```
 1  Q1. In the below elements which of them are values or an expression?
 2      eg:- values can be integer or string and expressions will be
    mathematical operators.
 3  *
 4  'hello'
 5  -87.8
 6  -
 7  /
 8  +
 9  6
10
11  Sol : * , - , / , + are the mathematical operators multiply , subtraction
    , divide , addition respectively
12  'hello' , -87.8 , 6 are the values string , -ve integer , +ve integer
    respectively
```

```
 1  Q2. What is the difference between string and variable?
 2  spam
 3  'spam'
 4
 5  Sol : String is the collection of characters enclosed in a single , double
    , triple quotes for eg : here 'spam' is a string.
 6  while variable is a name of the memory loaction where we can store the
    value. eg : here spam is a variable name.
```

```
 1  Q3. Describe three different data types.
 2
 3  Sol : there are basically 4 types of Data types in Python
 4      None
 5      Neumerical : int , float , bool , complex
 6      Sequence : list , tuple , set , string , range
 7      Mapping : map
```

```
 1  Q4. What is an expression made up of? What do all expressions do?
 2
 3  Sol : Expression is representation of values.
 4      eg1 : x = 5
 5            z = 10 + x + 5.7 are the expressions
```

```
 1  Q5. This assignment statements, like spam = 10. What is the difference
    between an expression and a statement?
 2
 3  Sol : Statement is a stand alone line it where as expression contains
    multiple operators , functions and values.
```

```
 1  Q6. After running the following code, what does the variable bacon
    contain?
 2  bacon = 22
 3  bacon + 1
 4
```

```
5  Sol : variable bacon is contain 22 only even after the execution if 2nd
   statement because of we are not
6      assign the value to bacon variable.
```

```
1  Q7. What should the values of the following two terms be?
2
3  'spam' + 'spamspam'
4  'spam' * 3
5
6  Sol : 'spam' + 'spamspam' it will concatenate both the strings and gives
   output : 'spamspamspam'
7      'spam' * 3 this will replicate string 3 times and gives output :
   'spamspamspam'
```

```
1  q8. Why is eggs a valid variable name while 100 is invalid?
2
3  Sol : According to the naming conventiopnal rule of variable in python , a
   variable name never be start with a numerical value
4      therefore i can say , eggs is a valid variable name where as 100 is an
   invalid variable name.
5
```

```
1  Q9. What three functions can be used to get the integer, floating-point
   number, or string version of a value?
2
3  Sol : case 1 :   x = 10.5
4          int(x) will gives you 10 which is an integer value
5          case 2 : x = 35
6          float(x) will gives you 35.0 decimal value
7          case 3: x = 56
8          str(x) will gives you '56' which is an string
```

```
1  Q10. Why does this expression cause an error? How can you fix it?
2  'I have eaten ' + 99 + ' burritos.'
3
4  Sol : since we can't add or concatenate string and non string thats why
   above expression throws an error. to resolve this we can convert integer
   99 to string.
5
6  'I have eaten ' + str(99) + ' burritos.'
```

In [ ]: 1