**SAVEETHA SCHOOL OF ENGINEERING**

**EXERCISE PROBLEM**

**COURSE CODE: ITA0448 – STATISTICS WITH R PROGRAMMING FOR**

**VECTORIZED EXPRESSIONS**

**SUBMITTED BY: REG NO:192011223**

**DATE: 20/03/2023**

1. Consider two vectors, x, y x=c(4,6,5,7,10,9,4,15) y=c(0,10,1,8,2,3,4,1) What is the value of: x\*y
2. x <- c(4,6,5,7,10,9,4,15)

y <- c(0,10,1,8,2,3,4,1)

x\*y

2 Consider two vectors, a, b

a=c (1,2,4,5,6) b=c(3,2,4,1,9) What is the value of: cbind(a,b)

A ) a <- c (1,2,4,5,6)

b <- c(3,2,4,1,9)

cbind(a,b)

1. Vector v is c(1,2,3,4) and list x is list(5:8), what is the output of v\*x[1]?
2. v <- c(1,2,3,4)

li <- list(5:8)

v\*x[1]

1. Vector v is c(1,2,3,4) and list x is list(5:8), what is the output of v\*x[[1]]

A ) v <- c(1,2,3,4)

li <- list(5:8)

v\*x[[1]]

1. X is the vector c(5,9.2,3,8.51,NA), What is the output of mean(x)?
2. x <- c(5,9.2,3,8.51,NA)

mean(x)

1. Give a function in R that replaces all missing values of a vector x with the sum of elements of that vector?

function(x){x[is.na(x)] <- sum(x,na.rm = TRUE);x}

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)

paste(“vector type = ”,class(x))

paste(“vector length =”,length(x))

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

x <- c(3,4,5,6,7,8,9)

sum(x)

mean(x)

prod(x)

3.

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

x <- c(5,6,2,4,1,9)

min(x)

max(x)

4.

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

x <- c(4 ,7, 2 ,5 ,1 ,9 ,2 ,3)

sort(x)

rev(x)

x[2]