29th January Assignment

① Who developed Python Programming Language?

① Python Programming Language was created by 'Guido Van Rossum', and released in '1991' at CWI (Centrum Wiskunde & Informatica) Netherland.

② Which type of Programming does Python Support?

② Python is an interpreted programming language, which supports object-oriented, structured and functional programming.

③ Is Python case sensitive when dealing with identifiers?

③ Case is always significant while dealing with identifiers in python.

④ What is the correct extension of the Python file?

④ '.py' is the correct extension of the Python file. Python programs can be written in any text editor. To save these Programs we need to save in file extension '.py'.

⑤ Is Python code compiled or interpreted?

⑤ Yes Python code compiled and interpreted both in a very efficient manner.

⑥ Name a few blocks of code used to define in Python language?

⑥ • Indentation is used to define a block of code in Python.

★ Braces {} are used to define a block of code.

• In Python, indentation is done with whitespace. All statements with the same right-hand distance belong to the same code block.

• If a block needs to be more nested, it is idented to the right.

Example :- Program for checking names using Python

I/P :-   name = 'Alex'

```
if name == 'Alex':
    print ('Correct Name!!')
else:
    print ('In Correct Name.:(')
    print ('HI')
```

O/P :-

Correct Name !!
HI

⑦ State a character used to give single-line comments in Python?

⑦ • To write single-line comments in Python use the flash character (#) at the beginning of the line.

• It is also called 'number sign' or 'pound sign'

• To write multi-line comments, close the text between triple quotes.

• Example: """ comment text """

⑧ Mention functions which can help us to find the version of Python that we are currently working on?

⑧ • The function 'sys.version' can help us to find the version of python that we are currently working on.

• It also contains information on the build number and compiler used:

• Example: 3.5.2, 2.7.3 etc. this function also returns the current date, time, bits etc. along with the version.

⑨ Python supports the creation of anonymous functions at runtime, using a construct called _____.

⑨ Python supports the creation of anonymous functions at runtime, using a 'construct' called 'Lambda'.

- Lambda functions are restricted to a single expression.

- They can be used wherever normal functions can be used.

⑩ What does pip stand for python?

⑩ pip stand for 'preferred Installer Program'. It is a package manager for python.

⑪ Mention a few built-in functions in Python?

⑪ • The built-in Python functions are pre-defined by the python interpreter.

- There are 68 built-in python functions. These functions perform a specific task and can be used in any program, depending on the requirement of the user.

- Few built-in functions in Python are 'print(), type(), input(), abs(), max()' etc.

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(12) What is the maximum possible length of an identifier in Python?

(12) The maximum length of an identifier in Python is '79' characters.

(13) What are the benefits of using Python?

(13) There are following benefits of using Python as follows —

(i) Open source and free
(ii) Easy to learn
(iii) Huge Support Community
(iv) Presence of Libraries
(v) User friendly data structures
(vi) Speed

(14) How is memory managed in Python?

(14) • According to the Python memory management Python has a private heap that stores our program's objects & data structures.

• Python memory mang manager takes care of the bulk of the memory management work and allows us to concentrate on our code in a very efficient manner.

There are two types of memory allocation in python -

(1) Static
(2) Dynamic

⑮ How to install Python on windows and set path variables?

⑮ • There are following four steps to install Python on windows are as follows -

1) Go to https://python.org
2) Select Python for windows 64-bit or 32-bit according to os.
3) Download the setup.exe file.
4) Once downloaded run the setup and accept all the terms and conditions and click on ok.

• And for setting path variable go to my pc, select properties, from right click and go to advanced settings there select environment variables and add the path of bin from installed python application and save & apply it.

⑯ Is ident indentation required in python?
⑯ Yes indentation is mandatory in python to define the blocks of statements.