "Alabama" "Alaska" "Arizona" "Arkansas" "California" "Colorado" ...

The paste() function displays the contents of the string as it is without any information on its type of class or the number of strings etc., as follows

> paste(States)

[1] "Alabama" "Alaska" "Arizona" "Arkansas"

[5] "California" "Colorado" "Connecticut" "Delaware"

[9] "Florida" "Georgia" "Hawaii" "Idaho"

[13] "Illinois" "Indiana" "Iowa" "Kansas"

[17] "Kentucky" "Louisiana" "Maine" "Maryland"

[21] "Massachusetts" "Michigan" "Minnesota" "Mississippi"

[25] "Missouri" "Montana" "Nebraska" "Nevada"

[29] "New Hampshire" "New Jersey" "New Mexico" "New York"

[33] "North Carolina" "North Dakota" "Ohio" "Oklahoma"

[37] "Oregon" "Pennsylvania" "Rhode Island" "South Carolina"

[41] "South Dakota" "Tennessee" "Texas" "Utah"

[45] "Vermont" "Virginia" "Washington" "West Virginia"

[49] "Wisconsin" "Wyoming"

Question No. 4 – Introduce a separator when concatenating strings

> x <- “Hello Sir”

> y <- “How are You?”

> paste (x, y, sep = “ “)

“Hello Sir How are You?”

> paste (x, y, sep = “-- “)

“Hello Sir--How are You?”