

# **ASSIGNMENT-1**

1. What is python? Why is it so popular?

Ans: Python is interpreted high-level general purpose programming language. Its design philosophy emphasizes code readability with its use of significant indentation and reduces the cost of program maintenance. Its language constructs as well its object-oriented approach aim to help programmers write clear, logical code for small and large scale projects. Python supports modules and packages, which encourages program modularity and code reuse. Reason which makes Python so popular is that it is an easy-to-learn programming language. It is easier to make models for machine learning. It has simplified syntax and not complicated.

2. What are the key features of python?

Ans: • Easy to code

- Free and open source
- Object oriented language
- GUI Programming support
- High level language
- Extensible feature
- Python is portable language
- Python is integrated languages

3. What type of language is python? Programming or scripting?

Ans: Python is an interpreted, interactive, object-oriented programming language.

4. What is pep 8?

Ans: It is a document that provides guidelines and best practices on how to write Python code.

PEP is a document that describes new features proposed for Python and document aspects of Python, like design and style, for the community.

5. Python an interpreted language. Explain

Ans: Python is an interpreted language, which means the source code of a Python program is converted into bytecode that is then executed by the Python virtual machine.

6. How is memory managed in python?

Ans: Memory management in Python involves a private heap containing all Python objects and data structures. The management of this private heap is ensured internally by the Python memory manager.

7. What is namespace in python?

Ans: A namespace is a system that has a unique name for each and every object in Python. An object might be a variable or a method. Python itself maintains a namespace in the form of a Python dictionary.