Q1: How windows deals with python files ?

There are a couple of common steps that the python program does before executing the program. These steps are:

- Compiling the code to what is known as a byte code that is common to all the machines.

  Python first compiles our source code to a format that is known as a byte code. This byte code is a lower level and platform independent representation. This step is done to improve the speed of execution of the program. The byte code in python is of .pyc format. If we execute the program outside the interpreter, then the .pyc file is usually temporarily stored in the memory and discarded after the execution. But if we are running the program from the interpreter, a .pyc file is created in the same folder as the program. And the python will execute a pyc file even if the original py file is absent. If a program is being executed, the python looks if the .pyc file is present and it has the timestamp as the file. If so, that file is executed and not the py file for a faster execution.

- Running this byte-code using a Virtual Machine.

  The .pyc file is send to the Python Virtual Machine for execution. The virtual machine is a big loop that executes through our byte code instruction one by one to carryout our instructions.

Q2: String built-in function ?

This is some useful built-in functions

Function	Description
format()	It's used to create a formatted string from the template string and the supplied values.
split()	Python string split() function is used to split a string into the list of strings based on a delimiter.
join()	This function returns a new string that is the concatenation of the strings in iterable with string object as a delimiter.
strip()	Used to trim white spaces from the string object.
format_map()	Python string format_map() function returns a formatted version of the string using substitutions from the mapping provided.
upper()	We can convert a string to uppercase in Python using str.upper() function.
lower()	This function creates a new string in lowercase.
replace()	Python string replace() function is used to create a new string by replacing some parts of another string.
find()	Python String find() method is used to find the index of a substring in a string.
translate()	Python String translate() function returns a new string with each character in the string replaced using the given translation table.

Q3: Else statement in for ?

The else block is executed just after for/while only when the loop is NOT terminated by a break statement.
EX:

```
for i in range(1, 4):
        print(i)
else: # Executed because no break in for
        print("No Break")
```

```
Output :

1
2
3
No Break
```

Q4: how to take system arguments from user ?

The Python sys module provides access to any command-line arguments via the sys.argv. This serves two purposes :

1. sys.argv is the list of command-line arguments.
2. len(sys.argv) is the number of command-line arguments.

Example

Consider the following script test.py :

```
#!/usr/bin/python

import sys

print 'Number of arguments:', len(sys.argv),
'arguments.'
print 'Argument List:', str(sys.argv)
```

Now run above script as follows :

```
python test.py arg1 arg2 arg3
```

This produce following result :

```
Number of arguments: 4 arguments.
Argument List: ['test.py', 'arg1', 'arg2', 'arg3']
```

NOTE : first argument is always script name and it is also being counted in number of arguments.