**ASSIGNMENT 1**

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

Ans1. \*= it is an expression

‘hello’= it is a string therefore it is value

-87.8= it is float value therefore it is value

- , /, + = these are mathematical operator therefore they all are expression

6= it is an integer value therefore it is a value

2. What is the difference between string and variable?

Ans2. STRING- it is a data type made up of sequence of characters or alphabet .

Ex- “hello” or “Shivangi”

VARIABLE-a variable is a container which hold data or information .

Ex- name=”Shivangi” #here name is a variable which holds value which is string

3. Describe three different data types.

Ans3- INTEGER: it is a data type which is whole number , positive or negative value without any decimal or fractional part.

Ex- 56,890,-987

FLOAT: this data type is used to represent numbers with decimal and fractional values. It has wide range .

Ex-8.990,7.977899

BOOLEAN- this data type has only two possible values TRUE or FALSE. It is used in comparison or decision making.

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

Ans4- Expression are made up of one or more operand or one or more operator . It is used to perform operation and compute values.

Ex- \*,+,-,/

-Expression are used to compute values , for decision making and perform value operation.

5. This assignment statements, like spam = 10. What is the difference between an

expression and a statement?

Ans5- Expressions are made up of operand and operator solely used for computing or evaluating values of given problem .

Ex- r= 5+6 # this is expression

Statement is a complete line of code that performs actions .

In above example spam =10 it is assignment statement stating that value 10 is assigned to variable spam.

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

bacon = 22

bacon + 1

Ans6- variable bacon contain value 23 after running the program.

First bacon is assigned value 22 and then an increment is done which makes its value 23.

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

‘spam’+ ‘spamspam’

‘spam’ \* 3

Ans7- both value will be same 'spamspamspam'

This is the concept of concatenation in first example two strings are

being concatenated and in second example one string is multiplied 3

Times.

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

Ans8- eggs is a valid variable names because it starts with alphabet and contains only alphabets which is allowed in any programming language.

100 is invalid variable name because it starts with digit and variable name does not start with digit in many programming language.

9. What three functions can be used to get the integer, floating-point number, or string

version of a value?

Ans9- int() function- it is used to convert any float number to integer number.

Ex- a=int(3.78)

Float() function – it is used to convert any number to floating point number

Ex- b=float(234)

Str() function-it is used to convert integer , floating point number to a string .

Ex- text=str(35)

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

‘I have eaten ‘ + 99 + ‘burritos’

Ans10- It is giving error because concatenation cannot be don’t between integer value it can be done between strings . Therefore we can convert int value to str and then it will not give error.

Here is the error free code.

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