Python Basics Assignment 23

1. What is the result of the code, and why?

>>> def func(a, b=6, c=8):
print(a, b, c)
>>> func(1, 2)
Ans: The result of the above code is 1 2 8. It is because the function uses the default value of c i.e 8 which is provided at the time of declaration. We can see this below:

```
def func(a,b=6,c=8):
    print(a,b,c)
func(1,2)
```

1 2 8

2. What is the result of this code, and why?

>>> def func(a, b, c=5):
print(a, b, c)
>>> func(1, c=3, b=2)
Ans: The result of the above code is 1 2 3. It is because the function will use default values only when a value for a argument is not provided and if the argument name is mentioned while doing a function call, the order of arguments is also ignored by the python interpreter

```
def func(a,b,c=5):
    print(a,b,c)
func(1,c=3,b=2)
```

1 2 3

3. How about this code: what is its result, and why?

>>> def func(a, *pargs):
print(a, pargs)
>>> func(1, 2, 3)
Ans: The result of the code is 1 (2,3). *pargs stands for variable length arguments. This format is used when we are not sure about the number of arguments to be passed to a function. All the values under this argument will be stored in a tuple.

```
def func(a, *pargs):
    print(a,pargs)
func(1,2,3)
```

1 (2, 3)

4. What does this code print, and why?

```
>>> def func(a, **kargs):
print(a, kargs)
>>> func(a=1, c=3, b=2)
```

Ans: The result of the above code is 1 {'c': 3, 'b': 2}. **args stands for variable length keyword arguments. This format is used when we want pass key value pairs as input to a function. All these key value pairs will be stored in a dictionary

```
def func(a,**kargs):
    print(a,kargs)
func(a=1,c=3,b=2)
```

```
1 {'c': 3, 'b': 2}
```

5. What gets printed by this, and explain?

```
>>> def func(a, b, c=8, d=5): print(a, b, c, d)
>>> func(1, *(5, 6))
```

Ans: The output of the above is 1 5 6 5. The reason for this function not throwing an error is because, this function expects 4 arguments. The value for a is provided explicitly whereas for arguments b and c, the function will expand *(5,6) and consider the value of b as 5 and value of c as 6. Since the default value of d is provided in function declaration, d value will be 5. However it is recommended to use the feature of positional arguments at the end.

```
def func(a,b,c=8,d=5):
    print(a,b,c,d)
func(1,*(5,6))
```

```
1 5 6 5
```

6. what is the result of this, and explain?

```
>>> def func(a, b, c): a = 2; b[0] = 'x'; c['a'] = 'y'
>>> l=1; m=[1]; n={'a':0}
>>> func(l, m, n)
>>> l, m, n
```

Ans: The output of above code is 1, ['x'], {'a': 'y'}.

1. Even though Python gives importance to indentation, it provides a facility to declare an entire function in one single line where statements in a function body are sepereated by ;
2. When l,m,n are provided as inputs to the function, it modifies the values of l,m,n and sets the value of l=2 ,m=['x'] and n={'a':'y'}

```
def func(a, b, c): a = 2; b[0] = 'x'; c['a'] = 'y'
l=1; m=[1]; n={'a':0}
func(l, m, n)
l,m,n
```

```
(1, ['x'], {'a': 'y'})
```