

Theory Subjects - 22 January 2019

Work Time: 50min

Please copy the subjects and then close your laptops.

1.(3p). Compare checked vs. unchecked exceptions in Java.

2.(3p). Given the following collection

```
List<Integer> numbers = Arrays.asList(1, 2, 3, 4, 5, 6, 7,  
8,9,10,11,12,14,15);
```

Using Java functional style (Java streams),

please write a program that is doing the following operations in the following order:

a)keep only the numbers which are multiple of 3 or multiple of 2;

b)transform each remaining number into a string, that consists of a prefix "A", the successor of the number and the suffix "B"

(eg. 6 is transformed into "A7B")

c)concatenate all the strings

3.(3p). What is a Cyclic Barrier in Java.