

Assessment 2 Data Types in Python:- Strings

Question 1

Determine the output of the following program without running the code:

```
name1 = 'Jamie'
print (name1)

name 2 = 'Aaron'. upper ()
print (name2)

message = 'The names are %s and %s.' %(name1, name2)
print(message)
```

Question 2

Assign the strings "Python"; "Java" and "C+" to three variables lang1, lang2 and lang3 respectively.

Use the three variables and the % operator to generate the following strings:

The most popular programming languages are Python, Java
and
C+.

The most popular programming languages are Python, C+
and
Java.

Assign the new strings to message1 and message2 respectively and print the values of message1 and message2.

Question 3

Determine the output of the following program the code:

```
num = 12
message = '%d' % (num)
print (message)

message = '%4d' % (num)
print (message)
```

Question 4

Determine the output of the following program without running the code:

```
decnum=1.72498329745

message = %5.3f' % (decnum)
print (message)

message = %7.2f' % (decnum)
print (message)
```

Question 5

Assign the values 111 and 13 to two variables `p` and `q` respectively.

Divide `p` by `q` and assign the result to a variable called `result`.

Use the three variables and the `%` operator to generate the following string:

The result of 111 divided by 13 is 8.538, correct to 3 decimal places.

Assign the string to a variable called `message` and print the value of `message`.

Question 6

Determine the output of the following program without running the code:

```
message = 'My name is ( ) and I am ( ) years old.'
'.format ('Jamie', 31)
print (message)
```

Question 7

Determine the output of the following program without running the code:

```
message1 = 'My favorite colors are { }, { } and { }.'
'.format ('orange', 'blue', 'black')

message2 = 'My favorite colors are { 1},{0} and {2} .'
'.format ('orange','blue', 'black')

print(message1)

print(message2)
```

Question 8

Assign the strings `'Amaka'`, `'Bola'` and `'Ahmed'` to three variables `student1`, `student2` and `student3` respectively. Use the three variables and the `format ()` method to generate the following string:

My best friends are Amaka, Bola and Ahmed.

Assign the new string to a variable called `message` and print the value of `message`.

Question 9

Determine the output of the following program without running the code:

```
message1 = " {:7.2f} and {:d}'".format (21.3124, 12)
message2 = 1{1} and {0} ' .format (21.3124, 12)
```

```
Print (message1)
Print (message2)
```

```
print (message1)
print (message2)
```

Question 10

Assign the values 12 and 7 to two variables `x` and `y` respectively.

Divide `x` by `y` and assign the result to a variable called `quotient`.

Use the `format ()` method and the variables `x`, `y` and `quotient` to generate the following string:

The result of 12 divided by 7 is 1.7143, correct to 4 decimal places.

Assign the string to a variable called `message` and print the value of `message`.

Question 11

Assign the value `2.7123` to a variable called `number`. Cast `number` into an integer and assign it back to `number`. Print the value of `number`.

Question 12

How do you convert the number `2.12431` into a string?

Question 13

Assign the string `'12'` to a variable called `userInput`. Cast `userInput` into an integer and assign it back to `userInput`. Print the value of `userInput`.

Question 14

Given that `myList = [1, 2, 3, 4, 5, 6]`, what is the number at index 1 and index -2? Explain why index 6 is invalid.