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.

\* - >(Expressions)

'hello' - >(value)

-87.8 - >(value)

- ->(Expressions)

/ ->(Expressions)

* ->(Expressions)

6 ->(value)

2. What is the difference between string and variable?

Ans2 – A variable is something that can store or holds a value in the from string or numbers and this value may vary and later on we can retrieve the data using the variable name whereas a string is list of characters which we use to declare between single or double quotes in our coding.

Eg- input = ”Ankit” (Here input is a variable and “Ankit” is value in form of string that is assigned to this variable

3. Describe three different data types.

Ans3 – The 3 datatypes described below

* String – can be list of Alphabetic characters or alphanumeric characters eg- Ankit, Ankit124
* Integer – can be positive or negative whole numbers, eg- 45,67
* Float – Real Numbers with decimal point or floating point representations eg – 33.5, 77.8

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

Ans4 Expressions are made up of different operators and values. Expressions provides a number or string as single value in resultant output in response to given values and operators as input.

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

Ans – An expression is a code that evaluates to a value (eg – n+2), whereas a statement is a code that performs a given command( eg-n=2, while, if)

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

bacon = 22

bacon + 1

Ans6 – After running this code the value of bacon remains same that is 22

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

'spam' + 'spamspam' – ‘spamspamspam’

'spam' \* 3 – ‘spamspamspam’

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

Ans8 – Yes eggs is valid variable name while 100 not it is because in a programming language variable names cannot start with a number

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

Ans9

* Int() for integer
* Float() for float
* Str() for string

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

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

Ans10 – The above expression will throw error when executed because 'I have eaten ' and ' burritos.' are strings while 99 is an integer. It will throw (can only concatenate str (not "int") to str) as concatenation of integer with a sting is not allowed. In order to correct it 99 needs quotes(‘’99”) to treat it as a string. This will allow concatenation and fix the error.