

NPTEL PYTHON FOR DATA SCIENCE

ASSIGNMENT SOLUTIONS (WEEK 1)

1. The command used to clear console in Spyder is:-

Answer B - %clear – An easier way to clear the console in Python

2. Which of the following is a valid variable name?

Answer C - 'ram_2'

Alphanumeric is a valid variable name convention in Python. And supports a special character _ (underscore)

Variable names should not begin or end with underscore even though both are allowed

3. Python files are saved with extension

Answer A - .py

4. Which of the following statement is invalid?

Answer B - m.n.q = 3500, 3600, 3700

Dot operators are used to access functions in Python, hence it is not used in naming a variable

5. The command to display an output in Python is:-

Answer A and D – display() and print()

6. Assignment operator used in Python is: -

Answer D – “=” (equal to)

7. Consider the variables a and b. Values of a and b are 280 and 15 respectively. The operation that will return a remainder is: -

Answer B - a%b

```
In [9]: a=280
```

```
In [10]: b=15
```

```
In [11]: a%b
```

```
Out[11]: 10
```

8. Python command used to calculate 2^5 is given by:-

Answer C - 25**

```
In [12]: 2**5
```

```
Out[12]: 32
```

9. The values of variables p and q are 15 and 3 respectively. What is the value of 'p' after running the code below?

p*=q

Answer D – 45

```
In [17]: p=15
```

```
In [18]: q=3
```

```
In [19]: p*=q
```

```
In [20]: p
```

```
Out[20]: 45
```

10. Which command would you use to find the data type of a variable

Answer B – type ()

```
In [21]: type(p)  
Out[21]: int
```

11. Value of variable *p* is 45. Command to coerce *p* from integer datatype to float datatype is:-

Answer B - p=float(p)

```
In [26]: p=float(p)
```

```
In [27]: type(p)  
Out[27]: float
```

12. Indicate which command would you use to set the working directory.

Answer B - os.chdir("C:/Documents /Data")

13. Comments in Python begin with

Answer C - #

14. What type of object is x?

x=("Python", "version", "3.7")

Answer B - Tuple

```
In [30]: x=("Python", "version", "3.7")  
  
In [31]: type(x)  
Out[31]: tuple
```

15. Which of the following method can be used to initialize multiple variables with a common value?

Answer B - Above 2 and 3

```
In [40]: x=y=z=33
```

```
In [41]: x=33; y=x; z=y
```

Name	Type	Size	
x	int	1	33
y	int	1	33
z	int	1	33

16. What will be the output after the following statements are executed?

```
X=300
```

```
Y= 17
```

```
X%=Y
```

```
print(X)
```

Answer A - 11

```
In [42]: X=300
```

```
In [43]: Y= 17
```

```
In [44]: X%=Y
```

```
In [45]: print(X)
```

```
11
```

17. What is the command to clear a single variable 'a' from the variable explorer?

Answer C – del a

18. Which of the package is used for visualization in Python

Answer D – ggplot, matplotlib, and seaborn are visualization packages for Python

19. “**not in**” belongs to which type of operator in Python?

Answer A – membership

Python’s membership operators (“in”, “not in”) test for membership in a sequence, such as strings, lists, or tuples

20. “**is not**” belongs to which type of operator in Python?

Answer B – identity

“is” and “is not” are the two identity operators - compares the memory locations of two objects. “is not” evaluates to false if the variables on either side of the operator point to the same object and true otherwise.