

B.Tech II Year II Semester**21CS413ES: FUNDAMENTALS OF PYTHON PROGRAMMING LAB****B.Tech. II Year II Sem.**

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Prerequisites: A course on “Programming for Problem Solving”.**Course Objectives**

- To be able to introduce core programming basics and program design with functions using Python programming language.
- To understand the dictionaries and modules.
- To understand the high-performance programs designed to strengthen the practical expertise.

Course Outcome

CO1: Student should be able to understand the basic concepts scripting and the contributions of scripting language

CO2: Ability to explore python especially Python Classes.

List of Experiments:**Cycle – 1:**

1. Write a program to demonstrate different number data types in Python.
2. Write a program to perform different Arithmetic Operations on numbers in Python.
3. Write a program to create, concatenate and print a string and accessing sub-string from a given string.
4. Write a python script to print the current date in the following format “Sun May 29 02:26:23 IST 2017”

Cycle – 2:

5. Write a program to create, append, and remove lists in python.
6. Write a program to demonstrate working with tuples in python.
7. Write a program to demonstrate working with dictionaries in python.
8. Write a python program to find largest of three numbers.
9. Write a Python script that prints prime numbers less than 20.
10. Write a python program to find factorial of a number using Recursion.

Cycle – 3:

11. Write a python program to define a module and import a specific function in that module to another program.
12. Write a script named copyfile.py. This script should prompt the user for the names of two textfiles. The contents of the first file should be input and written to the second file.
13. Write a program that inputs a text file. The program should print all of the unique words in the file in alphabetical order.
14. Write a Python class to implement pow(x, n)
15. Write a Python class to reverse a string word by word.

TEXT BOOK:

1. Core Python Programming, Wesley J. Chun, Second Edition, Pearson.

REFERENCE BOOKS:

1. Think Python, Allen Downey, Green Tea Press
2. Introduction to Python, Kenneth A. Lambert, Cengage
3. Python Programming: A Modern Approach, Vamsi Kurama, Pearson
4. Learning Python, Mark Lutz, O'Really.