

Offline Assessment Test -2

February 22, 2019

0.1 Offline Assessment Test -2

This is an offline test, for whom the answers need to be written on paper. Duration: 90minutes

Q1: Demonstrate the usage of @classmethod, @staticmethod and @property, each with an example.

Q2: Write a program to display the below shape

```

      *
     ***
    *****
   ********
  *********
 *********
 *********
 ***     ***
 ***     ***
 ***     ***
 ***     ***
```

Q3: Write a program to display the numbers in the below pattern:

```
01  02  03  04  05
14  15  16  17  06
13  20  19  18  07
12  11  10  09  08
```

Q4: Write a program to display the prime numbers between 0 and 100. Among them, if the 5th and 6th prime numbers are the first two fibonacci numbers, what is the 7th fibonacci number

Q5: write a class to implement the double linked list?

Q6: Write a class with methods, to check whether a given year is leap year, or not.

HINT: A leap year is exactly divisible by 4 except for century years (years ending with 00). T

```
2017 is not a leap year
1900 is a not leap year
2012 is a leap year
2000 is a leap year
```