

GUJARAT TECHNOLOGICAL UNIVERSITY

Master in Computer Application (Integrated MCA)

Year III – (Semester-V) (W.E.F. June 2017)

Subject Name: Programming in Python (Indicative List)

Subject Code: 4450601

Practical List

1	Write a Python Program to Convert Celsius to Fahrenheit and vice –a-versa.
2	Write a program in python to swap two variables without using temporary variable.
3	Write a Python Program to Convert Decimal to Binary, Octal and Hexadecimal
4	Write a program to make a simple calculator (using functions).
5	Write a program in python to find out maximum and minimum number out of three user entered number.
6	Write a program which will allow user to enter 10 numbers and display largest odd number from them. It will display appropriate message in case if no odd number is found.
7	Write a Python program to check if the number provided by the user is an Armstrong number or not.
8	Write a Python program to display all the prime numbers in user entered range.
9	Write a Python program to check if the number provided by the user is a palindrome or not.
10	Write a Python program to perform following operation on given string input: a) Count Number of Vowel in given string b) Count Length of string (donot use len()) c) Reverse string d) Find and replace operation e) check whether string entered is a palindrome or not
11	Define a procedure histogram() that takes a list of integers and prints a histogram to the screen. For example, histogram([4, 9, 7]) should print the following: **** ***** *****
12	Write a program in python to implement Fibonacci series up to user entered number. (Use recursive Function)
13	Write a program in python to implement Factorial series up to user entered number. (Use recursive Function)
14	Write a program in python to implement simple interest and compound interest values on chart using PyLab. Show the difference between both. (Note: Use of object oriented paradigm is compulsory.)
15	Write a program in Python to implement readline, readlines, write line and writelines file handling mechanisms.
16	Write a program in python to implement Salary printing file read operation. (File format: EmployeeNo, name, deptno, basic, DA, HRA, Conveyance) should perform below operations.

	a) Print Salary Slip for given Employee Number b) Print Employee List for Given Department Number
17	1) Write a program in python to implement Railway Reservation System using file handling technique. System should perform below operations. a. Reserve a ticket for a passenger. b. List information all reservations done for today's trains. (Note: Use of object oriented paradigm is compulsory.)
18	Write a program in python to implement Library Management System using file handling technique. System should perform below operations. a. Issue a book for student. b. List information today's issued books. (Note: Use of object oriented paradigm is compulsory.)
19	Write a program in python to implement Bank System using Class and Methods and perform below operations. (Note: Use of object oriented paradigm is compulsory.) a) Add Bank account b) Deposit of money c) withdrawal operation d) Money transfer e) Show Balance
20	Write a program in python to implement Stack using Class and Methods and perform below operations. (Note: Use of object oriented paradigm is compulsory.) a) Create Stack b) Pop c) Push d) Merge two stack e) List element
21	Write a program in python to implement Queue using Class and Methods and perform below operations. (Note: Use of object oriented paradigm is compulsory.) a) Create Queue b) Add an element c) Remove an element d) Merge two Queues e) List elements
22	Write a program in python to implement Queue using Class and Methods and perform below operations. (Note: Use of object oriented paradigm is compulsory.) a) Create Queue b) Add an element c) Remove an element d) Merge two Queues e) List elements
23	Write a program in python to implement Merge Sort. (Note: Use of object oriented paradigm is compulsory.)
24	Write a program in python to implement Bubble Sort. (Note: Use of object oriented paradigm is compulsory.)
25	Write a program in python to implement 0/1 Knapsack algorithm. (Note: Use of object oriented paradigm is compulsory.)
26	Write a program in python to implement Fibonacci Series and Factorial using memo. (i.e. FastFibo & FastFact) (Note: Use of object oriented paradigm is compulsory.)