

**Question 3**

**This question requires that you evaluate the underlined text to determine if it is correct.**

You write the following code:

The out.txt file does not exist You run the code. The code will execute without error.

**import sys**

**try:**

**file\_in = open("in.txt",'r')**

**file\_out = open("out.txt",'w+')**

**except IOError:**

**print('cannot open',file\_name)**

**else:**

**i=l**

**for line in file\_in:**

**print(line.rstrip())**

**file\_out.write("line " + str(i) + ":" + line)**

**i = i+ 1**

**file\_in.close()**

**file\_out.close()**

**Answer Area**

1. No change is needed.
2. The code runs,but generate a logic error.
3. The code will generate a runtime error.
4. The code will generate a syntax error

**Question 4**

Relecloud Virtual Learning asks you to debug some code that is causing problems with their payroll. They ask you to find the source of the payroll errors. The following variables have been declared:

**emp1oyee\_pay = [15000, 120000, 35000, 45000]  
count** = **0   
sum** = **0**There are two errors in the following code:

**for index in range(0, len(employee\_pay)-1)):   
 count** +=**1   
 sum** += **employee\_pay[index]   
average** = **sum//count   
print("The total payroll is:", sum** )   
**print("The average salary is:", average)**

Which code should you use to fix the errors? To answer, select the appropriate code segments in the answer area.

**Answer Area**

**for index in range 1................**

**count** +=**1   
 sum** += **employee\_pay[index]   
average** = **.2..............  
print("The total payroll is:", sum** )

1)

1. (size(employee\_pay)):
2. (size(employee\_pay)-1):
3. (len(employee\_pay)+1):
4. (len(employee\_pay)):

2)

1. sum/count
2. sum\*\*count
3. sum\*count

**Question 5**

You develop a Python application for your company.   
How should you complete the code so that the print statements are accurate? To answer. select the appropriate code segments in the answer area.

**Answer Area**

**numList =[1,2,3,4,5]**

**alphaList=["a","b","c","d","e"]**

**1................................**

**print("The values in numList are equal to alphaList")**

**2....................................**

**print("The values in numList are not equal to alphaList")**

1)

1. if numList==alphaList:
2. B if numList==alphaList
3. else:
4. else

2)

1. if numList==alphaList:
2. B if numList==alphaList
3. else:
4. D.else

**Question 6**

You are writing a function in Python that must meet the following requirements:

• The function accepts a list and a string as parameters.   
• The function must search for the string in the list   
• If the string is found in the list, the function must print a message indicating that the string was found and then stop iterating through the list   
• If the string is not found, the function must print a message indicating that the string was not found in the list.

In which order should you arrange the code segments to develop the solution? To answer, move all code segments from the list of code segments to the answer area and arrange them in the correct order.

**Answer Area**

|  |
| --- |
| A - for i in range(len(items)): |

|  |
| --- |
| B - if items[i]==term:  print("{0} was found in the list.".format(term)) |

|  |
| --- |
| C - break |

|  |
| --- |
| D - def search(items,term): |

|  |
| --- |
| E -  else:  print("{0} was not found in the list." .format(term)) |

1. D,A,B,C,E
2. D,B,A,C,E
3. B,D,A,C,E
4. D,A,B,E,C

**Question 7**

You are writing a Python program to ask the user to enter a number and determine if the number is 1 digit 2 digits, or more than 2 digits long.

You need to write the program.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

**num =int(input("Enter a number with 1 or 2 digits:"))**

**digits=0;**

**1------------------------**

**digits = "1"**

**2......................................................**

**digits= 2**

**.3...................................................**

**digits= ">2"**

1 .

1. if num > - 10 and num < 10:
2. lif num> - 100 and num < 100:

2.

1. if num > -100 and num < 100:
2. elif num >-100 and num < 100:
3. if num >-10 and num < 10:
4. elif num >-10 and num <10:

3.

1. else:
2. elif:

**Question 8**

Wingtip Toys is creating an interactive Times Table Helper program intended for elementary school children.

You need to complete a function that computes and displays all multiplication table combinations from 2 to 12.

How should you complete the code? To answer, select the appropriate code segments in the answec area,

**Answer Area**

**#Display times table 2 -12**

**def times\_tables():**

**1-------------------------**

**2-------------------------**

**print(row\*col,end=" ")**

**print()**

**#main**

**times\_tables()**

1)

1. for col in range(13):
2. for col in range(2, 13):
3. for col in range(2,12,1):
4. for col in range(12):

2)

1. for row in range(13):
2. for row in range(2, 13):
3. for row in range(2,12,1):
4. for row in range(12):

**Question 9**

Adventure Works Cycles sales are so exceptional that they decide to give a bonus to all employees who do not make more than $150,000. The following formula applies to each employee based on their base salary and a flat bonus:

New **salary = current salary x 3%** + **a $500 bonus.**You write code that reads the employee salaries into a variable named **salary\_list.**

You need to complete the code that applies an increase to each eligible employee’s salary.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

# Each salary in the list is updates based on increase.Employee making.

#$150,000 or more will not get a raise.

# Salary list is populated from employee database, code not shown.

**salary\_list=[150000,340000,230000,500000,100000,120000,90000]**

**1...................................**

**if salary\_list[index] >=150000:**

**2............................................**

**salary\_list[index] = (salary\_list[index] \*1.03)+500**

1)

1. for index in range(len(salary\_list)+1):
2. for index in range(len(salary\_list)-1):
3. for index in range(len(salary\_list)):
4. for index in salary\_list:

2)

1. exit()
2. continue
3. break
4. end

**Question 10**

You are creating a Python program that will let a user guess a number from 1 to 10. The user is allowed up to three guesses.   
You write the following code. Line numbers are included for reference only.

**01 from random import randint   
02 target = randint(1,10)   
03 chance = 1   
04 print ("Guess an integer from 1 to 10. You will have 3 chances.")   
05   
06 guess = int(input(”Guess an integer: ))   
07 if guess > target:   
08 print ("Guess is too high")   
09 elif guess < target:   
10 print (“Guess is too low")   
11 else:   
12 print ("Guess is just right!”)**

The program must allow three guesses. If the user guesses the correct number, the program must stop asking for guesses.   
How should you complete lines 05, 13, and 14? To answer, drag the appropriate code segments to the correct locations. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

**Answer Area**

Which code segement should you use at line 05?

A. while chance <=3 E. while chance <3:

B. break F pass

C. chance+=1 G. while chance < 3

D. chance = 2

Which code segment should you use at line 13?

A. while chance <=3 E. while chance <3:

B. break F pass

C. chance+=1 G. while chance < 3

D. chance = 2

which code segment should you use at line 14?

A. while chance <=3 E. while chance <3:

B. break F pass

C. chance+=1 G. while chance < 3

D. chance = 2

**Question 11**

You are creating a function to calculate admission fees by using Python. Admission fees are calculated based on the following rules:

• Anyone under age 5 = free admission   
• Anyone age 5 or older who is in school = 10 USD   
• Anyone age 5 to 17 who is not in school = 20 USD   
• Anyone older than age 17 who is not in school = 50 USD   
How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

**admission\_fee(age, school):**

**rate =0**

**.1.................................**

**rate =10**

**.2....................................**

**3 ....................................**

**rate =20**

1)

1. if age >=5 and school == True:
2. if age >=5 and age < =17:
3. if age >=5 and school ==False:

2).

1. elif age >=5 and school == False
2. else age >=5 and school ==False:
3. elif age >=5 and school ==True:

3).

1. if age >=5 and school == True:
2. if age >=5 and school == False:
3. if age <=17:

**Question 12**

You work on a team that is developing a game for AdventureWorks.   
You need to write code that generates a random number that meets the following requirements:

• The number is a multiple of 5.   
• The lowest number is 5.   
• The highest number is 100.

Which two code segments will meet the requirements? Each correct answer presents a complete solution. Choose two.

**Answer Area**

A. from random import randrange

print(randrange(5, 100, 5))

B. from random import randrange

print(randrange(0, 100, 5))

C. from random import randint

print(randint(0, 20)\*5)

D. from random import randint

print(randint(1, 20)\*5)

**Question 13**

You write a function that reads a data file and prints each line of the file. You write the following code. Line numbers are included for reference only.

**01 def read\_file(file):   
02 line= None   
03 if os.path.isfile(file):   
04 data = open(file,'r')   
05 for line in data:   
06 print(line)**

When you run the program, you receive an error on line 03.

**Answer Area**

A. The **path** method does not exist in the **os** object.   
B. You need to import the **os** library.   
C. The **isfile** method does not exist in the **path** object.   
D. The **isfile** method does not accept one parameter.

**Question 14**

You need to write code that generates a random **float** with a minimum value of 0.0 and a maximum value of 1.0. Which statement should you use?

**Answer Area**

A. rando.randrange(0.0, 1.0)   
B. random.randrange()   
C. random.random()   
D. random.randint(O, 1)

**Question 16**

You are writing a function that increments the player score in a game.   
The function has the following requirements:   
• If no value is specified for points, then points start at one   
• If bonus **IS True,** then points must be doubled

You write the following code. Line numbers are included for reference only.

**01 def increment\_score(score, bonus, points):   
02 if bonus == True:   
03 points = points \* 2   
04 score = score + points   
05 return score   
06 points = 5   
07 score = 10   
08 new\_score = increment\_score(score, True, points)**

For each of the following statements, select Yes if the statement is true. Otherwise, select No.   
Note: Each correct selection is worth one point.

**Answer Area**

A. yes

B. No

To meet the requirements, line 01 must be changed to the following:   
**def increment\_score(score, bonus, points** = **1):**

A. yes

B. No

Once any parameter is defined with a default value, any parameters to the right must also be defined with default values.

A. yes

B. No

If the function is called with only two parameters, the value of the third parameter will be None.

A. yes

B. No

Line 03 will also modify the value of the variable points declared at line

**Question 17**

You are developing a Python application for an online game.

You need to create a function that meets the following criteria:

• The function is named **update\_score**• The function receives the current score and a value   
• The function adds the value to the current score   
• The function returns the new score

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

**1) .............................. 2) .................................**

**current+=value**

**3)..............................**

1)

1. update\_score
2. def update\_score
3. return update\_score

2)

1. (current,value):
2. ():
3. (current,value)
4. D.()

3)

1. pass current
2. return current
3. return
4. pass

**Question 18**

Woodgrove Bank is migrating their legacy bank transaction code to Python.   
You have been hired to document the migrated code.   
Which documentation syntax is correct?

**Answer Area**

A. ' Returns the current balance of the bank account

def get\_balance():   
 return balance

B. def get\_balance():   
 #Returns the current balance of the bank account   
 return balance   
c. def get\_balance():

/\*Returns the current balance of the bank account\*/

return balance

D. //Returns the current balance of the bank account

def get\_balance():   
return balance

**Question 19**

You are writing a Python application for a dance studio.

The studio wants to encourage youth and seniors to sign up. Minors and seniors must receive a 10% discount.

You write the following code. Line numbers are included for reference only.

**01. def get\_discount(minor, senior):   
02 discount** = **.1   
03   
04 discount** = **0   
05 return discount**

**Answer Area**

1. if not (minor and senior):
2. if not (minor or senior):
3. if (not minor) or senior:
4. if (not minor) and senior:

**Question 20**

A classmate has asked you to debug the tollowing code:

**x = 4**

**while x >= 1:**

**if x % 4 == 0:**

**print ("party")**

**elif x - 2 < 0:**

**print("cake")**

**elif x/3 == 0:**

**print("greeting")**

**else:**

**print("birthday")**

**x=x-1**

**Answer Area**

What is the output that is printed to the screen?

A. birthday

party

greeting

cake

B. party   
 greeting   
 birthday   
 cake

c. birthday

greeting   
 party   
 cake

D. party   
 birthday   
 birthday   
 cake

**Question 21**

You write the following code:

**a='Configl'   
print(a)   
b=a   
a** + = **Config2   
print(a)   
print(b)**

Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment.

**Answer Area**

What is displayed after the first print?

1. A.Config1
2. Config1Config2
3. C.Config2

what is displayed after the second print?

1. A.Config1
2. Config1Config2
3. C.Config2

what is displayed after the third print?

1. A.Config1
2. Config1Config2
3. C.Config2

**Question 22**

you Write the following code:

**list\_ 1 = [1, 2]**

**list\_2 = [3, 4]**

**list\_3 = list\_1 + list\_2**

**list\_4 = list\_3\*3**

**print(list\_4)**

you run the code.

**Answer Area**

What is the output value?

1. [[1,2], [3,4],[1,2],[3,4],[1,2],[3,4]]
2. [[1,2,3,4], [1,2,3,4],[1,2,3,4]]
3. [3,6,9,12]
4. [1,2,3,4,1,2,3,4,1,2,3,4]

**Question 23**

You develop a Python application for your school.

A list named **colors** contains 200 colors. You need to slice the list to display every other color starting with the second color.

**Answer Area**

Which code should you use?

1. colors[1::2]
2. colors[1:2]
3. colors[2:2]
4. colors[::2]

**Question 24**

You are creating a Python program that compares numbers.

You create the following code. Line numbers are included for reference only.

**01 num1 = eval (input (“Please enter the first number: " ))   
02 num2 = eval (input ("Please enter the second number: "))   
03 if num1 == num2:   
04 print("The two numbers are equal.")   
Os if num1 <= num2:   
06 print("Number 1 is less than number 2.")   
07 if num1 > num2:   
08 print("Number 1 is greater than number 2.")   
09 if num2 = num1:   
10 print("The two numbers are the same.")**

You need to ensure that the comparisons are accurate.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

**Answer Area**

The print statement at line 04 will only print if the two numbers are equal in value.

1. Yes
2. NO

The print statement at line 06 will only print if num1 is less than num2.

1. Yes
2. NO

The print statement at line 08 will only print if num1 is greater than num2.

1. Yes
2. NO

The statement at line 09 is an invalid comparison.

1. Yes
2. NO

**Question 25**

You evaluate the following code:   
numList = [0,1,2,3,4]

print(5 in numList)

**Answer Area**

What is the output of the print statement?

1. 4
2. False
3. True
4. 5

**Question 26**

A coworker wrote a program that inputs names into a database. Unfortunately, the program reversed the letters in each name.

You need to write a Python function that outputs the characters in a name in the correct order.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

**def reverse\_name (backwards\_name):**

**forward\_name = ' '**

**for index in 1)............................**

**forward\_name += 2).............................**

**return forward\_name**

**print(reverse\_name("leinad")) #test case**

1)

1. backwards\_name:
2. len(backwards\_name):
3. range(0,len(backwards\_name)-1):
4. range(len(backwards\_name)-1,-1,-1):

2)

1. backwards\_name[index-1]
2. backwards\_name[len(forward\_name)-1]
3. backwards\_name[len(backward\_name)-len(forward\_name)]
4. backwards\_name[index]

**Question 27**

Woodgrove Bank must generate a report that shows the average balance for all customers each day. The report must truncate the decimal portion of the balance.

Which two code segments should you use? Each correct answer presents a complete solution. Choose two.

**Answer Area**

1. average\_ba1ance = total\_deposits\*\*number\_of\_customers
2. average\_balance = int(total\_deposits/number\_of\_customers)
3. average\_balance = total\_deposits//number\_of\_customers
4. average\_balance = float(total\_deposits//number\_of\_customers)

**Question 28**

You develop a Python application for your company.

You have the following code. line numbers are included for reference only.

**01 def main(a,b,c,d):   
02 value = a+b\*c-d   
03 return value**

Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment.

**Answer Area**

Which part of the expression will be evaluated first?

1. a+b
2. b\*c
3. c-d

Which operation will be evaluated second?

1. addition
2. Subtraction

Which expression is equivalent to the expression in the function?

1. (a+b)\*(c-d)
2. (a+(b\*c))-d
3. a+((b\*c)-d)

**Question 29**

You are writing a function to perform safe division.

You need to ensure that a denominator and numerator are passed to the function and that the denominator is not zero.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

**def safe\_divide(numerator, denominator):**

**1).......................**

**print("A required value is missing.")**

**2)........................**

**print("The denominator is zero.")**

**else:**

**return numerator /denominator**

1)

1. if numerator is None or denominator is None:
2. if numerator is None and denometor is None:
3. if numerator = None or denominator =None
4. if numerator = None and denominator = None:

2)

1. elif denominator ==0:
2. elif denominator = 0:
3. elif denominator !=0:
4. elif denominator in 0:

**Question 30**

You are writing a function that returns the data type of the value that Is passed in. You write the following code. Line numbers are included for reference only.

**01 def checkType(value):   
02 dataType = type(value)   
03 return dataType   
04 print(checlcType(True))   
05 print(checkType(1.0))   
06 print (checkType(1))   
07 print(checkType("True"))**

Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment

**Answer Area**

What is printed at line 04?

1. <class'bool'>
2. <class 'float'>
3. <class'int'>
4. <class'str'>

what is printed at line 05?

1. <class'bool'>
2. <class 'float'>
3. <class'int'>
4. <class'str'>

what is printedd aat line 06?

1. <class'bool'>
2. <class 'float'>
3. <class'int'>
4. <class'str'>

what is printed at line 07?

1. <class'bool'>
2. <class 'float'>
3. <class'int'>
4. <class'str'>

**Question 31**

You are developing a Python program that compares numbers.

You need to ensure that you are using the correct comparison operators.

Evaluate each expression and indicate the correct result. To answer, drag the appropriate result from the column on the left to its expression on the right. Each result may be used once, more than once, or not at all.

NOTE: Each correct selection is worth one point.

**Answer Area**

1) . 0 or 5

1. True
2. False
3. 5
4. None

2). bool(0)

1. True
2. False
3. 5
4. None

3). None is None

1. True
2. False
3. 5
4. None

4). -5 < 0 <5

1. True
2. False
3. 5
4. None

**Question 32**

You are writing a program that calculates a user’s year of birth. The program asks users for their age and the current year, then outputs the users year of birth, You write the following code. Line numbers are included for reference only.

**01 age = input(”Enter your age: “)   
02 year = input(”Enter the four digit year: “)   
03 born = eval(year) - eval(age)   
04 message = “You were born in "+ str(born)   
05 print(message)**

You need to ensure that the program uses the appropriate data types.

What data types are used? Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment.

**Answer Area**

What data type is age in line 01?

1. int
2. str
3. float
4. bool

what data type is born in line 03?

1. int
2. str
3. float
4. bool

what data type is message in line 04?

1. int
2. str
3. float
4. bool

**Question 33**

You have the following list structure:

**aiph = “abcdefghijklmnopqrstuvwxyz”**

You need to evaluate the result of performing various slicing operations.

Match the result to the slicing operation. To answer, drag the appropriate result from the column on the left to its slicing operation on the right. Each result may be used once, more than once, or not at all.

**Answer Area**

alph[3:15]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph[3:15:3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph[3:15:-3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph [15:3:-3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph[15:3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph[::-3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

**Question 34**

You are writing a Python program. The program collects customer data and stores it in a database.

The program handles a wide variety of data.   
You need to ensure that the program handles the data correctly so that it can be stored in the database correctly.

Match the data type to the code segment. To answer, drag the appropriate data type from the column on the left to its code segment on the right. Each data type may be used once, more than once, or not at all.

**Answer Area**

age =2

1. bool
2. float
3. int
4. str

minor=False

1. age =2
2. bool
3. float
4. int
5. str

name = "Contoso"

1. age =2
2. bool
3. float
4. int
5. str

weight = 123.5

1. age =2
2. bool
3. float
4. int
5. str

zip ="81000"

1. age =2
2. bool
3. float
4. int
5. str

**Question 35**

Northwind Electric Cars needs help updating their file system using Python code. You must create a simple file manipulation program that performs the following actions:

• Checks to see if a file exists.   
• If the file exists, displays its contents.   
• If the file does not exist creates a file using the specified name.   
• Appends the phrase, ‘End of listing’ to the file.

You need to complete the code to meet the requirements.

How should you complete the code? To answer. select the appropriate code segments in the answer area.

**Answer Area**

**Question 38**

You write the following code:

**import datetime**

**d = datetime.datetime(2017, 4, 7)   
print('{:%B-%d-%y}' .format(d))   
num=1234567.890   
print({:,.4f)' .format(num))   
You run the program.**

What is the output?

**Answer Area**

A. Apr--07--2017   
 1,234,567.8900   
 Press any key to continue..

B. April--07--17   
 1.234,567.8900   
 Press any key to continue...

C. April--07--17   
 1234567.89   
 Press any key to continue...

D. 2017--ApriI--07   
 1,234,567.890

**Question 39**

You are writing a function to read a data file and print the results as a formatted table.   
The data file contains information about fruit. Each record contains the name of the fruit, the weight, and the price.   
You need to print the data so that it looks like the following sample:

Oranges 5.6 1.33   
Apples 2.0 0.54   
Grapes 10.2 10.96

Specifically, the print out must meet the following requirements:

• The fruit name must print left-aligned in a column 10 spaces wide.   
• The weight must print right-aligned in a column 5 spaces wide with up to one digit after the decimal point.   
• The price must print right-aligned in a column 7 spaces wide with up to two digits after the decimal point.

You write the following code. Line numbers included are for reference only.

**01 def print\_table(file):   
02 data - open(file,'r')   
03 for record in data:   
04 fields = record.split(",")**

How should you complete line 05? To answer, drag the appropriate code segments to the correct location. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

**Answer Area**

**1)..................... 2)......................... 3)........................ 4)....................... ".format(fields[0],eval(fields[1]),eval(fields[2])))**

1).

1. print("
2. {10:0}
3. {5:1f}
4. {7:2f}
5. {2:7.2f}
6. {1:5.1f}
7. {0:10}

2)

1. print("
2. {10:0}
3. {5:1f}
4. {7:2f}
5. {2:7.2f}
6. {1:5.1f}
7. {0:10}

3)

1. print("
2. {10:0}
3. {5:1f}
4. {7:2f}
5. {2:7.2f}
6. {1:5.1f}
7. {0:10}

4)

1. print("
2. {10:0}
3. {5:1f}
4. {7:2f}
5. {2:7.2f}
6. {1:5.1f}
7. {0:10}

**Question 40**

Tailspin Toys is building a basketball court for its employees to improve company morale.

You are creating a Python program that employees can use to keep track of their average score.

The program must allow users to enter their name and current scores. The program will output the user name and the users average score. The output must meet the following requirements:

• The user name must be left-aligned.

• If the user name has fewer than 20 characters, additional space must be added to the right.

• The average score must have three places to the left of the decimal point and one place to the right of the decimal QO(X-X).

How should you complete the code? To answer, select the appropriate code segments in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

**name =input("What is your name? ")**

**score =0**

**count =0**

**Sum = 0**

**while(score !=-1):**

**score =int(input("Enter your scores:(-1 to end)"))**

**if score == -1:**

**break**

**Sum+=score**

**count +=1**

**average\_score =Sum/count**

**print(" 1)............., your average score is: 2) ............................. "% (name, average))**

1)

1. %-20i
2. %-20d
3. %-20f
4. %-20s

2)

1. %1.4s
2. %4.1f
3. %4.1S
4. %1.4f

**Question 1.**

You are writing a Python program to validate employee numbers.

The employee number must have the format ddd-dd—dddd and consist only of numbers and dashes. The program must print True if the format is correct and print False if the format is   
incorrect.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

employee\_number=""

parts =" "

while employee\_number!="":

valid =True

employee\_number = input("Enter employee number (ddd-dd-dddd): ")

parts = employee\_number.split('-')

if len(parts)==3 :

if len(parts[0]) ==3 and len(parts[1])==2 and len(parts[2]) ==4 :

if parts[0].isdigit() and parts[1].isdigit() and parts[2].isdigit():

valid=False

print(valid)

**Question 2.**

You are coding a math utility by using Python.

You are writing a function to compute roots.

The function must meet the following requirements:

If a is non-negative, return a\*\*(1/b)

If a is negative and even, return "Result is an imaginary number"

If a is negative and odd, return –(-a\*\*(1/b)

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

def safe\_root(a,b):

1.................

answer =a\*\*(1/b)

2.................

3 ..............

answer ="Result is an imaginary number"

4...............

answer= -(-a)\*\*(1/b)

return answer

**Q - section 1**

1. If a>=0:
2. If a %2==0:
3. else:
4. elif:

**Q - section 2**

1. If a>=0:
2. If a %2==0:
3. else:
4. elif:

**Q - section 3**

1. If a>=0:
2. If a %2==0:
3. else:
4. elif:

**Q - section 4**

1. If a>=0:
2. If a %2==0:
3. else:
4. elif:

**Question 3.**

You work for a company that distributes media for all ages.

You are writing a function that assigns a rating based on a user's age. The function must meet the following requirements:

• Anyone 18 years old or older receives a rating of “A”

Anyone 13 or older, but younger than 18, receives a rating of "T”.

Anyone 12 years old or younger receives a rating of “c”

If the age is unknown, the rating is set to "C".

You need to complete the code to meet the requirements.

**Answer Area**

def get\_rating(age):

rating =""

1………………………

2........................

3………………………

4………………………

return rating

**Q - section 1**

1. age < 13 : rating = ”C”
2. age < 18 : rating = ”T”
3. :rating = ”A”
4. age== None:rating =”C”

**Q - section 2**

1. age < 13 : rating = ”C”
2. age < 18 : rating = ”T”
3. :rating = ”A”
4. age== None:rating =”C”

**Q - section 3**

1. age < 13 : rating = ”C”
2. age < 18 : rating = ”T”
3. :rating = ”A”
4. age== None:rating =”C”

**Q - section 4**

1. age < 13 : rating = ”C”
2. age < 18 : rating = ”T”
3. :rating = ”A”
4. age== None:rating =”C”

**Question 4.**

You are designing a decision structure to convert a student's numeric grade to a letter grade. The program must assign a letter grade as specified in the following table:

Percentage range Letter grade

90 through 100 A

80 through 89 B

70 through 79 C

65 through 69 D

O through 64 F

For example, if the user enters a 90, the output should be, "Your letter grade is A." Likewise, if a user enters an 89, the Output should be "Your letter grade is B."

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

# Letter Grade Converter

grade =int (input(“Enter a numeric grade”))

1…………………………………..

letter\_grade = ‘A’

2…………………………………...

letter\_grade = ‘B’

3…………………………………….

Letter\_grade =’C’

4……………………………………..

Letter\_grade = ‘D’

Else:

Letter\_grade =’F’

**Q - section 1**

1. If grade <=90:
2. If grade >=90:
3. elif grade >90:
4. elif grade >=90:

**Q - section 2**

1. If grade <=80:
2. If grade >=80:
3. elif grade >80:
4. elif grade >=80:

**Q - section 3**

1. If grade <=70:
2. If grade >=70:
3. elif grade >70:
4. elif grade >=70:

**Q - section 4**

1. If grade <=65:
2. If grade >=65:
3. elif grade >65:
4. elif grade >=65:

**Question 5**

You are developing a Python apprcation for an online product distribution company.

You need the program to iterate through a list of products and escape when a target product D is found.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

NOTE Each correct selection is worth one point.

**Answer Area**

produceIdList =[ 0,1,2,3,4,5,6,7,8,9]

index =0

1.............. (index <10):

print (ProductIdList[index])

if productIdList[index]==6:

2...................

else:

index+=1

**Q - section 1**

1. While
2. For
3. If
4. break

**Q - section 2**

1. While
2. For
3. If
4. break

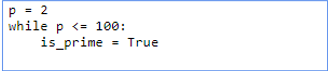
**Question 6**

You are building a python program that displays all of the prime numbers from 2 to 100.

How should you complete the code? To answer, drag the appropriate code segments to the correct location. Each code segment may be used once, more than once, or not at all.

You may need to drag the split bar between panes or scroll to view content.

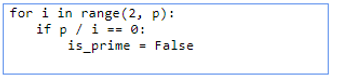
NOTE: Each correct selection is worth one point.

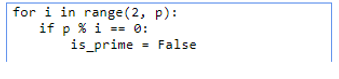
 











**Question 7**

You are creating a Python script to evaluate input and check for upper and lower case.

Which four code segments should you use to develop the solution? To answer, move the appropriate code segment from the list of code segments to the answer area and arrange them in the correct order.

Code Segments

A.

|  |
| --- |
| else:  print(name, “is mixed case.”) |

B.

|  |
| --- |
| else:  print(name, “is lower case.”) |

C.

|  |
| --- |
| name = input(“Enter your name: “) |

D.

|  |
| --- |
| else:  print(name, “is upper case.”) |

E.

|  |
| --- |
| elif name.upper() == name:  print(name, “is all upper case.”) |

F.

|  |
| --- |
| if name.lower()==name:  print(name, “is all lower case.”) |

1. C,F,E,A
2. C,E,F,A
3. E,C,D,B
4. C,B,D,A

**Question 8**

You develop a Python application for your company.

You have the following code. Line numbers are included for reference only.

def main(a,b,c,d):

value = a+b\*c-d

return value

Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment.

**Answer Area**

Which part of the expression will be evaluated first?

1. a+b
2. b\*c
3. c-d

Which Operation will be evaluated second?

1. Addition
2. subtraction

Which expression is equivalent to the expression in the function?

1. (a+b)\*(c-d)
2. (a+(b\*c))-d
3. a+((b\*c)-d)

**Question 9**

Northwind Traders has hired you as an intern on the coding team that creates e-commerce appications,

You must write a script that asks the user for a value. The value must be used as a whole number in a calculation, even if the user enters a decimal value.

You need to write the code to meet the requirements.

**Answer Area**

Which code segment should you use?

1. totalItems = input(“How many items would you like?”)
2. totalItems = float(input(“How many items would you like?”))
3. totalItems = str(input(“How many items would you like?”)
4. totalItems = int(input(“How many items would you like?”))

**Question 10**

You create the following program to locate a conference room and display the room name. Line numbers are included for reference only.

rooms (I: ‘Foyer’ ,2: 'Conference Room')

room = input( 'Enter the room number: ‘)

if not room in rooms:

print( 'Roon does not exist. ' )

else :

print(“room name is " + rooms[room])

Colleagues report that the program sometimes produces incorrect results.

You need to troubleshoot the program. Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment.

**Answer Area**

Which two data types are stored in the rooms list at line 01?

1. Bool and string
2. Float and bool
3. Int and string
4. Float and int

What is the data type of room at line 02?

1. Bool
2. Float
3. Int
4. string

Why does line 03 fail to find the rooms ?

1. Invalid syntax
2. Mismatched data type(s)
3. Misnamed variable(s)

**Question 11**

During school holidays, you volunteer to explain some basic programming concepts to your younger siblings.

You want to introduce the concept of data types in Python. You create the following three code segments:

#Code segment 1

X1 = “20”

Y1 = 3

a = x1 \* y1

# Code segment 2   
x2 = 6

Y2 = 4

B= x2 / y2

# Code Segment 3

x3 = 2.5   
y3 = 1

c=x3 / y3

You need to evaluate the code segments.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE : Each correct selection is worth one point.

**Answer Area**

After executing code segment 1, the data type of variable a is str.

1. Yes
2. NO

After executing code segment 2, the data type of variable b is float.

1. Yes
2. No

After executing code segment 3, the data type of variable c is int.

1. Yes
2. No

**Question 12**

Match the data type to the type operations.

To answer, drag the appropriate data type to the correct type operation. Each data type may be used once, more than once, or not at all.

**Answer Area**

1. type(+1E10)
2. int
3. float
4. str
5. bool
6. type(5.0)
7. int
8. float
9. str
10. bool
11. type(“True”)
12. int
13. float
14. str
15. bool
16. type(False)
17. int
18. float
19. str
20. bool

**Question 13**

Luceme Publishing Company needs a way to find the count of particular letters in their publications to ensure that there is a good balance. It seems that there have been complaints about overuse of the letter e. You need to create a function to meet the requirements.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

#Function accepts list of words from a file

#and letter to search for.

#Returns count of a particular letter in that list.

def count\_letter(letter,word\_list):

count=0

for 1..............

if 2............

count +=1

return count

word\_list =[]

#word\_list is populated a from file. code not shown

letter = input("which letter would you like to count")

letter\_count =count\_letter(letter ,word\_list)

print("There are: ",letter\_count, "instances of " + letter)

**Q - section 1**

1. word\_list in word:
2. Word in word\_list:
3. Word ==word\_list:
4. Word is word\_list:

**Q - section 2**

1. Word is letter:
2. Letter is word:
3. Word in letter:
4. Letter in word:

**Question 14**

Southridge Video needs a way to determine the cost that a customer will pay for renting a DVD. The cost is dependent on the time of day the DVD is retumed. How'ever, there are also special rates on Thursdays and Sundays. The fee structure 's shown in the following list:

Answer Area

**Question 15**

Tailspin Toys is converting an existing application to Python. You are creating documentation that will be used by several interns who are working on the team.

You need to ensure that arithmetic expressions are coded correctly.

What is the correct order of operations for the six classes of operations ordered from first to last in order of precedence? To answer, move all operations from the ist of operations to the

answer area and arrange them in the correct order.

**Answer Area**

Operations

1. Parenthesis
2. Exponents
3. Add
4. Multiplication and Division
5. Addition and Subtraction
6. Unary positive,negative,not

**Question 16**

You are writing a Python program. The program collects customer data and stores it in a database.

The program handles a wide variety of data.

You need to ensure that the program handles the data correctly so that it can be stored in the database correctly.

Match the data type to the code segment. To answer, drag the appropriate data type from the column on the left to its code segment on the right. Each data type may be used once, more than once, or not at al.

**Answer Area**

**Q1.** Age =2

1. Bool
2. Float
3. Int
4. Str

**Q2.** Minor =False

1. Bool
2. Float
3. Int
4. Str

**Q3**. Name =”Contoso”

1. Bool
2. Float
3. Int
4. Str

**Q4**. Weight = 123.5

1. Bool
2. Float
3. Int
4. Str

**Q5**. Zip =”81000”

1. Bool
2. Float
3. Int
4. Str

**Question 17**

You are creating a Python program that shows a congratulation message to employees on their service anniversary.

You need to calculate the number of years of service and print a congratulatory message.

You have written the following code. Line numbers are included for reference only.

01 Start = input(“How old were you on your start date?”)

02 end = input(“How old are you today?" )   
03

You need to complete the program.

Which code should you use at line 03?

**Answer Area**

1. print("congratulation on " + (int( end)-int(start )) + "years of service!")
2. print("congratulation on" + str(int( end)-int(start )) + "years of service!")
3. print("congratulation on" + int( end-start ) + "years of service!")
4. print("congratulation on" + str( end - int(start )) + "years of service!")

**Question 18**

You are developing a Python application for your company

You write the following code:

numList=[1,2,3,4,5]

alphaList = ["a","b","c","d","e"]

print(numList is alphaList)

print(numList == alphaList)

numList = alphaList

print(numList is alphaList)

print(numList ==alphaList)

use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment.

**Answer Area**

What is displayed after the first print?

1. True
2. False

What is displayed after the second print?

1. True
2. False

What is displayed after the third print?

1. True
2. False

What is displayed after the fourth print?

1. True
2. False

**Question 19**

You are writing a Python program to perform arithmetic operations.

You create the following code:

a=11

b=4

What is the result of each arithmetic expression? To answer, drag the appropriate expression from the column on the left to its result on the right Each expression may be used once, more than once, or not at al.

**Answer Area**

**Q 1.** 2

1. Print(a/b)
2. Print(a//b)
3. Print(a%b)

**Q 2.** 3

1. Print(a/b)
2. Print(a//b)
3. Print(a%b)

**Q 3.** 2.75

1. Print(a/b)
2. Print(a//b)
3. Print(a%b)

**Question 20**

You are writing a Python program that evaluates an arithmetic formula.

The formula is described as b equals a multiplied by negative one then raised to the second power, where a is the value that will be input and b is the result

You create the following code segment. Line numbers are included for reference only.

01 a = eval(input(“Enter a number for the equation: " ) )   
02 b=

You need to ensure that the result is correct.

How should you complete the code on line 02? To answer, drag the appropriate code segment to the correct location. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

**Question 21**

Evaluate the following Python arithmetic expression:

(3\*(1+2)\*\*2 – (2\*\*2)\*3)

What is the result?

**Answer Area**

1. 3
2. 13
3. 15
4. 69

**Question 22**

You develop a Python application for your company.

A list named employees contains 200 employee names, the last five being company management. You need to slice the list to display all employees excluding management.

Which two code segments should you use? Each correct answer presents a complete solution. Choose two.

**Answer Area**

1. employees [1:-4]
2. employees [:-5]
3. employees [1:-5]
4. employees [0:-4]
5. employees [0:-5]

**Question 23**

You are an intern for Northwind Electric Cars. You must create a function that calculates the average velocity of their vehicles on a 1320 foot (1/4 mile) track. The output must be as precise as possible.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

#Speed calculator

distance = 1……..........(input("Enter the distance traveled in feet"))

distance\_miles =distance/5280 #convert to miles

time = 2………...............(input("Enter the time elapsed in seconds"))

time\_hours = time/3600 #convert to hours

velocity = distance\_miles/time\_hours

print("The average velocity is : ", velocity,"miles/hour")

**Q - section 1**

1. int
2. str
3. float

**Q - section 2**

1. int
2. float
3. str

**Question 24**

You are creating a function that manipulates a number. The function has the following requirements:

* A float is passed into the function
* The function must take the absolute value of the float
* Any decimal points after the integer must be removed

Which two math functions should you use? Each correct answer is part of the solution. Choose two.

**Answer Area**

1. Math.fmod(x)
2. Math.frexp(x)
3. Math.floor(x)
4. Math.ceil(x)
5. Math.fabs(x)

**Question 25**

You are writing an application that uses the sqrt function. The program must reference the function using the name squareRoot.

You need to import the function.

Which code segment should you use?

**Answer Area**

1. import math.sqrt as squareRoot
2. import sqrt from math as squareRoot
3. from math import sqrt as squareRoot
4. from math.sqrt as squareRoot

**Question 26**

You are writing code that generates a random integer with a minimum value of S and a maximum value of 11.

Which two functions should you use? Each correct answer presents a complete solution. Choose two.

**Answer Area**

1. random.randint(5,12)
2. random.randint(5,11)
3. random.randrange(5,12,1)
4. random.randrange(5,11,1)

**Question 27**

You are writing a function that works with files.

You need to ensure that the function returns None if the file does not exist If the file does exist, the function must return the first line.

You write the following code:

import os

def get\_first\_line(filename,mode):

In which order should you arrange the code segments to complete the function? To answer, move all code segments from the list of code segments to the answer area and arrange them in the correct order.

|  |
| --- |
| If os.path.isfile(filename): |

|  |
| --- |
| return file.readline() |

|  |
| --- |
| With open(filename, ‘r’) as file: |

|  |
| --- |
| return None |

|  |
| --- |
| else: |

**Question 28**

You are writing a Python program to automate inventory. Your first task is to read a file of inventory transactions. The file contains sales from the previous day, including the item id, price, and quantity.

The following shows a sample of data from the file:

10, 200, 5

20, 100, 1

The code must meet the following requirements:

* Each line of the file must be read and printed
* If a blank line is encountered, it must be ignored
* When a I lines have been read, the file must be closed

You create the following code. Line numbers are included for reference only.

inventory = open("inventory.txt", 'r')

eof =False

while eof == False:

line = inventory.readline()

.................

.................:

print(line)

else:

print ("End of file")

eof=True

inventory.close()

which code should you write for line 05 and line 06?

1. 05 if line != ’\n’:

06 if line ! =””:

1. 05 if line !=’\n’:

06 if line ! =None:

1. 05 if line ! = ‘ ‘:

06 if line ! = “”:

1. 05 if line != ‘ ‘:

06 if line != “\n”:

**Question 29**

You develop a Python application for your company.

You need to accept input from the user and print that information to the user screen.

You have started with the following code. Line numbers are included for reference only.

01 print(“What is your name?”)

02

03 print(name)

Which code should you write at line 02?

**Answer Area**

1. name =input
2. input(“name”)
3. input(name)
4. name =input()

**Question 30**

You develop a Python application for your school.

You need to read and write data to a text file. If the file does not exist, it must be created. If the file has content, the content must be removed.

Which code should you use?

1. Open (“local\_data”, “r”)
2. Open (“local\_data” , “r+”)
3. Open(“local\_data”, “w+”)
4. Open(“local\_data”, “w”)

**Question 31**

Best For You Organics Company needs a simple program that their call center will use to enter survey data for a new coffee variety.

The program must accept input and return the average rating based on a five-star scale. The output must be rounded to two decimal places.

You need to complete the code to meet the requirements.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

NOTE: Each correct selection is worth one point

**Answer Area**

sum=count =done=0

average =0.0

while (done !=-1):

rating = 1.............

if rating == -1:

break

sum+=rating

count+=1

averge =float(sum/count)

2....................... + 3.....................

**Q –section 1**

1. Print(“Enter next rating(1-5), -1 for done”)
2. Float(input(“Enter next rating(1-5),-1 for done”))
3. Input(“Enter next rating(1-5),-1 for done”)
4. Input “Enter next rating (1-5), -1 for done”)

**Q –section 2**

Output(“The average star rating or netVerZeep coffee is “

Console.input(“The average star rating for the new coffee is:”

Printline(“The average star rating for the new coffee is:”

Print(“The average star rating for the new coffee is:”

**Q –section 3**

* 1. format(average,’.2f))
  2. format(average,’.2d'))
  3. {average,'.2f}
  4. format.average.{2d}

**Question 32**

Tailspin Toys is building a basketball court for its employees to improve company morale.

You are creating a Python program that employees can use to keep track of their average score.

The program must allow users to enter their name and current scores. The program will output the user name and the users average score. The output must meet the following requirements:

• The user name must be left-aligned.

• If the user name has fewer than 20 characters, additional space must be added to the right.

• The average score must have three places to the left of the decimal point and one place to the right of the decimal QO(X-X).

How should you complete the code? To answer, select the appropriate code segments in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

name =input("What is your name? ")

score =0

count =0

Sum = 0

while(score !=-1):

score =int(input("Enter your scores:(-1 to end)"))

if score == -1:

break

Sum+=score

count +=1

average\_score =Sum/count

print(" 1)............., your average score is: 2) ............................. "% (name, average))

**Q –section 1**

1. %-20i
2. %-20d
3. %-20f
4. %-20s

**Q –section 2**

1. %1.4s
2. %4.1f
3. %4.1S
4. %1.4f

**Question 33**

You find errors while evaluating the following code. Line numbers are included for reference only.

01 numbers = [0,1,2,3,4,5,6,7,8,9]

02 index =0

03 while (index <10)

04 print(numbers[index])

05

06 if numbers(index)=6

07 break

08 else:

09 index +=1

You need to correct the code at line 03 and line 06.

How should you correct the code? Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment.

NOTE: Each correct selection is worth one point.

**Answer Area**

Which code segment should you use at line 03?

1. While(index <10):
2. While[index <10]
3. While(index <5):
4. While[index <5]

Which code segment should you use at line 06?

If numbers[index]==6

If numbers[index] ==6:

If numbers(index)=6:

If number(index)!=6

**Question 34**

You are creating a function that reads a data file and prints each line Of the file.

You write the following code. Line numbers are included for reference only.

01 import os

02 def read\_file(file):

03 line = None

04 if os.path.isfile(file):

05 data =open(file, 'r')

06 while line != ' ':

07 line = data.readline()

08 print(line)

The code attempts to read the file even if the file does not exist.

You need to correct the code.

Which three lines have indentation problems?Each correct answer presents part of the solution.choose three.

You are creating a function that reads a data file and print each line of the file.

**Answer Area**

1. Line 01
2. Line 02
3. Line 03
4. Line o4
5. Line 05
6. Line 06
7. Line 07
8. Line 08

**Question 35**

This question requires that you evaluate the underlined text to determine if it is correct.

You write the following code:

import sys

try:

file\_in = open("in.txt",'r')

file\_out = open("out.txt",'w+')

except IOError:

print('cannot open',file\_name)

else:

i=l

for line in file\_in:

print(line.rstrip())

file\_out.write("line " + str(i) + ":" + line)

i = i+ 1

file\_in.close()

file\_out.close()

The out.txt file does not exist You run the code. The code will execute without error.

Review the underlined text. If it make the statement correct,select “No change is needed.” If the statement is incorrect ,select the answer choice that make the statement correct.

**Answer Area**

1. No change is needed.
2. The code runs,but generate a logic error.
3. The code will generate a runtime error.
4. The code will generate a syntax error

**Question 36**

For each of the following statement ,select Yes if the statement is true.Otherwise, select No.

**Answer Area**

A try statement can have one or more except clauses.

Yes

No

A try statement can have a finally clause without an except

Clause.

Yes

No

A try statement can have a finally clause and an except clause.

Yes

No

A try statement can have one or more finally clauses

Yes

No

**Question 37**

You are developing a Python application for an online game.

You need to create a function that meets the following criteria:

• The function is named update\_score   
• The function receives the current score and a value   
• The function adds the value to the current score   
• The function returns the new score

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

1) .............................. 2).................................

Current+=value

3)..............................

**Q –section 1**

1. update\_score
2. def update\_score
3. return update\_score

**Q –section 2**

1. (current,value):
2. ():
3. (current,value)
4. D.()

**Q –section 3**

1. pass current
2. return current
3. return
4. pass

**Question 38**

You develop a Python application for your company.

You want to add notes to your code so other team members will understand it.

What should you do?

**Answer Area**

1. Place the notes after the # sign on any line.
2. Place the notes after the last line of code separated by a blank line.
3. Place the notes before the first line Of code separated by a blank line.
4. Place the notes inside of parentheses on any line.

**Question 39**

Adventure Works Cycles is creating a program that allows customers to log the number Of miles biked. The program will send messages based on how many miles the customer logs

You create the following Python code. Line numbers are included for reference only.

01

02 name = input("What is your name?")

03 return name

04

05 calories = miles \* calories\_per\_mile

07 return calories

08 distance =int(input("How many miles did you bike this week? "))

09 burn\_rate = 50

10 bikar = get\_name()

11 calories\_burned = calc\_calories(distance, burn\_rate)

12 print(bikar, ", you burned about" ,calories\_burned, "calories.")

You need to define the two required functions.

Which code segments should you use for line 01 and line 04? Each correct answer presents part of the solution. Choose two.

1. 01 def get\_name ():
2. 01 def get\_name(biker):
3. 01 def get\_name(name):
4. 04 def calc\_calories():
5. 04 def calc\_calories(miles,burn\_rate):
6. O4 def calc\_calories(miles, calories\_per\_mile):

**Question 40**

You create a function to calculate the power of a number by using Python.

You need to ensure that the function is documented with comments.

You create the following code. Line numbers are included for reference only.

01 # The calc\_power function calculates exponents

02 # x is the base

03 # y is the exponent

04 # The value of x raised to the y power is return

05 def calc\_power(x,y):

06 comment =”#Return the value”

07 return X\*\*y #raise x to the y power

For each of the following statements, select Yes if the statement is true. OtherWise, select No.

**Answer Area**

Lines 01 through 04 will be ignored for syntax checking.

1. Yes
2. No

The pound sign (#) is optional for lines 02 and 03.

1. Yes
2. No

The string in line 06 will be interpreted as a comment.

1. Yes
2. No

**Question 1**

You are creating a program that accepts user input. The program must cast the input into an integer. You must properly hand e the error if the code canru.t cast the input to an integer.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

while True:

1…............

x=int(input("Please enter a number:"))

break

2…........... valueError:

print("Not a valid number. Try again....")

Q-section 1

1. Try:
2. Else:
3. except:
4. Raise:
5. Finally:

Q -section 2

1. Try
2. Else
3. Except
4. Raise
5. Finally

**Question 2**

Relecloud Virtual Learning asks you to debug some code that is causing problems with their payroll. They ask you to find the source of the payroll errors. The following variables have been declared:

emp1oyee\_pay = [15000, 120000, 35000, 45000]  
count = 0   
sum = 0   
There are two errors in the following code:

for index in range(0, len(employee\_pay)-1)):   
 count +=1   
 sum += employee\_pay[index]   
average = sum//count   
print("The total payroll is:", sum )   
print("The average salary is:", average)

Which code should you use to fix the errors? To answer, select the appropriate code segments in the answer area.

**Answer Area**

for index in range 1................

count +=1   
 sum += employee\_pay[index]   
average = 2..............  
print("The total payroll is:", sum )

Q -section 1

1. (size(employee\_pay)):
2. (size(employee\_pay)-1):
3. (len(employee\_pay)+1):
4. (len(employee\_pay)):

Q -section 2

1. sum/count
2. sum\*\*count
3. sum\*count

**Question 3**

This question requires that you evaluate the underlined text to determine if it is correct**.**

You write the following code:

import sys

try:

file\_in = open("in.txt",'r')

file\_out = open("out.txt",'w+')

except IOError:

print('cannot open',file\_name)

else:

i=l

for line in file\_in:

print(line.rstrip())

file\_out.write("line " + str(i) + ":" + line)

i = i+ 1

file\_in.close()

file\_out.close()

The out.txt file does not exist You run the code. The code will execute without error.

Review the underlined text. If it makes the statement correct, select “No change is needed.”select the answer choice that makes the statement correct.

**Answer Area**

1. No change is needed.
2. The code runs, but generate a logic error.
3. The code will generate a runtime error.
4. The code will generate a syntax error

**Question 4**

Tailspin Toys uses python to control its new toy Happy Clown. The program has errors that cause the clown to run around in an infinite circle,

You have been hired to help debug the following Happy Clown code. Line numbers are included for reference only.

import math

#default motion for happy clown

power = True

move = 0

while(power):

if move ==0:

turnValue = math.pi/move

move+=5

else:

turnValue =0

move = 0

1. Which error exist in the code?
2. Line 08 has a syntax error because+= is an invalid statement.
3. Line 05 has a syntax error beacause it should read(power ==True).
4. Line 07 causes a runtime error due to division by zero.

**Question 5**

You are writing a function that increments the player score in a game.   
The function has the following requirements:   
• If no value is specified for points, then points start at one   
• If bonus **IS True,** then points must be doubled

You write the following code. Line numbers are included for reference only.

01 def increment\_score(score, bonus, points):   
02 if bonus == True:   
03 points = points \* 2   
04 score = score + points   
05 return score   
06 points = 5   
07 score = 10   
08 new\_score = increment\_score(score, True, points)

For each of the following statements, select Yes if the statement is true. Otherwise, select No.   
Note: Each correct selection is worth one point.

**Answer Area**

To meet the requirements, line 01 must be changed to the following:   
**def increment\_score(score, bonus, points** = **1):**

1. yes
2. No

Once any parameter is defined with a default value, any parameters to the right must also be defined with default values.

1. yes
2. No

If the function is called with only two parameters, the value of the third parameter will be None.

1. yes
2. No

Line 03 will also modify the value of the variable points declared at line

1. Yes
2. No

**Question 6**

You are developing a Python application for an online game.

You need to create a function that meets the following criteria:

• The function is named **update\_score**• The function receives the current score and a value   
• The function adds the value to the current score   
• The function returns the new score

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

**1.............................. 2.................................**

**current+=value**

**3..............................**

Q-section 1

1. update\_score
2. def update\_score
3. return update\_score

Q-section 2

1. (current,value):
2. ():
3. (current,value)
4. D.()

**Question 7**

You create a function to calculate the power of a number by using Python.

You need to ensure that the function is documented with comments.

You create the following code. Line numbers are included for reference only.

01 # The calc\_power function calculates exponents

02 # x is the base

03 # y is the exponent

04 # The value of x raised to the y power is return

05 def calc\_power(x,y):

06 comment =”#Return the value”

07 return X\*\*y #raise x to the y power

For each of the following statements, select Yes if the statement is true. OtherWise, select No.

**Answer Area**

Lines 01 through 04 will be ignored for syntax checking.

1. Yes
2. No

The pound sign (#) is optional for lines 02 and 03.

1. Yes
2. No

The string in line 06 will be interpreted as a comment.

1. Yes
2. No

**Question 8**

Woodgrove Bank is migrating their legacy bank transaction code to Python.   
You have been hired to document the migrated code.   
Which documentation syntax is correct?

**Answer Area**

A. ' Returns the current balance of the bank account

def get\_balance():   
 return balance

B. def get\_balance():   
 #Returns the current balance of the bank account   
 return balance

C. def get\_balance():

/\*Returns the current balance of the bank account\*/

return balance

D. //Returns the current balance of the bank account

def get\_balance():   
 return balance

**Question 9**

You are writing a function to read a data file and print the results as a formatted table.   
The data file contains information about fruit. Each record contains the name of the fruit, the weight, and the price.   
You need to print the data so that it looks like the following sample:

Oranges 5.6 1.33   
Apples 2.0 0.54   
Grapes 10.2 10.96

Specifically, the print out must meet the following requirements:

• The fruit name must print left-aligned in a column 10 spaces wide.   
• The weight must print right-aligned in a column 5 spaces wide with up to one digit after the decimal point.   
• The price must print right-aligned in a column 7 spaces wide with up to two digits after the decimal point.

You write the following code. Line numbers included are for reference only.

**01** def print\_table(file):   
02 data - open(file,'r')   
03 for record in data:   
04 fields = record.split(",")

How should you complete line 05? To answer, drag the appropriate code segments to the correct location. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

**Answer Area**

1)..................... 2)......................... 3)........................ 4)....................... ".format(fields[0],eval(fields[1]),eval(fields[2])))

Q-section 1

1. print("
2. {10:0}
3. {5:1f}
4. {7:2f}
5. {2:7.2f}
6. {1:5.1f}
7. {0:10}

Q-section 2

1. print("
2. {10:0}
3. {5:1f}
4. {7:2f}
5. {2:7.2f}
6. {1:5.1f}
7. {0:10}

Q-section 3

1. print("
2. {10:0}
3. {5:1f}
4. {7:2f}
5. {2:7.2f}
6. {1:5.1f}
7. {0:10}

Q-section 4

1. print("
2. {10:0}
3. {5:1f}
4. {7:2f}
5. {2:7.2f}
6. {1:5.1f}
7. {0:10}

**Question 10**

you are creating an ecommerce script that accepts Input from the user and outputs the data in a comma delimited format,

You write the following lines of code to accept input:

item = input(“Enter the item name: “)

sales = input(“Enter the quantity: “)

The output must meet the following requirements:

* Strings must be enclosed inside of double-quotes
* Numbers must not be enclosed in quotes or other characters
* Each item must be separated with a comma

You need to complete the code to meet the requirements.

Which three code should you use? Each correct answer presents a complete solution.Choose three

1. Print(“{0},{1}”.format(item,sales))
2. Print(‘ “%s” ,%s’ % (item, sales))
3. Print(item + ‘ , ‘ +sales)
4. Print(‘ “ ‘ + item + ‘ “, ‘ +sales)
5. Print(‘”{0}” ,{1}’ .format(item, sales))

**Question 11**

You are writing a Python program to automate inventory. Your first task is to read a file of inventory transactions. The file contains sales from the previous day, including the item id, price, and quantity.

The following shows a sample of data from the file:

10, 200, 5

20, 100, 1

The code must meet the following requirements:

* Each line of the file must be read and printed
* If a blank line is encountered, it must be ignored
* When a I lines have been read, the file must be closed

You create the following code. Line numbers are included for reference only.

inventory = open("inventory.txt", 'r')

eof =False

while eof == False:

line = inventory.readline()

.................

.................:

print(line)

else:

print ("End of file")

eof=True

inventory.close()

which code should you write for line 05 and line 06?

1. 05 if line != ’\n’:

06 if line ! =””:

1. 05 if line !=’\n’:

06 if line ! =None:

1. 05 if line ! = ‘ ‘:

06 if line ! = “”:

1. 05 if line != ‘ ‘:

06 if line != “\ns

**Question 12**

You write the following code:

import datetime

d = datetime.datetime(2017, 4, 7)   
print('{:%B-%d-%y}' .format(d))   
num=1234567.890   
print({:,.4f)' .format(num))   
You run the program.

What is the output?

**Answer Area**

A. Apr--07--2017   
 1,234,567.8900   
 Press any key to continue..

B. April--07--17   
 1.234,567.8900   
 Press any key to continue...

C. April--07--17   
 1234567.89   
 Press any key to continue...

D. 2017--ApriI--07   
 1,234,567.890

**Question 13**

Northwind Electric Cars needs help updating their file system using Python code. You must create a simple file manipulation program that performs the following actions:

• Checks to see if a file exists.   
• If the file exists, displays its contents.   
• If the file does not exist creates a file using the specified name.   
• Appends the phrase, ‘End of listing’ to the file.

You need to complete the code to meet the requirements.

How should you complete the code? To answer. select the appropriate code segments in the answer area.

**Answer Area**

import os

if 1...............

file =open('myFile.txt')

2...............

file.close()

file = 3............

4……........... ("End of listing")

file.close()

Q-section 1

1. Isfile(“myFile.txt”):
2. Os.exit(‘myFile.txt’):
3. Os.find(‘myFile.txt’):
4. Os.path.isfile(‘myFile.txt’):

Q-section 2

1. Output(‘myFile.txt’)
2. Print(file.get(‘myFile.txt’))
3. Print(file.read())
4. Print(‘myFile.txt’)

Q-section 3

1. Open(‘myFile.txt’, ‘a’)
2. Open(‘myFile.txt’, ‘a+’)
3. Open(‘myFile.txt’, ‘w’)
4. Open(‘myFile.txt’, ‘w+’)

Q-section 4

1. append
2. file.add
3. file.write
4. write

**Question 14**

Tailspin Toys is building a basketball court for its employees to improve company morale.

You are creating a Python program that employees can use to keep track of their average score.

The program must allow users to enter their name and current scores. The program will output the user name and the users average score. The output must meet the following requirements:

• The user name must be left-aligned.

• If the user name has fewer than 20 characters, additional space must be added to the right.

• The average score must have three places to the left of the decimal point and one place to the right of the decimal QO(X-X).

How should you complete the code? To answer, select the appropriate code segments in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

name =input("What is your name? ")

score =0

count =0

Sum = 0

while(score !=-1):

score =int(input("Enter your scores:(-1 to end)"))

if score == -1:

break

Sum+=score

count +=1

average\_score =Sum/count

print(" 1…..............., your average score is: 2…............................... "% (name, average))

Q-section 1

1. %-20i
2. %-20d
3. %-20f
4. %-20s

Q-section 2

1. %1.4s
2. %4.1f
3. %4.1S
4. %1.4f

**Question 15**

You write a function that reads a data file and prints each line of the file. You write the following code. Line numbers are included for reference only.

01 def read\_file(file):   
02 line= None   
03 if os.path.isfile(file):   
04 data = open(file,'r')   
05 for line in data:   
06 print(line)

When you run the program, you receive an error on line 03.

What is causing the error?

**Answer Area**

1. The **isfile** method does not accept one parameter.
2. You need to import the **os** library.
3. The **path** method does not exist in the **os** object.
4. The **isfile** method does not exist in the **path** object.

**Question 16**

You work on a team that is developing a game for AdventureWorks.   
You need to write code that generates a random number that meets the following requirements:

• The number is a multiple of 5.   
• The lowest number is 5.   
• The highest number is 100.

Which two code segments will meet the requirements? Each correct answer presents a complete solution. Choose two.

**Answer Area**

A. from random import randrange

print(randrange(5, 100, 5))

B. from random import randrange

print(randrange(0, 100, 5))

C. from random import randint

print(randint(0, 20)\*5)

D. from random import randint

print(randint(1, 20)\*5)

**Question 17**

You need to write code that generates a random **float** with a minimum value of 0.0 and a maximum value of 1.0. Which statement should you use?

**Answer Area**

A. random.randrange(0.0, 1.0)   
B. random.randrange()   
C. random.random()   
D. random.randint(0, 1)

**Question 18**

You develop a Python application for your company.   
How should you complete the code so that the print statements are accurate? To answer. select the appropriate code segments in the answer area.

**Answer Area**

numList =[1,2,3,4,5]

alphaList=["a","b","c","d","e"]

1................................

print("The values in numList are equal to alphaList")

2....................................

print("The values in numList are not equal to alphaList")

**Q-section 1**

1. if numList==alphaList:
2. B if numList==alphaList
3. else:
4. else

**Q-section 2**

1. if numList==alphaList:
2. if numList==alphaList
3. else:
4. else

**Question 19**

You are creating a function to calculate admission fees by using Python. Admission fees are calculated based on the following rules:

• Anyone under age 5 = free admission   
• Anyone age 5 or older who is in school = 10 USD   
• Anyone age 5 to 17 who is not in school = 20 USD   
• Anyone older than age 17 who is not in school = 50 USD   
How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

admission\_fee(age, school):

rate =0

1.................................

rate =10

2....................................

3 ....................................

rate =20

Q-section 1

1. if age >=5 and school == True:
2. if age >=5 and age < =17:
3. if age >=5 and school ==False:

Q-section 2

1. elif age >=5 and school == False
2. else age >=5 and school ==False:
3. elif age >=5 and school ==True:

Q-section 3

1. if age >=5 and school == True:
2. if age >=5 and school == False:
3. if age <=17:

**Question 20**

Adventure Works Cycles sales are so exceptional that they decide to give a bonus to all employees who do not make more than $150,000. The following formula applies to each employee based on their base salary and a flat bonus:

New **salary = current salary x 3%** + **a $500 bonus.**You write code that reads the employee salaries into a variable named **salary\_list.**

You need to complete the code that applies an increase to each eligible employee’s salary.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

# Each salary in the list is updates based on increase.Employee making.

#$150,000 or more will not get a raise.

# Salary list is populated from employee database, code not shown.

salary\_list = [150000,340000,230000,500000,100000,120000,90000]

1...................................

if salary\_list[index] >= 150000:

2............................................

salary\_list[index] = (salary\_list[index] \*1.03)+500

**Q-section 1**

1. for index in range(len(salary\_list)+1):
2. for index in range(len(salary\_list)-1):
3. for index in range(len(salary\_list)):
4. for index in salary\_list:

**Q-section 2**

1. exit()
2. continue
3. break
4. end

**Question 21**

You are creating a Python program that will let a user guess a number from 1 to 10. The user is allowed up to three guesses.   
You write the following code. Line numbers are included for reference only.

01 from random import randint   
02 target = randint(1,10)   
03 chance = 1   
04 print ("Guess an integer from 1 to 10. You will have 3 chances.")   
05   
06 guess = int(input(”Guess an integer: ))   
07 if guess > target:   
08 print ("Guess is too high")   
09 elif guess < target:   
10 print (“Guess is too low")   
11 else:   
12 print ("Guess is just right!”)

The program must allow three guesses. If the user guesses the correct number, the program must stop asking for guesses.   
How should you complete lines 05, 13, and 14? To answer, drag the appropriate code segments to the correct locations. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

**Answer Area**

Q1. Which code segement should you use at line 05?

A. while chance <=3 E. while chance <3:

B. break F pass

C. chance+=1 G. while chance < 3

D. chance = 2

Q2. Which code segment should you use at line 13?

A. while chance <=3 E. while chance <3:

B. break F pass

C. chance+=1 G. while chance < 3

D. chance = 2

Q3. which code segment should you use at line 14?

A. while chance <=3 E. while chance <3:

B. break F pass

C. chance+=1 G. while chance < 3

D. chance = 2

**Question 22**

You are writing a function in Python that must meet the following requirements:

• The function accepts a list and a string as parameters.   
• The function must search for the string in the list   
• If the string is found in the list, the function must print a message indicating that the string was found and then stop iterating through the list   
• If the string is not found, the function must print a message indicating that the string was not found in the list.

In which order should you arrange the code segments to develop the solution? To answer, move all code segments from the list of code segments to the answer area and arrange them in the correct order.

**Answer Area**

|  |
| --- |
| A - for i in range(len(items)): |

|  |
| --- |
| B - if items[i]==term:  print("{0} was found in the list.".format(term)) |

|  |
| --- |
| C - break |

|  |
| --- |
| D - def search(items,term): |

|  |
| --- |
| E -  else:  print("{0} was not found in the list." .format(term)) |

1. D,A,B,C,E
2. D,B,A,C,E
3. B,D,A,C,E
4. D,A,B,E,C

**Question 23**

You are writing a Python program to ask the user to enter a number and determine if the number is 1 digit 2 digits, or more than 2 digits long.

You need to write the program.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

num =int(input("Enter a number with 1 or 2 digits:"))

digits=0;

1------------------------

digits = "1"

2......................................................

digits= 2

.3...................................................

digits= ">2"

Q –section 1

1. if num > - 10 and num < 10:
2. lif num> - 100 and num < 100:

Q-section 2

1. if num > -100 and num < 100:
2. elif num >-100 and num < 100:
3. if num >-10 and num < 10:
4. elif num >-10 and num <10:

Q-section 3

1. else:
2. elif:

**Question 24**

Wingtip Toys is creating an interactive Times Table Helper program intended for elementary school children.

You need to complete a function that computes and displays all multiplication table combinations from 2 to 12.

How should you complete the code? To answer, select the appropriate code segments in the answec area,

**Answer Area**

#Display times table 2 -12

def times\_tables():

1-------------------------

2-------------------------

print(row\*col,end=" ")

print()

#main

times\_tables()

Q-section 1

1. for col in range(13):
2. for col in range(2, 13):
3. for col in range(2,12,1):
4. for col in range(12):

Q-section 2

1. for row in range(13):
2. for row in range(2, 13):
3. for row in range(2,12,1):
4. for row in range(12):

**Question 25**

You are writing a Python program. The program collects customer data and stores it in a database.

The program handles a wide variety of data.   
You need to ensure that the program handles the data correctly so that it can be stored in the database correctly.

Match the data type to the code segment. To answer, drag the appropriate data type from the column on the left to its code segment on the right. Each data type may be used once, more than once, or not at all.

**Answer Area**

Q1. age =2

1. bool
2. float
3. int
4. str

Q2. minor=False

1. age =2
2. bool
3. float
4. int
5. str

Q3. name = "Contoso"

1. age =2
2. bool
3. float
4. int
5. str

Q4. weight = 123.5

1. age =2
2. bool
3. float
4. int
5. str

Q5. zip ="81000"

1. age =2
2. bool
3. float
4. int
5. str

**Question 26**

You are writing a Python application for a dance studio.

The studio wants to encourage youth and seniors to sign up. Minors and seniors must receive a 10% discount.

You write the following code. Line numbers are included for reference only.

01. def get\_discount(minor, senior):   
02 discount = .1   
03   
04 discount = 0   
05 return discount

**Answer Area**

1. if not (minor and senior):
2. if not (minor or senior):
3. if (not minor) or senior:
4. if (not minor) and senior:

**Question 27**

You are creating a Python program that compares numbers.

You create the following code. Line numbers are included for reference only.

01 num1 = eval (input (“Please enter the first number: " ))   
02 num2 = eval (input ("Please enter the second number: "))   
03 if num1 == num2:   
04 print("The two numbers are equal.")   
Os if num1 <= num2:   
06 print("Number 1 is less than number 2.")   
07 if num1 > num2:   
08 print("Number 1 is greater than number 2.")   
09 if num2 = num1:   
10 print("The two numbers are the same.")

You need to ensure that the comparisons are accurate.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

**Answer Area**

Q1. The print statement at line 04 will only print if the two numbers are equal in value.

1. Yes
2. NO

Q2. The print statement at line 06 will only print if num1 is less than num2.

1. Yes
2. NO

Q3. The print statement at line 08 will only print if num1 is greater than num2.

1. Yes
2. NO

Q4. The statement at line 09 is an invalid comparison.

1. Yes
2. NO

**Question 28**

You develop a Python application for your school.

A list named **colors** contains 200 colors. You need to slice the list to display every other color starting with the second color.

**Answer Area**

Which code should you use?

1. colors[1::2]
2. colors[1:2]
3. colors[2:2]
4. colors[::2]

**Question 29**

You are developing a Python program that compares numbers.

You need to ensure that you are using the correct comparison operators.

Evaluate each expression and indicate the correct result. To answer, drag the appropriate result from the column on the left to its expression on the right. Each result may be used once, more than once, or not at all.

NOTE: Each correct selection is worth one point.

**Answer Area**

1) . 0 or 5

1. True
2. False
3. 5
4. None

2). bool(0)

1. True
2. False
3. 5
4. None

3). None is None

1. True
2. False
3. 5
4. None

4). -5 < 0 <5

1. True
2. False
3. 5
4. None

**Question 30**

A classmate has asked you to debug the following code:

x = 4

while x >= 1:

if x % 4 == 0:

print ("party")

elif x - 2 < 0:

print("cake")

elif x/3 == 0:

print("greeting")

else:

print("birthday")

x=x-1

**Answer Area**

What is the output that is printed to the screen?

A. birthday

party

greeting

cake

B. party   
 greeting   
 birthday   
 cake

c. birthday

greeting   
 party   
 cake

D. party   
 birthday   
 birthday   
 cake

**Question 31**

You are writing a program that calculates a user’s year of birth. The program asks users for their age and the current year, then outputs the users year of birth, You write the following code. Line numbers are included for reference only.

01 age = input(”Enter your age: “)   
02 year = input(”Enter the four digit year: “)   
03 born = eval(year) - eval(age)   
04 message = “You were born in "+ str(born)   
05 print(message)

You need to ensure that the program uses the appropriate data types.

What data types are used? Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment.

**Answer Area**

What data type is age in line 01?

1. int
2. str
3. float
4. bool

what data type is born in line 03?

1. int
2. str
3. float
4. bool

what data type is message in line 04?

1. int
2. str
3. float
4. bool

**Question 32**

You have the following list structure:

**alph = “abcdefghijklmnopqrstuvwxyz”**

You need to evaluate the result of performing various slicing operations.

Match the result to the slicing operation. To answer, drag the appropriate result from the column on the left to its slicing operation on the right. Each result may be used once, more than once, or not at all.

**Answer Area**

alph[3:15]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph[3:15:3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph[3:15:-3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph [15:3:-3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph[15:3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph[::-3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

**Question 33**

You write the following code:

a='Configl'   
print(a)   
b=a   
a + = Config2   
print(a)   
print(b)

Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment.

**Answer Area**

Q1. What is displayed after the first print?

1. A.Config1
2. Config1Config2
3. C.Config2

Q2. what is displayed after the second print?

1. A.Config1
2. Config1Config2
3. C.Config2

Q3. what is displayed after the third print?

1. A.Config1
2. Config1Config2

**Question 34**

you write the following code:

list\_ 1 = [1, 2]

list\_2 = [3, 4]

list\_3 = list\_1 + list\_2

list\_4 = list\_3\*3

print(list\_4)

you run the code.

**Answer Area**

What is the output value?

1. [[1,2], [3,4],[1,2],[3,4],[1,2],[3,4]]
2. [[1,2,3,4], [1,2,3,4],[1,2,3,4]]
3. [3,6,9,12]
4. [1,2,3,4,1,2,3,4,1,2,3,4]

**Question 35**

You evaluate the following code:

numList = [0,1,2,3,4]

print(5 in numList)

**Answer Area**

What is the output of the print statement?

1. 4
2. False
3. True
4. 5

**Question 36**

You are writing a function that returns the data type of the value that Is passed in. You write the following code. Line numbers are included for reference only.

01 def checkType(value):   
02 dataType = type(value)   
03 return dataType   
04 print(checkType(True))   
05 print(checkType(1.0))   
06 print (checkType(1))   
07 print(checkType("True"))

Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment

**Answer Area**

What is printed at line 04?

1. <class'bool'>
2. <class 'float'>
3. <class'int'>
4. <class'str'>

what is printed at line 05?

1. <class'bool'>
2. <class 'float'>
3. <class'int'>
4. <class'str'>

what is printedd aat line 06?

1. <class'bool'>
2. <class 'float'>
3. <class'int'>
4. <class'str'>

what is printed at line 07?

1. <class'bool'>
2. <class 'float'>
3. <class'int'>
4. <class'str'>

**Question 37**

You develop a Python application for your company.

You have the following code. line numbers are included for reference only.

01 def main(a,b,c,d):   
02 value = a+b\*c-d   
03 return value

Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment.

**Answer Area**

Which part of the expression will be evaluated first?

1. a+b
2. b\*c
3. c-d

Which operation will be evaluated second?

1. addition
2. Subtraction

Which expression is equivalent to the expression in the function?

1. (a+b)\*(c-d)
2. (a+(b\*c))-d
3. a+((b\*c)-d)

**Question 38**

Woodgrove Bank must generate a report that shows the average balance for all customers each day. The report must truncate the decimal portion of the balance.

Which two code segments should you use? Each correct answer presents a complete solution. Choose two.

**Answer Area**

1. average\_ba1ance = total\_deposits\*\*number\_of\_customers
2. average\_balance = int(total\_deposits/number\_of\_customers)
3. average\_balance = total\_deposits//number\_of\_customers
4. average\_balance = float(total\_deposits//number\_of\_customers)

**Question 39**

You are writing a function to perform safe division.

You need to ensure that a denominator and numerator are passed to the function and that the denominator is not zero.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

def safe\_divide(numerator, denominator):

1.......................

print("A required value is missing.")

2........................

print("The denominator is zero.")

else:

return numerator /denominator

1)

1. if numerator is None or denominator is None:
2. if numerator is None and denometor is None:
3. if numerator = None or denominator =None
4. if numerator = None and denominator = None:

2)

1. elif denominator ==0:
2. elif denominator = 0:
3. elif denominator !=0:
4. elif denominator in 0:

**Question 40**

A coworker wrote a program that inputs names into a database. Unfortunately, the program reversed the letters in each name.

You need to write a Python function that outputs the characters in a name in the correct order.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

def reverse\_name (backwards\_name):

forward\_name = ' '

for index in 1............................

forward\_name += 2.............................

return forward\_name

print(reverse\_name("leinad")) #test case

Q-section 1

1. backwards\_name:
2. len(backwards\_name):
3. range(0,len(backwards\_name)-1):
4. range(len(backwards\_name)-1,-1,-1):

Q-section 2

1. backwards\_name[index-1]
2. backwards\_name[len(forward\_name)-1]
3. backwards\_name[len(backward\_name)-len(forward\_name)]
4. backwards\_name[index]

**Question 1**

You are creating a program that accepts user input. The program must cast the input into an integer. You must properly hand e the error if the code canru.t cast the input to an integer.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

while True:

1…............

x=int(input("Please enter a number:"))

break

2…........... valueError:

print("Not a valid number. Try again....")

Q-section 1

1. Try:
2. Else:
3. except:
4. Raise:
5. Finally:

Q -section 2

1. Try
2. Else
3. Except
4. Raise
5. Finally

**Question 2**

Relecloud Virtual Learning asks you to debug some code that is causing problems with their payroll. They ask you to find the source of the payroll errors. The following variables have been declared:

emp1oyee\_pay = [15000, 120000, 35000, 45000]  
count = 0   
sum = 0   
There are two errors in the following code:

for index in range(0, len(employee\_pay)-1)):   
 count +=1   
 sum += employee\_pay[index]   
average = sum//count   
print("The total payroll is:", sum )   
print("The average salary is:", average)

Which code should you use to fix the errors? To answer, select the appropriate code segments in the answer area.

**Answer Area**

for index in range 1................

count +=1   
 sum += employee\_pay[index]   
average = 2..............  
print("The total payroll is:", sum )

Q -section 1

1. (size(employee\_pay)):
2. (size(employee\_pay)-1):
3. (len(employee\_pay)+1):
4. (len(employee\_pay)):

Q -section 2

1. sum/count
2. sum\*\*count
3. sum\*count

**Question 3**

This question requires that you evaluate the underlined text to determine if it is correct**.**

You write the following code:

import sys

try:

file\_in = open("in.txt",'r')

file\_out = open("out.txt",'w+')

except IOError:

print('cannot open',file\_name)

else:

i=l

for line in file\_in:

print(line.rstrip())

file\_out.write("line " + str(i) + ":" + line)

i = i+ 1

file\_in.close()

file\_out.close()

The out.txt file does not exist You run the code. The code will execute without error.

Review the underlined text. If it makes the statement correct, select “No change is needed.”select the answer choice that makes the statement correct.

**Answer Area**

1. No change is needed.
2. The code runs, but generate a logic error.
3. The code will generate a runtime error.
4. The code will generate a syntax error

**Question 4**

Tailspin Toys uses python to control its new toy Happy Clown. The program has errors that cause the clown to run around in an infinite circle,

You have been hired to help debug the following Happy Clown code. Line numbers are included for reference only.

import math

#default motion for happy clown

power = True

move = 0

while(power):

if move ==0:

turnValue = math.pi/move

move+=5

else:

turnValue =0

move = 0

1. Which error exist in the code?
2. Line 08 has a syntax error because+= is an invalid statement.
3. Line 05 has a syntax error beacause it should read(power ==True).
4. Line 07 causes a runtime error due to division by zero.

**Question 5**

You are writing a function that increments the player score in a game.   
The function has the following requirements:   
• If no value is specified for points, then points start at one   
• If bonus **IS True,** then points must be doubled

You write the following code. Line numbers are included for reference only.

01 def increment\_score(score, bonus, points):   
02 if bonus == True:   
03 points = points \* 2   
04 score = score + points   
05 return score   
06 points = 5   
07 score = 10   
08 new\_score = increment\_score(score, True, points)

For each of the following statements, select Yes if the statement is true. Otherwise, select No.   
Note: Each correct selection is worth one point.

**Answer Area**

To meet the requirements, line 01 must be changed to the following:   
**def increment\_score(score, bonus, points** = **1):**

1. yes
2. No

Once any parameter is defined with a default value, any parameters to the right must also be defined with default values.

1. yes
2. No

If the function is called with only two parameters, the value of the third parameter will be None.

1. yes
2. No

Line 03 will also modify the value of the variable points declared at line

1. Yes
2. No

**Question 6**

You are developing a Python application for an online game.

You need to create a function that meets the following criteria:

• The function is named **update\_score**• The function receives the current score and a value   
• The function adds the value to the current score   
• The function returns the new score

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

**1.............................. 2.................................**

**current+=value**

**3..............................**

Q-section 1

1. update\_score
2. def update\_score
3. return update\_score

Q-section 2

1. (current,value):
2. ():
3. (current,value)
4. D.()

**Question 7**

You create a function to calculate the power of a number by using Python.

You need to ensure that the function is documented with comments.

You create the following code. Line numbers are included for reference only.

01 # The calc\_power function calculates exponents

02 # x is the base

03 # y is the exponent

04 # The value of x raised to the y power is return

05 def calc\_power(x,y):

06 comment =”#Return the value”

07 return X\*\*y #raise x to the y power

For each of the following statements, select Yes if the statement is true. OtherWise, select No.

**Answer Area**

Lines 01 through 04 will be ignored for syntax checking.

1. Yes
2. No

The pound sign (#) is optional for lines 02 and 03.

1. Yes
2. No

The string in line 06 will be interpreted as a comment.

1. Yes
2. No

**Question 8**

Woodgrove Bank is migrating their legacy bank transaction code to Python.   
You have been hired to document the migrated code.   
Which documentation syntax is correct?

**Answer Area**

A. ' Returns the current balance of the bank account

def get\_balance():   
 return balance

B. def get\_balance():   
 #Returns the current balance of the bank account   
 return balance

C. def get\_balance():

/\*Returns the current balance of the bank account\*/

return balance

D. //Returns the current balance of the bank account

def get\_balance():   
 return balance

**Question 9**

You are writing a function to read a data file and print the results as a formatted table.   
The data file contains information about fruit. Each record contains the name of the fruit, the weight, and the price.   
You need to print the data so that it looks like the following sample:

Oranges 5.6 1.33   
Apples 2.0 0.54   
Grapes 10.2 10.96

Specifically, the print out must meet the following requirements:

• The fruit name must print left-aligned in a column 10 spaces wide.   
• The weight must print right-aligned in a column 5 spaces wide with up to one digit after the decimal point.   
• The price must print right-aligned in a column 7 spaces wide with up to two digits after the decimal point.

You write the following code. Line numbers included are for reference only.

**01** def print\_table(file):   
02 data - open(file,'r')   
03 for record in data:   
04 fields = record.split(",")

How should you complete line 05? To answer, drag the appropriate code segments to the correct location. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

**Answer Area**

1)..................... 2)......................... 3)........................ 4)....................... ".format(fields[0],eval(fields[1]),eval(fields[2])))

Q-section 1

1. print("
2. {10:0}
3. {5:1f}
4. {7:2f}
5. {2:7.2f}
6. {1:5.1f}
7. {0:10}

Q-section 2

1. print("
2. {10:0}
3. {5:1f}
4. {7:2f}
5. {2:7.2f}
6. {1:5.1f}
7. {0:10}

Q-section 3

1. print("
2. {10:0}
3. {5:1f}
4. {7:2f}
5. {2:7.2f}
6. {1:5.1f}
7. {0:10}

Q-section 4

1. print("
2. {10:0}
3. {5:1f}
4. {7:2f}
5. {2:7.2f}
6. {1:5.1f}
7. {0:10}

**Question 10**

you are creating an ecommerce script that accepts Input from the user and outputs the data in a comma delimited format,

You write the following lines of code to accept input:

item = input(“Enter the item name: “)

sales = input(“Enter the quantity: “)

The output must meet the following requirements:

* Strings must be enclosed inside of double-quotes
* Numbers must not be enclosed in quotes or other characters
* Each item must be separated with a comma

You need to complete the code to meet the requirements.

Which three code should you use? Each correct answer presents a complete solution.Choose three

1. Print(“{0},{1}”.format(item,sales))
2. Print(‘ “%s” ,%s’ % (item, sales))
3. Print(item + ‘ , ‘ +sales)
4. Print(‘ “ ‘ + item + ‘ “, ‘ +sales)
5. Print(‘”{0}” ,{1}’ .format(item, sales))

**Question 11**

You are writing a Python program to automate inventory. Your first task is to read a file of inventory transactions. The file contains sales from the previous day, including the item id, price, and quantity.

The following shows a sample of data from the file:

10, 200, 5

20, 100, 1

The code must meet the following requirements:

* Each line of the file must be read and printed
* If a blank line is encountered, it must be ignored
* When a I lines have been read, the file must be closed

You create the following code. Line numbers are included for reference only.

inventory = open("inventory.txt", 'r')

eof =False

while eof == False:

line = inventory.readline()

.................

.................:

print(line)

else:

print ("End of file")

eof=True

inventory.close()

which code should you write for line 05 and line 06?

1. 05 if line != ’\n’:

06 if line ! =””:

1. 05 if line !=’\n’:

06 if line ! =None:

1. 05 if line ! = ‘ ‘:

06 if line ! = “”:

1. 05 if line != ‘ ‘:

06 if line != “\ns

**Question 12**

You write the following code:

import datetime

d = datetime.datetime(2017, 4, 7)   
print('{:%B-%d-%y}' .format(d))   
num=1234567.890   
print({:,.4f)' .format(num))   
You run the program.

What is the output?

**Answer Area**

A. Apr--07--2017   
 1,234,567.8900   
 Press any key to continue..

B. April--07--17   
 1.234,567.8900   
 Press any key to continue...

C. April--07--17   
 1234567.89   
 Press any key to continue...

D. 2017--ApriI--07   
 1,234,567.890

**Question 13**

Northwind Electric Cars needs help updating their file system using Python code. You must create a simple file manipulation program that performs the following actions:

• Checks to see if a file exists.   
• If the file exists, displays its contents.   
• If the file does not exist creates a file using the specified name.   
• Appends the phrase, ‘End of listing’ to the file.

You need to complete the code to meet the requirements.

How should you complete the code? To answer. select the appropriate code segments in the answer area.

**Answer Area**

import os

if 1...............

file =open('myFile.txt')

2...............

file.close()

file = 3............

4……........... ("End of listing")

file.close()

Q-section 1

1. Isfile(“myFile.txt”):
2. Os.exit(‘myFile.txt’):
3. Os.find(‘myFile.txt’):
4. Os.path.isfile(‘myFile.txt’):

Q-section 2

1. Output(‘myFile.txt’)
2. Print(file.get(‘myFile.txt’))
3. Print(file.read())
4. Print(‘myFile.txt’)

Q-section 3

1. Open(‘myFile.txt’, ‘a’)
2. Open(‘myFile.txt’, ‘a+’)
3. Open(‘myFile.txt’, ‘w’)
4. Open(‘myFile.txt’, ‘w+’)

Q-section 4

1. append
2. file.add
3. file.write
4. write

**Question 14**

Tailspin Toys is building a basketball court for its employees to improve company morale.

You are creating a Python program that employees can use to keep track of their average score.

The program must allow users to enter their name and current scores. The program will output the user name and the users average score. The output must meet the following requirements:

• The user name must be left-aligned.

• If the user name has fewer than 20 characters, additional space must be added to the right.

• The average score must have three places to the left of the decimal point and one place to the right of the decimal QO(X-X).

How should you complete the code? To answer, select the appropriate code segments in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

name =input("What is your name? ")

score =0

count =0

Sum = 0

while(score !=-1):

score =int(input("Enter your scores:(-1 to end)"))

if score == -1:

break

Sum+=score

count +=1

average\_score =Sum/count

print(" 1…..............., your average score is: 2…............................... "% (name, average))

Q-section 1

1. %-20i
2. %-20d
3. %-20f
4. %-20s

Q-section 2

1. %1.4s
2. %4.1f
3. %4.1S
4. %1.4f

**Question 15**

You write a function that reads a data file and prints each line of the file. You write the following code. Line numbers are included for reference only.

01 def read\_file(file):   
02 line= None   
03 if os.path.isfile(file):   
04 data = open(file,'r')   
05 for line in data:   
06 print(line)

When you run the program, you receive an error on line 03.

What is causing the error?

**Answer Area**

1. The **isfile** method does not accept one parameter.
2. You need to import the **os** library.
3. The **path** method does not exist in the **os** object.
4. The **isfile** method does not exist in the **path** object.

**Question 16**

You work on a team that is developing a game for AdventureWorks.   
You need to write code that generates a random number that meets the following requirements:

• The number is a multiple of 5.   
• The lowest number is 5.   
• The highest number is 100.

Which two code segments will meet the requirements? Each correct answer presents a complete solution. Choose two.

**Answer Area**

A. from random import randrange

print(randrange(5, 100, 5))

B. from random import randrange

print(randrange(0, 100, 5))

C. from random import randint

print(randint(0, 20)\*5)

D. from random import randint

print(randint(1, 20)\*5)

**Question 17**

You need to write code that generates a random **float** with a minimum value of 0.0 and a maximum value of 1.0. Which statement should you use?

**Answer Area**

A. random.randrange(0.0, 1.0)   
B. random.randrange()   
C. random.random()   
D. random.randint(0, 1)

**Question 18**

You develop a Python application for your company.   
How should you complete the code so that the print statements are accurate? To answer. select the appropriate code segments in the answer area.

**Answer Area**

numList =[1,2,3,4,5]

alphaList=["a","b","c","d","e"]

1................................

print("The values in numList are equal to alphaList")

2....................................

print("The values in numList are not equal to alphaList")

**Q-section 1**

1. if numList==alphaList:
2. B if numList==alphaList
3. else:
4. else

**Q-section 2**

1. if numList==alphaList:
2. if numList==alphaList
3. else:
4. else

**Question 19**

You are creating a function to calculate admission fees by using Python. Admission fees are calculated based on the following rules:

• Anyone under age 5 = free admission   
• Anyone age 5 or older who is in school = 10 USD   
• Anyone age 5 to 17 who is not in school = 20 USD   
• Anyone older than age 17 who is not in school = 50 USD   
How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

admission\_fee(age, school):

rate =0

1.................................

rate =10

2....................................

3 ....................................

rate =20

Q-section 1

1. if age >=5 and school == True:
2. if age >=5 and age < =17:
3. if age >=5 and school ==False:

Q-section 2

1. elif age >=5 and school == False
2. else age >=5 and school ==False:
3. elif age >=5 and school ==True:

Q-section 3

1. if age >=5 and school == True:
2. if age >=5 and school == False:
3. if age <=17:

**Question 20**

Adventure Works Cycles sales are so exceptional that they decide to give a bonus to all employees who do not make more than $150,000. The following formula applies to each employee based on their base salary and a flat bonus:

New **salary = current salary x 3%** + **a $500 bonus.**You write code that reads the employee salaries into a variable named **salary\_list.**

You need to complete the code that applies an increase to each eligible employee’s salary.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

# Each salary in the list is updates based on increase.Employee making.

#$150,000 or more will not get a raise.

# Salary list is populated from employee database, code not shown.

salary\_list = [150000,340000,230000,500000,100000,120000,90000]

1...................................

if salary\_list[index] >= 150000:

2............................................

salary\_list[index] = (salary\_list[index] \*1.03)+500

**Q-section 1**

1. for index in range(len(salary\_list)+1):
2. for index in range(len(salary\_list)-1):
3. for index in range(len(salary\_list)):
4. for index in salary\_list:

**Q-section 2**

1. exit()
2. continue
3. break
4. end

**Question 21**

You are creating a Python program that will let a user guess a number from 1 to 10. The user is allowed up to three guesses.   
You write the following code. Line numbers are included for reference only.

01 from random import randint   
02 target = randint(1,10)   
03 chance = 1   
04 print ("Guess an integer from 1 to 10. You will have 3 chances.")   
05   
06 guess = int(input(”Guess an integer: ))   
07 if guess > target:   
08 print ("Guess is too high")   
09 elif guess < target:   
10 print (“Guess is too low")   
11 else:   
12 print ("Guess is just right!”)

The program must allow three guesses. If the user guesses the correct number, the program must stop asking for guesses.   
How should you complete lines 05, 13, and 14? To answer, drag the appropriate code segments to the correct locations. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

**Answer Area**

Q1. Which code segement should you use at line 05?

A. while chance <=3 E. while chance <3:

B. break F pass

C. chance+=1 G. while chance < 3

D. chance = 2

Q2. Which code segment should you use at line 13?

A. while chance <=3 E. while chance <3:

B. break F pass

C. chance+=1 G. while chance < 3

D. chance = 2

Q3. which code segment should you use at line 14?

A. while chance <=3 E. while chance <3:

B. break F pass

C. chance+=1 G. while chance < 3

D. chance = 2

**Question 22**

You are writing a function in Python that must meet the following requirements:

• The function accepts a list and a string as parameters.   
• The function must search for the string in the list   
• If the string is found in the list, the function must print a message indicating that the string was found and then stop iterating through the list   
• If the string is not found, the function must print a message indicating that the string was not found in the list.

In which order should you arrange the code segments to develop the solution? To answer, move all code segments from the list of code segments to the answer area and arrange them in the correct order.

**Answer Area**

|  |
| --- |
| A - for i in range(len(items)): |

|  |
| --- |
| B - if items[i]==term:  print("{0} was found in the list.".format(term)) |

|  |
| --- |
| C - break |

|  |
| --- |
| D - def search(items,term): |

|  |
| --- |
| E -  else:  print("{0} was not found in the list." .format(term)) |

1. D,A,B,C,E
2. D,B,A,C,E
3. B,D,A,C,E
4. D,A,B,E,C

**Question 23**

You are writing a Python program to ask the user to enter a number and determine if the number is 1 digit 2 digits, or more than 2 digits long.

You need to write the program.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

num =int(input("Enter a number with 1 or 2 digits:"))

digits=0;

1------------------------

digits = "1"

2......................................................

digits= 2

.3...................................................

digits= ">2"

Q –section 1

1. if num > - 10 and num < 10:
2. lif num> - 100 and num < 100:

Q-section 2

1. if num > -100 and num < 100:
2. elif num >-100 and num < 100:
3. if num >-10 and num < 10:
4. elif num >-10 and num <10:

Q-section 3

1. else:
2. elif:

**Question 24**

Wingtip Toys is creating an interactive Times Table Helper program intended for elementary school children.

You need to complete a function that computes and displays all multiplication table combinations from 2 to 12.

How should you complete the code? To answer, select the appropriate code segments in the answec area,

**Answer Area**

#Display times table 2 -12

def times\_tables():

1-------------------------

2-------------------------

print(row\*col,end=" ")

print()

#main

times\_tables()

Q-section 1

1. for col in range(13):
2. for col in range(2, 13):
3. for col in range(2,12,1):
4. for col in range(12):

Q-section 2

1. for row in range(13):
2. for row in range(2, 13):
3. for row in range(2,12,1):
4. for row in range(12):

**Question 25**

You are writing a Python program. The program collects customer data and stores it in a database.

The program handles a wide variety of data.   
You need to ensure that the program handles the data correctly so that it can be stored in the database correctly.

Match the data type to the code segment. To answer, drag the appropriate data type from the column on the left to its code segment on the right. Each data type may be used once, more than once, or not at all.

**Answer Area**

Q1. age =2

1. bool
2. float
3. int
4. str

Q2. minor=False

1. age =2
2. bool
3. float
4. int
5. str

Q3. name = "Contoso"

1. age =2
2. bool
3. float
4. int
5. str

Q4. weight = 123.5

1. age =2
2. bool
3. float
4. int
5. str

Q5. zip ="81000"

1. age =2
2. bool
3. float
4. int
5. str

**Question 26**

You are writing a Python application for a dance studio.

The studio wants to encourage youth and seniors to sign up. Minors and seniors must receive a 10% discount.

You write the following code. Line numbers are included for reference only.

01. def get\_discount(minor, senior):   
02 discount = .1   
03   
04 discount = 0   
05 return discount

**Answer Area**

1. if not (minor and senior):
2. if not (minor or senior):
3. if (not minor) or senior:
4. if (not minor) and senior:

**Question 27**

You are creating a Python program that compares numbers.

You create the following code. Line numbers are included for reference only.

01 num1 = eval (input (“Please enter the first number: " ))   
02 num2 = eval (input ("Please enter the second number: "))   
03 if num1 == num2:   
04 print("The two numbers are equal.")   
Os if num1 <= num2:   
06 print("Number 1 is less than number 2.")   
07 if num1 > num2:   
08 print("Number 1 is greater than number 2.")   
09 if num2 = num1:   
10 print("The two numbers are the same.")

You need to ensure that the comparisons are accurate.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

**Answer Area**

Q1. The print statement at line 04 will only print if the two numbers are equal in value.

1. Yes
2. NO

Q2. The print statement at line 06 will only print if num1 is less than num2.

1. Yes
2. NO

Q3. The print statement at line 08 will only print if num1 is greater than num2.

1. Yes
2. NO

Q4. The statement at line 09 is an invalid comparison.

1. Yes
2. NO

**Question 28**

You develop a Python application for your school.

A list named **colors** contains 200 colors. You need to slice the list to display every other color starting with the second color.

**Answer Area**

Which code should you use?

1. colors[1::2]
2. colors[1:2]
3. colors[2:2]
4. colors[::2]

**Question 29**

You are developing a Python program that compares numbers.

You need to ensure that you are using the correct comparison operators.

Evaluate each expression and indicate the correct result. To answer, drag the appropriate result from the column on the left to its expression on the right. Each result may be used once, more than once, or not at all.

NOTE: Each correct selection is worth one point.

**Answer Area**

1) . 0 or 5

1. True
2. False
3. 5
4. None

2). bool(0)

1. True
2. False
3. 5
4. None

3). None is None

1. True
2. False
3. 5
4. None

4). -5 < 0 <5

1. True
2. False
3. 5
4. None

**Question 30**

A classmate has asked you to debug the following code:

x = 4

while x >= 1:

if x % 4 == 0:

print ("party")

elif x - 2 < 0:

print("cake")

elif x/3 == 0:

print("greeting")

else:

print("birthday")

x=x-1

**Answer Area**

What is the output that is printed to the screen?

A. birthday

party

greeting

cake

B. party   
 greeting   
 birthday   
 cake

c. birthday

greeting   
 party   
 cake

D. party   
 birthday   
 birthday   
 cake

**Question 31**

You are writing a program that calculates a user’s year of birth. The program asks users for their age and the current year, then outputs the users year of birth, You write the following code. Line numbers are included for reference only.

01 age = input(”Enter your age: “)   
02 year = input(”Enter the four digit year: “)   
03 born = eval(year) - eval(age)   
04 message = “You were born in "+ str(born)   
05 print(message)

You need to ensure that the program uses the appropriate data types.

What data types are used? Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment.

**Answer Area**

What data type is age in line 01?

1. int
2. str
3. float
4. bool

what data type is born in line 03?

1. int
2. str
3. float
4. bool

what data type is message in line 04?

1. int
2. str
3. float
4. bool

**Question 32**

You have the following list structure:

**alph = “abcdefghijklmnopqrstuvwxyz”**

You need to evaluate the result of performing various slicing operations.

Match the result to the slicing operation. To answer, drag the appropriate result from the column on the left to its slicing operation on the right. Each result may be used once, more than once, or not at all.

**Answer Area**

alph[3:15]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph[3:15:3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph[3:15:-3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph [15:3:-3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph[15:3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

alph[::-3]

1. zwtqnkheb
2. pmjg
3. defghijklmno
4. ponmlkjihgfe
5. defghijklmnop
6. dgjm
7. olif
8. ""

**Question 33**

You write the following code:

a='Configl'   
print(a)   
b=a   
a + = Config2   
print(a)   
print(b)

Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment.

**Answer Area**

Q1. What is displayed after the first print?

1. A.Config1
2. Config1Config2
3. C.Config2

Q2. what is displayed after the second print?

1. A.Config1
2. Config1Config2
3. C.Config2

Q3. what is displayed after the third print?

1. A.Config1
2. Config1Config2

**Question 34**

you write the following code:

list\_ 1 = [1, 2]

list\_2 = [3, 4]

list\_3 = list\_1 + list\_2

list\_4 = list\_3\*3

print(list\_4)

you run the code.

**Answer Area**

What is the output value?

1. [[1,2], [3,4],[1,2],[3,4],[1,2],[3,4]]
2. [[1,2,3,4], [1,2,3,4],[1,2,3,4]]
3. [3,6,9,12]
4. [1,2,3,4,1,2,3,4,1,2,3,4]

**Question 35**

You evaluate the following code:

numList = [0,1,2,3,4]

print(5 in numList)

**Answer Area**

What is the output of the print statement?

1. 4
2. False
3. True
4. 5

**Question 36**

You are writing a function that returns the data type of the value that Is passed in. You write the following code. Line numbers are included for reference only.

01 def checkType(value):   
02 dataType = type(value)   
03 return dataType   
04 print(checkType(True))   
05 print(checkType(1.0))   
06 print (checkType(1))   
07 print(checkType("True"))

Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment

**Answer Area**

What is printed at line 04?

1. <class'bool'>
2. <class 'float'>
3. <class'int'>
4. <class'str'>

what is printed at line 05?

1. <class'bool'>
2. <class 'float'>
3. <class'int'>
4. <class'str'>

what is printedd aat line 06?

1. <class'bool'>
2. <class 'float'>
3. <class'int'>
4. <class'str'>

what is printed at line 07?

1. <class'bool'>
2. <class 'float'>
3. <class'int'>
4. <class'str'>

**Question 37**

You develop a Python application for your company.

You have the following code. line numbers are included for reference only.

01 def main(a,b,c,d):   
02 value = a+b\*c-d   
03 return value

Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment.

**Answer Area**

Which part of the expression will be evaluated first?

1. a+b
2. b\*c
3. c-d

Which operation will be evaluated second?

1. addition
2. Subtraction

Which expression is equivalent to the expression in the function?

1. (a+b)\*(c-d)
2. (a+(b\*c))-d
3. a+((b\*c)-d)

**Question 38**

Woodgrove Bank must generate a report that shows the average balance for all customers each day. The report must truncate the decimal portion of the balance.

Which two code segments should you use? Each correct answer presents a complete solution. Choose two.

**Answer Area**

1. average\_ba1ance = total\_deposits\*\*number\_of\_customers
2. average\_balance = int(total\_deposits/number\_of\_customers)
3. average\_balance = total\_deposits//number\_of\_customers
4. average\_balance = float(total\_deposits//number\_of\_customers)

**Question 39**

You are writing a function to perform safe division.

You need to ensure that a denominator and numerator are passed to the function and that the denominator is not zero.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

**Answer Area**

def safe\_divide(numerator, denominator):

1.......................

print("A required value is missing.")

2........................

print("The denominator is zero.")

else:

return numerator /denominator

1)

1. if numerator is None or denominator is None:
2. if numerator is None and denometor is None:
3. if numerator = None or denominator =None
4. if numerator = None and denominator = None:

2)

1. elif denominator ==0:
2. elif denominator = 0:
3. elif denominator !=0:
4. elif denominator in 0:

**Question 40**

A coworker wrote a program that inputs names into a database. Unfortunately, the program reversed the letters in each name.

You need to write a Python function that outputs the characters in a name in the correct order.

How should you complete the code? To answer, select the appropriate code segments in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

def reverse\_name (backwards\_name):

forward\_name = ' '

for index in 1............................

forward\_name += 2.............................

return forward\_name

print(reverse\_name("leinad")) #test case

Q-section 1

1. backwards\_name:
2. len(backwards\_name):
3. range(0,len(backwards\_name)-1):
4. range(len(backwards\_name)-1,-1,-1):

Q-section 2

1. backwards\_name[index-1]
2. backwards\_name[len(forward\_name)-1]
3. backwards\_name[len(backward\_name)-len(forward\_name)]
4. backwards\_name[index]

**1] python program to count even and odd numbers in a list.**

**2]python program to check if a string contains any special character.**

**3]python program to convert time from 12 hour to 24 hour format.**

**4]python programs for merging two dictionaries.**

**5]check for URL in a string.**

**6]sort the values of first list using second list.**

**7]python program to print emojis.**

**8]program to find the most occurring character and its count.**