

Government Engineering College, Patan

Computer Science & Engineering

**Python for Data Science
(Open Elective - 3150713)**

Assignment-1 (CO1, CO2)

1. Differentiate the four collections of Python that are List, Tuple, Set, and Dictionary using at least 3 supported functions of each collection with Example.
2. Create a Comparison Table of all four Collections (Tuple, Set, List, Dictionary) with similarities and Differences among them.
3. Compare and summarize four different coding styles supported by Python language.
(This link helps you to understand: <https://www.i2tutorials.com/coding-styles-of-python-programming-language/>)
4. What is the role of Python in Data science? Explain in Brief (This link helps to understand: <https://medium.com/javarevisited/why-python-programming-language-is-important-in-data-science-beb4a7f91f75>)
5. Write at least 3 functions supported for String including the Format function.
6. Write a program to perform the following operation on Array (Create a single Program to demonstrate all)
 - a. Create b. Insert Element c. Print Array (Different Way) d. Slice Array
 - e. Remove Element
7. Write a program to perform the following operation on List (Create a single Program to demonstrate all)
 - a. Create b. Pop Element c. Slice List d. Reverse List e. Find Max, Min, and Sort List including reverse sorting
8. Write a program to perform the following operation about Function (Single example or multiple examples)
 - a. Function with multiple arguments
 - b. Function with multiple return values
 - c. Default arguments
 - d. Pointer with Function