**ASSIGNMENT-1 Introduction to Python**

1. What are the key features of Python?

Python is **simple and easy to learn**. Compared to other programming it requires less number of lines of code. It have only 30+ keywords.

It is **Free and open source -** available to everyone and it is a **High Level programming Language –** doesn’t require concentration on low level activities. It uses **Interpreter** can run the code line by line, it have **extensive libraries ,** is based on all **Object oriented , Functional oriented , modular based etc.**  It is **dynamically typed –** we don’t have to declare the type, it is **platform independent ,** it is **portable .**

1. Python is an interpreted language. Explain.

Python doesn’t require us to do compile explicitly. It have an interpreter that **converts code to byte code line by line** and doesn’t require a separate compilation process and python is a hybrid language having interpreter and **compile the code in run time before execution**

1. What are the benefits of Python?

Python is **readable and simple ,** since it is open source it have a large active community that contributes python with large third party libraries , it have **extensive standard libraries,** python reduces the time of programmers since it requires less lines of code , its most suitable for data analysis , it’s a **cross platform language** the require the same code in every operating system , it provides easy integration with other sources through API

1. What are the applications of Python?

Data analysis applications , machine learning , artificial intelligence applications , developing wed and desktop applications, developing database applications , developing games etc..