

St. Aloysius Sr. Sec. School, Cantt., Jabalpur

Class 11 Commerce (Informatics Practices)

Unit 1:

Dated: 27/4/2020

Week 3

(Solved and unsolved questions for you. Do not bother about the question number sequence. Few questions are omitted)

5. How many types of strings are supported in Python?

Ans. Python allows two string types:

- (a) Single line Strings—Strings that are terminated in single line.
- (b) Multiline Strings—Strings storing multiple lines of text.

6. What are variable-naming conventions?

- Ans.
- (i) A variable must start with a letter or underscore followed by any number of digits and/or letters.
 - (ii) No reserved word or standard should be used as the variable name.
 - (iii) No special character (other than underscore) should be included in the variable name.
 - (iv) Case sensitivity should be taken care of.

SOLVED QUESTIONS

1. Consider the following statements in Python interpreter and describe the output/statement required:

(a) Print a message "Hello World".

```
(b) a = 10
    b = 12
    c = a + b
    print(c)
```

(c) To retrieve the data type of the inputted string "Hello" stored inside the variable 'a'.

(d) To describe the data type of variable 'b'.

(e) To retrieve the address of variables a and b.

(f) State the output:

```
d = b
>>>d
>>>b
>>>id(d)
>>>id(b)
```

(g) a = "Hello"

```
a * 10
```

(h) To display the value for a^2 , a^3 and a^4

(i) a = 15

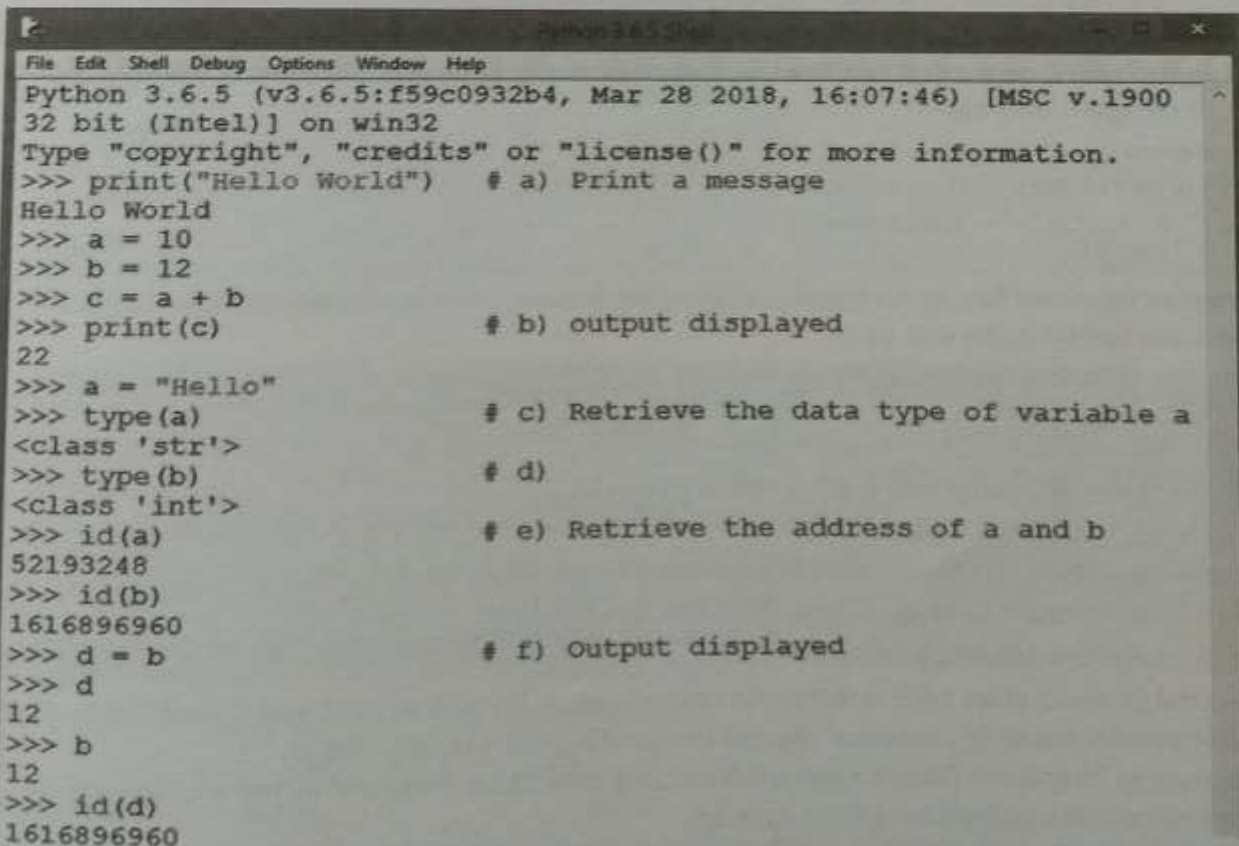
```
b = 4
```

```
a/b
```

```
a//b
```

(j) To swap the values of two variables, a and b, using multiple assignment statements.

Ans.



```
Python365Shell
File Edit Shell Debug Options Window Help
Python 3.6.5 (v3.6.5:f59c0932b4, Mar 28 2018, 16:07:46) [MSC v.1900
32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> print("Hello World") # a) Print a message
Hello World
>>> a = 10
>>> b = 12
>>> c = a + b
>>> print(c) # b) output displayed
22
>>> a = "Hello"
>>> type(a) # c) Retrieve the data type of variable a
<class 'str'>
>>> type(b) # d)
<class 'int'>
>>> id(a) # e) Retrieve the address of a and b
52193248
>>> id(b)
1616896960
>>> d = b # f) output displayed
>>> d
12
>>> b
12
>>> id(d)
1616896960
```

8. Identify the types of following literals:

23.789 23789 True 'True' "True" False "False" None

Ans. 23.789 Floating point
 23789 integer
 True Boolean
 'True' String
 "True" String
 False Boolean
 "False" String
 None None

9. What is the difference between 55L and 55?

Ans. An l or L suffix indicates that it is a long integer constant. Thus, 55L is a long integer value and 55 is an integer value.

10. Find output generated by the following code:

<pre>(1) x=2 y=3 x+=y print(x,y)</pre> <p style="text-align: right;">(Ans. 5 3)</p>	<pre>(2) x=8 y=2 x+=y y-=x print(x,y)</pre> <p style="text-align: right;">(Ans. 10 -8)</p>
<pre>(3) a=5 b=10 a+=a+b b*=a+b print(a,b)</pre> <p style="text-align: right;">(Ans. 20 300)</p>	<pre>(4) p=10 q=20 p*=q//3 q+=p+q**2 print(p,q)</pre> <p style="text-align: right;">(Ans. 60 480)</p>
<pre>(5) p=5/2 q=p*4 r=p+q p+=p+q+r r+=p+q+r q-=p+q*r print(p,q,r)</pre> <p style="text-align: right;">(Ans. 27.5 -642.5 62.5)</p>	<pre>(6) p=2/5 q=p*4 r=p*q p+=p+q-r r*=p-q+r q+=p+q print(p,q,r)</pre> <p style="text-align: right;">(Ans. 1.7599999999999998 4.96 0.512)</p>

11. What is the difference between an expression and a statement in Python?

Ans.

S. No.	Expression	Statement
1.	An expression is a combination of symbols, operators and operands.	Statement is defined as any programming instruction given in Python as per the syntax.
2.	An expression represents some value.	Statement is given to execute a task.
3.	The outcome of an expression is always a value.	Statement may or may not return a value as the result.
4.	For example, $3*7 + 10$ is an expression.	<code>print ("Hello")</code> is a statement.

12. Identify the error in the following Python statement:

```
>>>print("My name is", first_name)
```

UNSOLVED QUESTIONS

- Write Python command/instruction/statement to display your name.
- Write Python command to display your school name, class, and section, separated by "-".
- Evaluate the following expressions manually:
 - $(2 + 3) ** 3 - 6 / 2$
 - $(2 + 3) * 5 // 4 + (4 + 6) / 2$
 - $12 + (3 * 4 - 6) / 3$
 - $12 + (3 * 4 - 6) // 2$
 - $12 * 3 \% 5 + 2 * 6 // 4$
 - $12 \% 5 * 3 + (2 * 6) // 4$
- Evaluate the above expressions by using IDLE as a calculator and verify the results that you get manually
- Identify invalid variable names from the following, giving reason for each:
Group, if, int, total marks, S.l., volume, tot_strength, #tag, tag\$, 9a
- Find the output of the following code:

(a) `x=3`
`y=x+2`
`x+=y`
`print(x,y)`

(b) `x=-2`
`y=2`
`x+=y`
`y-=x`
`print(x,y)`

(c) `a=5`
`b=2*a`
`a+=a+b`
`b*=a+b`
`print(a,b)`

(d) `p=10`
`q=20`
`p*=q/3`
`q+=p+q*2`
`print(p,q)`

*****End*****