

<Part-I>

*** Assignment Completion Deadline 20th December 2020 ***

Basic Python Programs (but not limited to):

1. Write a python program to print “Hola Mundo”.
2. Write a python program to calculate area, perimeter of a circle, square and rectangle.
3. Write a python program to convert Celsius to Fahrenheit temperature.
4. Write a python program to find out greatest among three integers in a single line.
5. Write a python program to find the roots of a quadratic equation and also find the type of the roots.
6. Write a python program to print all ASCII Values and its corresponding characters.
7. Write a python program to find out factorial of a given (positive) number using loop.
8. Write a python program to find GCD of two (positive) numbers using loop.
9. Write a python program to find a^b where both a and b are integer values without using math library function.
10. Write a python program to check whether a number is Prime number or not using loop.
11. Write a python program to check whether a number is Armstrong number or not using loop.
12. Write a python program to check print all Armstrong numbers with in 1000 using loop.
13. Write a python program to check whether a number is Narcissistic number or not using loop.
14. Write a python program to find all prime number with in a given range using loop.
15. Write a python program to find first ‘n’ terms of the Fibonacci series.
16. Write a python program to find the ‘nth’ term of the Fibonacci series.
17. Write a python program to find whether a number is strong number or not using loop.
18. Write a python program to print the reverse of a given number using loop.
19. Write a python program to check whether a given number is palindrome or not using loop.
20. Write a user defined python function to convert a X number from a number system to another number system:
 - a. Decimal number to Binary (using loop and otherwise).
 - b. Decimal number to Hexa-decimal (using loop and otherwise).
 - c. Hexa-decimal value to Octal (using loop and otherwise).
 - d. Binary number to Decimal (using loop and otherwise).

Python Array (1D & 2D) Programs (but not limited to):

21. Write a user defined python function to create an array of size 5 and also take an integer value separately. Find the occurrences of the given number.
22. Write a user defined python function to create an array of size 5 and find the occurrences of the each of the elements.
23. Write a user defined python function to create an array of size 5 and find a given number is present in the array or not.
24. Write a user defined python function to Split the array and add the first part to the end
25. Write a user defined python function to find largest element of a given integer array.
26. Write a user defined python function to sort an integer array in ascending order (any sort).
27. Write a user defined python function to search an element in a given array using Binary search method.
28. Write a user defined python function to merge two integer arrays into a third array.
29. Write a user defined python function to create two matrices of dimensions $r_1 \times c_1$ and $r_2 \times c_2$ and add, subtract & multiply them.
30. Write a user defined python function to vertical concatenation and horizontal concatenation of two matrices.

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