

1. In the below elements which of them are values or an expression? eg:- values can be integer or string and expressions will be mathematical operators.

* - Operator

'hello' - Value

-87.8 - Value

- -Operator

/ -Operator

6 - Value

2. What is the difference between string and variable?

String is group of characters. It could be group of numbers, alphabets, (basically array of characters)

Variable – It is the local/global instance to store the data.

3. Describe three different data types.

Integer – Example 20 (Whole numbers)

Float – Example(45.32- Decimal Number)

Boolean – True / False

4. What is an expression made up of? What do all expressions do?

Expressions are made up of operators and operands, combination of variables, values etc.

Expressions provide results when we execute it.

5. This assignment statements, like spam = 10. What is the difference between an expression and a statement?

Statement: Statements are instructions to be executed (action or command)eg:- Print statement, assignment statement

Expression : Made up of operators,operands, variables, and will provide results which is value.

6. After running the following code, what does the variable bacon contain?

```
bacon = 22
```

```
bacon + 1
```

Answer: Bacon contains 22 .

Bacon + 1 does not change the value of bacon as it is not assigned back to bacon value.

7. What should the values of the following two terms be?

```
'spam' + 'spamspam'
```

```
'spam' * 3
```

Answer: Both produces same output- 'spamspamspam'

8. Why is eggs a valid variable name while 100 is invalid?

Answer:Because eggs – is a group of letters -(Can be a valid variable name)

But 100 – is a number- Variable name can not start with numbers

Example :

Abc1 can be a variable name.

1abc – can not be a variable name.

9. What three functions can be used to get the integer, floating-point number, or string version of a value?

Answer with an Example :

```
a = input("Enter a Value")
```

```
print("Integer value of an obtained value is",int(a))
```

```
print("Float value of an obtained value is",float(a))
```

```
print("String value of an obtained value is",str(a))
```

Output:

```
Enter a Value20
```

```
Integer value of a obtained value is 20
```

```
Float value of a obtained value is 20.0
```

```
String value of a obtained value is 20
```

10. Why does this expression cause an error? How can you fix it?

```
'I have eaten ' + 99 + ' burritos.'
```

Answer:

Error if we execute the above code : we get -TypeError: can only concatenate str (not "int") to str

Reason: We can not concatenate different datatypes. If we still want to do we should change to same datatype. Here it can be done like below.

```
'I have eaten' + str('99') + 'burritos.'
```

Output : 'I have eaten99burritos.'