

Section 1 :- Theory

- Q1. What is the difference between list and tuples?
- Q2. What are the key features of Python?
- Q3. What is the difference between deep and shallow copy?
- Q4. How can the ternary operators be used in python?
- Q5. How is memory managed in Python?
- Q6. What is the usage of help() and dir() function in Python?
- Q7. Whenever Python exits, why isn't all the memory de-allocated?
- Q8. What are negative indexes and why are they used?
- Q9. What is the difference between range & xrange?
- Q10. Which one of these is floor division?

Section 2 :- Programming Analyzation

1) Find the output of the following code:

```
sum = 0
for i in range(12,2,-2):
    sum+=i
print sum
```

2) Find the output of the following code:

```
n=50
i=5
s=0
while i<n:
    s+=i
    i+=10
print "i=",i
print "sum=",s
```

3) Find the output of the following code:

```
List=[1,6,8,4,5]
print List[-4:]
```

4) How many times are the following loops executed?

```
i=100
while(i<=200):
    print i
    i+=20
```

5) Find the output of the following code:

```
L=[100,200,300,400,500]
L1=L[2:4]
print L1
L2=L[1:5]
print L2
L2.extend(L1)
print L2
```

6) Predict the behavior of the code:

```
List=list("String")  
print List
```

Section 3 :- Problem solving

Python Program to Convert Kilometers to Miles

Python Program to Convert Celsius To Fahrenheit

Python Program to Check Prime Number

Python Program to Print all Prime Numbers in an Interval

Python Program to Find the Factorial of a Number

Python Program to Display the multiplication Table

Python Program to Print the Fibonacci sequence

Python Program to Check Armstrong Number

Python Program to Find HCF or GCD

Python Program to Find LCM

Python Program to Find Factors of Number