MCA – I Introduction to Python Programming

Practical Sheet – I

1 Write a program to add, multiply and divide two integers and float numbers.

2 Write a program to check whether the entered number is even or odd.

3 Write a program to tell if a year is a leap year Or Not.

4 Write a program to determine the maximum of 3 numbers.

5 Write a program to accept number of days and print year, month and remaining days.

6 Write a program to swap the values of two variables.

7 Admission to a professional course is subject to the following conditions :

(a) marks in mathematics >= 60
(b) marks in physics >= 50
(c) marks in chemistry >= 40
(d) total in all three subjects >= 200
or
total in mathematics and physics >= 150
given the marks in the three subjects , write a program to process the applications to list an eligible candidate.

8 Write a program that reads the percentage obtained by the students and determines and prints the class obtained by the student as per the following rules

Percentage	Class
0 - 39	Fail
40 - 59	Second class
60 - 79	First class
80 - 100	Distinction

9 Write a program to calculate the average of a set of n given numbers.

10 Write a program to calculate the area of circle/rectangle/triangle.
C indicate circle ,
R indicate rectangle,
T indicate triangle.
use symbolic constant to define the value of pie.

11 Write a program that accept basic, HRA, and DA from the user and calculate total salary.

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12 Generate the following pattern:

1.	* *
2.	* * * * * * * * * * * * * * *
3.	* * * * * * * * * * * * * * *
4.	* * * * * * * * * * * * * * * *
5.	* * * * * * * * * * * * * * *
6	5 54 543 5432 54321

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7	1 22 333 4444 55555
8	 1 12 123 1234 12345
9	1 232 34543 4567654 567898765 67890109876 7890123210987 890123454321098 90123456765432109
10	12345 1234 123 12 1

13. Write a program to find maximum element from 1-Dimensional array.

14. Write a program to sort given array in ascending order.

15. Given the two 1-D arrays A and B, which are sorted in ascending order. Write a program to merge them into a single sorted array C that contains every item from arrays A and B, in ascending order.

16. Write a program to add two matrices.

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17. Write a program that reads in two matrices and multiply them. Display the resultant matrix.

18. Write a program to sort given string array in ascending order.

19. Write a program that will read a text and count all occurrences of a particular word.

20. Write a program that will read a string and rewrite it in the alphabetical order

21. Write a program that appends the one string to another string.

22. Write a program that finds a given word in a string.

23. Write a program that search an item from array of string.

24. Write a program to read a matrix and determine the following :

    (1) wheather the given matrix is upper triangular or not

    (2) wheather the given matrix is lower triangular or not

    (3) wheather the given matrix is digonal matrix or not