**Class Test 01: CSI 203 – Object Oriented Programming, Spring 2019**

**Total Marks: 20, Time: 10 minutes**

Name: ID:

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| 1 | Write a program that will decide whether a year is leap year or not.  Yes, if ( Year % 4 == 0 && year % 100 != 0 ) || ( Year % 400 ==0 )   |  |  | | --- | --- | | **Sample input** | **Sample output** | | 2000 | Yes | | 2004 | Yes | | 2014 | No | | 10 |
| 2 | Write a program that will print following series upto Nth terms.  1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31 …….   |  |  | | --- | --- | | ***Sample input*** | ***Sample output*** | | 2 | 1, 3 | | 5 | 1, 3, 5, 7, 9 | | 11 | 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21 | | 10 |

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| 1 | Write a program that will check whether a triangle is valid or not. A triangle is valid if the sum of all the three angles is equal to 180 degrees. Take the value of the three angles (angle value should be such that, 0 < value < 180) as input.   |  |  | | --- | --- | | **Sample input** | **Sample output** | | 90 45 45 | Yes | | 30 110 40 | Yes | | 160 20 30 | No | | 0 180 0 | No | | 10 |
| 2 | Write a program that will print the factorial (**N!)** of a given number **N**. Please see the sample input output.   |  |  | | --- | --- | | **Sample input** | **Sample output** | | 1 | 1! = 1 = 1 | | 2 | 2! = 2 X 1 = 2 | | 3 | 3! = 3 X 2 X 1 = 6 | | 10 |