

Week 8- Day 2 : Coding Challenge

T(n)

(Maximum marks - 15)

Tell time complexity of all the problems:

(ignore syntax errors, if any)

Q - 1)Below are nested “K” for loops (3 marks)

```
n= int(input("Enter the limit"))
for i in range(n):
    for j in range(n):
        for l in range(n):
            ...
            ...
            ...
            K for loops in total
            ...
            ...
            ...
            for z in range(n):
                print("Time complexity")
```

Q - 2) Recursive function (3 marks)

```
n= int(input("Enter the limit"))
def func(n):
    if n>=1:
        func(n-1)
    print("Time complexity")
```

Q - 3) (3 marks)

```
n= int(input("Enter the limit"))
i = 1
while(i2<=n):
    print("Time complexity")
    i += 1
```

Q - 4) (3 marks)

```
N= int(input("Enter the limit"))
M= int(input("Enter the limit"))
```

```
a = b = 0
for i in range (N) :
    a = a + 1
for j in range (M) :
    b = b + rand()
```

Q - 5) (3 marks)

```
n= int(input("Enter the limit"))
for i in range(n):
    for j in range(i):
        for k in range(100):
            print("Time complexity")
```

P.T.O

Q - 6) [BONUS QUESTION] (6 marks)

```
n= int(input("Enter the limit"))
for i in range(n):
    j = 1
    while(j<=i2):
        for k in range(n/2):
            print("Time complexity")
```

Marks distribution:

Question 1,2, 3,4 and 5 carry 3 marks each.

Question 6 is a bonus question, that means if you leave that question you don't lose a mark, but if you solve it, you can get an extra 6 marks.

Remark: maximum marks you can get is 15, bonus question helps only if you are not able to solve another question.