**Topic: Control Structures**

**CS 150 Introduction To CS**

**Python - Worksheet 05**

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1. Assume a, b, and c have been assigned int values. Find the output of the following code segment in each of the following three cases:
   1. a = 10

if a == b:

c = a + b

elif a < b:

c = a - b

else:

c = b - a

print(c)

b = 9 a) **-1**

* 1. a = 5

b = 9 b) **-4**

* 1. a = 5

b = 5 c) **10**

10

10

10

10

10

…

***Infinite loop printing 10 until the system run out of resources and crashes***

1. Find the output of the following code segment. OUTPUT

a = 10

while a < 20:

print(a)

25

21

17

13

9

1. Find the output of the following code segment.

for a in range(25, 5, -4):

print(a)

1. Find the output of the following code segment.

1 2 3 4

1 2 3 4

1 2 3 4

1 2 3 4

for x in range(1, 5):

for y in range(1, 5):

print("{0:5d}".format(y), end="")

print()

1. Find the output of the following code segment.

b values

1000 875 750 625 500 375 250

a = 125

b values

1000 675 350

a = 325

b values

1000

a = 525

b values

1000

a = 725

for a in range(125, 750, 200):

print("b values")

b = 1000

while b > a:

print(b, end=" ")

b = b - a

print()

print("a = ", a)

print()