**PYTHON BOOTCAMP TEST 1** Total Marks: **30 Marks**  
1. Identify the types of following literals? (5)  
**23.789 23789 True ‘True’ 0b234  
False “False” 0Xface 0o123 None**2. Sourayan has written the following two codes, but he is getting error. Explain why he is getting error and suggest a way how he can correct his code. (1+2)

a)   
print("My name is: ", name)

b)   
number = input("Enter Number: ")

DoubleTheNumber = Number \* 2

Print("DoubleTheNumber")

3. One of the biggest parts of programming is to look at the syntax and guess the nature of working of the programming statement. Below I have included some of the programming with which you might not be familiar with. By looking at the program and the output, try to guess the nature of working of the syntax. (1+4)

a)   
a = "Hello"

x = len("Hello")

print(x)

**Output:** 5  
  
Explain the working of the **len** function.

b)   
a = list(range(10))

print("The value of a: ",a)

b = list(range(10,20))

print("The value of b: ",b)

c =list(range(10,20,2))

print("The value of c: ",c)  
  
**Output:**   
The value of a: [0,1,2,3,4,5,6,7,8,9]  
The value of b: [10,11,12,13,14,15,16,17,18,19]  
The value of c: [10,12,14,16,18]  
  
  
Explain the working of the **range** function.

4. Explain the differences between the following expressing with proper example: (2+2)

a. / and // b. \* and \*\*  
5. Ask the user to specify the number of sides on a polygon and find the number of diagonals within the polygon. (2)

*If a Polygon has n sides, then total number of distinct diagonals: n(n-3)/2*

6. Take the lengths of two sides of a right-angle triangle from the user and apply the Pythagorean Theorem to find the hypotenuse. (2)  
7. What will be difference of the output given below: (2)  
 a) **print**(len(str(17//4))) b) **print**(len(str(17/4)))  
8. Find the output of the following code fragments: (1+2+1+3)

d)   
print(str(print()) + "ONE")

print(str(print("Hello"))+"ONE")

print(print("Hola"))

print(print("Hola",end=""))

c)   
a,b = 12,13

c,b = a\*2, a/2

print(a,b,c)

b)   
x,y = 20,60

y,x,y = x,y-10,x+10

print(x,y)

a)   
x = 42

y = x + 2

x = 20,(y+x)

print(x,y)