**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

**Answer: values---‘hello’, -87.6, 6**

**Expression ---\* , -, /, +**

**2. What is the difference between string and variable?**

**A string is sequence of character usually text, but variable is a named location in memory that can store any value .**

**Num=10**

**T1=”surajit”**

**This “num” is a variable whose value is integer not string**

**T1 is a variable whose value is a string because it stored a sequence of character.**

**3. Describe three different data types.**

**INTEGER ---- A integer is a whole number,positive or negative .exm—5,6,-6**

**FLOAT --- a float is real number with a decimal point. Exm== 10.6,7.8**

**STRING--- A string is sequence of character , exm==”love”,”Hate”**

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

**In python an expression is combination of operands and operators that evaluates to a single value.**

**An expression can also contain function.a function call is an expression that invokes a function and passed it some argument .**

**Exm:**

**1+2**

**X+y**

**“hello,world”**

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

**An expression is a combination of variable ,operator that evaluates to a single value.a statement is aunit of code that performs an action.**

**An expression has a value but an expression doesnot.**

**Expression : 5+5=10**

**Statement: print(“hello India”)**

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

**bacon = 22**

**bacon + 1**

**bacon still contain 22 because we did not assign new value to bacon.**

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

**'spam' + 'spamspam'>>> output : ‘spamspamspam’**

**'spam' \* 3>>> output : ‘spamspamspam’**

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

**In most programming language variable name can starts with a letter or an underscore and then after than any combination of lettter,number and underscore.The name cannot strts from number.**

**Egg is valid because it starts with letter ,but 100 is invalid because 100 starts with number.**

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

**A=10**

**B=int(A)**

**C=float(A)**

**D=str(A)**

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

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

**Answer: Because here we are trying to add integer with a string .**

**To fix it we can transform 99 which is integer into string.**

**‘I have eaten’ + ‘99’ +’burritos’**