• After executing the instructions:

```python
x=5.0
x=“x”
x=x+x
```

the variable x has the value __________.

• In Python, dark red is ______________, orange is _____________, green is ____________, and black is ________________.

• Comment lines are used for
  a.  IDLE to interpret the program
  b.  Human to interpret the program
  c.  Python to interpret the program
  d.  No purpose other than good looking.
  e.  None of the above.

• Run the following code.

```python
x=5.5
y= float(int(x))
z=int(‘6’) +x
```

The value of y is __________________ and the value of z is _______________.

• The output of the following code is

```python
x= “drive”
y= “way”
z= 5.0
drive = str(x)+str(y) +str(int(z))
print( drive )
```

a.  ‘driveway5’
b.  ‘drive way 5’
c.  ‘drive way 5.0’
d.  ‘driveway5.0’
e.  None of the above.
What is the value of num after executing the following code, assuming the human input is 64?

```
num = input("my favorite number is :")
```

a. ‘64’
b. 64
c. ‘my favorite number is 64’
d. 4
e. ‘4’
f. None of the above.

Execute the following code.

```
green= 5
color= input("my favorite color is :")
print ( green+int(float(color))
```

which of the following inputs will not crash the program? (hint: there are one or more legitimate inputs)

a. 5
b. 5.0
c. c
d. x
e. None of the above.

What will you observe if you double click the following program named myprint.py?

```
print ( "hello!")
```
Why do we usually add a line “input(“press enter to exit.”)” at the end of a program?

What is the outcome after executing the following codes assuming human input is 55:
```python
x = "5"
x = x + x
x = int(x)
y = input("enter an integer")
y = int(y)
if x == y:
    print ("tie")
elif x > y:
    print ("x is larger")
else:
    print ("y is larger")
```

a. tie  
b. x is larger  
c. y is larger  
d. The program will crash.  
e. None of the above

What if the input to the above program is 5.5, 4, or 60?

a. tie  
b. x is larger  
c. y is larger  
d. The program will crash.  
e. None of the above
• What is the outcome after executing the following codes:

```python
count=0
while count<2:
    print ( count, end=' ' )
    count=count+1
```

a. 0 1  
b. 0 1 2  
c. 1 2  
d. 1 2 3  
e. None of the above

• What is the outcome after executing the following codes:

```python
count=0
while count<2:
    count=count+1
    print ( count, end=' ' )
```

a. 1 2  
b. 2  
c. 0 1 2  
d. 1  
e. None of the above
• (This question is on the more difficult side.) What is the outcome after executing the following codes:

```python
total=0
w=0
count1=0

for count1 in range(5):
    while w<5:
        total=total+1
        w=w+2

print ( total )
```

a. 5  

b. 8  

c. 3  xx  

d. The program will crash  
e. None of the above

• What is the outcome after executing the following codes:

```python
total=0
for i in range(1,3):
print ( total )
total=total+i
```

a. 0  

b. 1  

c. 2  

d. 3  

e. The program will crash  
f. None of the above

• The value of `len([1,2,3]+[3,5,1])` is

a. 1  

b. 2  

c. 6  x  

d. 3  

e. The program will crash  
f. None of the above
Which of the following lines are correct?
   a. for i in range(1,10,-1):
   b. for i == True:
   c. while i == True:
   d. while i in range (1,10):
   e. None of the above.

What is the outcome after executing the following codes:

```python
x=3
y= x<=6 and (not x<3)
print ( y )
```

   a. True x
   b. False
   c. The program will crash
   d. None of the above
• What is the outcome after executing the following codes:

```python
word= “my string”
for i in word:
    print ( i, end=’ ‘)
```

a. my string  
b. m y s t r i n g  
c. ‘my string’  
d. The program will crash  
e. None of the above

• What is the outcome after executing the following codes:

```python
for i in range(1,3):
    i=i+2
    print ( i, end=’ ‘)
```

a. 1 2  
b. 1 2 3  
c. 3 4  
d. 3 4 5  
e. 3  
f. None of the above

• What is the outcome after executing the following codes:

```python
x= "my string"
x=len(x)
print ( x)
```

a. 9  
b. 8  
c. ‘my string’  
d. The program will crash  
e. None of the above
• What are valid outcomes after executing the following codes (there might be more than one correct choices):

```python
import random
x=random.randrange(1,10)
print(x)
```

   a. 9  
b. -1  
c. 10  
d. 1  
e. 0  
f. The program may crash  
g. None of the above

• Read the following program:

```python
month = 0
balance = 100.00

while month < 12:
    # This block is done twelve times
    interest = balance * 1.2/100.0
    balance = balance + interest
    month = month+1
```

Replace the while loop by a for loop.
Spoiler
• After executing the instructions:

```python
x=5.0
x= “x”
x=x+x
```

the variable x will contain ____”xx”______.

• In Python, dark red is ______ comments _______, orange is __command________, green is __string__________, and black is ____variable/number____________.

• Comment lines are used for
  a. IDLE to interpret the program
  b. **Human to interpret the program**
  c. Python to interpret the program
  d. No purpose other than good looking.
  e. None of the above.

• Run the following code.

```python
x=5.5
y= float(int(x))
z=int(‘6’) +x
```

The value of y is _______5.0___________ and the value of z is _____11.0__________.

• The output of the following code is

```python
x= “drive”
y= “way”
z= 5.0
drive = str(x)+str(y) +str(int(z))
print ( drive)
```

a. ‘driveway5’
b. ‘drive way 5’
c. ‘drive way 5.0’
d. ‘driveway5.0’
What is the value of num after executing the following code, assuming the human input is 64?

```
num = input(“my favorite number is :”)
```

a. ‘64’  
b. 64  
c. ‘my favorite number is 64’  
d. 4  
e. ‘4’  
f. None of the above.

Execute the following code.

```
green= 5  
color= input(“my favorite color is :”)  
print (green+int(float(color)))
```

which of the following inputs will not crash the program? (hint: there are one or more legitimate inputs)

a. 5  
b. 5.0  
c. c  
d. x  
e. None of the above.

What will you observe if you double click the following program named myprint.py?

```
print (”hello!”)
```

Command line window flashes and disappears.
• Why do we usually add a line “input(“press enter to exit.”)” at the end of a program?
To hold the window open.

• What is the outcome after executing the following codes assuming human input is 55:
```
x= "5"
x=x+x
x=int(x)
y=input(“enter an integer”)
y=int(y)
if x==y:
    print (“tie”)
elif x>y:
    print (“x is larger”)
else:
    print (“y is larger”)
```

a. tie 
b. x is larger 
c. y is larger 
d. The program will crash. 
e. None of the above 

• What if the input to the above program is 5.5, 4, or 60?

a. tie 
b. x is larger 
c. y is larger 
d. The program will crash. 
e. None of the above 

If input is 5.5: crash
4: x is larger
60: y is larger
• What is the outcome after executing the following codes:

```python
count=0
while count<2:
    print count,
    count=count+1
```

a. 0 1  
b. 0 1 2  
c. 1 2  
d. 1 2 3  
e. None of the above

• What is the outcome after executing the following codes:

```python
count=0
while count<2:
    count=count+1
print (count)```

a. 1 2  
b. 2  
c. 0 1 2  
d. 1  
e. None of the above
(This question is on the more difficult side.) What is the outcome after executing the following codes:

```python
total=0
w=0
count1=0

for count1 in range(5):
    while w<5:
        total=total+1
        w=w+2

print (total)
```

a. 5 
b. 8 
c. 3 xx 
d. The program will crash 
e. None of the above

What is the outcome after executing the following codes:

```python
total=0
for i in range(1,3):
    print (total)
    total=total+i
```

a. 0 
b. 1 
c. 2 
d. 3 
e. The program will crash x 
f. None of the above

The value of `len([1,2,3]+[3,5,1])` is

a. 1 
b. 2 
c. 6 x 
d. 3 
e. The program will crash 
f. None of the above
Which of the following lines are correct?

a. for i in range(1,10,-1):
b. for i == True:
c. while i == True:
d. while i in range (1,10):
e. None of the above.

a is correct. b is not correct. c and d are correct if i is initialized before the line.

- What is the outcome after executing the following codes:

```python
x=3
y= x<=6 and (not x<3)
print (y)
```

a. True x
b. False
c. The program will crash
d. None of the above
What is the outcome after executing the following codes:

```python
word = "my string"
for i in word:
    print (i, end='')
```

a. my string  
**b. my string**  
c. ‘my string’  
d. The program will crash  
e. None of the above

What is the outcome after executing the following codes:

```python
for i in range(1,3):
    i = i + 2
    print (i, end='')
```

a. 1 2  
b. 1 2 3  
c. 3 4  
d. 3 4 5  
e. 3  
f. None of the above

What is the outcome after executing the following codes:

```python
x = "my string"
x = len(x)
print (x)
```

a. 9  
b. 8  
c. ‘my string’  
d. The program will crash  
e. None of the above
• What are valid outcomes after executing the following codes (there might be more than one correct choices):

   import random
   x=random.randrange(1,10)
   print (x)

   a. 9
   b. -1
   c. 10
   d. 1
   e. 0
   f. The program may crash
   g. None of the above

• Read the following program: (hard)

   month = 0
   balance = 100.00

   while month < 12:
       # This block is done twelve times
       interest = balance * 1.2/100.0
       balance = balance + interest
       month = month+1

   Replace the while loop by a for loop.

   month=0
   balance=100.00

   for i in range(0,12):
       interest=balance*1.2/100.0 #assume the monthly interest rate is 1.2%
       balance=balance+interest