DAY 1 ASSESSMENT

1. Write a R program to create a vector of a specified type and length. Create

vector of numeric, complex, logical and character types of length 6 with

your own examples. print the vector, type, and length.

Use this vector for Below program

x = c(10, 20, 30, 20, 20, 25, 9, 26,38,40)

CODE:

> x<-c(10,20,30,20,20,25,9,26,38,40)

> typeof(x)

[1] "double"

> length(x)

[1] 10

> x = vector("numeric", 5)

> print("Numeric Type:")

[1] "Numeric Type:"

> print(x)

[1] 0 0 0 0 0

> c = vector("complex", 5)

> print("Complex Type:")

[1] "Complex Type:"

> print(c)

[1] 0+0i 0+0i 0+0i 0+0i 0+0i

> l = vector("logical", 5)

> print("Logical Type:")

[1] "Logical Type:"

> print(l)

[1] FALSE FALSE FALSE FALSE FALSE

> chr = vector("character", 5)

> print("Character Type:")

[1] "Character Type:"

> print(chr)

[1] "" "" "" "" ""

2. Write a R program to find Sum, Mean and Product of a Vector.

CODE:

> x<-c(22,43,77,33)

> sum(x)

[1] 175

> mean(x)

[1] 43.75

> prod(x)

[1] 2403786

3. Write a R program to find the minimum and the maximum of a Vector.

CODE:

> x<-c(10,44,33,77)

> min(x)

[1] 10

> max(x)

[1] 77

4. Write a R program to find second highest value in a given vector.

CODE:

> x<-c(36,48,22,95,47)

> l<-length(x)

> sort(x,partial=l-1)[l-1]

[1] 48

5. Write a R program to add a new item g4 = “C++” to a given list.

Sample list: (g1 = 5:10, g2 = “R Programming”, g3 = “HTML”).

CODE:

> list<-list(g1=5:10,g2="R Programming",g3="HTML")

> list$g4="C++"

> list

$g1

[1] 5 6 7 8 9 10

$g2

[1] "R Programming"

$g3

[1] "HTML"

$g4

[1] "C++"

6. Write a R program to extract all elements except the third element of

The first vector of a given list.

Sample list: (g1 = 5:10, g2 = “R Programming, g3 = “HTML”)

CODE:

> list<-list(g1=5:10,g2="R Programming",g3="HTML")

> list$g1=list$g1[-3]

> list$g1

[1] 5 6 8 9 10

7. Write a R program to create an ordered factor from data consisting of

The names of months

mons\_v = c(“March”,”April”,”January”,”November”,”January”,

“September”,”October”,”September”,”November”,”August”,”February”,

“January”,”November”,”November”,”February”,”May”,”August”,”February”,”July”,”December”,”August”,”August”,”September”,”November”,”September”,”February”,”April”)

CODE:

> mons\_v = c("March","April","January","November","January",

+ "September","October","September","November","August","February",

+ "January","November","November","February","May","August","February",

+ "July","December","August","August","September","November","September",

+ "February","April")

> f<-factor(mons\_v)

> f

[1] March April January November January September

[7] October September November August February January

[13] November November February May August February

[19] July December August August September November

[25] September February April

11 Levels: April August December February January ... September

> table(f)

f

April August December February January July

2 4 1 4 3 1

March May November October September

1 1 5 1 4