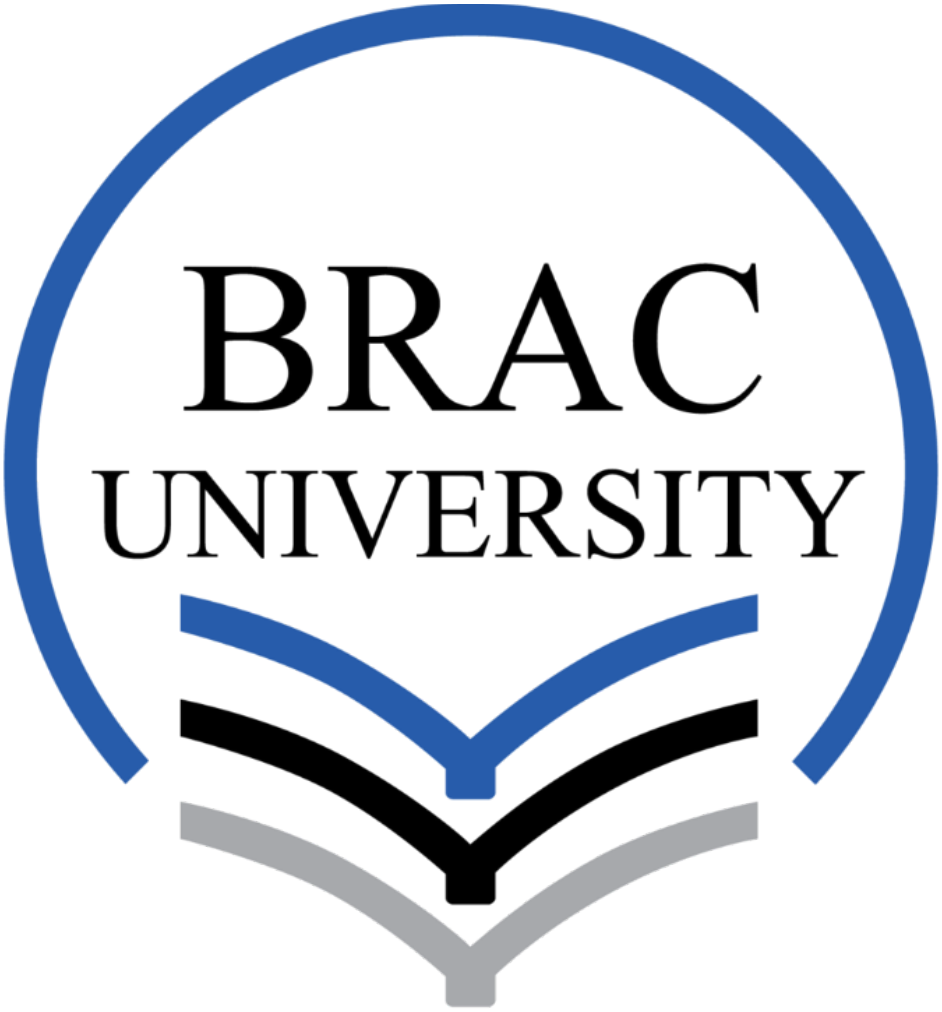

Inspiring Excellence

Course Title: Programming Language II
Course Code: CSE 111
Semester: Summer 2020
Assignment no: 1.2
Topic: Iteration and Condition

Easy

1.Count and print the numbers that are either divisible by 3 or 5 or both, from 1 to 30.

2. Find the maximum number among three numbers. [N.B: you do not know whether they are unique in value or not. Therefore, check all the possible conditions.]

Sample Input	**Sample Output**
17 53 33	53

3. BRAC UNIVERSITY has following rules for grading system:

a. Equal to or above 90 - A

b. Greater than or equal to 85 - less than or equal to 89 - A-

c. Greater than or equal to 80 - less than or equal to 84 - B+

d. Greater than or equal to 75 - less than or equal to 79 - B

e. Greater than or equal to 70 - less than or equal to 74 - B-

f. Greater than or equal to 65 - less than or equal to 69 - C+

g. Greater than or equal to 60 - less than or equal to 64 - C

h. Greater than or equal to 57 - less than or equal to 59 - C-

i. Greater than or equal to 55 - less than or equal to 56 - D+

j. Greater than or equal to 52 - less than or equal to 54 - D

k. Greater than or equal to 50 - less than or equal to 51 - D-

l. Less than 50 - F

Ask users to enter marks and print the corresponding grade.

Sample Input	**Sample Output**
92 79 65	A B C+

4. Determine whether a number is prime or not. [N.B. prime number is divisible by 1 and the number itself]

Medium

1. Print all the fibonacci numbers from 0 - N, where N is a user defined number. (Fibonacci numbers is a number which is the summation of the previous two fibonacci numbers starting from 0. Like 0 1 1 2 3 5…)

Sample Input
10

Sample Output
0 1 1 2 3 5 8

2. Print the reverse of a given integer without using any built in function.

Sample Input
12345

Sample Output
54321

3. Determine whether a number is a perfect number or not. [N.B. Perfect number is a number which divisors' summation is equal to the number itself. e.g. 6 is a perfect number. It's divisors are 1, 2 and 3; 1+2+3=6].

Sample Input
6
5

Sample Output
Perfect Number
Not Perfect

Hard

1. Count the total number unique digits of a given number.

Sample Input	Sample Output
122345	5.

2. Print a pyramid like structure of size N which will be user defined. If the user inputs N=3, then the pyramid will look like the following

Sample Input	Sample Output

3	
	  *
	 * *
	*****
	 * *
	  *

3. From a given integer, print the smallest possible number that consists of the same number of binary 1 of the given number. For example, the binary of 37 is 100101. Smallest number consisting of three 1's is 7 which is 111.

Sample Input
37

Sample Output
7