

Python - Assignment - 1.

①

A1

Given:-
a) *
b) 'hello'
c) -87.8
d) -
e) /
f) +
g) 6

Values :- ① 'hello' ② -87.8 ③ 6

Expression :- ① * ② - ③ / ④ +

A2

String \Rightarrow • It is a derived Datatype

- Many characters combine together to form a string.
- An empty set of char acquires 24 bytes
So min. space string requires is 24 bytes,
i.e. (192 bits).

Variable \Rightarrow • A variable is like a box to store the data.

- We may need to declare the type of variable before assigning any value to it. (They both should be of same datatype)

① Integers

They are data type which stores any +ve, -ve whole number value.

$$Z = \{ \dots -7, -6 \dots 0 \dots -4, -5, -6 \dots \}$$

Normal Mathematical operations are available on integers.

- Addition
- Subtraction
- Multiplication
- Division

It follows BODMAS Rule

② Strings

Collection of characters is ~~also~~ called a string. It is represented as str.

It is a derived datatype so its first letter is always Capitalized when declared.

There are various Methods which are applied on strings eg:-

(a) .length \Rightarrow Returns length of entered string.

(b) .capitalize() \Rightarrow Converts first character of string to uppercase.

(c) .find() \Rightarrow Returns position of where the searched string is present.

And Many more.

③ Float

It is very much like Integers follows its methods by it also includes decimal point values.

And it returns its value in decimal points even if the number is a whole number

The space allocation is quite different, it is 24 bytes for float

16 + 8
REFERENCE STORAGE

For integers it is 28 bytes

i.e. $\Rightarrow 16 + 8 + 4$
 ARRAY SPACE

AY The expressions are the combinations of variable constants and operators in a logical manner.

They returns a value, it could be integer, float, Boolean.

Result = $P + Q * R / 56$ \Rightarrow This is an Expression
 Variable Constant
 operator.

A5

A set of instructions which returns some kind of value (integer, float, boolean) is can be termed as an expression.

where as, A Statement does not return any value.

A6

~~if~~ bacon variable after running the code will still contain 22

bacon = 22

because (bacon + 1) is not assigning any value in any variable.

A7

Both gives same output,

\Rightarrow spam spamspam

\Rightarrow spamspamspam

A8

A variables name cannot start with any special character and digit.

Hence,

100 is invalid for variables name.

AQ

For integer \Rightarrow int()

For floating point \Rightarrow float()

For strings \Rightarrow str()

A10

Here in this expression 99 is integer part and rest two are strings.

In python only same datatype (ie. str) can concatenate

So,

now, we have to typecast 99 into str

So,

the code will be:-

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