

Sarvajanik College of Engineering and Technology
GUJARAT TECHNOLOGICAL UNIVERSITY
B.E – IV (Semester: 8)
Information Technology
Python Programming (2180711)

Practical List

Sr.No Course content

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|-----|---|-------|-------|---|---|----|----|-----|-----|-----|-----|-------|-------|
| 1 | Print Hello World. | | | | | | | | | | | | |
| 2 | To display the sum of two numbers. | | | | | | | | | | | | |
| 3 | Calculate area of circle. | | | | | | | | | | | | |
| 4 | Accept a number from keyboard and test whether the given number is even or odd. | | | | | | | | | | | | |
| 5 | To display numbers from 1 to 10 using while loop. | | | | | | | | | | | | |
| 6 | To display even numbers between X and Y. | | | | | | | | | | | | |
| 7 | To display the elements of a list using for loop. | | | | | | | | | | | | |
| 8 | Draw following patterns using nested loops. | | | | | | | | | | | | |
| | <table border="0" style="width: 100%;"><tr><td style="text-align: left;">*</td><td style="text-align: center;">1</td><td style="text-align: center;">*</td><td style="text-align: right;">1</td></tr><tr><td style="text-align: left;">**</td><td style="text-align: center;">12</td><td style="text-align: center;">* *</td><td style="text-align: right;">2 2</td></tr><tr><td style="text-align: left;">***</td><td style="text-align: center;">123</td><td style="text-align: center;">* * *</td><td style="text-align: right;">3 3 3</td></tr></table> | * | 1 | * | 1 | ** | 12 | * * | 2 2 | *** | 123 | * * * | 3 3 3 |
| * | 1 | * | 1 | | | | | | | | | | |
| ** | 12 | * * | 2 2 | | | | | | | | | | |
| *** | 123 | * * * | 3 3 3 | | | | | | | | | | |
| 9 | Write a Python function to swap two numbers. | | | | | | | | | | | | |
| 10 | Write a Python function to find the greatest of 3 numbers. | | | | | | | | | | | | |
| 11 | Write a Python function to find the roots of a quadratic equation. | | | | | | | | | | | | |
| 12 | Write a Python function to evaluate factorial function using while loop. | | | | | | | | | | | | |
| 13 | Write a Python function to test whether a given number is prime or not. | | | | | | | | | | | | |
| 14 | Write a Python function to generate Fibonacci series till given number. | | | | | | | | | | | | |
| 15 | A python program that helps to know the effects of slicing operations on an array. | | | | | | | | | | | | |
| 16 | A python program to sort the array elements using bubble sort technique. | | | | | | | | | | | | |
| 17 | A python program to search for the position of an element in an array using index() method. | | | | | | | | | | | | |
| 18 | A python program to accept two matrices and find their product. | | | | | | | | | | | | |
| 19 | A python program to find the number of words in a string. | | | | | | | | | | | | |
| 20 | A python program to insert a sub string in a string in a particular position. | | | | | | | | | | | | |
| 21 | A python program to know how many times an element occurred in the list. | | | | | | | | | | | | |
| 22 | A python program to sort a tuple with nested tuples. | | | | | | | | | | | | |
| 23 | A python program to convert the elements of two lists into key-value pairs of a dictionary. | | | | | | | | | | | | |

- 24 A python program to create a Bank class where deposits and withdrawals can be handled by using instance methods.
- 25 A python program to implement multiple inheritance using two base classes.
- 26 A python program to overload greater than (>) operator to make it act on class objects.
- 27 A python program to handle the ZeroDivisionError exception.
- 28 A python program to count the number of lines, words and characters in a text file.
- 29 A python program to create a regular expression to retrieve all words starting with 'a' in a given string.
- 30 A python program to create a regular expression to search for a word at the end of a string.
- 31 A python program to show method overloading to find sum of two or three numbers.
- 32 A python program to call super class constructor in the sub class using super().
- 33 A python program to implement binary search.
- 34 A python program to implement selection sort.
- 35 A python program to implement merge sort.
- 36 Practice PyLab.
- 37 Implement RSA algorithm in Python.
- 38 Implement Playfair cipher in Python.
- 39 Practice drawing using Turtle.
- 40 Practice drawing using Tkinter.

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