Self-Check Questions

These questions are meant for self-revision and will NOT contribute to the assignment score. You are strongly encouraged to revise the class material first and try these questions to test your understanding. The answers are attached for your reference.

1. Create a row vector of number 1 to 20, and repeat the sequence in the same vector. (1,2..,20,1..,20)

2. Create one string of numbers from 1 to 10 with no space in between. You should get "12345678910". (Hint: use ?paste0 command to find out whether the function has arguments which helps with the task.)

3. Label the vector you created in Q1 using cut function as follows: 1 - 7 as "good", 8-15 as "great" and 16-20 as "excellent".

4. Create a 6*8 Matrix with 1 to 48 filled by column.

5. Replace all "a" and "A"s with "o"s in the string "12A34ab56Abc78abcd",regardless of its case. (Hint: use ?gsub command to find out whether the function has arguments which helps with the task.)

6. What is the 111th character in this string "Rapidly changing work environments and economy needs are pushing organisations to seek new competencies from fresh hires. There is now greater ambiguity in the economy and national boundaries, and a greater use of ICT, data analytics and other emerging technologies. A growing number will also veer from the traditional job market to launch start-ups or work as free-lancers." (Hint: Search online if you don't know a function that does this already.)

```
#1
a<-rep(c(1:20),2)

a

##  [1]  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19
 20  1  2  3  4  5
## [26]  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20

#2
paste0(1:10,collapse = '')

## [1] "12345678910"

#3
cut(a,c(0,7,15,20), labels = c('good', 'great', 'excellent'))

##  [1] good      good      good      good      good      good
     good
##  [8] great     great     great     great     great     great
     great
## [15] great     excellent excellent excellent excellent excell
```

```
ent good
## [22] good       good       good       good       good       good
     great
## [29] great      great      great      great      great      great
     great
## [36] excellent excellent excellent excellent excellent
## Levels: good great excellent
```

#4
```r
matrix(1:48,nrow=6, ncol=8, byrow=FALSE)
```

```
##      [,1] [,2] [,3] [,4] [,5] [,6] [,7] [,8]
## [1,]    1    7   13   19   25   31   37   43
## [2,]    2    8   14   20   26   32   38   44
## [3,]    3    9   15   21   27   33   39   45
## [4,]    4   10   16   22   28   34   40   46
## [5,]    5   11   17   23   29   35   41   47
## [6,]    6   12   18   24   30   36   42   48
```

#5
```r
gsub("a","o","12A34ab56Abc78abcd",ignore.case = TRUE)
```

```
## [1] "12o34ob56obc78obcd"
```

#6
```r
c<-"Rapidly changing work environments and economy needs are pus
hing organisations to seek new competencies from fresh hires. Th
ere is now greater ambiguity in the economy and national boundar
ies, and a greater use of ICT, data analytics and other emerging
 technologies. A growing number will also veer from the traditio
nal job market to launch start-ups or work as free-lancers."

substr(c,111,111)
```

```
## [1] "r"
```