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.

\*

'hello'

-87.8

-

/

6

**ANS : Expressions -> \*, -, /, + Values : ‘hello’, -87.8, 6**

2. What is the difference between string and variable?

**ANS :**

**Variable is a placeholder for storing values**

**String is a type of information that is stored in variable**

3. Describe three different data types.

**ANS :**

1. **Numeric Types -> Int, float, complex**
2. **String Types -> str**
3. **Sequence Types -> List, tuple, range**
4. **Mapping Types -> Dict**
5. **Set Types -> Set**
6. **Boolean -> bool**
7. **Binary Type -> bytes, bytearray, memoryview**
8. **NoneType -> NoneType**

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

**ANS :**

**Expression is a combination of variables, operands and operators. The expression is evaluated as per the precedence of its operators**

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

**ANS :**

**Expression is a combination of variables, operands and operators**

**Eg: 5+5**

**Statement represents an action**

**Eg: print 5 , a = 10**

**Statement with Expression is print 5\*a**

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

bacon = 22

bacon + 1

**ANS : 22. If we need 23, we need to assign bacon = bacon+1**

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

'spam' + 'spamspam'

'spam' \* 3

**ANS : Both will have spamspamspam**

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

**ANS :**

**variable names should not start with number.**

**A variable name must start with a letter or the underscore character**

**variable name can only contain alpha-numeric characters and underscores**

**Variable names are case-sensitive**

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

**ANS:**

**Str(value)**

**Float(value)**

**Int(value)**

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

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

**ANS : We cannot combine string with number. We need to use f string or format()**

**V = 99**

**Print(f’I have eaten {v} burritos’)**