Question 11

HOTSPOT -
During school holidays, you volunteer to explain some basic programming concepts to 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.
Hot Area:

Answer Area

	Yes	No
After executing code segment 1, the data type of variable `a` is `str`.	○	○
After executing code segment 2, the data type of variable `b` is `float`.	○	○
After executing code segment 3, the data type of variable `c` is `int`.	○	○

Question 12

DRAG DROP -
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.

LIVEWORKSHEETS

Select and Place:

Data Types

int	float	str	bool

Answer Area

type (+1E10) [ ]

type (5.0) [ ]

type ("True") [ ]

type (False) [ ]

Question 13

HOTSPOT -
The ABC 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 this 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 [ ▼ ]
        if [ ▼ ]
            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)
```

LIVEWORKSHEETS

Hot Area:

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 [                    ▼]
        word_list in word:
        word in word_list:
        word == word_list:
        word is word_list:

        if [                 ▼]
            word is letter:
            letter is word:
            word in letter:
            letter in word:
        retu
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)
```

Question 14

HOTSPOT -
The ABC Video company 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 returned. However, there are also special rates on Thursdays and Sundays. The fee structure is shown in the following list:

- The cost is $1.59 per night.
- If the DVD is returned after 8 PM, the customer will be charged an extra day.
- If the video is rented on a Sunday, the customer gets 30% off for as long as they keep the video.
- If the video is rented on a Thursday, the customer gets 50% off for as long as they keep the video.

You need to write code to meet the requirements.
How should you complete the code? To answer, select the appropriate code segments in the answer area.

LIVEWORKSHEETS

Answer Area

```
# ABC       Video, DVD Rental Calculator

ontime = input("Was video returned before 8 pm? y or n").lower()

days_rented = int(input("How many days was video rented?"))

day_rented = input("What day was the video rented?").capitalize()

cost_per_day = 1.59

if ontime [          ]

    days_rented +=1

if day_rented [          ]

    total = (days_rented * cost_per_day) * .7

elif day_rented [          ]

    total = (days_rented * cost_per_day) * .5

else:

    total = days_rented * cost_per_day

print("Cost of the DVD rental is : $", total)
```

Hot Area:

LIVEWORKSHEETS

Answer Area

```
#  ABC      Video, DVD Rental Calculator

ontime = input("Was video returned before 8 pm? y or n").lower()

days_rented = int(input("How many days was video rented?"))

day_rented = input("What day was the video rented?").capitalize()

cost_per_day = 1.59

if ontime [ ▼ ]
        != "n":
    days_ren == "n":
        == "y":

if day_rented [ ▼ ]
        == "Sunday ":
    total = (da >= "Sunday ": * .7
        is " Sunday ":

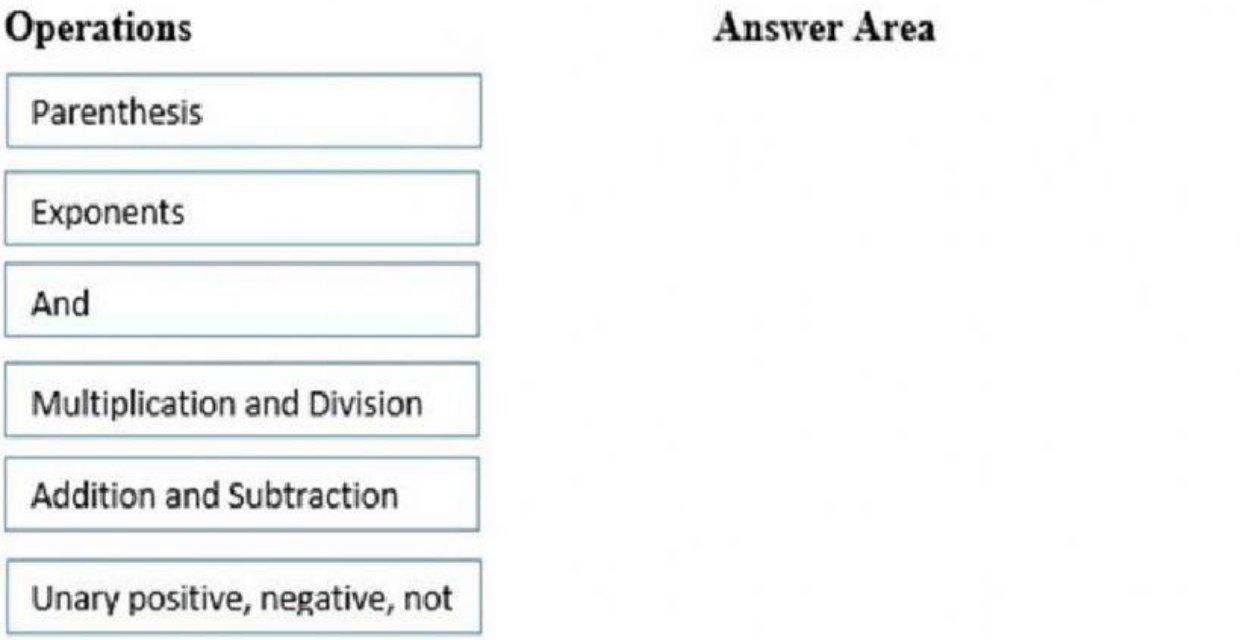
elif day_rented [ ▼ ]
        == "Thursday":
        <= "Thursday":
        is "Thursday":
```

Question 15

DRAG DROP -
The ABC company 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 list of operations to the answer area and arrange them in the correct order.

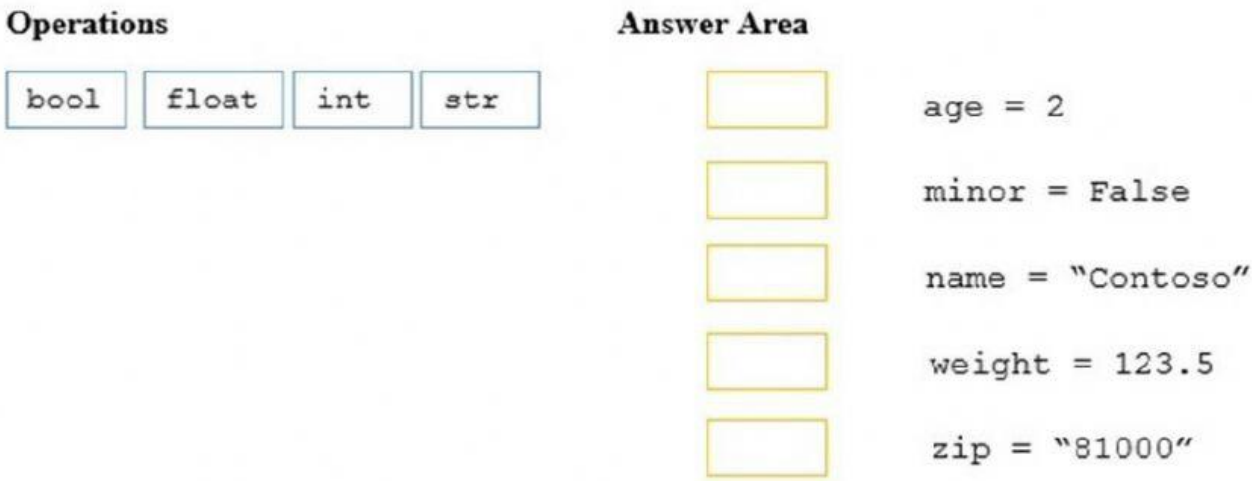
LIVEWORKSHEETS

Select and Place:



Question 16

DRAG DROP -
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.
Select and Place:



LIVEWORKSHEETS

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?

- **A.** print("Congratulations on" + (int(end)-int(start)) + "years of service!")
- **B.** print("Congratulations on" + str(int(end)-int(start)) + "years of service!")
- **C.** print("Congratulations on" + int(end - start) + "years of service!")
- **D.** print("Congratulations on" + str(end - start)) + "years of service!")

Question 18

HOTSPOT -
You are developing a Python application for your company.
You write the following code:

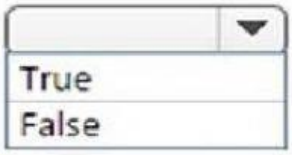
```
numList = [1,2,3,4,5]
alphaList = ["a","b","c","d","e"]
print(numList is alphaList)
print(numList == alphaList)
numList = alphaList
print(numList is alphaList)
print(numList == alphaList)
```

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

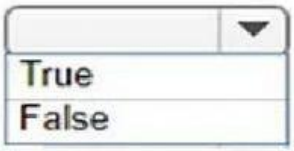
LIVEWORKSHEETS

Answer Area

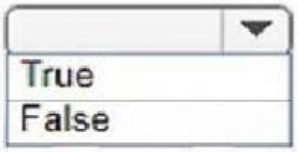
What is displayed after the first print?



What is displayed after the second print?



What is displayed after the third print?



What is displayed after the fourth print?



Question 19

DRAG DROP -
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 all.
Select and Place:

LIVEWORKSHEETS

Results

`print(a / b)`	`print(a // b)`
`print(a % b)`	

Answer Area

2	
3	
2.75	

Question 20

DRAG DROP -
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.
Select and Place:

Code Segments

-	(	)	**	**2	2	a

Answer Area

b = [ ] [ ] [ ] [ ] [ ]

LIVEWORKSHEETS