Abdelhafid Boussouf University Center, Mila. **Department of Biotechnology.**

Institute of Natural and Life Sciences . **Subject: Biostatistics.**

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I) **Creating a Vector**

$X1 < -c(1,3,5,7,9)$ $X2 < -c("Man","Woman")$ $X3 < -c(T,T,F,F,T)$ $X4 < -2:7$

$seq(2,7,1)$ $seq(from = 2, to = 7, by = 1)$ $(from = 2, to = 7, by = 0.2)$

II) **Repeating Vector Data**

$rep(1, times = 10)$ $rep("anwar", times = 3)$ $rep(1:5, times = 5)$

$rep(seq(from = 2, to = 5, by = 0.5), times = 4)$ $rep(c("M","W"), times = 10)$

III) **Defining x and y**

$x < -1:10$ $y < -c(11,12,13,14,15,16,17,18,19,20)$

IV) **Operations on Vectors**

$x+10$	$x-10$	$x*10$	$x/10$	$x\%\%5$	$x\%/\%5$
$x+y$	$x-y$	$x*y$	x/y	$x\%\%y$	$x\%/\%y$
$x>6$	$!(x>6)$	sum(x)	mean(x)	min(x)	max(x)

V) **Extracting Data from a Vector**

$y[2]$ $y[-2]$ $y[1:4]$ $y[c(1,4)]$ $y[-c(1,4)]$ $y[y<14]$

VI) **Concatenating Two Vectors**

z <- c(x, y).

VII) **Replacing Values in a Vector**

$x[3] < -35$ $x[x == 1] < -25.$ $x[x >= 5] < -20$

VIII) **Naming the components of a vector**

$notes < -c(English = 12, Computer_Science = 19.5, Mathematics = 14)$

IX) **Sorting the components of a vector**

sort(z) rev(sort(z))

X) **Mode and length of a vector**

$mode(X1)$ $mode(X2)$ $mode(X3)$ $length(X1)$ $length(X2)$ $length(X3)$